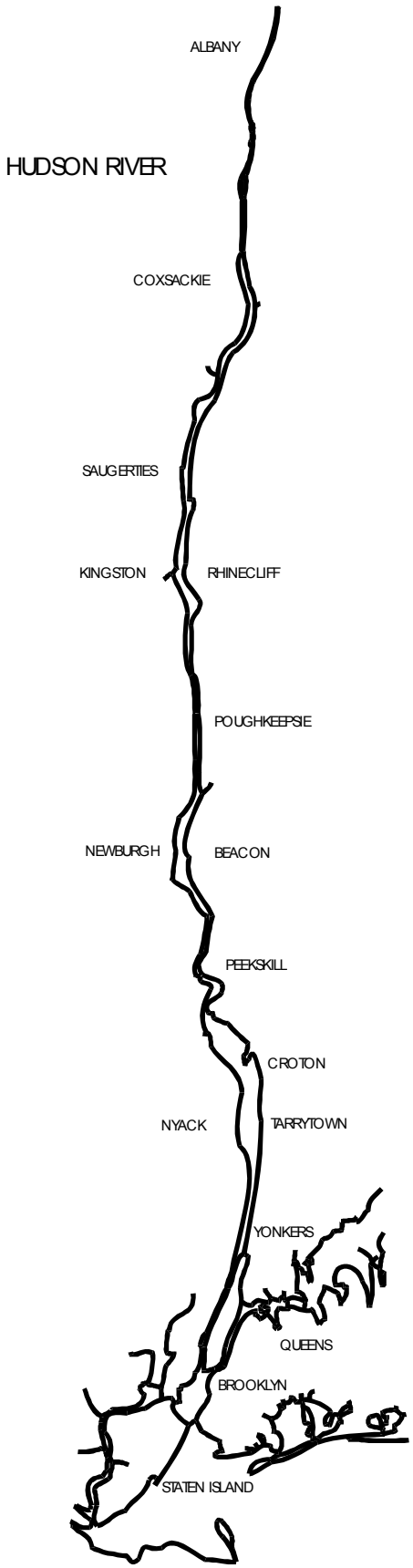

2011 YEAR CLASS REPORT

for the Hudson River Estuary Monitoring Program

Prepared on behalf of

Dynegy Roseton L.L.C. - Debtor in Possession
Entergy Nuclear Indian Point 2 L.L.C.
Entergy Nuclear Indian Point 3 L.L.C.
GenOn Bowline L.L.C.

Prepared by

ASA Analysis & Communication
Solutions through Science

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CHAPTER 1
INTRODUCTION

Since 1973, an annual Year Class Report has been prepared on behalf of the several electric utility companies (collectively, the "Utilities") operating generating stations in the Hudson River estuary. This report, which is based on the 2011 Hudson River Biological Monitoring Program, has been prepared on behalf of Dynegy Roseton L.L.C. – Debtor in Possession, Entergy Nuclear Indian Point 2 L.L.C., Entergy Nuclear Indian Point 3 L.L.C., and GenOn Bowline L.L.C. The principal reporting objective has been to present and analyze data on the distribution and abundance of early life stages of selected fish species based on field surveys conducted throughout the Hudson River estuary. The content and scope of these reports have varied over time from estimating the environmental impact of five Hudson River generating stations to focusing on indices of year class strength to describing the spatiotemporal distribution of selected fish species. Since the early 1990's, the annual Year Class Report has been standardized to describe the physical/chemical parameter patterns in the Hudson River estuary and the spatiotemporal distribution of 16 selected species of fish. These 16 species were identified by the New York State Department of Environmental Conservation (NYSDEC) of interest for discharge permitting purposes.

This report adds to the historical database by presenting the results of the Longitudinal River Ichthyoplankton Survey, the Fall Juvenile Survey (formerly, the Fall Shoals Survey), and the Beach Seine Survey for 2011. However, the format of this report differs from previous years in that it is primarily a data report, supplying summarizing figures and tables without accompanying text. The 2011 Year Class Report presents basic abundance and distribution data with the following objectives:

- Present the patterns and variability of environmental parameters occurring in the Hudson River estuary in 2011.
- Present the distribution and abundance of 16 selected species of fish (Table 1-1) in the Hudson River estuary in 2011.
- Present patterns in growth for the 2011 year class of key species.

This report is organized into four chapters with supporting appendixes. Data collection and analysis methods are described in Chapter 2. Physical and chemical parameters are presented in Chapter 3 and spatiotemporal distribution of selected fish species are presented in Chapter 4. Detailed data tables supporting report figures are contained within the appendix sections as follows:

- Appendix A – Quality Control Report for the 2011 Hudson River Ichthyoplankton Laboratory Program and 2011 Fall Juvenile Survey;
- Appendix B – Physical/Chemical Parameters;
- Appendix C – Numbers of Fish Collected in the Long River (1988-2011), Fall Juvenile (1985-2011), and Beach Seine (1985-2011) Surveys;
- Appendix D – Density and Standing Crop Estimates;
- Appendix E – Temporal and Geographical Indices;
- Appendix F – Annual Abundance Indices; and

- Appendix G – Length Frequency Distribution.

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Table 1-1 Fish Species Treated in Depth in the 2011 Year Class Report

Common Name	Scientific Name[1]
Alewife	*Alosa pseudoharengus*
American shad	*Alosa sapidissima*
Atlantic sturgeon	*Acipenser oxyrinchus*
Atlantic tomcod	*Microgadus tomcod*
Bay anchovy	*Anchoa mitchilli*
Blueback herring	*Alosa aestivalis*
Bluefish	*Pomatomus saltatrix*
Gizzard shad	*Dorosoma cepedianum*
Hogchoker	*Trinectes maculatus*
Rainbow smelt	*Osmerus mordax*
Shortnose sturgeon	*Acipenser brevirostrum*
Spottail shiner	*Notropis hudsonius*
Striped bass	*Morone saxatilis*
Weakfish	*Cynoscion regalis*
White catfish	*Ameiurus catus*
White perch	*Morone americana*

1. Names listed in Nelson et al. 2004.

CHAPTER 2
MATERIALS AND METHODS

2.1 SAMPLING DESIGN

Several fishery techniques were employed in three separate sampling surveys to obtain comprehensive information on the abundance and distribution of selected larval, juvenile or young-of-year (YOY), and adult fish species in the Hudson River estuary. Temporally, the monitoring program encompassed the spring through fall season, the period of greatest biological activity in northern U.S. temperate waters. The surveys were designed to sample the full range of Hudson River habitat toward a representative assessment of species-specific spatial distribution patterns. During 2011, survey-specific techniques were employed which were consistent with previous Hudson River Monitoring Programs.

The scope and objectives of the three sampling surveys comprising the overall monitoring program are summarized as follows.

1. **Longitudinal River Ichthyoplankton Survey** (LRS or Long River Survey)—Sampling encompassed the entire length of the Hudson River estuary, from River Mile (RM) 1 at the Battery in Manhattan to RM 152 at the Federal Dam in Troy. The LRS yielded ichthyoplankton data to support calculations of standing crop, temporal and geographic indices, and growth rates for selected Hudson River fish species. The primary species were Atlantic tomcod (*Microgadus tomcod*), American shad (*Alosa sapidissima*), striped bass (*Morone saxatilis*), white perch (*M. americana*) and bay anchovy (*Anchoa mitchilli*). LRS sampling was concentrated during the spring, summer, and early fall when eggs and larvae of the primary species have historically been abundant.

2. **Fall Juvenile Survey** (FJS or Fall Shoals Survey)—Samples were collected every other week from the Battery to the Troy Dam in mid-summer and fall. The objective was to provide data on YOY fish to support calculation of standing crop and temporal and geographic indices for selected Hudson River fish species. The target species were Atlantic tomcod, American shad, striped bass, and white perch.

3. **Beach Seine Survey** (BSS)—Beach seine samples were collected in alternate weeks relative to the FJS at stations ranging from the George Washington Bridge (RM 12) to the Troy Dam. The objective was to obtain distribution and relative abundance information on YOY American shad, Atlantic tomcod, striped bass, and white perch during periods when these species were concentrated primarily in the shallow, near-shore areas. The survey was conducted from mid-June through October, when YOY of these species were typically abundant in the shorezone nursery areas.

Sampling for all surveys was conducted according to a stratified random design in which the Hudson River estuary from the Battery (RM 1) to the Federal Dam at Troy (RM 152) was divided into 13 regions (Figure 2-1). Each region was further divided into "strata" on the basis of river depth. The strata, based on river depth, are graphically presented in Figure 2-2 and defined below:

- **Shore**—That portion of the Hudson River estuary extending from the shore to a depth of 10 ft (the stratum defined only for BSS).

- **Shoal**— That portion of the Hudson River estuary extending from the shore to a depth of 20 ft at mean low tide.

- **Bottom**—That portion of the Hudson River estuary extending from the bottom to 10 ft above the bottom where river depth is greater than 20 ft at mean low tide.

- **Channel**—That portion of the Hudson River estuary not considered bottom where river depth is greater than 20 ft at mean low tide.

The relative area and configuration of the shoal, bottom, and channel strata vary over the length of the Hudson River estuary but may be characterized using the three cross section views presented in Figure 2-2. For example, the low relief sectional is characteristic of the Tappan Zee and Croton-Haverstraw regions, the high relief sectional is exemplified by the Yonkers and Poughkeepsie regions, and the fjord relief sectional represents the West Point region.

A minimum of two samples was assigned to each stratum in most regions for the LRS. However, no samples were allocated in the Poughkeepsie through Albany regions during the first three sampling weeks of the LRS (14 March – 3 April) nor in the Hyde Park through Albany regions during the final seven sampling weeks of the LRS (11 July – 9 October) because few organisms of the target species were historically present in these regions during these weeks. A minimum of two samples was assigned to each stratum in each region for the FJS except no channel samples were allocated during the final three sampling weeks (24 October – 4 December). A minimum of three samples was allocated in each region for the BSS. Shoal strata samples were not assigned in upriver regions nor were shoal or shore strata samples assigned in the Battery region. The strata actually sampled in each region during the 2011 survey period are presented in Table 2-1.

A general summary of the three sampling surveys for the annual monitoring program is presented in Table 2-2. The field and laboratory methods used for each survey are described in detail in the following sections.

2.2 LONGITUDINAL RIVER ICHTHYOPLANKTON SURVEY

2.2.1 Field Methods

The 2011 LRS was performed over a period of 30 weeks from 14 March to 9 October with all sampling prior to 23 May conducted during the day and all subsequent sampling conducted at night (Table 2-2 and Figure 2-3). For the first three sampling weeks, sampling was conducted between RM 1 and RM 61. For the next 13 weeks beginning 5 April, weekly sampling encompassed RM 1 to RM 152. In the final phase of sampling from 11 July through 9 October, sampling was conducted biweekly between RM 1 and RM 76.

The allocation of sampling effort among river regions and strata was temporally adjusted in response to the projected presence and distribution of target species and life stages. The 2011 LRS sampling program was scheduled as 6 separate multi-week efforts. The first sampling effort, performed in March and early April, focused on the collection of Atlantic tomcod post

yolk-sac larvae (PYSL). The second effort, performed during April, focused on the collection of American shad eggs. The third effort, from late April to mid-May, was designed to collect eggs of *Morone* spp. and American shad. The fourth effort, performed from mid-May through early June, targeted *Morone* spp. and American shad yolk-sac larvae (YSL). The fifth effort, in June and early July, was designed to collect *Morone* spp. and American shad PYSL. The LRS sampling program concluded with a 13-week period, sampled biweekly, from the middle of July to early October. The final sampling effort was designed to collect all life stages of bay anchovy.

The allocation of sampling effort among regions and strata is presented in Table 2-3. Of the 3522 ichthyoplankton samples scheduled for collection during 2011, 3519 samples were collected, accounting for 99.9 percent of the scheduled total.

Two distinct gear types were used for field collections during the 2011 LRS:

- 1.0-m^2 Tucker trawl (Figure 2-4 and Table 2-4) to sample the shoal and channel strata (non-bottom), and
- 1.0-m^2 epibenthic sled (Figure 2-5 and Table 2-4) to sample the bottom-only shoal and channel strata.

Both gear types were towed against the prevailing current for 5 minutes. The tow started with the remote opening of the net and terminated with its remote closing. If the river depth was 20 ft or less, an open set and retrieval of the net was performed. The tow speed for the Tucker trawl was adjusted to maintain a towing wire angle of approximately 45° averaging approximately 0.9 m/second. The tow speed for the epibenthic sled-mounted net was maintained at approximately 1.0 m/second. An electronic flowmeter mounted along the side of the research vessel and equipped with an on-deck readout display was used to establish and maintain tow speed. A calibrated digital flowmeter mounted in the center of the net mouth was used to calculate the volume of water filtered for each sample.

Following deployment and retrieval of the sampling gear, net washing was performed to concentrate the sample into the codend bucket. The samples were then examined for yearling and older fish which were identified, enumerated, and returned to the Hudson River estuary. Special care was taken to observe sturgeon species for physical condition and for the presence of marks and/or tags. All yearling and older sturgeon were measured to the nearest millimeter, weighed to the nearest gram, and, if alive, returned to the river or, if dead, frozen and saved for the NYSDEC. After yearling and older fish were removed, the remaining sample was placed in container(s) so that the sample occupied no more than 25 percent of the container volume. The containers were filled with a 10 percent aqueous formalin solution.

In situ measurements of water temperature (°C), dissolved oxygen (mg/L), and specific conductance (microsieman/cm at 25°C) were taken with calibrated meters at fixed river mile and strata stations in conjunction with the biological sampling. The number of physical/chemical sampling locations, by river mile and strata, are presented in Table 2-5 for the 2011 LRS. Physical/chemical measurements were recorded from surface, mid-depth, and bottom water depth at channel stations and from the surface and bottom water depth at shoal stations. During the 23 collection weeks of the 2011 LRS, 3520 physical/chemical measurements were scheduled and 3520 measurements were actually recorded, accounting for 100 percent of the scheduled total.

2.2.2 Laboratory Methods

In 2011, approximately 70 percent of the regular LRS samples were selected for laboratory analysis. Selection of samples for laboratory analysis began with the grouping of samples according to river run (i.e., sampling week), region, and strata. Based on these groupings, samples were selected based on one of the following criteria:

1. If there were less than 6 samples in the group, then all were selected for analysis.

2. If there were between 6 and 12 samples in the group, then 50 percent of the samples were randomly selected for analysis.

3. If there were more than 12 samples in the group, then 20 percent of the samples were randomly selected for analysis.

The allocation of samples for laboratory analysis among regions, strata, and gear types based on these criteria is listed in Table 2-6. The total number of analyzed samples for 2011 was 2442, comprising 69.4 percent of the collected samples.

In 2011, as in previous years, splitting (or subsampling) was permitted. A trained technician first determined, by visual inspection, if the sample needed splitting. Samples containing large numbers of eggs may have been split so that eggs were only sorted from one or more aliquots containing a total of at least 250 eggs (all species combined).

Two different sets of criteria were used for subsampling of larval stages, depending on the river run. Beginning with the river run in which striped bass PYSL first appeared, and for the next 8 river runs (a total of 9 consecutive river runs), a minimum of 500 *Morone* larvae (i.e., the combined total of YSL, PYSL, and YOY of striped bass, white perch, and unidentified *Morone*) was sorted from the entire sample and a minimum of 50 non-*Morone* larvae was also sorted. Because some of the more difficult distinctions between species (e.g., striped bass versus white perch) or between life stages could not be made reliably during sorting, samples from these 9 river runs were typically sorted in their entirety for larvae (i.e., YSL, PYSL, and YOY combined) of all species combined. An exception to this may have been made, at the discretion of the laboratory supervisor, under the following circumstances: when extremely large numbers of non-*Morone* larvae occurred in the sample and a qualified identifier had verified that sufficient numbers of both *Morone* larvae and non-*Morone* larvae were sorted to meet their respective subsampling quotas. The purpose of this exception was to allow splitting before sorting of taxa such as clupeids which could readily be distinguished from *Morone* by sorters.

The second set of criteria for subsampling larvae applied to the 13 other river runs not covered in the previous paragraph (before and after the period of striped bass abundance). Any sample from these river runs may have been subsampled so that larvae were sorted from one or more splits containing at least 100 larvae (i.e., YSL, PYSL, and YOY combined) of all species combined.

To eliminate bias, some steps in the splitting procedure were performed by an assistant so that the sorter had no prior knowledge of which splits were to be used for the analysis. This procedure is explained in Figure 2-6. Randomness of the splitting procedure was monitored and demonstrated by testing selected samples to determine whether splits from the same sample differed by more than random variation. Samples were selected to test for randomness

by a continuous sampling plan, shown in Figure 2-7 (CSP-V from MIL-STD-1235, AOQL = 10 percent).

For each split sample evaluated, three fractions of the same aliquot size were sorted and compared by the chi-square test according to the following procedure. The counts of the three splits (including any quality control [QC] finds) were averaged to obtain the expected value for the sample. Chi-square was calculated as:

$$chi\,square = \frac{(O_1 - E)^2}{E} + \frac{(O_2 - E)^2}{E} + \frac{(O_3 - E)^2}{E}$$

where

O_1, O_2, and O_3 = Observed counts for splits 1, 2, and 3.

E = Expected value for the sample (average of O_1, O_2, and O_3).

If the calculated value for chi-square was less than 5.99, then the splits of that sample were considered random, and the sample passed the split QC (5.99 was the critical value of chi-square with two degrees of freedom at an alpha level of 0.05). If a sample was split for both eggs and larvae, then both stages were tested separately. The sample passed the split QC only if chi-square was below the critical value for both life stages.

Eggs and larvae were separated from detrital material, sorted by major taxonomic group and life stage, counted, and placed in vials containing 5 percent formalin or in ethyl alcohol. Sorted samples were evaluated by a trained technician under magnification and all organisms were identified and enumerated. The following life stage designations were used in identification:

Life Stage	Description
Egg	Embryonic stage from spawning to hatching,
YSL	From hatching to development of a complete and functional digestive system,
PYSL	From development of a complete digestive system to transformation to juvenile form, and
YOY	From completed transformation to Age 1.

Whenever possible, a maximum of 30 striped bass, 30 white perch, 30 American shad, 30 Atlantic tomcod, and 30 bay anchovy per sample were measured. Organisms were chosen at random from each taxon regardless of life stage until the required numbers were obtained; life stages to be included were YSL, PYSL, and YOY. The total length of YSL and PYSL was measured to the nearest 0.1 mm and to the nearest 1 mm for YOY. Measurements were recorded on the laboratory data sheet. Selection of specimens for measuring was randomized by spreading them uniformly in a gridded container, selecting a starting point in the grid by means of a random number table, and then measuring the first 30 measurable specimens encountered in a predetermined pattern commencing at the starting point. Every grid space had an equal probability of being selected as the starting point, so every specimen had an equal probability of being included in the subsample.

Continuous sampling inspection was employed during the sort and identification procedures to ensure an average outgoing quality limit of 10 percent or better. Two sampling modes were required in the continuous sampling plan (CSP-1):

> **Mode 1**—The first eight samples sorted or analyzed for larval identification by an individual are subject to 100 percent QC reanalysis. If all eight pass the reanalysis, i.e., if ≤10 percent of the ichthyoplankton are missed or misidentified per sample, the individual is placed in CSP Mode 2. If any sample fails during Mode 1, then Mode 1 is continued until eight consecutive samples pass. For example, if a sample with QC No. 7 fails, then samples with QC Nos. 8 through 15 are subject to QC resorting.
>
> **Mode 2**—Lots of seven consecutive samples per individual are assigned for identification QC and per laboratory facility for sort QC. One sample from each lot is randomly chosen for QC analysis. If a sample fails (>10 percent of organisms missed or misidentified) during Mode 2, the individual is placed back into Mode 1. For example, if a sample with QC No. 6 fails in a lot of seven samples, then samples with QC Nos. 7 through 14 are subject to QC reanalysis. If samples 7 through 14 pass, the individual is again placed in Mode 2.

Results of the 2011 CSP-1 Quality Control Program are contained in Appendix A.

2.3 FALL JUVENILE SURVEY

2.3.1 Field Methods

The 2011 FJS biweekly sampling program extended from RM 1 to 152 and covered 22 weeks from 4 July to 4 December (Figure 2-3). Samples were collected at night for the first 8 river runs from 4 July through 16 October, and during the day for last 3 river runs from 17 October through 4 December. These last river runs, which were conducted with a modified sampling design, were intended to examine Atlantic tomcod distribution. Table 2-7 presents the distribution of the FJS sampling effort among the 13 river regions by stratum. Of the 2130 samples scheduled for collection, 2086 were actually collected, yielding 98 percent completion. Due to the aftermath of Tropical Storm Irene, no samples were collected north of river mile 76 during the 29 August 2011 sampling week as the Hudson River was, reportedly, blocked with large amounts of large wood debris above Poughkeepsie preventing safe night sampling.

A 1.0-m^2 Tucker trawl and a 3.0-m beam trawl were used to collect YOY fish in the 2011 FJS. The Tucker trawl with 3.0-mm mesh was used to collect samples in the channel stratum, while the beam trawl (Figure 2-8) was used to sample the shoal and bottom strata. The latter gear was first used in this capacity in the 1985 FJS; prior to 1985, an epibenthic sled-mounted Tucker trawl was used. With the modified sampling design of the last 3 river runs from 17 October through 4 December, no channel samples or Tucker trawl samples were scheduled for collection. Only beam trawl samples in the shoal and bottom strata were taken during these river runs. Design specifications for FJS gear currently in use are listed in Table 2-8.

Both gear types were towed against the prevailing current for approximately 5 minutes. For the Tucker trawl, vessel speed was adjusted as necessary to achieve and maintain a 45° wire angle; the resultant tow speed was recorded. The beam trawl was towed at a speed of approximately 1.5 m/second. Tow speed was established and maintained by use of an electronic flowmeter mounted along the side of the research vessel and equipped with an on-

deck readout display. Tucker trawl samples taken in greater than 20 ft of river depth were remotely opened and closed at sampling depth. A calibrated digital flowmeter mounted in the center of the net mouth was used to calculate the volume of water filtered for each sample.

Calibrated water quality instruments were used to measure water temperature (°C), dissolved oxygen (mg/L), and specific conductance (microsieman/cm at 25°C) at fixed river mile and strata stations in conjunction with field sampling. Sampling locations were the same as those used for the 2011 LRS sampling program (Table 2-5). Measurements of physical/chemical parameters were recorded from surface, mid-, and bottom water depths at channel stations and from surface and bottom water depths at shoal stations. During the 2011 FJS, of the 2002 samples scheduled for collection, 1939 were actually collected, yielding 97 percent completion.

Because of the difficulty in differentiating some species, especially YOY *Morone* (striped bass, white perch) and *Alosa* (alewife, blueback herring), samples collected during the first three sampling periods (River Runs 1 through 3) for the 2011 FJS program were preserved with 10 percent formalin at the time of collection and returned to the laboratory for analysis. Before preservation, samples were examined for fish determined to be yearling or older, based on length categorization; live fish were returned to the river after count data were determined.

Beginning with the fourth biweekly sampling period, samples were evaluated in the field; only fish required to fill length measurement and food habit quotas were returned to the laboratory. The quota was to be 20 specimens of a selected species from each river region per river run; because of the necessity of returning fish to the river alive, the first 20 specimens of a selected species were brought to the laboratory for length measurements. The Hyde Park through Albany regions were considered one region for the purpose of filling length measurement quotas during the entire FJS and during River Runs 4 through 10 of the BSS. Also for the BSS during River Runs 1 through 3, the Yonkers through West Point regions were considered as one region for the same purpose. In river regions where fewer than 10 samples were collected per survey, no more than 10 specimens of each selected species from an individual sample were used to fill the length measurement quota. This criterion was used in the following surveys for the specified river regions:

Sampling Program	Region
BSS	YK, IP, WP, CW, PK
FJS	WP, PK

In all other regions, when the sample schedule resulted in 10 or more samples per survey, no more than 5 specimens per species in a sample were used to fill the length measurement quotas. If more specimens of a species were collected than needed, the individuals used to fill the quotas were randomly selected.

All fish not returned to the laboratory were identified and enumerated into length classes as described in the following section. All Atlantic sturgeon, shortnose sturgeon, and striped bass were examined for external and internal magnetic tags. All sturgeon were measured to the nearest millimeter, weighed to the nearest gram, and, if alive, returned to the river or, if dead, frozen and saved for the NYSDEC. All striped bass with external streamer tags were measured and a scale sample was taken.

2.3.2 Laboratory Methods

Fish from the FJS in both the field and laboratory were identified and enumerated into the following length classes:

Length Class 1—Less than or equal to the YOY length limit ("Division 1"), which was determined by the field contractor on a weekly basis for each species.

Length Class 2—Greater than Division 1 and less than or equal to the yearling length limit ("Division 2"); set at 150 mm for most species, also determined weekly by the field contractor. From 1 January through 31 May, Division 2 represents the upper length limit for yearling fish for all species. From 1 June through 31 December, Division 2 is assigned a static value of 150 mm total length for all species except alewife, American shad, blueback herring, striped bass, Atlantic tomcod, and white perch. For these species, Division 2 is maintained as a dynamic upper length limit for yearling fish throughout the year.

Length Class 3—Greater than Division 2 and less than or equal to 250 mm.

Length Class 4—Greater than 250 mm.

Twenty specimens of the following selected species collected in each river region per river run were measured for total length (nearest millimeter) in the laboratory (except for sturgeon species which were measured in the field):

- Alewife
- American shad
- Atlantic sturgeon
- Atlantic tomcod
- Bay anchovy
- Blueback herring
- Shortnose sturgeon
- Spottail shiner
- Striped bass
- Weakfish
- White catfish
- White perch.

2.4 BEACH SEINE SURVEY

2.4.1 Field Methods

The 2011 BSS utilized a 30.5-m (nominal 100 ft) total length beach seine to collect YOY fish in the shorezone of each region, except the Battery region. Table 2-9 presents specifications for the beach seine. One end of the net was held on shore and the other end was towed perpendicularly away from the shore by boat. The seine was then hauled, clockwise if possible, in a semicircular path toward shore. The complete beach seine deployment swept an area of approximately 450 m^2 (TI 1981). All BSS samples were collected on a diurnal schedule during alternate weeks of the FJS.

The 2011 BSS biweekly sampling program was conducted from 13 June through 23 October (Figure 2-3). Ten of the 19 weeks in this time period were collection weeks with 100 beach seine samples per week scheduled for collection. Allocation of the total number of samples by river region collected for the 2011 BSS is presented in Table 2-10. Of the 1000 samples projected for collection in 2011, 1000 were collected, yielding 100 percent completion.

Measurements of water temperature (°C), dissolved oxygen (mg/L), and specific conductance (microsieman/cm at 25°C) were taken with each beach seine sample using *in-situ* water quality instrumentation. Physical/chemical measurements were taken 1 ft below the water surface and approximately 50 ft from the shoreline. During the 10 collection weeks of the 2011 BSS, all of the 1000 scheduled water quality samples were collected.

YOY fishes collected during the first four beach seine river runs in 2011 were processed in the laboratory because of the difficulty in distinguishing species at the YOY life stage; adults were processed in the field. Beginning with River Run 5, all samples were field processed; 20 specimens of the selected species from each region per run were collected (as described in Section 2.3.1) for length determination in the laboratory. Samples maintained for laboratory analysis were preserved using 10 percent formalin. Fish from the BSS in both the field and laboratory were identified and enumerated into length classes as described in Section 2.3.2. Any sturgeon collected during the BSS were measured to the nearest 1 mm and weighed to the nearest 1 g. Sturgeon that remained alive were returned to the Hudson River estuary; dead fish were frozen and held for NYSDEC. All sturgeon and striped bass were examined for external and internal magnetic tags. Striped bass with external tags were measured and a scale sample was taken.

2.4.2 Laboratory Methods

All fish returned to the laboratory were measured for total length to the nearest 1.0 mm. Laboratory analysis was conducted in the same manner as described for samples collected during the FJS.

2.5 ANALYTICAL METHODS

2.5.1 Physical/Chemical Parameters

To display the spatial and temporal patterns of temperature, salinity, and dissolved oxygen, a mean of each parameter for each sampling location and sampling week, weighted by stratum volume, was calculated. Equation 1 was used to compute these means for the standard physical/chemical stations sampled in conjunction with the LRS and FJS. Equation 2 was used for data collected in conjunction with the BSS. Salinity data were computed from conductivity data (microsieman/cm at 25°C) using Equation 3 (TI 1976). This equation differs from that used in some of the previous Year Class reports in that pressure data are not required. The maximum deviation between this equation and the previous equation is 0.1 percent (TI 1976).

$$W_{lw} = \sum_{k=1}^{n_{lw}} P_{kr} \left[1/n_{klw} \sum_{d=1}^{n_{klw}} \left(1/n_{dklw} \sum_{i=1}^{n_{dklw}} W_{idklw} \right) \right] \qquad (1)$$

where

W_{lw} = Weighted mean of a physical/chemical parameter at sampling location l during week w of the LRS and FJS.

W_{idklw} = Physical/chemical measurement for location i at depth d in stratum k at sampling location l during week w.

P_{kr} = Proportion of the river volume of region r containing sampling location l that is contained by stratum k (bottom and channel strata were combined for water quality analysis).

n_{dklw} = Number of sites at which measurements were made at depth d in stratum k at sampling location l during week w.

n_{klw} = Number of depths sampled in stratum k at sampling location l during week w.

n_{lw} = Number of strata sampled at sampling location l during week w.

$$W_{rw} = 1/ n_{rw} \sum_{i=1}^{n_{rw}} W_{irw} \quad (2)$$

where

W_{rw} = Mean of a physical/chemical parameter at river mile r during biweek w of the BSS.

W_{irw} = Physical/chemical measurement for location i at river mile r during biweek w.

n_{rw} = Number of physical/chemical measurements taken at river mile r during biweek w.

$$\text{Salinity} = -100 \, ln \, (1 - C_{25}/178.5) \quad (3)$$

where

C_{25} = Conductivity (millisieman/cm at 25°C).

2.5.2 Spatiotemporal Distribution Indices

2.5.2.1 Density and Catch-Per-Unit-Effort Estimates

Estimates of population densities were made for the LRS and FJS. For the LRS and FJS, the number of fish (by species and life stage) captured in individual samples was first converted to density (no./m^3 of water sampled) using Equation 4. The mean density and the standard error of the mean were calculated for each stratum, region, and sampling week using Equations 5 and 6. To obtain a mean density and standard error for each region during each sampling week, the stratum densities were weighted by the proportion of the regional river volume found in the stratum (Equations 7 and 8). If a stratum was not sampled, its volume was added to the volume of an adjacent stratum that was sampled. Stratum volume adjustments were made according to the following rules:

If This Stratum Was Not Sampled	Its Volume Was Added To This Stratum
Shoal	Bottom
Bottom	Channel
Channel	Bottom

$$D_{ikrw} = \frac{C_{ikrw}}{V_{ikrw}} \tag{4}$$

where

D_{ikrw} = Density (for a life stage and species)/m^3 for sample i in stratum k in region r during week w.

C_{ikrw} = Number of fish caught in sample i in stratum k in region r during week w.

V_{ikrw} = Volume sampled (m^3) by sample i in stratum k in region r during week w.

$$D_{krw} = \frac{1}{n_{krw}} \sum_{i=1}^{n_{krw}} D_{ikrw} \tag{5}$$

where

D_{krw} = Average density in stratum k in region r during week w.

D_{ikrw} = Sample density calculated in Equation 4.

n_{krw} = Number of samples taken in stratum k in region r during week w.

$$SE(D_{krw}) = \sqrt{\frac{\sum_{i=1}^{n_{krw}} (D_{ikrw} - D_{krw})^2}{(n_{krw})(n_{krw} - 1)}} \quad (6)$$

where

$SE(D_{krw})$ = Standard error of the average density in stratum k in region r during week w.

D_{ikrw} = Sample density calculated in Equation 4.

D_{krw} = Average stratum density calculated in Equation 5.

$$D_{rw} = \sum_{k=1}^{n_{rw}} (D_{krw})(P_k) \quad (7)$$

where

D_{rw} = Average density in region r during week w.

D_{krw} = Average stratum density calculated in Equation 5.

P_k* = Proportion of the regional river volume found in stratum k (Table 2-11).

n_{rw} = Number of strata sampled in region r during week w.

$$SE(D_{rw}) = \sqrt{\sum_{k=1}^{n_{rw}} \left[SE(D_{krw})^2 (P_k)^2\right]} \quad (8)$$

where

$SE(D_{rw})$ = Standard error of average density in region r during week w.

$SE(D_{krw})$ = Standard error of the average stratum density calculated in Equation 6.

Catches from the BSS were reported as number caught per seine haul (catch-per-unit-effort [CPUE]) by life stage and species. The average CPUE for a region and its standard error were calculated using Equations 9 and 10:

* When a stratum is missing, P_k for the sampled stratum is equal to the sum of the P_k for the sampled stratum and the P_k for the unsampled stratum.

$$C_{rw} = \frac{1}{n_{rw}} \sum_{i=1}^{n_{rw}} C_{irw} \quad (9)$$

where

C_{rw} = Average CPUE in region r during week w.

C_{irw} = CPUE for sample i in region r during week w.

n_{rw} = Number of samples taken in region r during week w.

$$SE(C_{rw}) = \frac{\sum_{i=1}^{n_{rw}} (C_{irw} - C_{rw})^2}{n_{rw}(n_{rw} - 1)} \quad (10)$$

where

$SE(C_{rw})$ = Standard error of average CPUE in region r during week w.

C_{rw} = Average regional CPUE calculated in Equation 9.

2.5.2.2 Standing Crop Estimates

An index of standing crop (the number of fish in an area at a particular time) was estimated by life stage and species for each of the three surveys. Standing crop indices and the associated standard errors were calculated for each stratum in a region by taking the product of the average stratum density (or the standard error) and the volume of water contained in that stratum (Equations 11 and 12 for the LRS and FJS) (Table 2-11). The regional standing crop index was then estimated as the sum of the stratum index values (Equations 13 and 14). Similarly, an estimate of the standing crop index for the Hudson River estuary for each week was calculated by summing the standing crops for the 13 (12 for the BSS) river regions (Equations 15 and 16). This value is an index rather than an absolute standing crop value because no adjustment was applied for collection efficiency.

$$SC_{krw} = (V_{kr})(D_{krw}) \quad (11)$$

where

SC_{krw} = Standing crop index for stratum k in region r during week w.

V_{kr} = River volume contained by stratum k in region r.

D_{krw} = Average stratum density calculated in Equation 5.

$$SE(SC_{krw}) = (V_{kr})[SE(D_{krw})] \quad (12)$$

where

$SE(SC_{krw})$ = Standard error of the standing crop index for stratum k in region r during week w.

$SE(D_{krw})$ = Standard error of average stratum density calculated in Equation 6.

$$SC_{rw}^{**} = \sum_{k=1}^{3} SC_{krw} \quad (13)$$

where

SC_{rw} = Standing crop index for region r during week w.

SC_{krw} = Stratum standing crop index calculated in Equation 11.

$$SE(SC)_{rw}^{**} = \sqrt{\sum_{k=1}^{3}\left[SE(SC_{krw})\right]^2} \quad (14)$$

where

$SE(SC_{rw})$ = Standard error of standing crop index for region r during week w.

$SE(SC_{krw})$ = Standard error of stratum standing crop index calculated in Equation 12.

$$SC_{w} = \sum_{r=1}^{12} SC_{rw} \quad (15)$$

where

SC_{w} = Standing crop index for week w. For the LRS and FJS, regional standing crop indices include the Battery Region (r=0).

** Volumes of unsampled strata were added to the volumes of an adjacent stratum according to the rules for stratum volumes in Section 2.5.2.

SC_{rw} = Regional standing crop index calculated in Equations 13 or 17.

$$SE(SC_w) = \sqrt{\sum_{r=1}^{12}\left[SE(SC_{rw})\right]^2} \quad (16)$$

where

$SE(SC_w)$ = Standard error of standing crop index for week w. For the LRS and FJS, regional standing crop indices include the Battery Region (r=0).

$SE(SC_{rw})$ = Standard error of regional standing crop index calculated in Equations 14 or 18.

An index of regional standing crop (and standard error) for the BSS was obtained by multiplying CPUE and the surface area of the shorezone and dividing by the empirically derived estimate of the area sampled by the 30.5-m beach seine (Equations 17 and 18). The weekly index of standing crop for the shorezone was calculated as the sum of the 12 regional standing crops (Equations 15 and 16).

$$SC_{rw} = (C_{rw} A_r) / A \quad (17)$$

where

SC_{rw} = Standing crop index for the shorezone in region r during week w.

C_{rw} = Average regional CPUE calculated in Equation 9.

A_r = Surface area (m^2) of the shorezone in region r.

A = Surface area (m^2) sampled by the beach seine (450 m^2) (TI 1981).

$$SE(SC_{rw}) = \frac{[SE(C_{rw})]\,(A_r)}{A} \quad (18)$$

where

$SE(SC_{rw})$ = Standard error of standing crop index for the shorezone in region r during week w.

$SE(C_{rw})$ = Standard error of average regional CPUE calculated in Equation 10.

2.5.2.3 Temporal and Geographic Distribution Indices

Distribution indices were computed to facilitate presentation of changes in distribution of selected species and life stages through time and space. To allow comparisons of 2011 data

with historical data, only data from samples collected from Weeks 18 to 26 (where Week 1 begins with the first Monday in January) were used for LRS (except for bay anchovy which used Weeks 18-40); data from Weeks 33 to 40 were used for the FJS and BSS. In all cases, data were used only when Regions 1-12 were sampled (except for bay anchovy which included Region 0).

The LRS was used for calculating the temporal and geographic indices for early life stages of striped bass, white perch, Atlantic tomcod, bay anchovy, American shad, *Alosa* spp., and rainbow smelt. The FJS was used to calculate geographical distribution indices for hogchoker, white catfish, and weakfish. The BSS was used to calculate geographical distribution indices for striped bass, white perch, bay anchovy, American shad, alewife, blueback herring, gizzard shad, spottail shiner, and bluefish.

The periods used for the LRS and BSS spanned 1974-2011, whereas the time period for the FJS extended from 1979 (when the FJS sampled the river from RM 12 to RM 152) through 2011. Temporal and geographic indices for bay anchovy from the LRS used the period from 1988 to 2011, when the sampling design included the Battery region.

A geographic index that collapses data over weeks was calculated for LRS, FJS, and BSS data as the relative standing crop in each region. This geographic index was calculated as follows:

$$G_{ry} = \frac{\sum_{w=1}^{n_y} SC_{rwy}}{\sum_{r=1}^{12} \sum_{w=1}^{n_y} SC_{rwy}} \qquad (19)$$

where

G_{ry} = Geographic index for region r in year y.

SC_{rwy} = Regional standing crop index for region r in week w in year y calculated in Equations 13 or 17.

n_y = Number of weeks sampled in year y.

A temporal index that collapses data for the entire Hudson River estuary was computed for early life stages from LRS standing crop indices (Equation 20):

$$T_{wy} = \frac{SC_{wy}}{\sum_{w=1}^{n_y} SC_{wy}} \qquad (20)$$

where

T_{wy} = Temporal index for week w in year y.

SC_{wy} = Weekly standing crop index in year y calculated in Equation 15.

n_y = Number of weeks sampled in year y.

2.5.3 Annual Abundance Indices

Annual indices of abundance for 13 species of finfish were computed from data from the LRS, FJS and BSS from 1974 through 2011. For each of the 13 species, one or more sampling programs were selected to be the basis for the index of abundance. The selections considered when and where each species was expected to be present in the Hudson River based on life-history characteristics of each species in relation to the times and places that sampling gear was deployed by each program. The selections were also based on observed catch rates from each of the three sampling programs. The sampling programs on which the indices of abundance were based as well as the life stages and weeks selected for analysis are summarized in Table 2-12.

The statistical methods used to estimate the annual indices of abundance are described in the following sections.

2.5.3.1 Beach Seine Survey

Indices of abundance using data from the BSS were calculated for juvenile striped bass, white perch, American shad, alewife, blueback herring, bluefish, and spottail shiner; for yearling white perch; and for yearling and older white catfish. Weeks 33 to 40 were selected as the only period consistently sampled in the BSS. The Beach Seine Survey Index of abundance (*B*) for each year and species is a measure of catch per haul and is calculated according to the following formula:

$$B = \frac{1}{n} \sum_{w=33}^{40} \left[\frac{\sum_{i=1}^{12} W_i \left(\frac{\sum_j Ct_{jiw}}{h_{iw}} \right)}{\sum_{i=1}^{12} W_i} \right] X_w ,$$

where

B = the BSS index for a species in a year;
Ct_{jiw} = the count of a species in sample *j*, region *i*, and week *w*;
X_w = 1 if week *w* was sampled during the year, 0 otherwise;
n = the number of weeks sampled in the year,
= $\sum_{w=33}^{40} X_w$;
h_{iw} = the number of seine hauls in region *i* and week *w*; and

W_i = the number of beaches in the sampling design in river region *i*.

The above equation can be expressed in terms of a weighted average catch per haul (CPH) as follows:

$$B = \frac{1}{n}\sum_{w=33}^{40}\overline{Y}_w X_w = \frac{1}{n}\sum_{w=33}^{40}\left[\frac{\sum_{i=1}^{12} W_i \overline{Y}_{wi}}{\sum_{i=1}^{12} W_i}\right] X_w ,$$

where

$\overline{Y}_{wi}$ = the average CPH in week *w* and region *i* and

$\overline{Y}_w$ = the weighted average CPH in week *w.*

Because not all weeks within the period of week 33 to 40 were sampled by the BSS in each year, the variance of the BSS index in any year is calculated as a two-stage variance. The primary sampling unit in the first stage is weeks, and the design is assumed to be simple random sampling (i.e., weeks of sampling are construed to be a random sample of weeks within the period from week 33 through week 40). The sampling units in the second stage are regions, and the design is stratified random where regions are the statistical strata. The variance is calculated using a two-stage estimator based on equation 11.24 in Cochran (1977, p. 303):

$$\mathrm{var}(B) = \frac{\left(1-\frac{n}{N}\right)}{n} S_1^2 + \frac{1}{N\,n}\sum_w S_{2,w}^2 ,$$

where

S_1^2 = the first stage variance (temporal, among weeks),

$S_{2,w}^2$ = the second stage variance (spatial) in week w, and

N = the number of weeks (8) within the selected period, i.e., weeks 33 through 40.

The first stage variance component is estimated as:

$$S_1^2 = \frac{1}{n-1}\sum_{w=33}^{40}\left(\overline{Y}_w - B\right)^2 .$$

The second stage variance component is estimated as:

$$S_{2,w}^2 = \frac{\sum_{i=1}^{12} W_i^2 \left[\frac{\sum_j \left(Ct_{jiw} - \frac{1}{h_{iw}} \sum_j Ct_{jiw} \right)^2}{(h_{iw})(h_{iw}-1)} \right]}{\left(\sum_{i=1}^{12} W_i \right)^2}.$$

Then:

$$\text{std. err.}(B) = (\text{var}(B))^{1/2}.$$

2.5.3.2 Fall Juvenile Survey

Indices of abundance using data from channel sampling by the FJS were calculated for juvenile blueback herring, alewife, bay anchovy, weakfish, and rainbow smelt for the years 1979 through 2011, the years that the channel was sampled. In addition, indices of abundance based on bottom sampling by the FJS were calculated for juvenile hogchoker. Weeks 33 to 40 were selected as the only period consistently sampled in the FJS for channel sampling and weeks 40 to 43 for bottom sampling. The Fall Juvenile Survey Index of abundance (*F*) for each year and species sampled in gear specific for either the channel or the bottom is a measure of average density and is calculated according to the following formula:

$$F_g = \frac{1}{n} \sum_{w=33}^{40} \left[\frac{\sum_{i=1}^{12} \sum_{s=1}^{3} V_{is} \left(\frac{\sum_j Ct_{jiswg}}{\sum_j v_{jiswg}} \right)}{\sum_{i=1}^{12} \sum_{s=1}^{3} V_{is}} \right] X_w ,$$

where

F_g	=	the FJS index (for gear *g*) for a species in a year;
Ct_{jiswg}	=	the count of a species in sample *j* from gear *g*, region *i*, stratum *s*, and week *w*;
X_w	=	1 if week *w* was sampled during the year, 0 otherwise;
n	=	the number of weeks sampled in the year,
	=	$\sum_{w=33}^{40} X_w$;
v_{jiswg}	=	the volume of sample *j* from gear *g* in region *i* , stratum *s*, and week *w*; and
V_{isg}	=	the volume of stratum *s*, sampled by gear *g*, in river region *i*.

The above equation can be expressed in terms of weighted average sample densities as follows:

$$F_g = \frac{1}{n}\sum_{w=33}^{40}\overline{Y}_{wg}X_w = \frac{1}{n}\sum_{w=33}^{40}\left[\frac{\sum_{i=1}^{12}\sum_{s=1}^{3}V_{si}\overline{Y}_{iswg}}{\sum_{i=1}^{12}\sum_{s=1}^{3}V_{si}}\right]X_w,$$

where

$\overline{Y}_{iswg}$	=	the average density of a species in samples from region *i*, stratum *s*, week *w*, and gear *g* and
$\overline{Y}_{wg}$	=	the weighted average density of a species in samples from week *w*, and gear *g*.

Because not all weeks within the period of week 33 to 40 (or 40 to 43 for bottom sampling) were sampled by the FSS in each year, the variance of the FSS index of abundance in any year is calculated as the sum of two components. The primary unit in the first stage is weeks, and the design is assumed to be simple random sampling (i.e., weeks of sampling are construed to be a random sample of weeks within the period from week 33 through week 40 or from week 40 through week 43). The sampling units in the second stage are region-(habitat) strata, and the design is stratified random where region-(habitat) strata are the statistical strata. The variance is calculated using a two-stage estimator based on equation 11.24 in Cochran (1977, p. 303):

$$\mathrm{var}\left(F_g\right) = \frac{\left(1-\frac{n}{N}\right)}{n}S_{1,g}^2 + \frac{1}{Nn}\sum_w S_{2,gw}^2,$$

where

$S_{1,g}^2$	=	the first stage variance (temporal, among weeks),
$S_{2,gw}^2$	=	the second stage variance (spatial) in week w, and
N	=	the number of weeks (8 or 4) within the selected period, i.e., weeks 33 through 40 or weeks 40 through 43.

The first stage variance component is calculated as:

$$S_{1,g}^2 = \frac{1}{n-1}\sum_{w=33}^{40}\left(\overline{Y}_{wg} - F_g\right)^2 .$$

The second stage variance is calculated as:

$$S_{2,gw}^2 = \frac{\sum_{i=1}^{12}\sum_{s=1}^{3}\left[V_{isg}^2 \frac{\left(\frac{h_{iswg}\sum_j\left(Ct_{jiswg} - \overline{C}t_{iswg}\right)^2}{h_{iswg}-1}\right)}{\left(\sum_j v_{ijswg}\right)^2}\right]}{\left(\sum_{i=1}^{12}\sum_{s=1}^{3} V_{isg}\right)^2},$$

where

V_{isg} = the total volume of (habitat) stratum, *s*, and region, *i*, sampled by gear *g*.

Then:

std. err. $(F_g) = (\mathrm{var}(F_g))^{1/2}$.

2.5.3.3 Longitudinal River Survey

Indices of abundance using data from the LRS were calculated for striped bass, white perch, American shad, Atlantic tomcod and rainbow smelt. For striped bass, white perch and American shad, the indices are based on the egg, yolk-sac larvae (YSL), and post yolk-sac larvae (PYSL) life stages and the weeks selected depend on the period of abundance. For Atlantic tomcod the index was based on PYSL and juveniles combined over weeks 19 through 22 and for rainbow smelt the index was based on the juvenile life stage in weeks 20 through 27. The Long River Survey Index of abundance (*L*) for each year and species is a measure of average density and is calculated according to the following formula:

$$L = \sum_{w=firstwk}^{lastwk}\left[\frac{\sum_{i=1}^{12}\sum_{s=1}^{5} V_{is}\left(\frac{\sum_j Ct_{jisw}}{\sum_j v_{jisw}}\right)}{\sum_{i=1}^{12}\sum_{s=1}^{5} V_{is}}\right],$$

where

L = the LRS index for any species in any year;
Ct_{jisw} = the count of a species in sample *j*, region *i*, stratum *s*, and week *w*;
v_{jisw} = the volume of sample *j* from in region *i* , stratum *s*, and week *w*;
V_{is} = the volume of stratum *s* in river region *i*;
$firstwk$ = the first week included in the annual index of abundance:
striped bass, American shad, and white perch egg, YSL, and PYSL -- the first week of the year in which the sum of weekly

density estimates (from the initial week of sampling in the year through the current week) exceeds 5% of the sum of densities over all weeks of sampling,

Atlantic tomcod PYSL and juveniles combined -- week 19, and rainbow smelt juveniles -- week 20; and

$lastwk$ = the last week included in the annual index of abundance:

striped bass, American shad, and white perch egg, YSL, and PYSL -- *firstwk* +7;

Atlantic tomcod PYSL and juveniles combined -- week 22; and rainbow smelt juveniles -- week 27.

The above equation can be expressed in terms of average sample density as follows:

$$L = \sum_{w=firtswk}^{lastwk} \overline{Y}_w = \sum_{w=firstwk}^{lastwk} \left[\frac{\sum_{i=1}^{12} \sum_{s=1}^{5} V_{si} \overline{Y}_{isw}}{\sum_{i=1}^{12} \sum_{s=1}^{5} V_{si}} \right],$$

where

$\overline{Y}_{isw}$ = the average density of a species in samples from region *i*, stratum *s*, and week *w* [Note: for strata and regions that were not sampled, predicted densities (based on regression predictors and densities in adjacent strata) were used] and

$\overline{Y}_w$ = the weighted average density of a species in samples collected during week *w.*

Variance of the index was estimated using the following equation:

$$\mathrm{var}(L) = \sum_{w=firstwk}^{lastwk} \left[\frac{\sum_s \sum_i V_{is}^2 \left(\frac{n_{si} \left(\sum_j \frac{\left(Ct_{jisw} - \overline{Ct}_{isw} \right)^2}{n_{si} - 1} \right)}{\left(\sum_j v_{jisw} \right)^2} \right)}{\left(\sum_s \sum_i V_{is} \right)^2} \right],$$

where

V_{is} = the total volume in region *i* and stratum *s*.

Then:

$$\text{std. err.}(L) = (\text{var}(L))^{1/2}.$$

As indicated in Heimbuch et al. (1992), for indices based on LRS sampling, the volume of water between the beach and 10 ft deep was divided into two substrata: beach and shore. The beach stratum, defined from the beach to water five ft deep, corresponds with the shallow waters sampled in the BSS. The shore stratum, defined as water greater than five ft deep and less than 10 ft deep, is an unsampleable region. Densities in these substrata were estimated based on fixed ratios to the densities in adjacent strata.

Link to Chapter 3

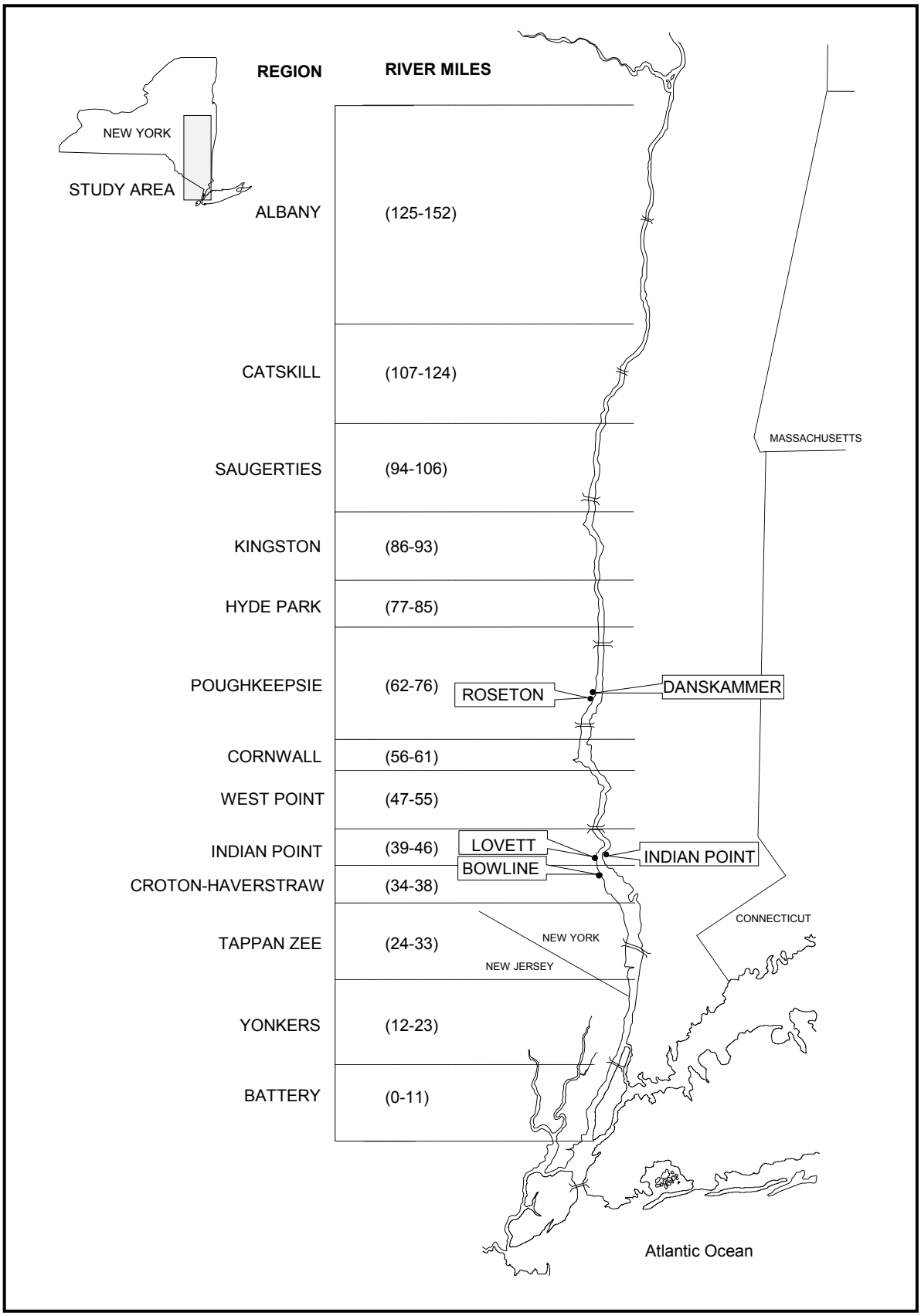


Figure 2-1. Location of 13 geographic regions (with river mile boundaries) sampled during the 2011 biological monitoring program in the Hudson River estuary.

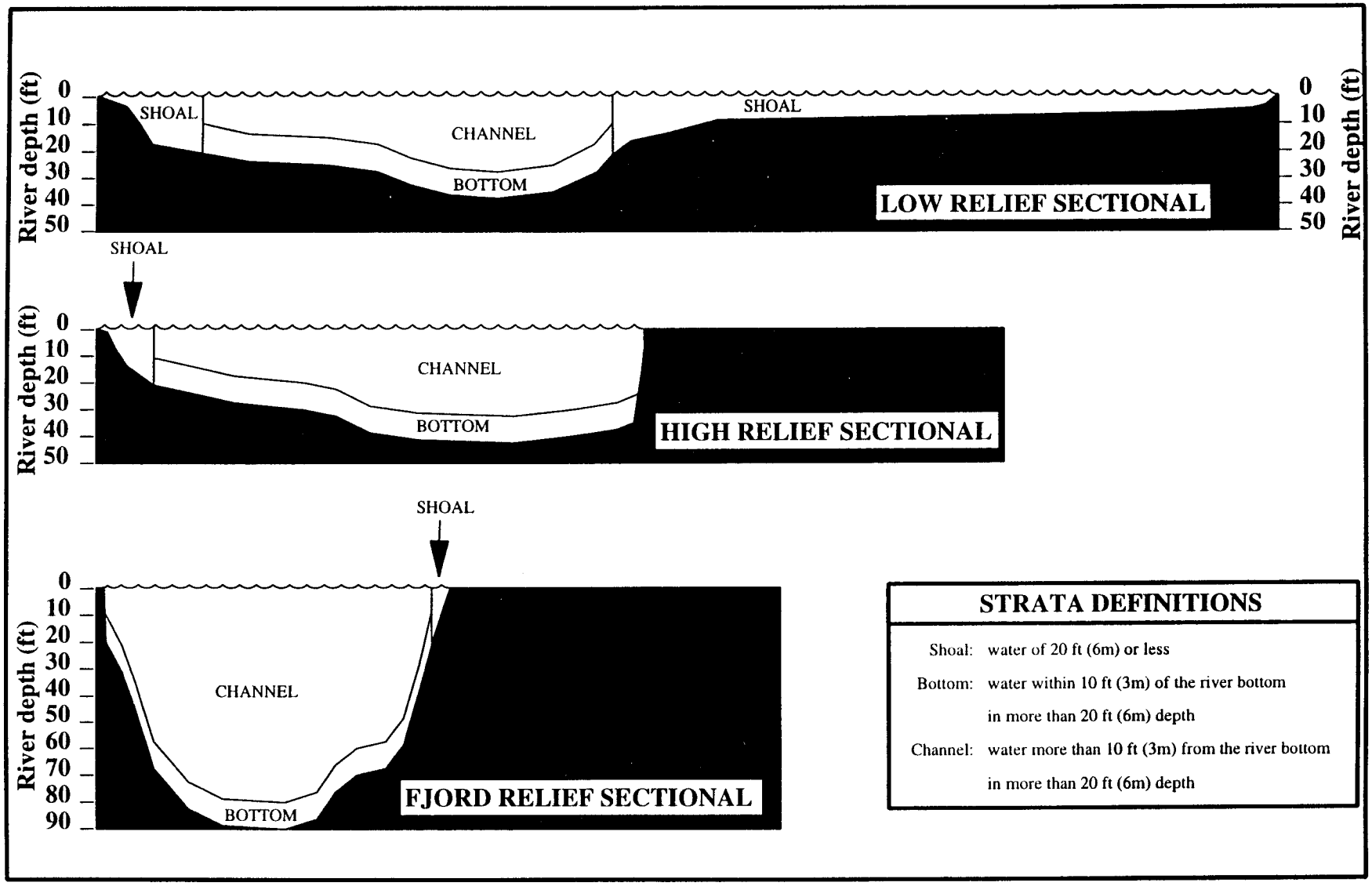


Figure 2-2. Cross sections of the Hudson River estuary showing locations and typical proportional relationships of the shoal, bottom, and channel strata.

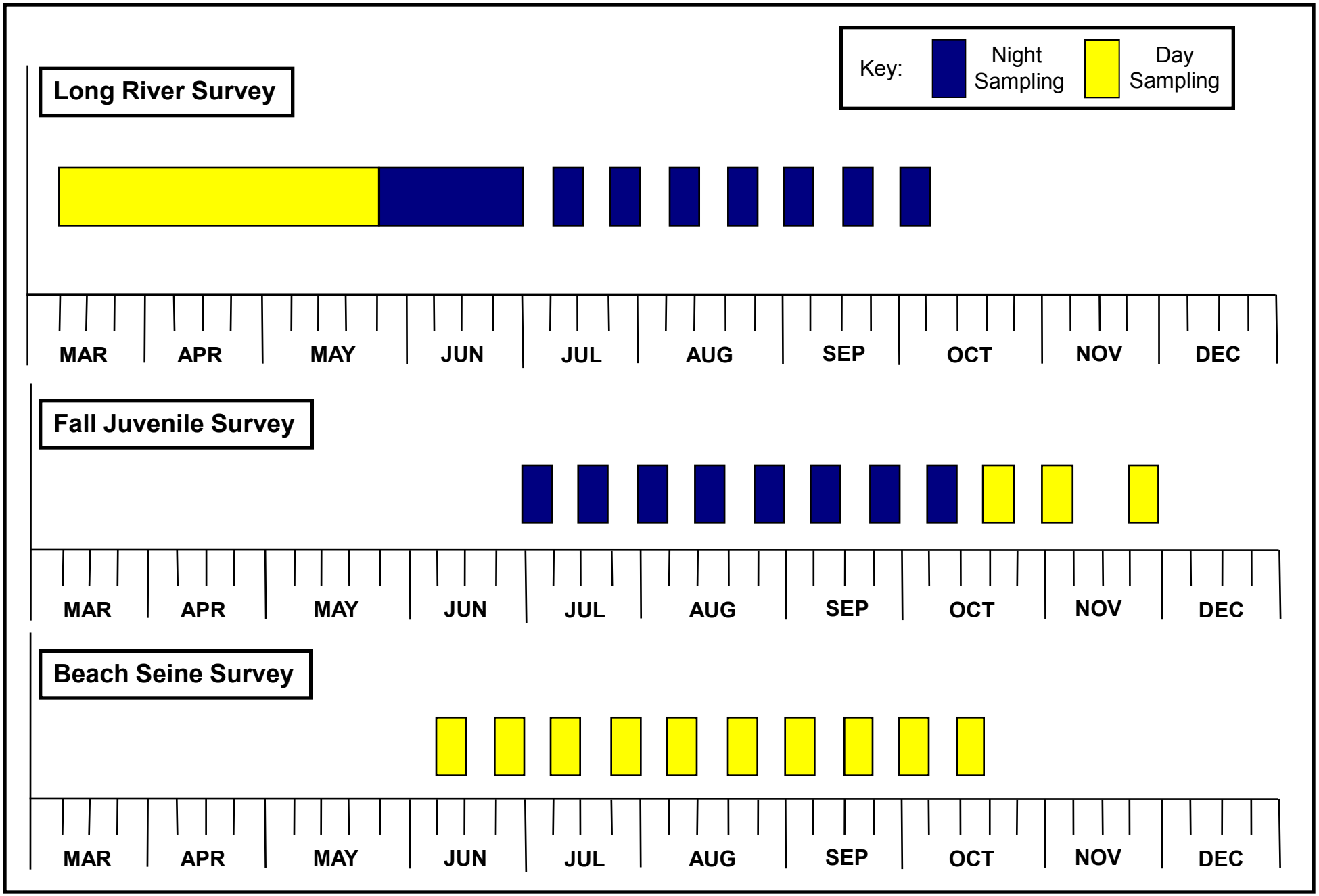


Figure 2-3. Completed sampling schedule for 2011.

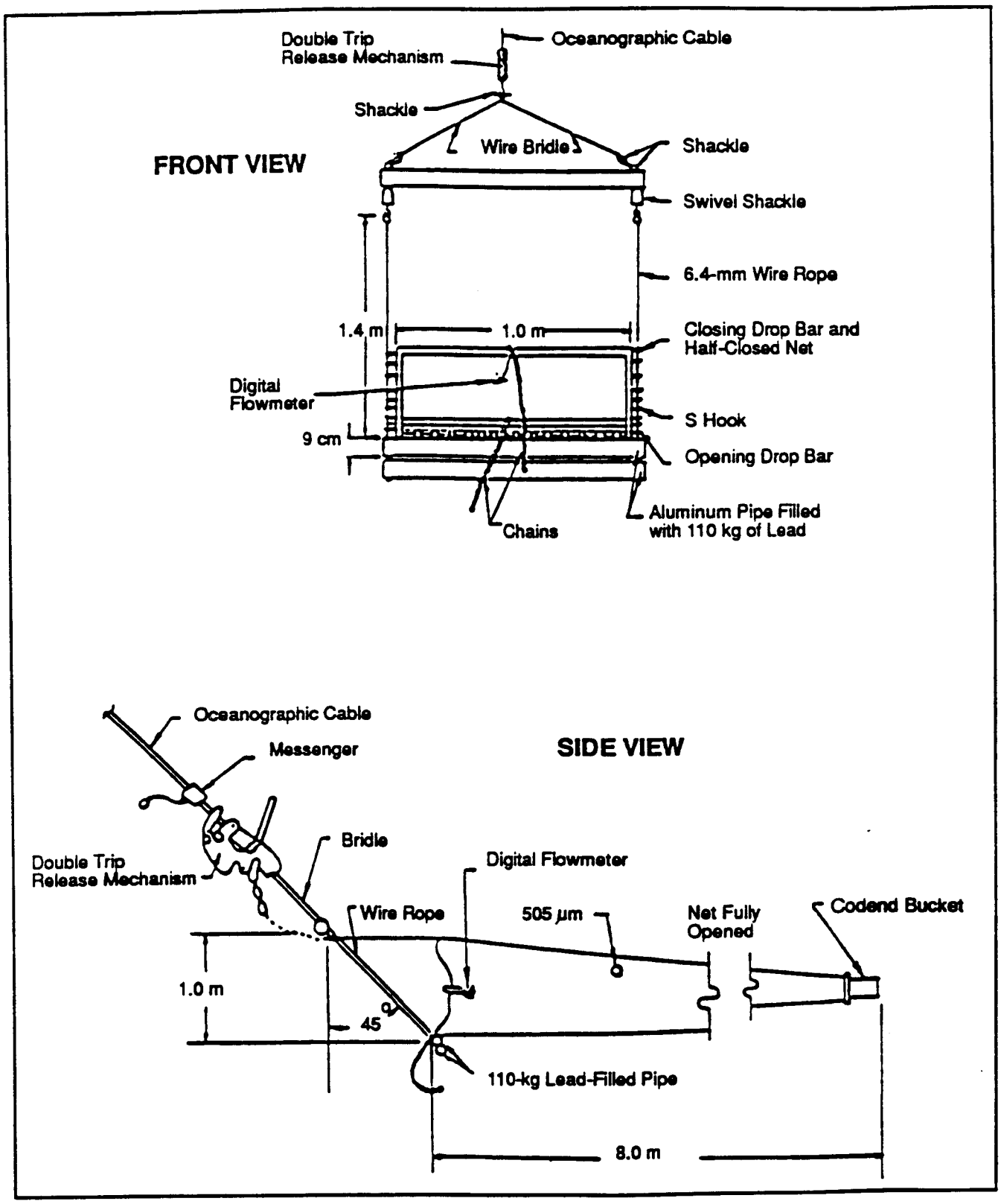


Figure 2-4. Design and dimensions of 1.0-m^2 Tucker trawl.

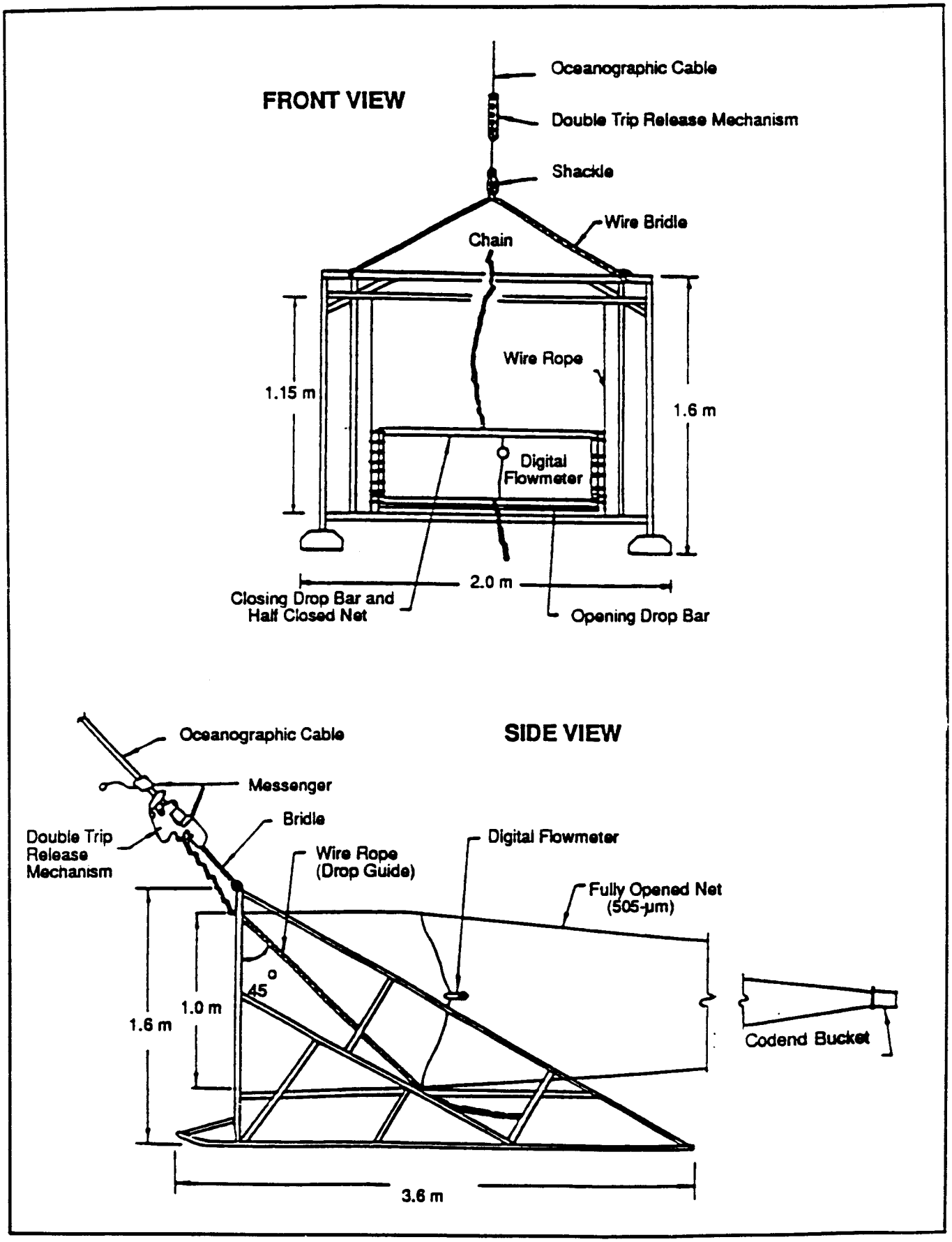


Figure 2-5. Design and dimensions of 1.0-m^2 Tucker trawl mounted on an epibenthic sled.

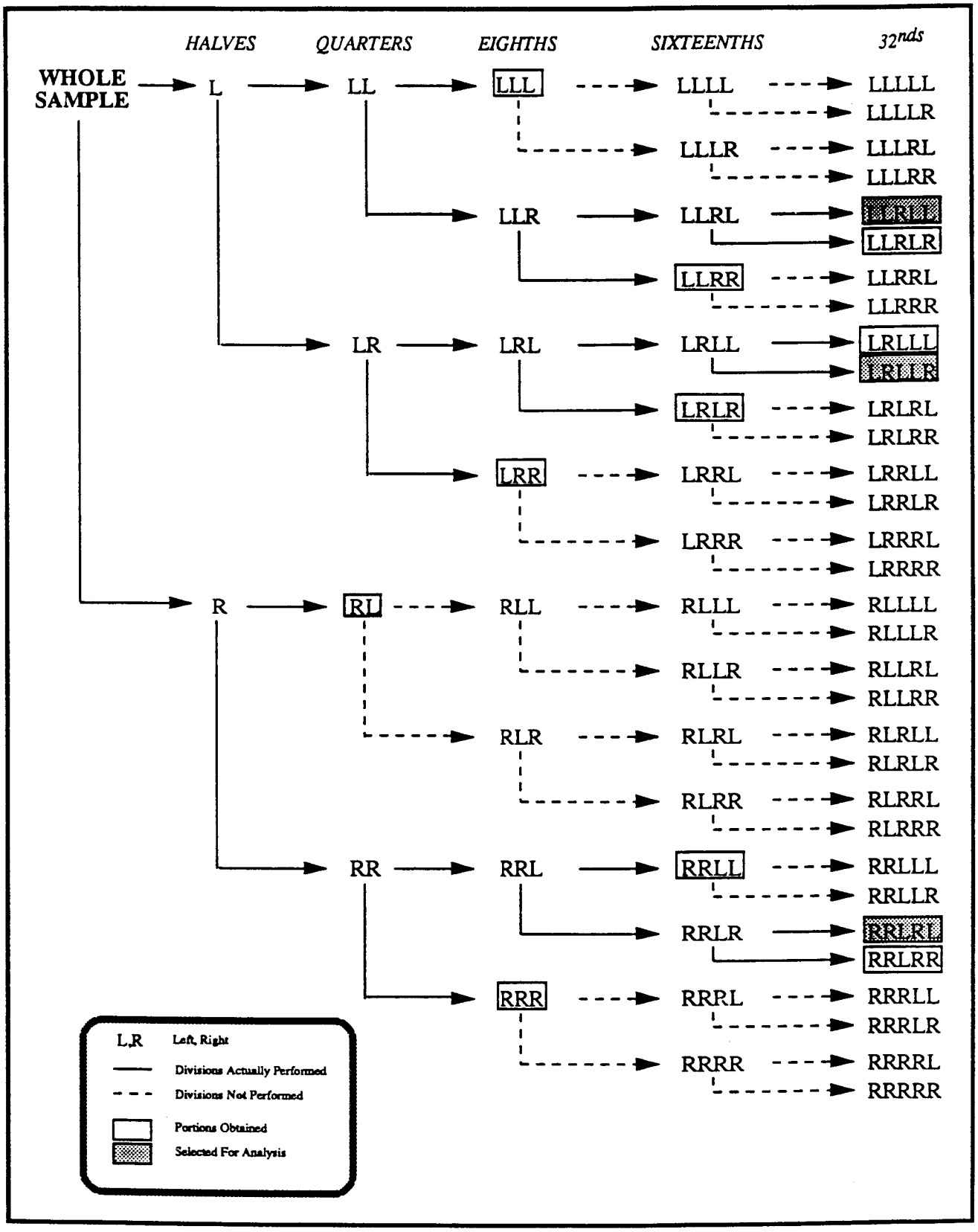


Figure 2-6. Conceptual diagram of the splitting process.

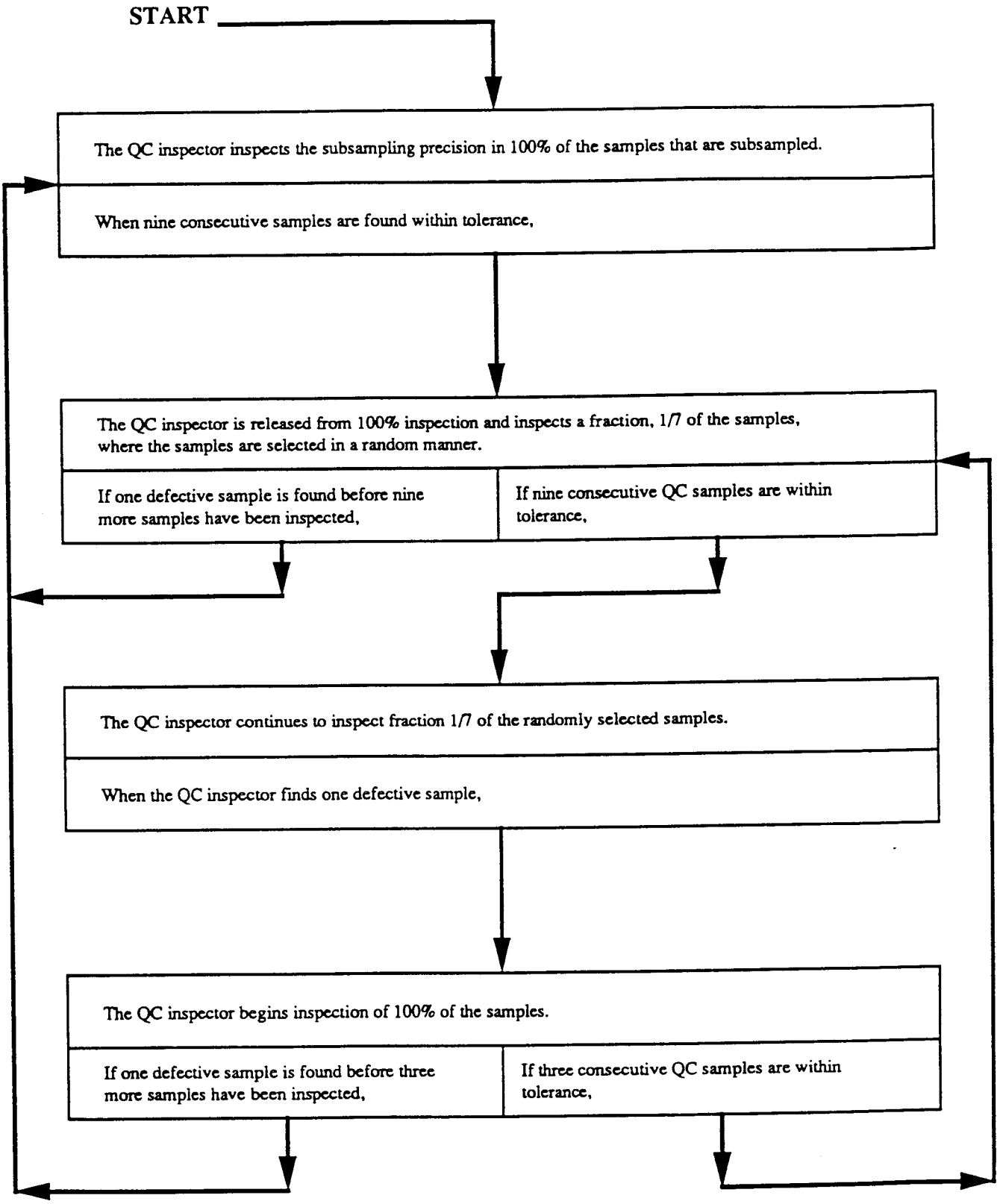


Figure 2-7. Inspection plan for evaluation of splitting precision.

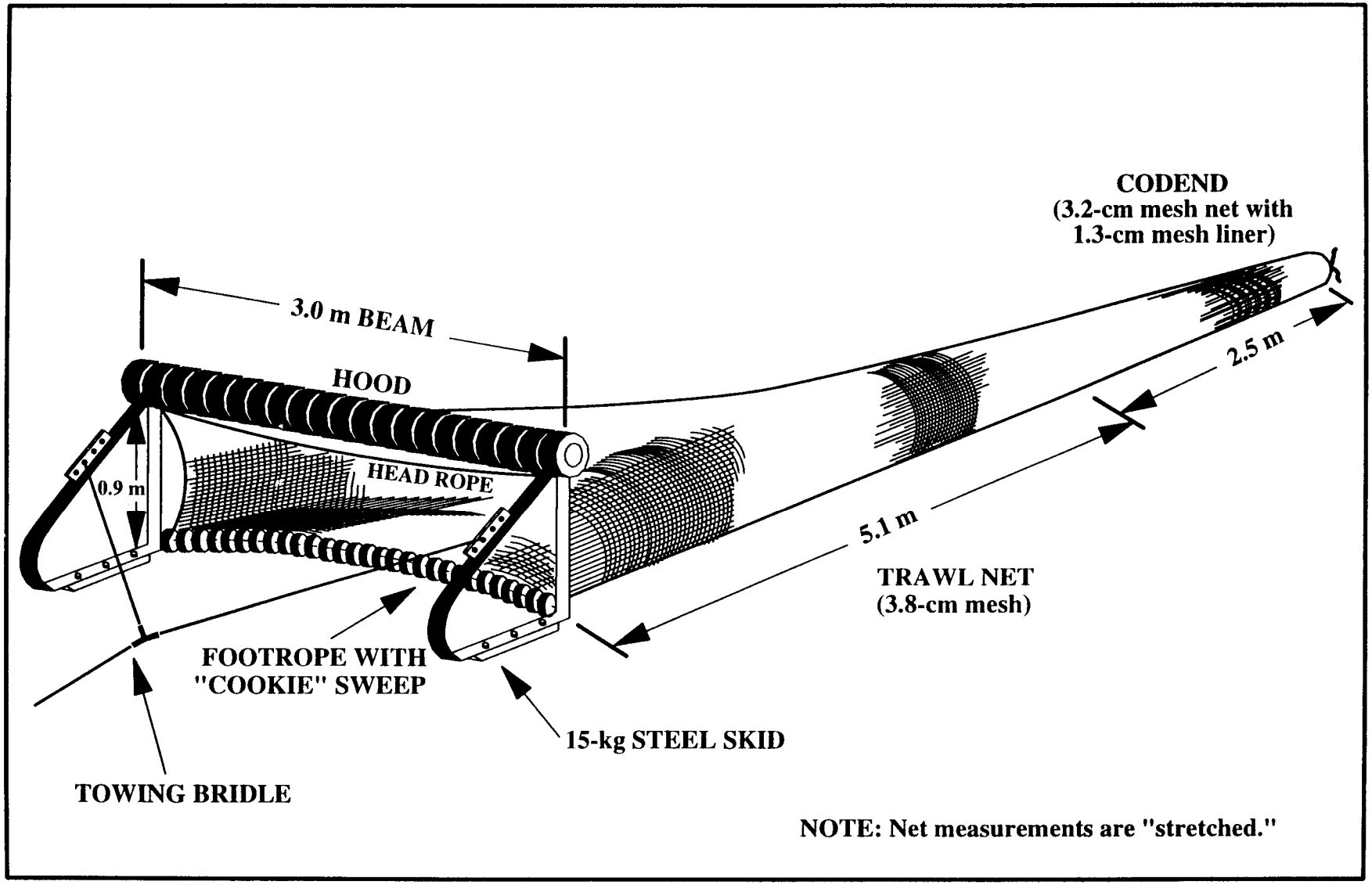


Figure 2-8. Design and dimensions of the 3.0-m beam trawl.

Table 2-1 Strata Sampled within the 13 Geographic Regions of the Hudson River Estuary During 2011

Region	Abbreviation	River Miles	River Kilometers	2011 Surveys Shore	Shoal	Channel	Bottom
Battery	BT	1-11	1-19	--	--	X	X
Yonkers	YK	12-23	19-39	X	X	X	X
Tappan Zee	TZ	24-33	39-55	X	X	X	X
Croton-Haverstraw	CH	34-38	55-63	X	X	X	X
Indian Point	IP	39-46	63-76	X	X	X	X
West Point	WP	47-55	76-90	X	--	X	X
Cornwall	CW	56-61	90-100	X	X	X	X
Poughkeepsie	PK	62-76	100-124	X	--	X	X
Hyde Park	HP	77-85	124-138	X	--	X	X
Kingston	KG	86-93	138-151	X	--	X	X
Saugerties	SG	94-106	151-172	X	--	X	X
Catskill	CS	107-124	172-201	X	--	X	X
Albany	AL	125-152	201-246	X	--	X	X

NOTE: Dashes (--) indicate no sampling scheduled.

Table 2-2 Summary of 2011 Hudson River Surveys

Program Phase	Sampling Schedule: Start Week	Sampling Schedule: End Week	Number of River Runs	Sampling Frequency	Strata Sampled	Sample Number: Collection: Projected	Sample Number: Collection: Actual	Sample Number: Lab Analysis	Sampling Gear
Longitudinal River Ichthyoplankton Survey	14 MAR	3 OCT	23	Weekly/ Biweekly	Shoal	588	588	556	1.0-m^2 net on epibenthic sled, or 1.0-m^2 Tucker trawl
					Channel	1,545	1,545	957	1.0-m^2 Tucker trawl
					Bottom	1,389	1,386	929	1.0-m^2 net on epibenthic sled
Fall Juvenile Survey	4 JUL	28 NOV	11	Biweekly	Shoal	427	427		3.0-m beam trawl, or 1.0-m^2 Tucker trawl
					Channel	648	627		1.0-m^2 Tucker trawl
					Bottom	1,055	1,032		3.0-m beam trawl
Beach Seine Survey	13 JUN	17 OCT	10	Biweekly	Shore	1,000	1,000		30.5-m beach seine

Table 2-3 Summary of 2011 Sample Collection Information by River Region and Stratum for the Longitudinal River Ichthyoplankton Survey

	3-Week Period from 14 MAR to 3 APR					3-Week Period from 4 APR to 24 APR					3-Week Period from 25 APR to 15 MAY				
	Shoal		Bottom	Channel		Shoal		Bottom	Channel		Shoal		Bottom	Channel	
Region	Sled	Trawl	Sled	Trawl	Total	Sled	Trawl	Sled	Trawl	Total	Sled	Trawl	Sled	Trawl	Total
Battery	--	--	15	15	30	--	--	24	18	42	--	--	18	18	36
Yonkers	6	6	18	18	48	6	6	21	15	48	6	6	21	15	48
Tappan Zee	9	6	18	18	51	18	12	13	12	55	18	12	12	12	54
Croton-Haverstraw	9	6	18	18	51	12	9	12	12	45	12	9	12	12	45
Indian Point	6	6	18	18	48	6	6	12	12	36	6	6	18	30	60
West Point	--	--	15	15	30	--	--	15	15	30	--	--	18	45	63
Cornwall	6	6	12	12	36	9	6	9	9	33	9	6	24	15	54
Poughkeepsie	--	--	--	--	--	--	--	9	9	18	--	--	30	30	60
Hyde Park	--	--	--	--	--	--	--	9	21	30	--	--	27	33	60
Kingston	--	--	--	--	--	--	--	24	18	42	--	--	18	21	39
Saugerties	--	--	--	--	--	--	--	24	18	42	--	--	9	15	24
Catskill	--	--	--	--	--	--	--	48	21	69	--	--	9	15	24
Albany	--	--	--	--	--	--	--	60	30	90	--	--	15	15	30
Total	36	30	114	114	294	51	39	280	210	580	51	39	231	276	597

	3-Week Period from 16 MAY to 5 JUN					4-Week Period from 6 JUN to 3 JUL					13-Week Period from 11 JUL to 9 OCT				
	Shoal		Bottom	Channel		Shoal		Bottom	Channel		Shoal		Bottom	Channel	
Region	Sled	Trawl	Sled	Trawl	Total	Sled	Trawl	Sled	Trawl	Total	Sled	Trawl	Sled	Trawl	Total
Battery	--	--	24	12	36	--	--	24	16	40	--	--	41	42	83
Yonkers	6	3	18	12	39	8	8	24	28	68	14	14	39	28	95
Tappan Zee	12	6	12	12	42	8	8	20	20	56	21	21	28	28	98
Croton-Haverstraw	12	6	12	12	42	12	8	24	24	68	21	21	28	28	98
Indian Point	6	6	18	36	66	12	8	20	64	104	21	21	28	28	98
West Point	--	--	21	45	66	--	--	32	96	128	--	--	28	28	56
Cornwall	9	6	24	15	54	8	8	48	48	112	14	14	21	21	70
Poughkeepsie	--	--	36	54	90	--	--	28	60	88	--	--	21	21	42
Hyde Park	--	--	21	30	51	--	--	20	36	56	--	--	--	--	--
Kingston	--	--	12	18	30	--	--	16	24	40	--	--	--	--	--
Saugerties	--	--	15	9	24	--	--	16	8	24	--	--	--	--	--
Catskill	--	--	9	9	18	--	--	12	12	24	--	--	--	--	--
Albany	--	--	9	9	18	--	--	12	12	24	--	--	--	--	--
Total	45	27	231	273	576	48	40	296	448	832	91	91	234	224	640

NOTE: Dashes (--) indicate no sampling scheduled.

Table 2-4 Specifications of Sampling Gear Used During the 2011 Longitudinal River Ichthyoplankton Survey

1.0-m^2 Tucker Trawl	
Length	8.0 m
Mouth (width)	1.0 m
Mouth (height)	1.4 m
Mesh size	500 μm
Net material	Nytex (monofilament nylon)
Collection cup	
Length	30 cm
Length with net-retaining ring	37 cm
Mesh size	500 μm
Net material	Nytex (monofilament nylon)

1.0-m^2 Net Mounted on Epibenthic Sled	
Length	8.0 m
Mouth (width)	1.0 m
Mouth (height)	1.4 m
Mesh size	500 μm
Net material	Nytex (monofilament nylon)
Collection cup	
Length	30 cm
Length with net-retaining ring	37 cm
Mesh size	500 μm
Net material	Nytex (monofilament nylon)

Table 2-5 Water Quality Sampling Locations During the 2011 Longitudinal River Ichthyoplankton and Fall Juvenile Surveys

	Scheduled Sampling Locations (RM)		Number of Water Quality Samples Scheduled Per Region Per River Run			
River Region	Shoals[1]	Channel	LRS River Runs 1-3	LRS River Runs 4-16	LRS River Runs 17-23	FJS River Runs 1-11
Battery	--	1, 3, 6, 9	12	12	12	12
Yonkers	19	12, 14, 17, 19, 22	19	19	19	19
Tappan Zee	29	25, 27, 29, 32	16	16	16	16
Croton-Haverstraw	36	35, 36, 37, 38	16	16	16	16
Indian Point	43	40, 42, 43, 46	16	16	16	16
West Point	--	49, 51, 53, 55	12	12	12	12
Cornwall	59	56, 57, 59, 61	16	16	16	16
Poughkeepsie	--	63, 67, 71, 75	--	12	12	12
Hyde Park	--	78, 80, 82, 84	--	12	--	12
Kingston	--	87, 89, 91, 93	--	12	--	12
Saugerties	--	96, 99, 102, 105	--	12	--	12
Catskill	--	109, 114, 118, 122	--	12	--	12
Albany	--	126, 131, 135, 138, 142	--	15	--	15
Total per River Run			107	182	119	182

NOTE: Dashes (--) indicate no sampling scheduled.
[1] Sample collected from east and west shoals at designated river mile.

Table 2-6 Summary of 2011 Sample Analysis Information by River Region and Stratum for the Longitudinal River Ichthyoplankton Survey

	3-Week Period from 14 MAR to 3 APR					3-Week Period from 4 APR to 24 APR					3-Week Period from 25 APR to 15 MAY				
	Shoal		Bottom	Channel		Shoal		Bottom	Channel		Shoal		Bottom	Channel	
Region	Sled	Trawl	Sled	Trawl	Total	Sled	Trawl	Sled	Trawl	Total	Sled	Trawl	Sled	Trawl	Total
Battery	--	--	15	15	30	--	--	12	9	21	--	--	9	9	18
Yonkers	6	6	9	9	30	6	6	12	15	39	6	6	12	15	39
Tappan Zee	9	6	9	9	33	9	12	12	12	45	9	12	12	12	45
Croton-Haverstraw	9	6	9	9	33	12	9	12	12	45	12	9	12	12	45
Indian Point	6	6	9	9	30	6	6	12	12	36	6	6	9	15	36
West Point	--	--	15	15	30	--	--	15	15	30	--	--	9	9	18
Cornwall	6	6	12	12	36	9	6	9	9	33	9	6	12	15	42
Poughkeepsie	--	--	--	--	--	--	--	9	9	18	--	--	15	15	30
Hyde Park	--	--	--	--	--	--	--	9	12	21	--	--	15	18	33
Kingston	--	--	--	--	--	--	--	12	9	21	--	--	9	12	21
Saugerties	--	--	--	--	--	--	--	12	9	21	--	--	9	15	24
Catskill	--	--	--	--	--	--	--	9	12	21	--	--	9	15	24
Albany	--	--	--	--	--	--	--	12	15	27	--	--	15	15	30
Total	36	30	78	78	222	42	39	147	150	378	42	39	147	177	405

	3-Week Period from 16 MAY to 5 JUN					4-Week Period from 6 JUN to 3 JUL					13-Week Period from 11 JUL to 9 OCT				
	Shoal		Bottom	Channel		Shoal		Bottom	Channel		Shoal		Bottom	Channel	
Region	Sled	Trawl	Sled	Trawl	Total	Sled	Trawl	Sled	Trawl	Total	Sled	Trawl	Sled	Trawl	Total
Battery	--	--	12	12	24	--	--	12	16	28	--	--	21	21	42
Yonkers	6	3	9	12	30	8	8	12	16	44	14	14	21	28	77
Tappan Zee	12	6	12	12	42	8	8	20	20	56	14	21	28	28	91
Croton-Haverstraw	12	6	12	12	42	12	8	12	12	44	21	21	28	28	98
Indian Point	6	6	9	18	39	12	8	20	12	52	14	21	28	28	91
West Point	--	--	12	9	21	--	--	16	20	36	--	--	28	28	56
Cornwall	9	6	12	15	42	8	8	24	24	64	14	14	21	21	70
Poughkeepsie	--	--	18	12	30	--	--	16	12	28	--	--	21	21	42
Hyde Park	--	--	12	15	27	--	--	20	20	40	--	--	--	--	--
Kingston	--	--	12	9	21	--	--	16	12	28	--	--	--	--	--
Saugerties	--	--	15	9	24	--	--	16	8	24	--	--	--	--	--
Catskill	--	--	9	9	18	--	--	12	12	24	--	--	--	--	--
Albany	--	--	9	9	18	--	--	12	12	24	--	--	--	--	--
Total	45	27	153	153	378	48	40	208	196	492	77	91	196	203	567

NOTE: Dashes (--) indicate no sampling scheduled.

Table 2-7 Summary of 2011 Sample Collection by River Region and Stratum for the Fall Juvenile Survey

	15-Week Period from 4 JUL to 16 OCT					6-Week Period from 24 OCT to 4 DEC				
	Shoal		Bottom	Channel		Shoal		Bottom	Channel	
Region	Beam	Tucker	Beam	Tucker	Total	Beam	Tucker	Beam	Tucker	Total
Battery	--	--	64	48	112	--	--	36	--	36
Yonkers	16	16	64	48	144	15	--	33	--	48
Tappan Zee	48	48	48	48	192	15	--	23	--	38
Croton-Haverstraw	40	40	48	48	176	15	--	18	--	33
Indian Point	32	32	56	56	176	15	--	31	--	46
West Point	--	--	81	96	177	--	--	36	--	36
Cornwall	40	40	50	49	179	15	--	30	--	45
Poughkeepsie	--	--	85	87	172	--	--	30	--	30
Hyde Park	--	--	56	42	98	--	--	30	--	30
Kingston	--	--	28	42	70	--	--	24	--	24
Saugerties	--	--	28	14	42	--	--	30	--	30
Catskill	--	--	21	21	42	--	--	30	--	30
Albany	--	--	28	28	56	--	--	24	--	24
Total	176	176	657	627	1636	75	--	375	--	450

NOTE: Dashes (--) indicate no sampling scheduled.

Table 2-8 Specifications of Sampling Gear Used During the 2011 Fall Juvenile Survey

1.0-m^2 Tucker Trawl	
Length	8.0 m
Mouth (width)	1.0 m
Mesh size	3.0 mm
Collection cage (codend)	
Length	81 cm
Diameter	41 cm
Mesh size	3.0 mm

3.0-m Beam Trawl	
Length	7.6 m
Beam width	3.0 m
Net body	3.8-cm mesh (stretch)
Codend	3.2-cm mesh (stretch) net with 1.3-cm mesh (stretch) liner
Hood	3.8-cm mesh (stretch)
Footrope	Equipped with 5.1-cm rollers
Headrope	Equipped with three floats
Mouth area	2.7 m^2

Table 2-9 Specifications of Sampling Gear Used During the 2011 Beach Seine Survey

	30.5-m Beach Seine
Number of wings	2
Length of wings	12.0 m
Depth of wings	2.4 m
Wing mesh (bar)	1.0 cm
Length of bag	6.1 m
Depth of bag	3.0 m
Bag mesh (bar)	0.5 cm
Sampling area	450 m^2

Table 2-10 Summary of 2011 Sample Collection by River Region for the Beach Seine Survey

Region	5-Week Period from 13 JUN to 17 JUL	13-Week Period from 25 JUL to 23 OCT	Total
Yonkers	9	35	44
Tappan Zee	33	168	201
Croton-Haverstraw	21	98	119
Indian Point	9	35	44
West Point	9	35	44
Cornwall	9	42	51
Poughkeepsie	24	35	59
Hyde Park	24	35	59
Kingston	24	35	59
Saugerties	45	63	108
Catskill	57	70	127
Albany	36	49	85
Total	300	700	1000

Table 2-11 Stratum and Region Volumes (m^3) and Surface Areas (m^2) Used in Analysis of 2011 Hudson River Estuary Data

Geographic Region	Channel Volume	Bottom Volume	Shoal Volume	Region Volume	Shorezone Surface Area
Battery	141,809,822	48,455,129	18,747,833	209,012,784	(a)
Yonkers	143,452,543	59,312,978	26,654,767	229,420,288	3,389,000
Tappan Zee	138,000,768	62,125,705	121,684,992	321,811,465	20,446,000
Croton-Haverstraw	61,309,016	32,517,633	53,910,105	147,736,754	12,101,000
Indian Point	162,269,471	33,418,632	12,648,163	208,336,266	4,147,000
West Point	178,830,022	25,977,862	2,647,885	207,455,769	1,186,000
Cornwall	94,882,267	36,768,629	8,140,123	139,791,019	4,793,000
Poughkeepsie	228,975,052	63,168,132	5,990,260	298,133,444	3,193,000
Hyde Park	131,165,041	32,012,000	2,307,625	165,484,666	558,000
Kingston	93,657,021	35,479,990	12,332,868	141,469,879	3,874,000
Saugerties	113,143,296	42,845,077	20,307,338	176,295,711	7,900,000
Catskill	83,924,081	42,281,206	34,526,456	160,731,743	8,854,000
Albany	32,025,080	13,517,183	25,606,842	71,149,105	6,114,000
Total	1,603,443,480	527,880,156	345,505,257	2,476,828,893	76,555,000

a. Shorezone surface area is unknown and not used in data analysis as no beach seine sampling is performed in the Battery region.

Table 2-12 Parameters for Indices of Annual Abundance Based on Data from the Beach Seine Survey (BSS), Fall Juvenile Survey (FJS), and Longitudinal River Survey (LRS)

		Weeks Used in Sampling Program		
Species	Life Stage	BSS	FJS	LRS
Striped bass	Egg, YSL, and PYSL			Variable[1]
Striped bass	Juvenile	33-40		
White perch	Egg, YSL, and PYSL			Variable[1]
White perch	Juvenile and Yearling	33-40		
Atlantic tomcod	PYSL and Juvenile combined			19-22
Bay anchovy	Juvenile		33-40 (Channel)	
American shad	Egg, YSL, and PYSL			Variable[1]
American shad	Juvenile	33-40		
Alewife	Juvenile	33-40	33-40 (Channel)	
Blueback herring	Juvenile	33-40	33-40 (Channel)	
Rainbow smelt	Juvenile		33-40 (Channel)	20-27
Hogchoker	Juvenile		40-43 (Bottom)	
Spottail shiner	Juvenile	33-40		
White catfish	Yearling and older	33-40		
Weakfish	Juvenile		33-40 (Channel)	
Bluefish	Juvenile	33-40		

[1] 7 weeks beginning with the first week in which 5% of annual total is achieved

CHAPTER 3
PHYSICAL/CHEMICAL PARAMETERS

This chapter provides graphs on the parameters of temperature, salinity, and dissolved oxygen as measured during the 2011 surveys. In addition, freshwater flow data obtained from the U.S. Geological Survey (USGS) for the Green Island Dam near Troy, New York, and daily water temperature data from Poughkeepsie's Water Treatment Facility and the near-by USGS gaging site are also graphed. Supporting tables are presented in Appendix B.

3.1 GREEN ISLAND DAM FLOWS

During 2011, daily freshwater flow for Green Island, New York was estimated from discharge data provided by the USGS for the Hudson River above Lock 1, the Mohawk River at Cohoes, and the Mohawk River diversion at Crescent Dam. At the time of publication, the data from October through December 2011 were provisional.

Links to Graphs	Figure	Supporting Appendix Table
Daily freshwater flow rates for 2011	3-1	B-1
Monthly freshwater flow rates for 2011	3-1	B-2
Monthly average freshwater flow rates for 1974 to 2011	3-1	B-3
Average annual freshwater flow for 1947 to 2011	3-2	B-4

3.2 HUDSON RIVER WATER TEMPERATURES NEAR POUGHKEEPSIE

Long-term (since 1951) daily temperature records are available from Poughkeepsie's Water Treatment Facility, located just north of the City of Poughkeepsie, New York, at RM 77. In addition, water temperature records dating back to 1993 are available from the USGS gaging site (#01372058) on the Hudson River 2.3 miles below Poughkeepsie, New York, at RM 72. Because of the consistency and verification of the USGS records, they were substituted for the Water Treatment Facility records beginning with 1993 and continuing to 2011. Temperature records from the Water Treatment Facility were retained for 1951 through 1992.

Links to Graphs	Figure	Supporting Appendix Table
Daily water temperatures for 2011	3-3	B-5
Average, minimum, and maximum temperatures for 1951 to 2010	3-3	B-5
Average annual water temperature for 1951 to 2011	3-4	B-6

3.3 HUDSON RIVER SURVEYS

In situ measurements of water temperature (°C), dissolved oxygen (mg/L), and specific conductance (microsieman/cm at 25°C) were taken with calibrated meters at fixed river mile and strata stations in conjunction with biological sampling for the 2011 LRS and FJS. These three parameters were also measured with each sample of the 2011 BSS. Salinity data were computed from conductivity data as detailed in Chapter 2.

Links to Graphs	Figure	Supporting Appendix Table
Weekly temperatures for LRS/FJS for 2011	3-5	B-7
Weekly average, minimum, and maximum temperatures for LRS/FJS for 1974 to 2010	3-5	---
Average annual temperature for LRS/FJS for 1974 to 2011	3-5	B-8
Weekly temperatures for BSS for 2011	3-6	B-9
Weekly average, minimum, and maximum temperatures for BSS for 1974 to 2010	3-6	---
Average annual temperature for BSS for 1974 to 2011	3-6	B-10
Weekly salinity for LRS/FJS for 2011	3-7	B-11
Weekly dissolved oxygen for LRS/FJS for 2011	3-8	B-13
Weekly average, minimum, and maximum dissolved oxygen for LRS/FJS for 1974 to 2010	3-8	---
Average annual dissolved oxygen for LRS/FJS for 1974 to 2011	3-8	B-14
Weekly dissolved oxygen for BSS for 2011	3-9	B-15
Weekly average, minimum, and maximum dissolved oxygen for BSS for 1974 to 2010	3-9	---
Average annual dissolved oxygen for BSS for 1974 to 2011	3-9	B-16

Link to Chapter 4

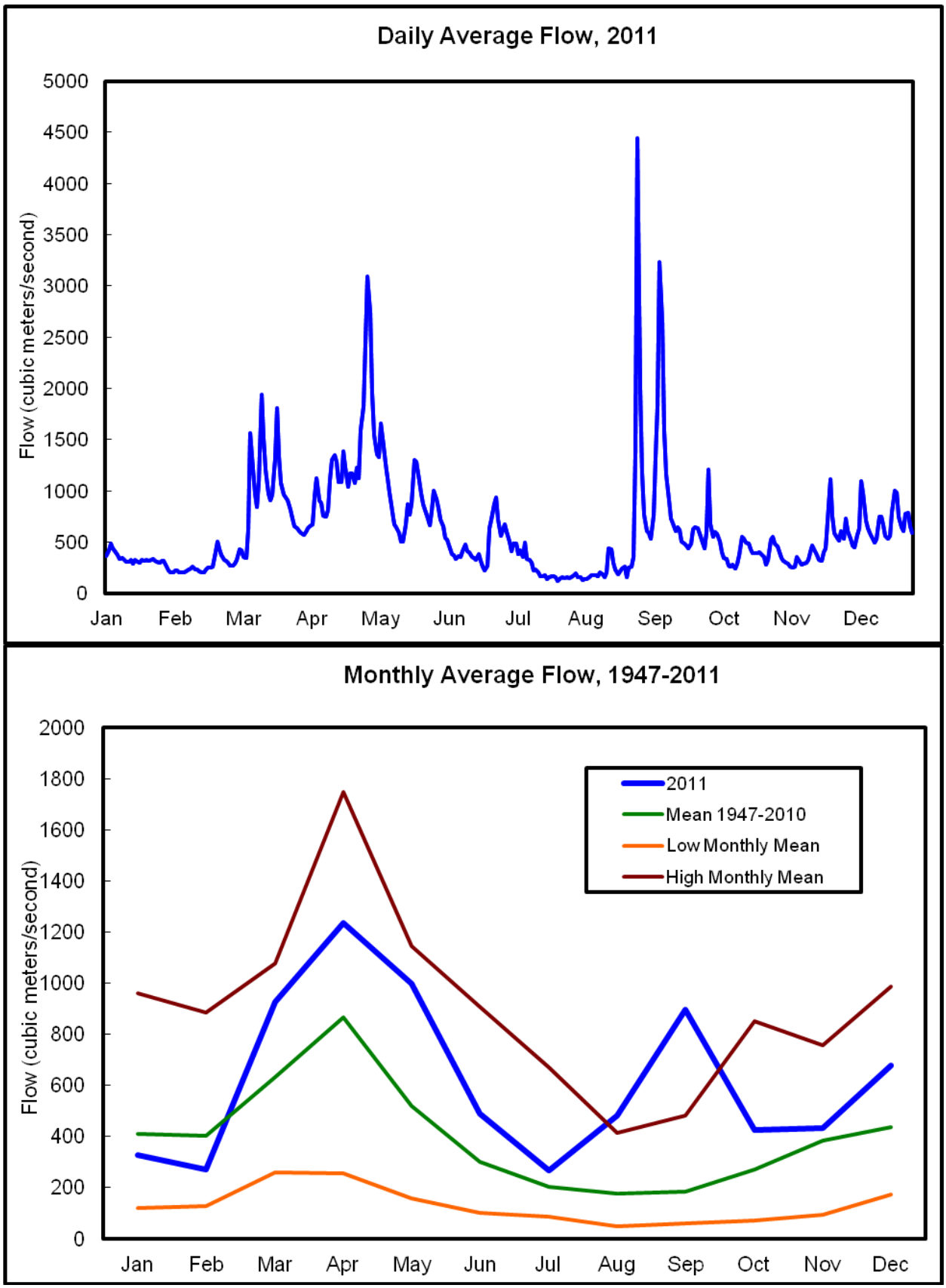


Figure 3-1. Hudson River daily average flow rate in 2011 and monthly average flow rates from 1947 to 2011, Green Island, New York. (Note: Data for October through December 2011 are provisional.)

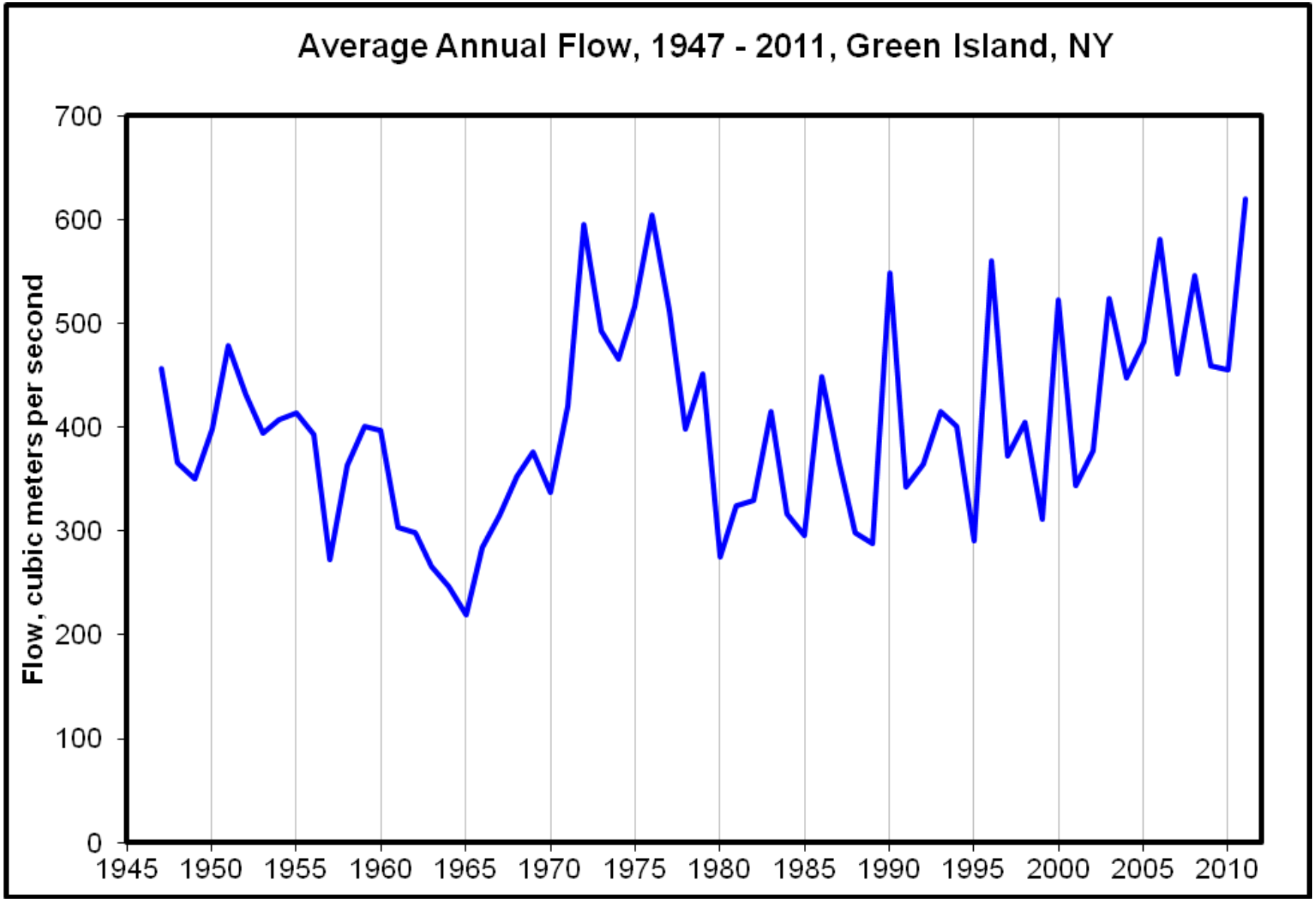


Figure 3-2. Average annual Hudson River flow from 1947 to 2011, Green Island, New York. (Note: Data for 2011 are provisional.)

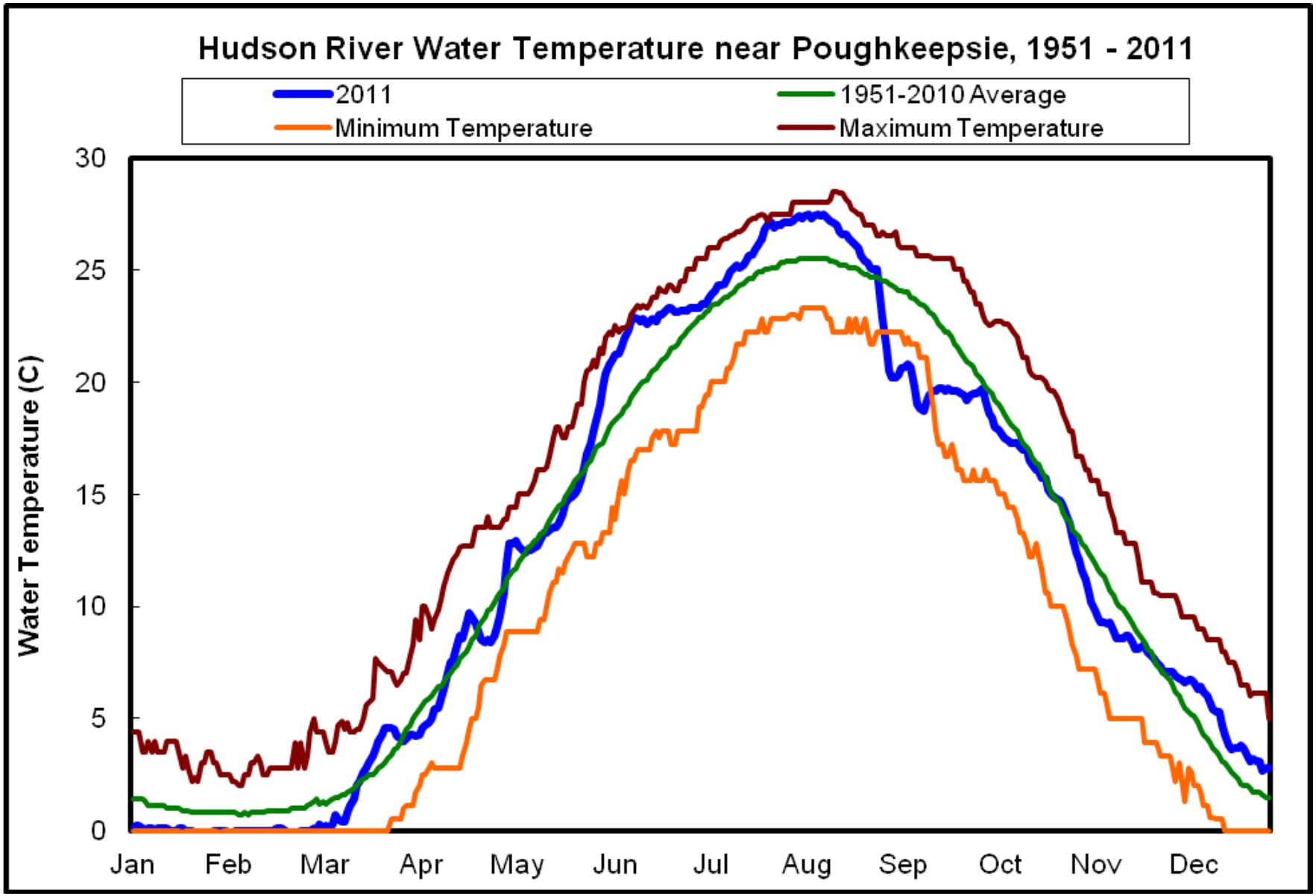


Figure 3-3. Seasonal variations in water temperature from 1951 to 2011 from Hudson River near Poughkeepsie. (Data from 1951 through 1992 from Poughkeepsie's Water Treatment Facility. Data from 1993 through 2011 from USGS gaging site 01372058 Hudson River below Poughkeepsie, NY.)

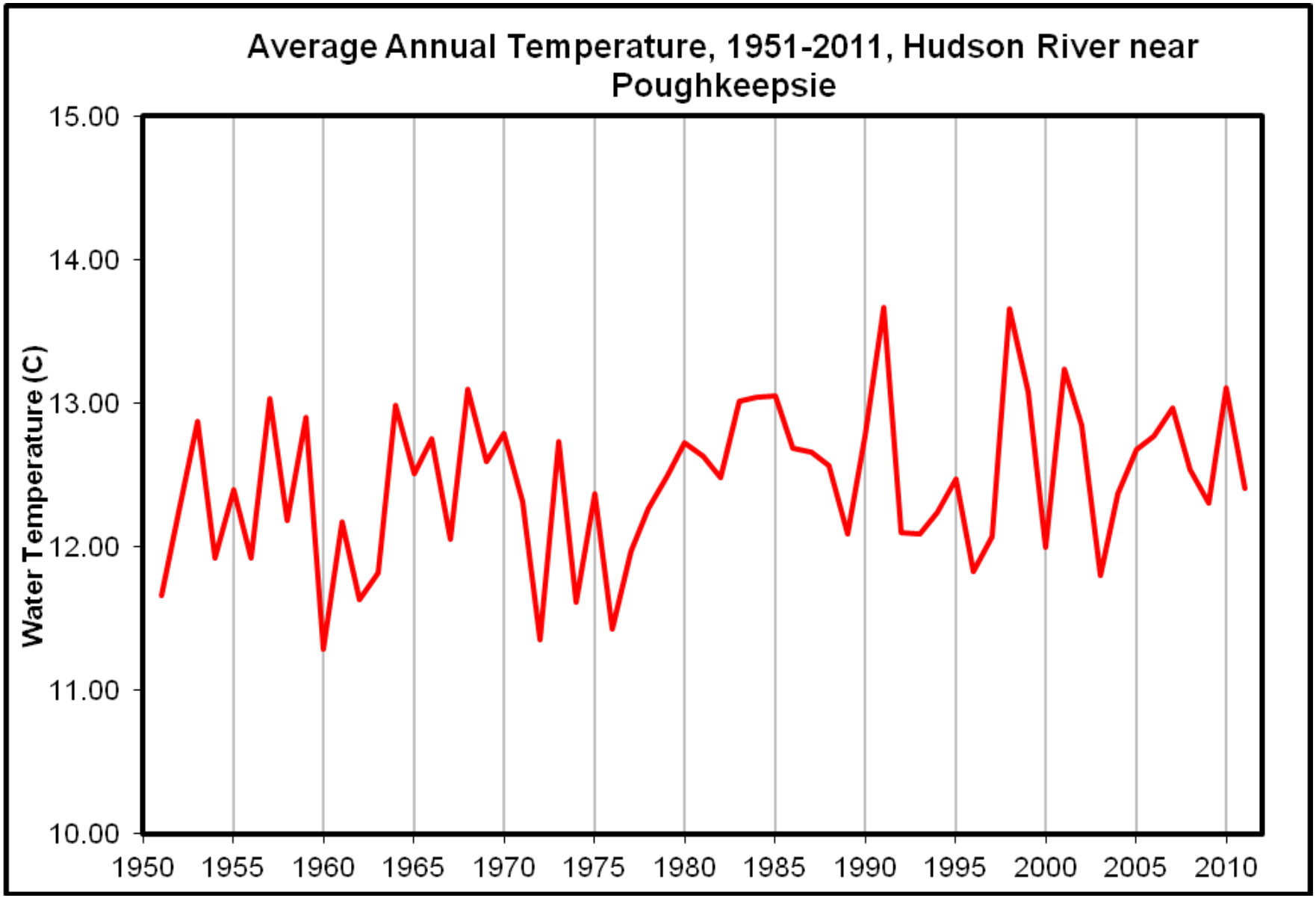
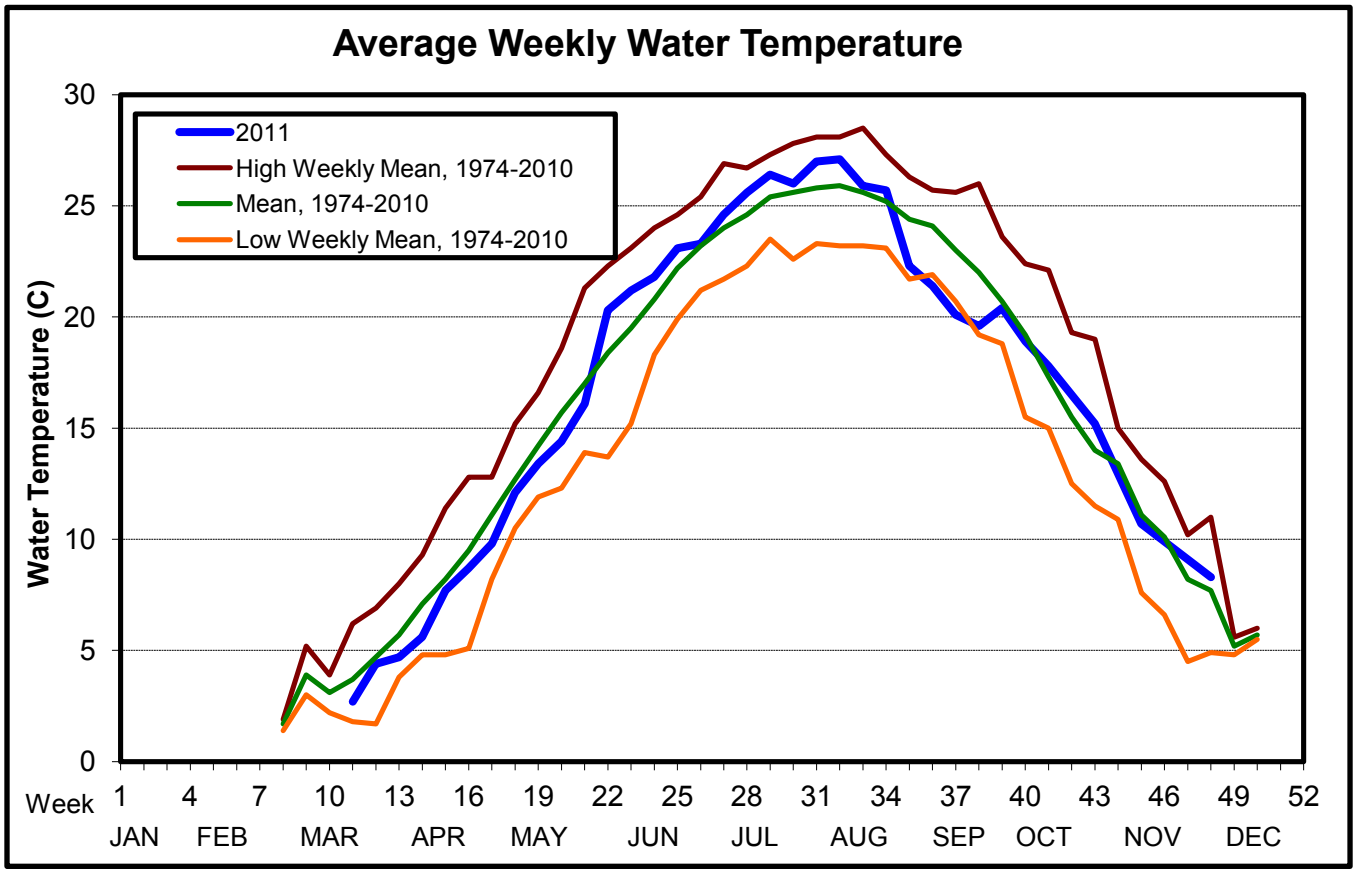


Figure 3-4. Average annual water temperature from 1951 to 2011 from Hudson River near Poughkeepsie. (Data from 1951 through 1992 from Poughkeepsie's Water Treatment Facility. Data from 1993 through 2011 from USGS gaging site 01372058 Hudson River below Poughkeepsie, NY.)

Long River/Fall Juvenile Survey



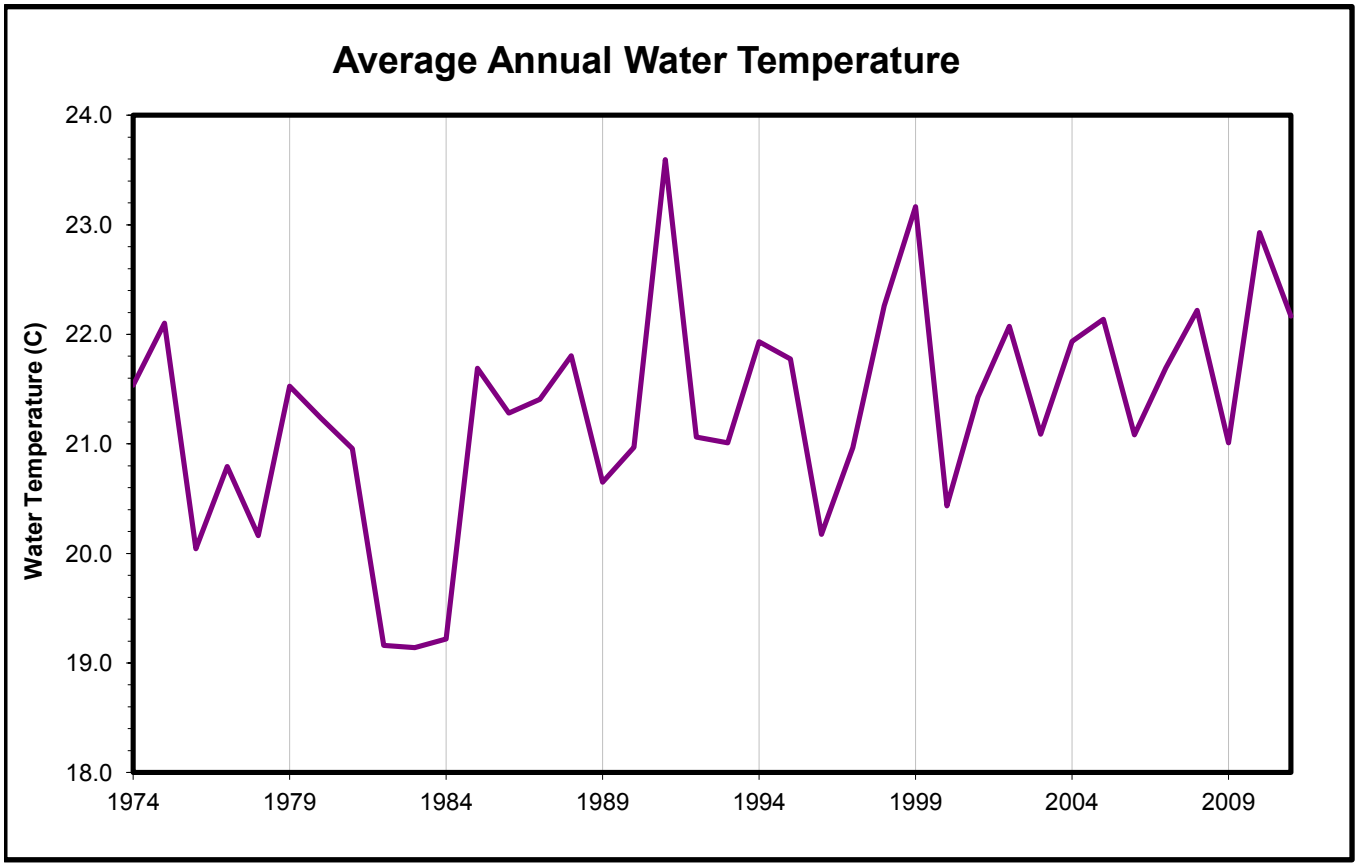
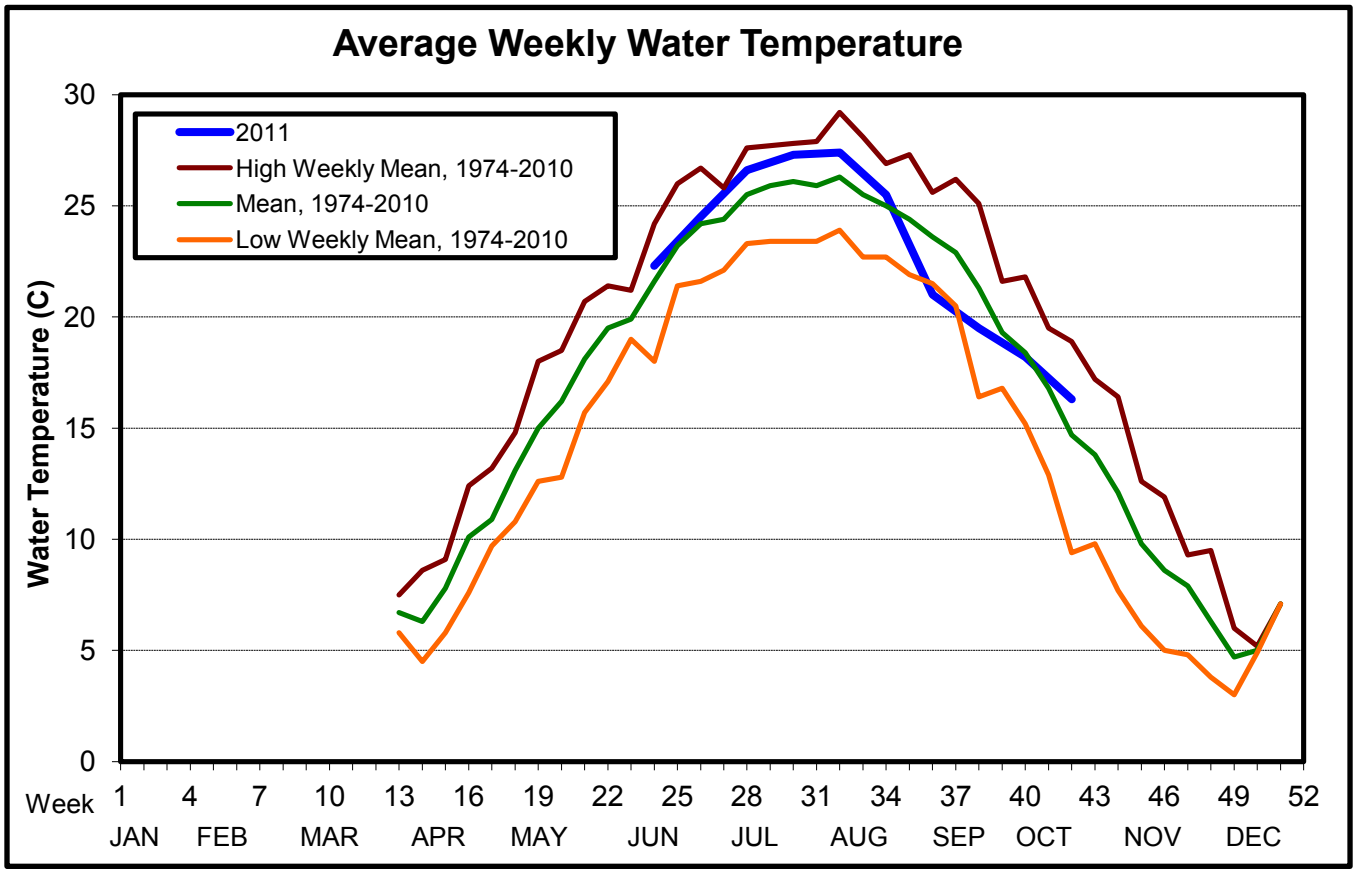


Figure 3-5. Seasonal and annual variations in water temperature from the Long River/Fall Juvenile surveys, 1974 - 2011.

Beach Seine Survey



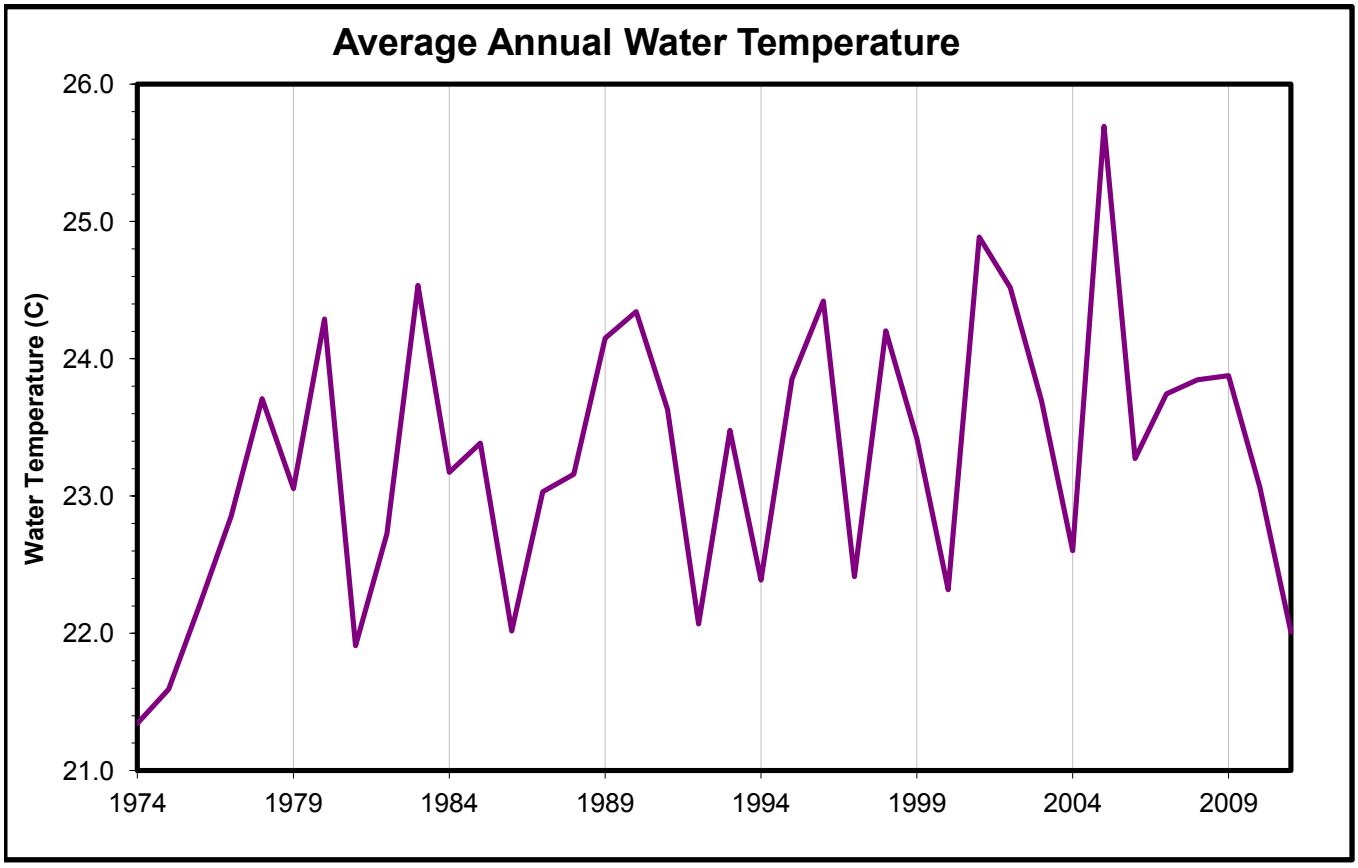


Figure 3-6. Seasonal and annual variations in water temperature from the Beach Seine surveys, 1974 - 2011.

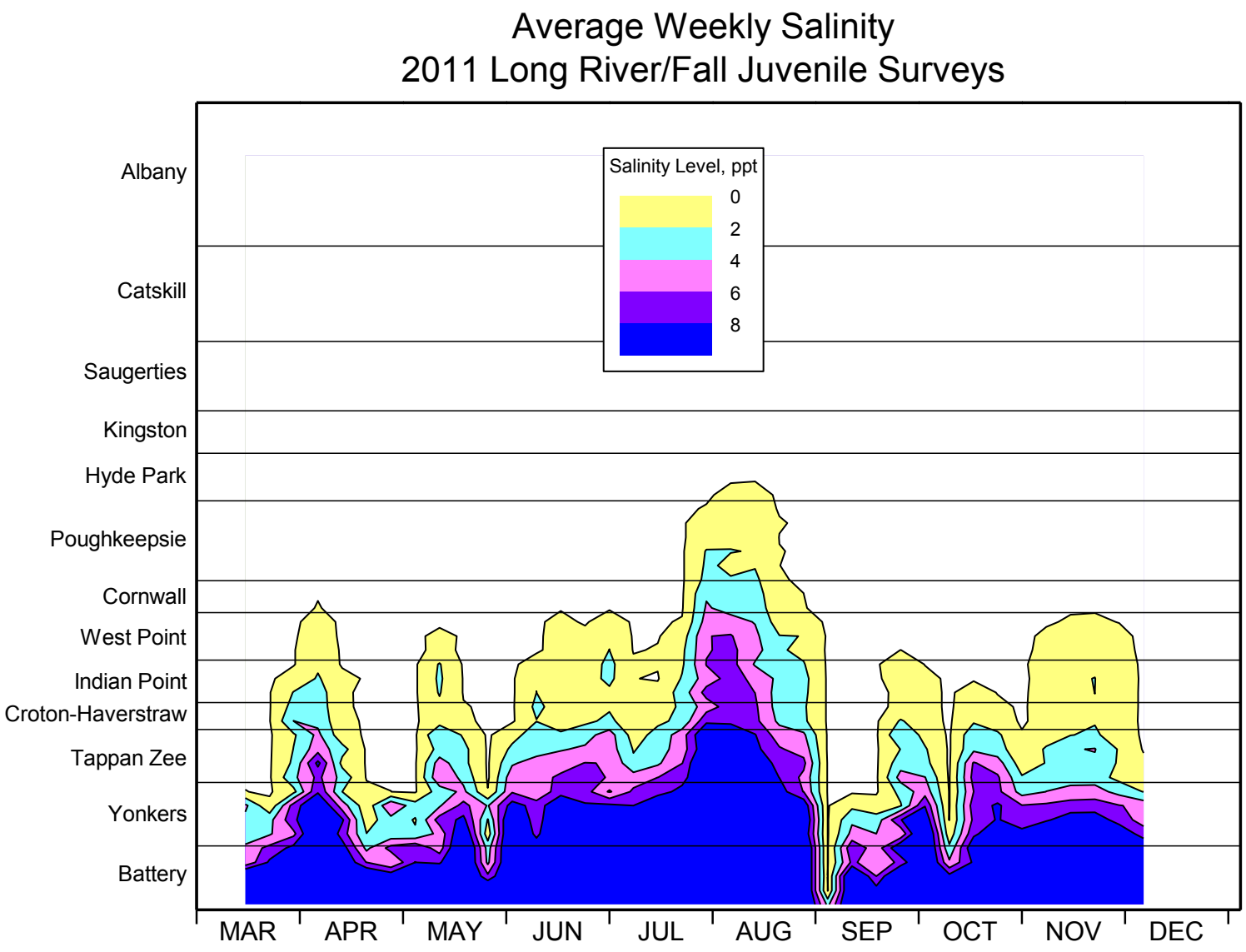
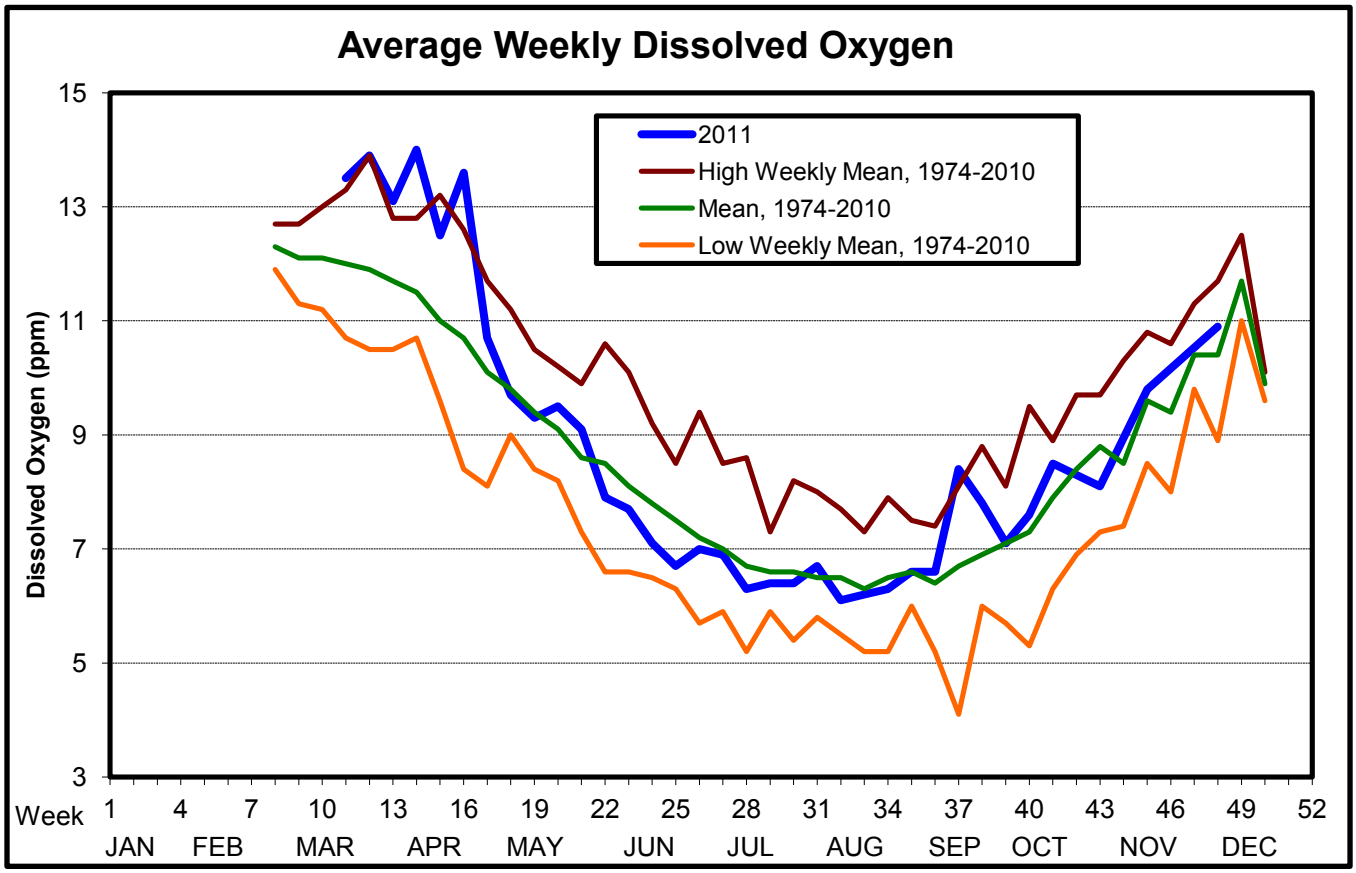


Figure 3-7. Seasonal variations in average weekly salinity from the 2011 Long River/Fall Juvenile surveys.

Long River/Fall Juvenile Survey



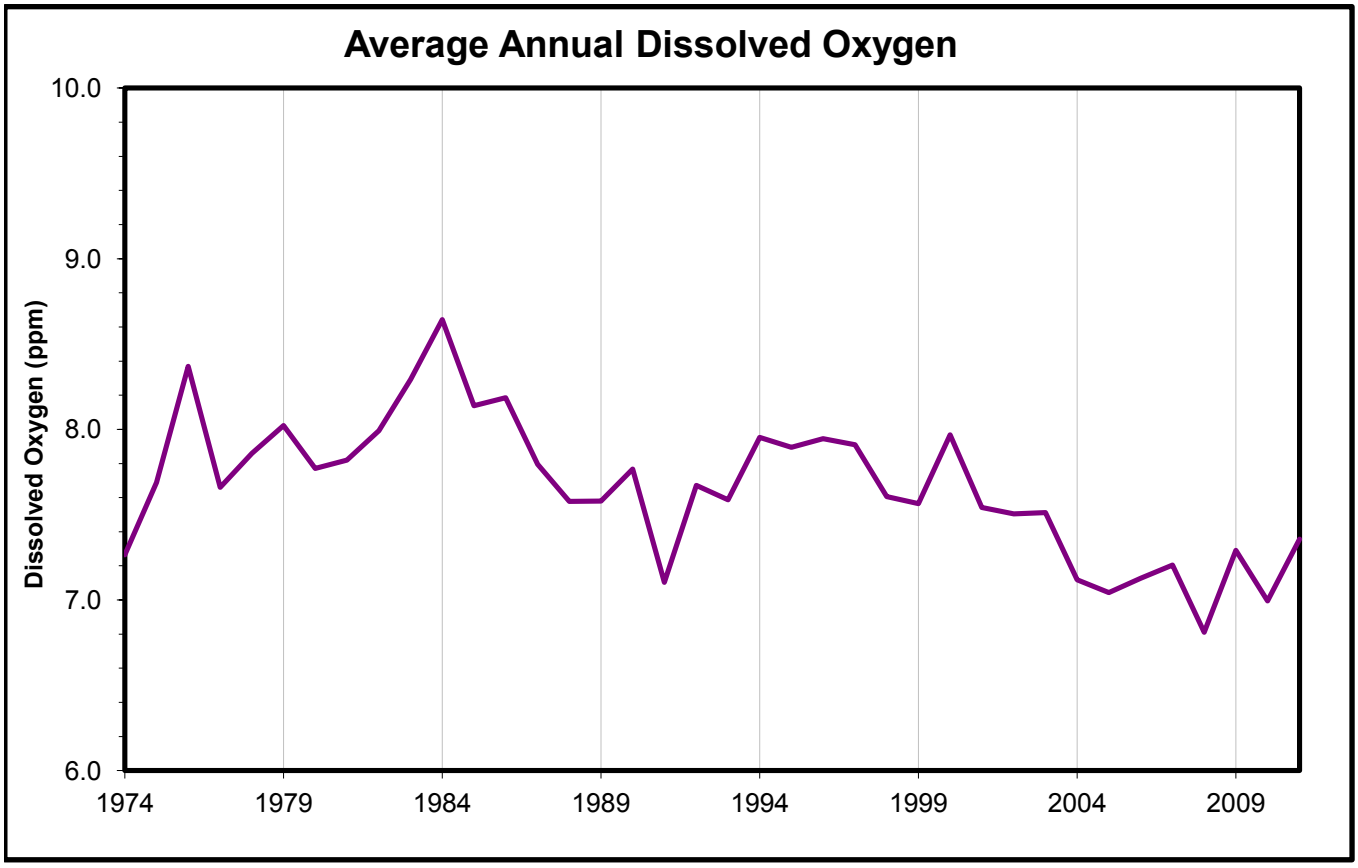
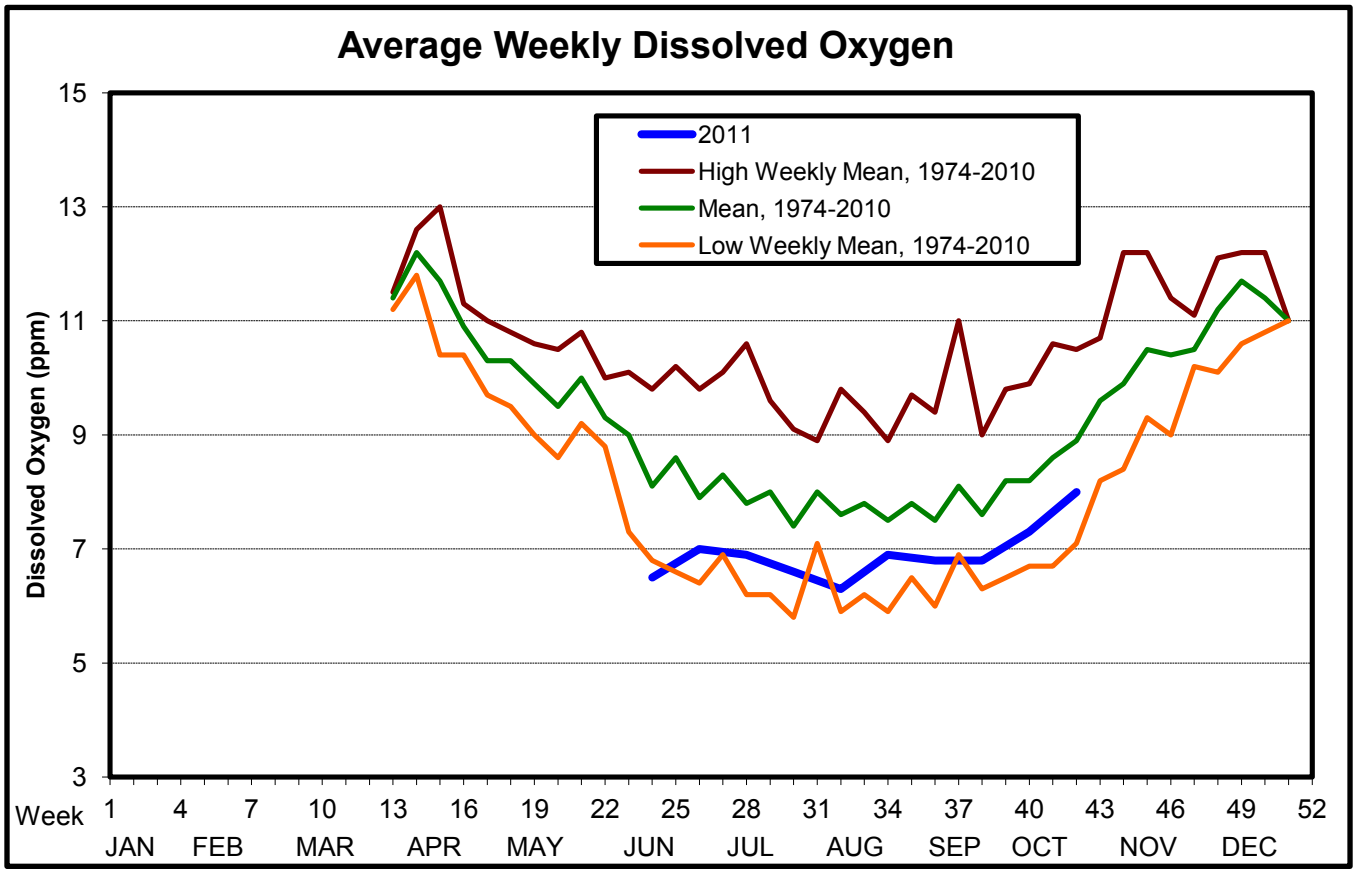


Figure 3-8. Seasonal and annual variations in dissolved oxygen from the Long River/Fall Juvenile surveys, 1974 - 2011.

Beach Seine Survey



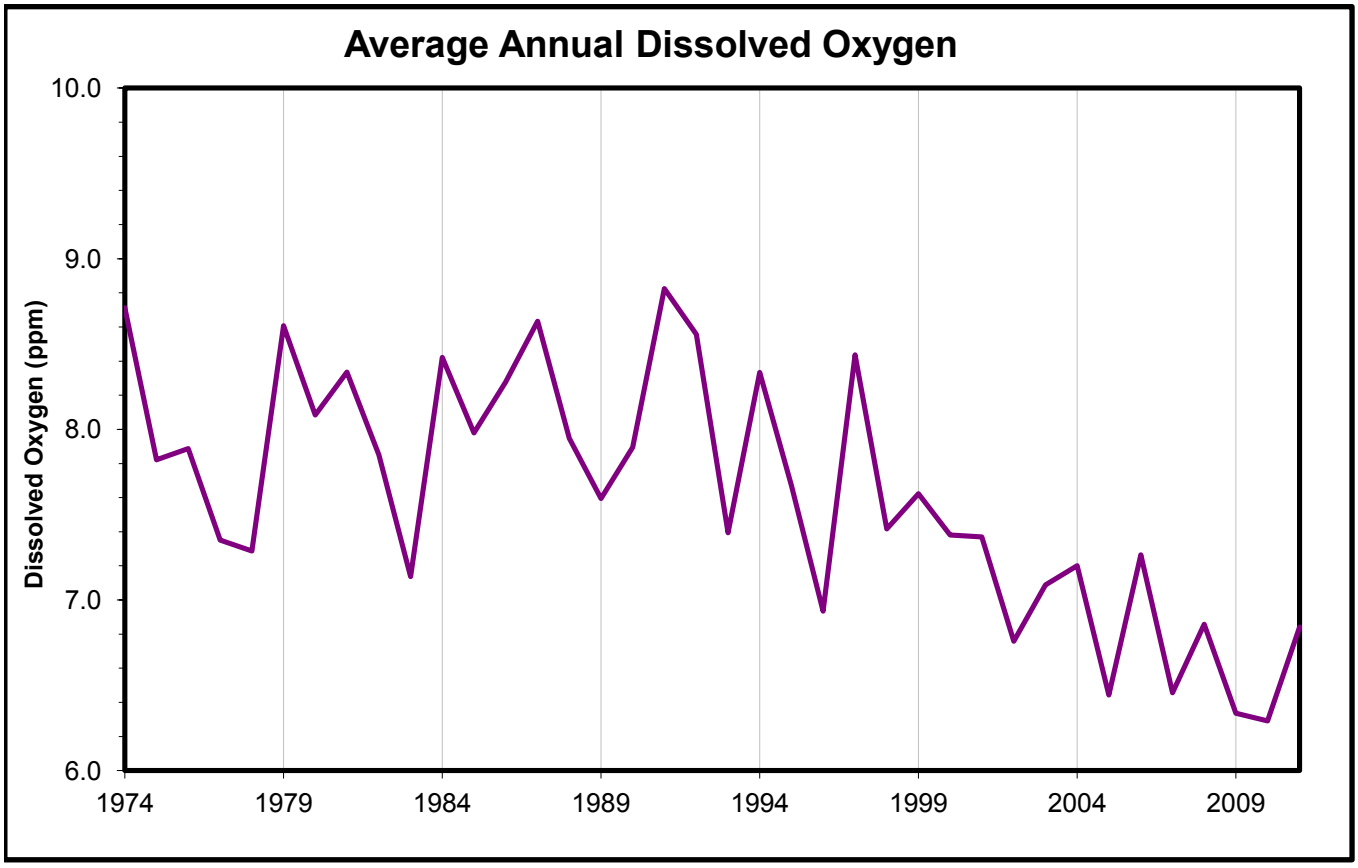


Figure 3-9. Seasonal and annual variations in dissolved oxygen from the Beach Seine surveys, 1974 - 2011.

CHAPTER 4
SPATIOTEMPORAL DISTRIBUTION OF SELECTED SPECIES OF HUDSON RIVER ESTUARY FISHES

This chapter presents graphs of the spatiotemporal distribution within the Hudson River for 16 selected species as well as graphs of the temporal, geographical, and annual abundance indices for these species. Length data for young-of-year fish of several species are plotted. Supporting tables for these graphs are provided in Appendices C (Species Composition), D (Density and Standing Crop Estimates), E (Temporal and Geographical Distribution Indices), F (Annual Abundance Indices), and G (Length Frequency Distribution).

4.1 SPECIES COLLECTED

Overall species composition for each year from 1974 to 2011 and species composition by survey for 2011 are tabulated. Three new species for 2011 were collected: black drum and pigfish in the BSS and skilletfish in the LRS.

Links to Tables	Table	Supporting Appendix Tables
Fish species collected for 1974 to 2011	4-1	--
Species composition of fish by survey for 2011	4-2	C-1, C-2, C-3

4.2 STRIPED BASS

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval fish for 2011 LRS	4-1	D-1 to D-6
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-2	D-7 to D-12
Spatiotemporal distribution of yearling fish for 2011 LRS/FJS/BSS	4-3	D-13 to D-18
Spatiotemporal distribution of older-than-yearling fish for 2011 LRS/FJS/BSS	4-4	D-19 to D-24
Temporal distribution indices for LRS for 1974 to 2011	4-5	E-1
Geographical distribution indices for LRS for 1974 to 2011	4-6	E-2
Geographical distribution indices for BSS for 1974 to 2011	4-7	E-3
Annual abundance indices	4-8	F-1
Weekly length statistics for young-of-year fish for 2011 LRS/FJS/BSS	4-9	G-1 to G-3

4.3 WHITE PERCH

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval fish for 2011 LRS	4-10	D-25 to D-30
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-11	D-31 to D-36
Spatiotemporal distribution of yearling fish for 2011 LRS/FJS/BSS	4-12	D-37 to D-42
Spatiotemporal distribution of older-than-yearling fish for 2011 LRS/FJS/BSS	4-13	D-43 to D-48
Temporal distribution indices for LRS for 1974 to 2011	4-14	E-4
Geographical distribution indices for LRS for 1974 to 2011	4-15	E-5
Geographical distribution indices for BSS for 1974 to 2011	4-16	E-6
Annual abundance indices	4-17	F-2
Weekly length statistics for young-of-year fish for 2011 LRS/FJS/BSS	4-18	G-4 to G-6

4.4 ATLANTIC TOMCOD

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval fish for 2011 LRS	4-19	D-49 to D-54
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-20	D-55 to D-60
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-21	D-61 to D-66
Temporal distribution indices for LRS for 1974 to 2011	4-22	E-7
Geographical distribution indices for LRS for 1974 to 2011	4-23	E-8
Geographical distribution indices for FJS for 1979 to 2011	4-24	E-9
Annual abundance indices	4-25	F-3
Weekly length statistics for young-of-year fish for 2011 LRS/FJS/BSS	4-26	G-7 to G-9

4.5 BAY ANCHOVY

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval fish for 2011 LRS	4-27	D-67 to D-72
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-28	D-73 to D-78
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-29	D-79 to D-84
Temporal distribution indices for LRS for 1988 to 2011	4-30	E-10
Geographical distribution indices for LRS for 1988 to 2011	4-31	E-11
Geographical distribution indices for BSS for 1974 to 2011	4-32	E-12
Annual abundance indices	4-33	F-4
Weekly length statistics for young-of-year fish for 2011 LRS/FJS/BSS	4-34	G-10 to G-12

4.6 AMERICAN SHAD

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval fish for 2011 LRS	4-35	D-85 to D-90
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-36	D-91 to D-96
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-37	D-97 to D-102
Temporal distribution indices for LRS for 1974 to 2011	4-38	E-13
Geographical distribution indices for LRS for 1974 to 2011	4-39	E-14
Geographical distribution indices for BSS for 1974 to 2011	4-40	E-15
Annual abundance indices	4-41	F-5
Weekly length statistics for young-of-year fish for 2011 LRS/FJS/BSS	4-42	G-13 to G-15

4.7 RIVER HERRINGS (*Alosa* spp.)

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval fish for 2011 LRS	4-43	D-103 to D-108
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-44	D-109 to D-114
Temporal distribution indices for LRS for 1974 to 2011	4-45	E-16
Geographical distribution indices for LRS for 1974 to 2011	4-46	E-17
Geographical distribution indices for BSS for 1974 to 2011	4-47	E-18

4.8 ALEWIFE

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-48	D-115 to D-120
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-49	D-121 to D-126
Geographical distribution indices for BSS for 1974 to 2011	4-50	E-19
Annual abundance indices	4-51	F-6
Weekly length statistics for young-of-year fish for 2011 FJS/BSS	4-52	G-16 to G-17

4.9 BLUEBACK HERRING

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-53	D-127 to D-132
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-54	D-133 to D-138
Geographical distribution indices for BSS for 1974 to 2011	4-55	E-20
Annual abundance indices	4-56	F-7
Weekly length statistics for young-of-year fish for 2011 FJS/BSS	4-57	G-18 to G-19

4.10 GIZZARD SHAD

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-58	D-139 to D-144
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-59	D-145 to D-150
Geographical distribution indices for BSS for 1974 to 2011	4-60	E-21

4.11 RAINBOW SMELT

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	--*	D-151 to D-156
Temporal distribution indices for LRS for 1974 to 2011	4-61	E-22
Geographical distribution indices for LRS for 1974 to 2011	4-62	E-23
Geographical distribution indices for FJS for 1979 to 2011	4-63	E-24
Annual abundance indices	4-64	F-8

* No rainbow smelt were collected in 2011.

4.12 HOGCHOKER

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval fish for 2011 LRS	4-65	D-157 to D-162
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-66	D-163 to D-168
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-67	D-169 to D-174
Geographical distribution indices for FJS for 1979 to 2011	4-68	E-25
Annual abundance indices	4-69	F-9

4.13 SPOTTAIL SHINER

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-70	D-175 to D-180
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-71	D-181 to D-186
Geographical distribution indices for BSS for 1974 to 2011	4-72	E-26
Annual abundance indices	4-73	F-10
Weekly length statistics for young-of-year fish for 2011 FJS/BSS	4-74	G-20 to G-21

4.14 ATLANTIC STURGEON

Links to Table/Graph	Table/ Graph	Supporting Appendix Tables
Collections of fish for 2011 LRS/FJS/BSS	4-3	--
Spatiotemporal distribution of yolk-sac, post yolk-sac larval, and young-of-year fish for 2011 LRS/FJS/BSS	4-75	D-187 to D-192
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-76	D-193 to D-198

4.15 SHORTNOSE STURGEON

Links to Table/Graph	Table/ Graph	Supporting Appendix Tables
Collections of fish for 2011 LRS/FJS/BSS	4-4	--
Spatiotemporal distribution of yolk-sac, post yolk-sac larval, and young-of-year fish for 2011 LRS/FJS/BSS	4-77	D-199 to D-204
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-78	D-205 to D-210

4.16 WHITE CATFISH

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-79	D-211 to D-216
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-80	D-217 to D-222
Geographical distribution indices for FJS for 1979 to 2011	4-81	E-27
Annual abundance indices	4-82	F-11
Weekly length statistics for young-of-year fish for 2011 FJS/BSS	4-83	G-22 to G-23

4.17 WEAKFISH

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-84	D-223 to D-228
Spatiotemporal distribution of yearling and older fish for 2011 LRS/FJS/BSS	4-85	D-229 to D-234
Geographical distribution indices for FJS for 1979 to 2011	4-86	E-28
Annual abundance indices	4-87	F-12
Weekly length statistics for young-of-year fish for 2011 FJS/BSS	4-88	G-24 to G-25

4.18 BLUEFISH

Links to Graphs	Graph	Supporting Appendix Tables
Spatiotemporal distribution of young-of-year fish for 2011 LRS/FJS/BSS	4-89	D-235 to D-240
Geographical distribution indices for BSS for 1974 to 2011	4-90	E-29
Annual abundance indices	4-91	F-13

Link to References

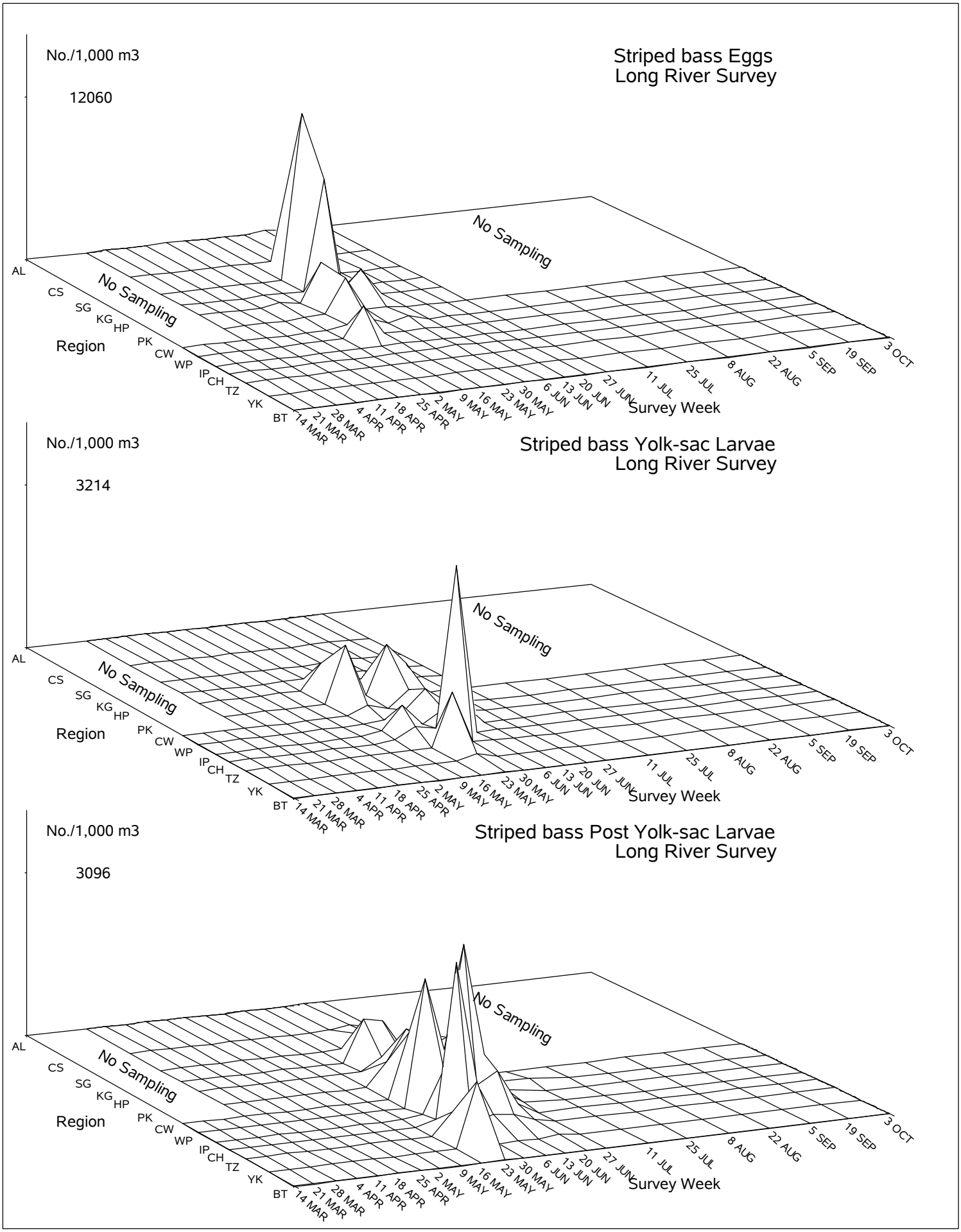


Figure 4-1. Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval striped bass in the Hudson River estuary based on the 2011 Long River Survey.

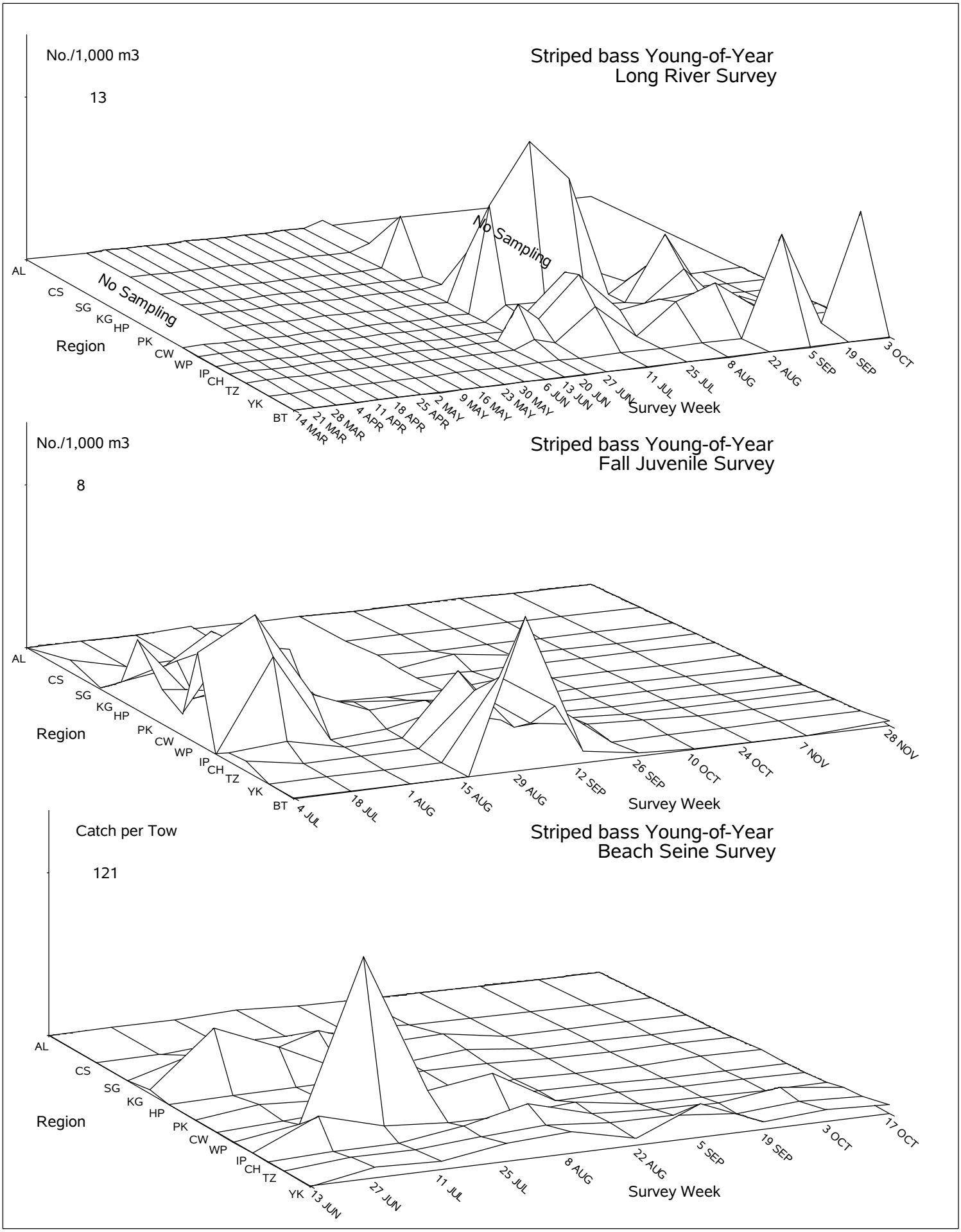


Figure 4-2. Spatiotemporal distribution of young-of-year striped bass in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

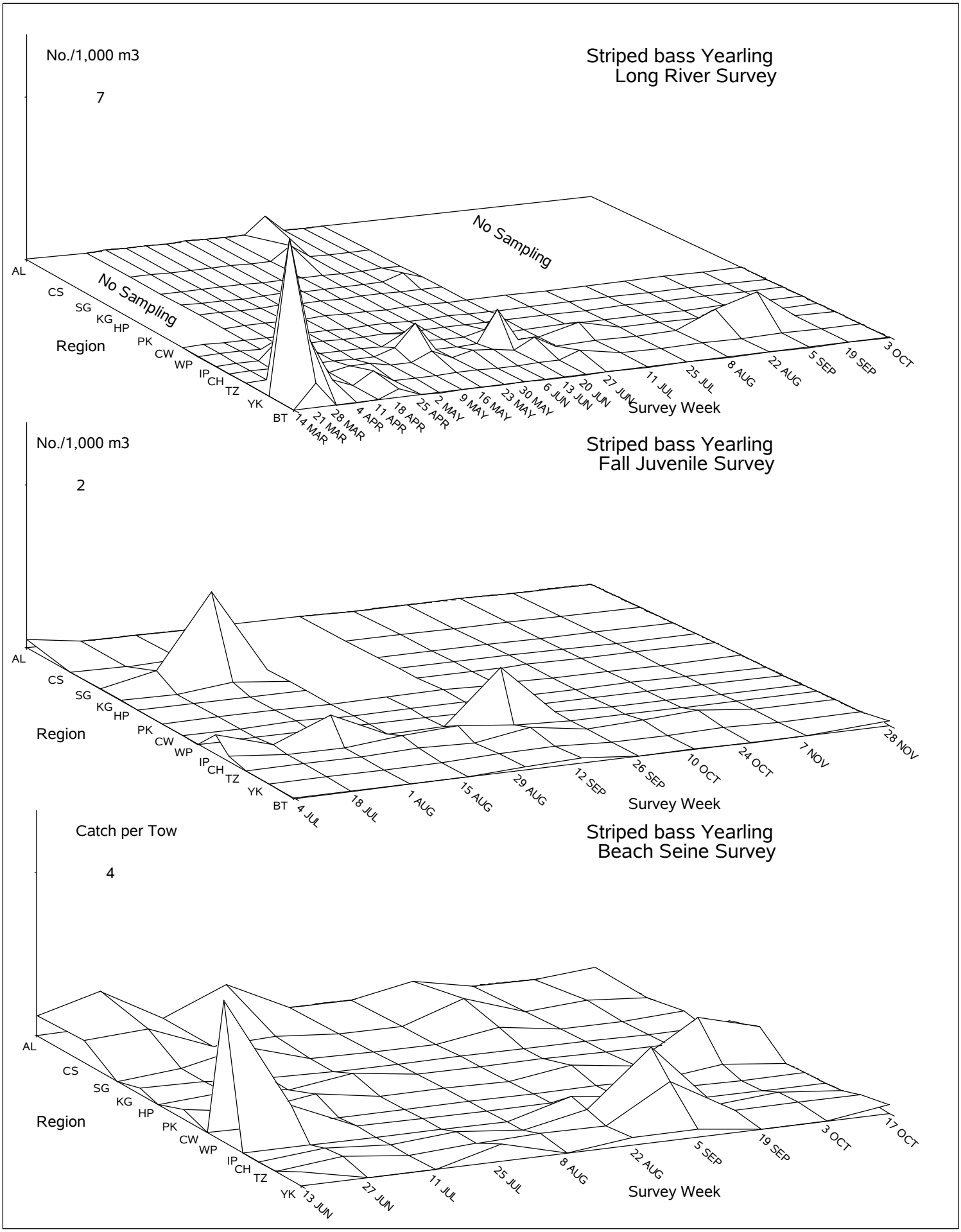


Figure 4-3. Spatiotemporal distribution of yearling striped bass in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

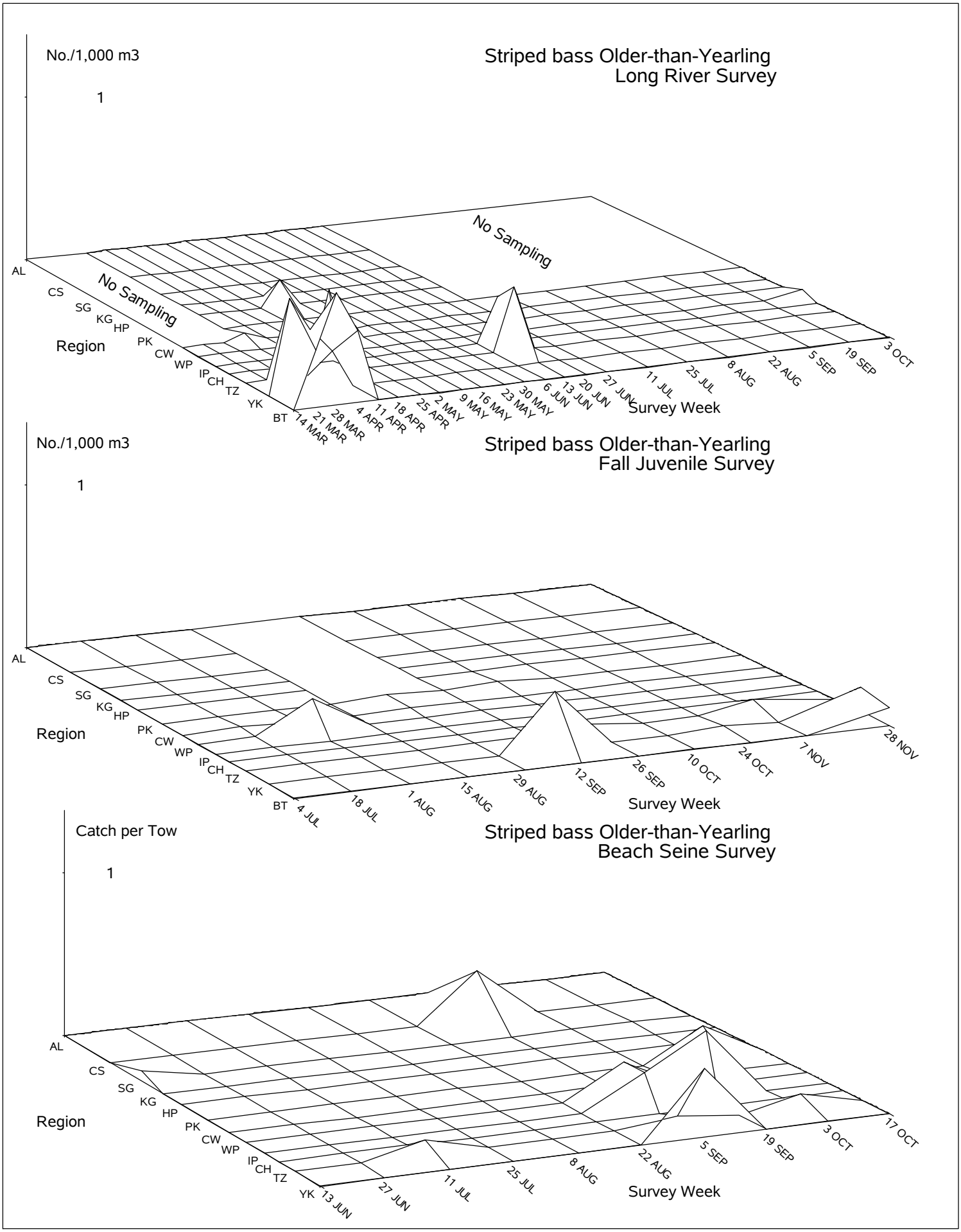


Figure 4-4. Spatiotemporal distribution of older-than-yearling striped bass in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

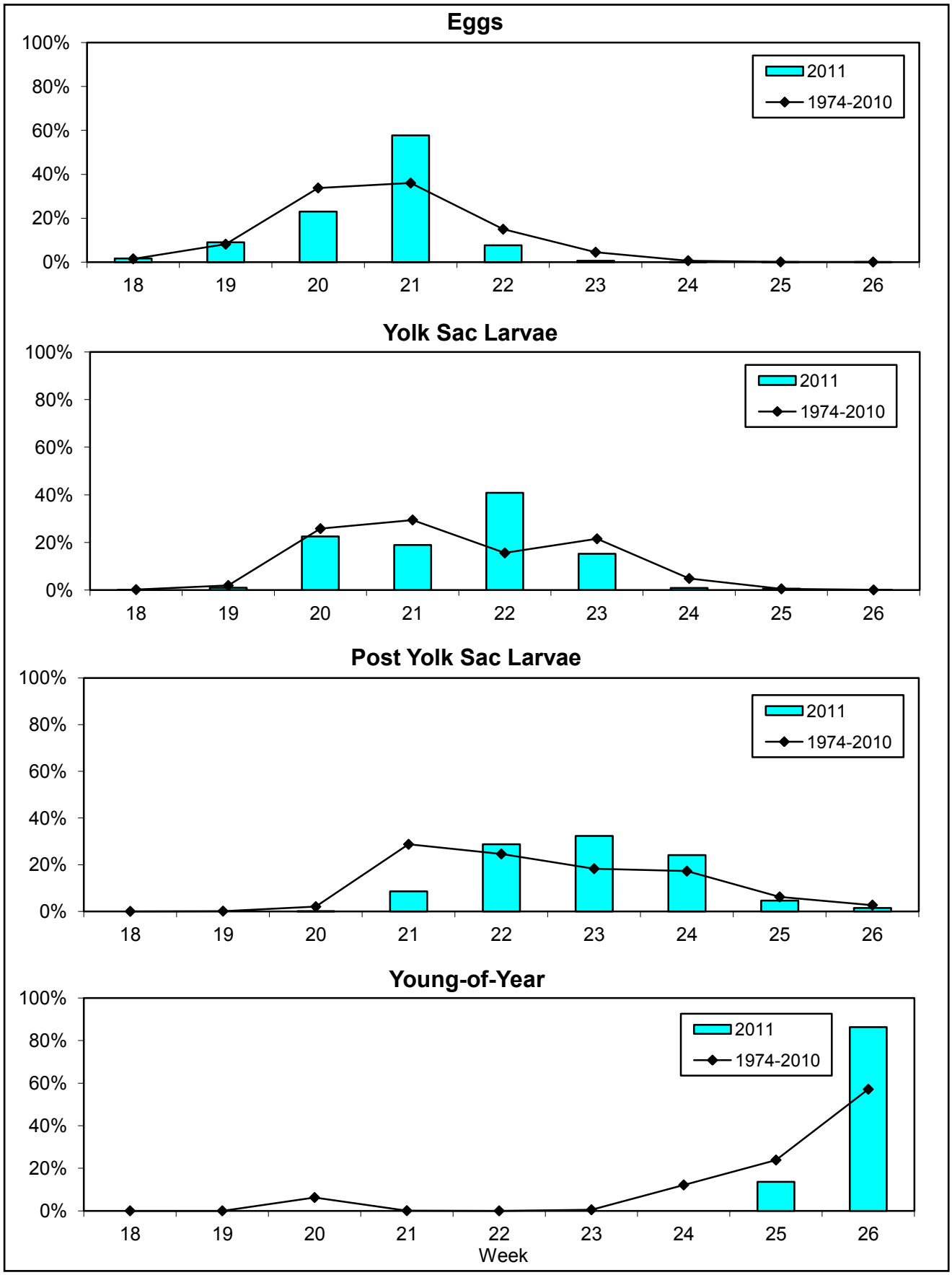


Figure 4-5. Temporal distribution indices for striped bass collected during Long River surveys of the Hudson River estuary, 1974-2011.

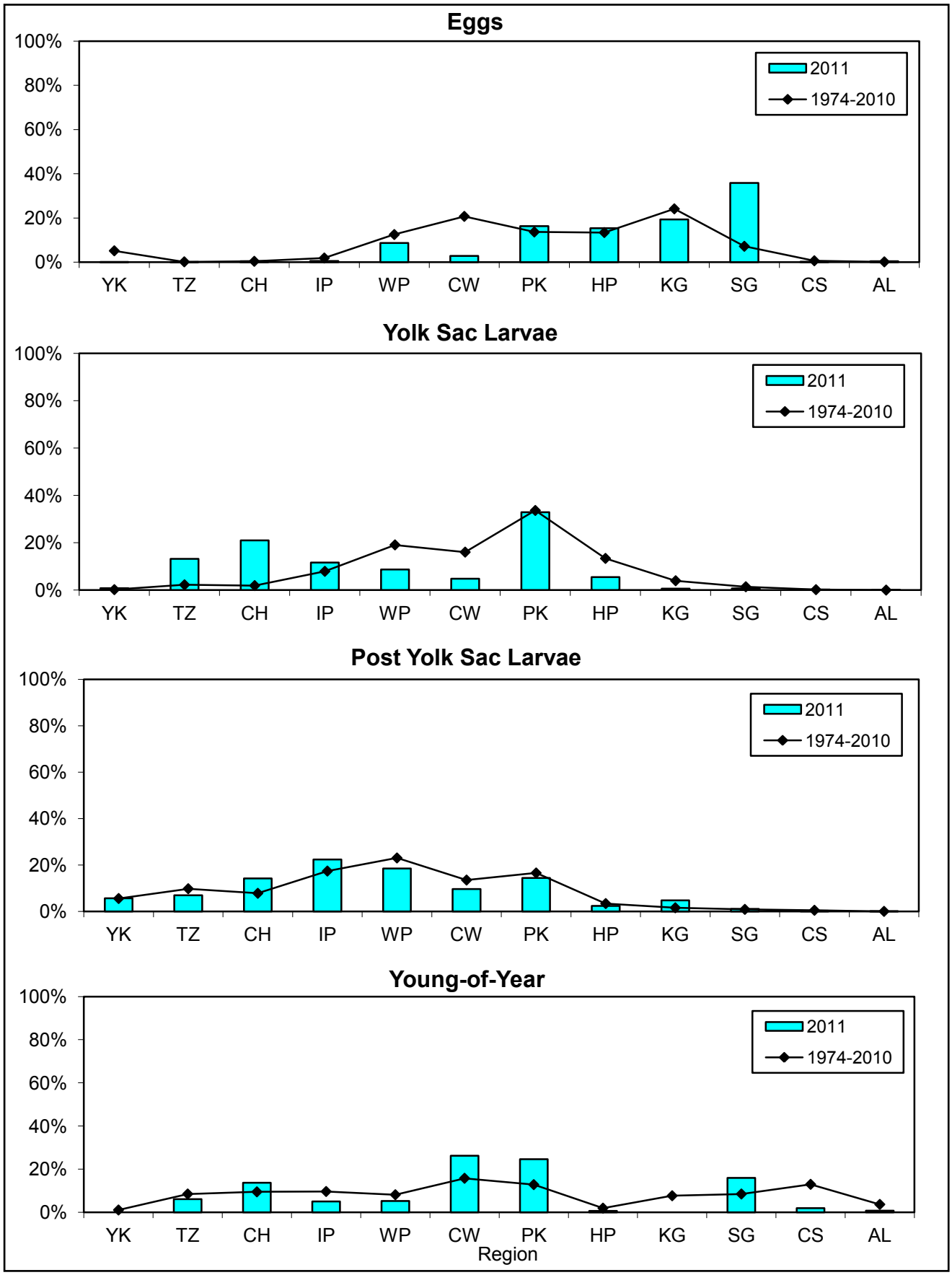


Figure 4-6. Geographic distribution indices for striped bass collected during Long River surveys of the Hudson River estuary, 1974-2011.

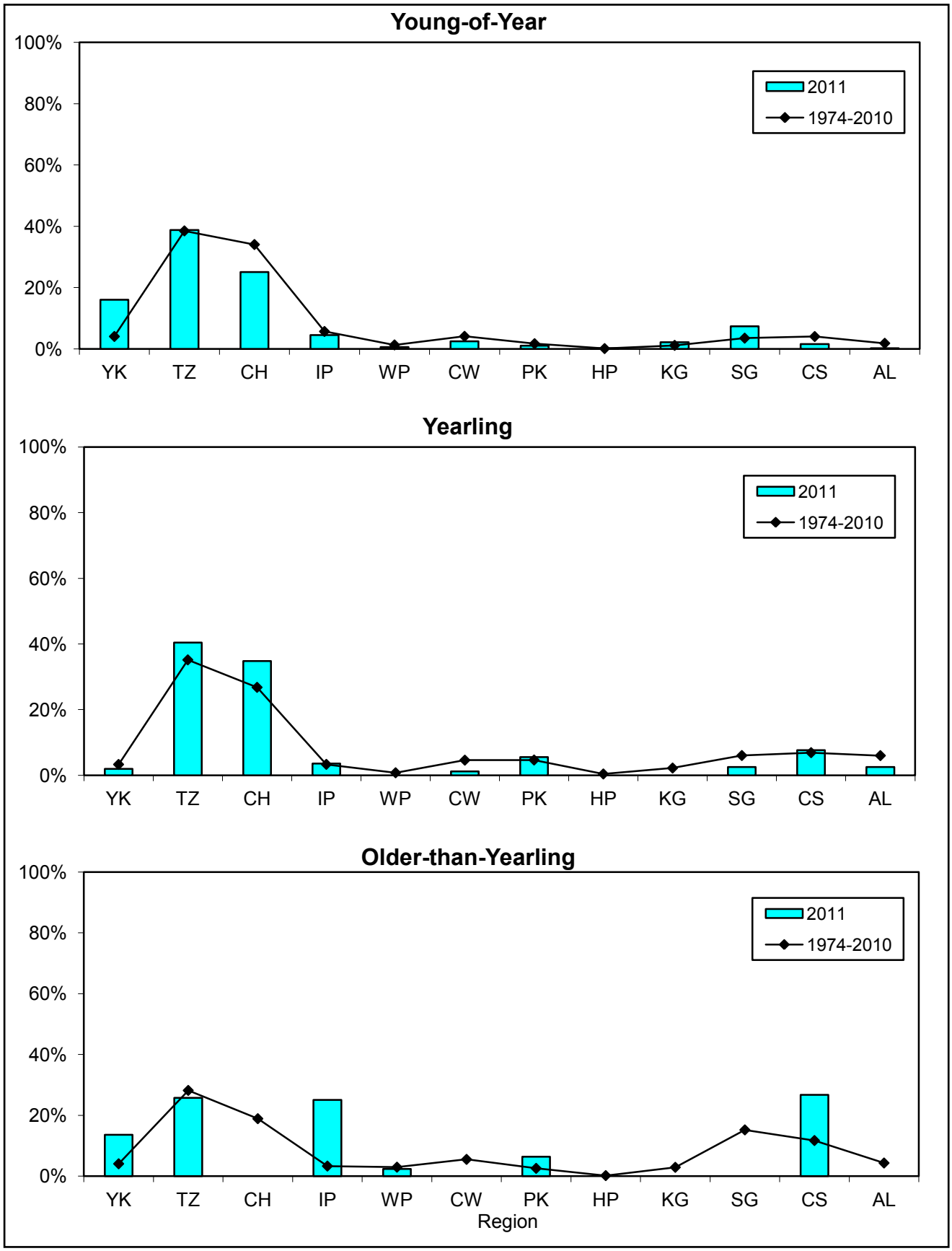


Figure 4-7. Geographic distribution indices for striped bass collected during Beach Seine surveys of the Hudson River estuary, 1974-2011.

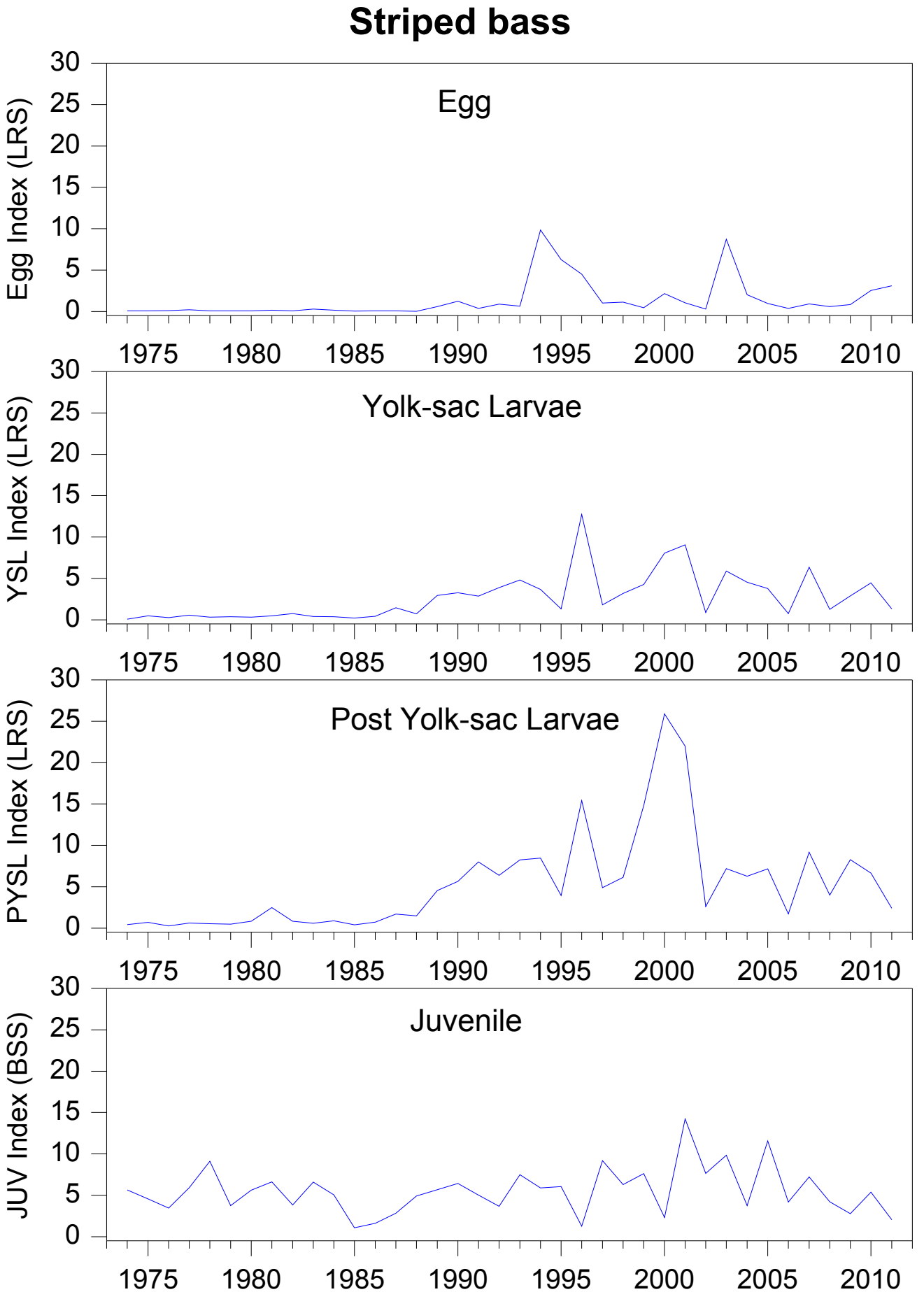


Figure 4-8. Striped bass indices of annual abundance based on Long River Survey and Beach Seine Survey, 1974-2011.

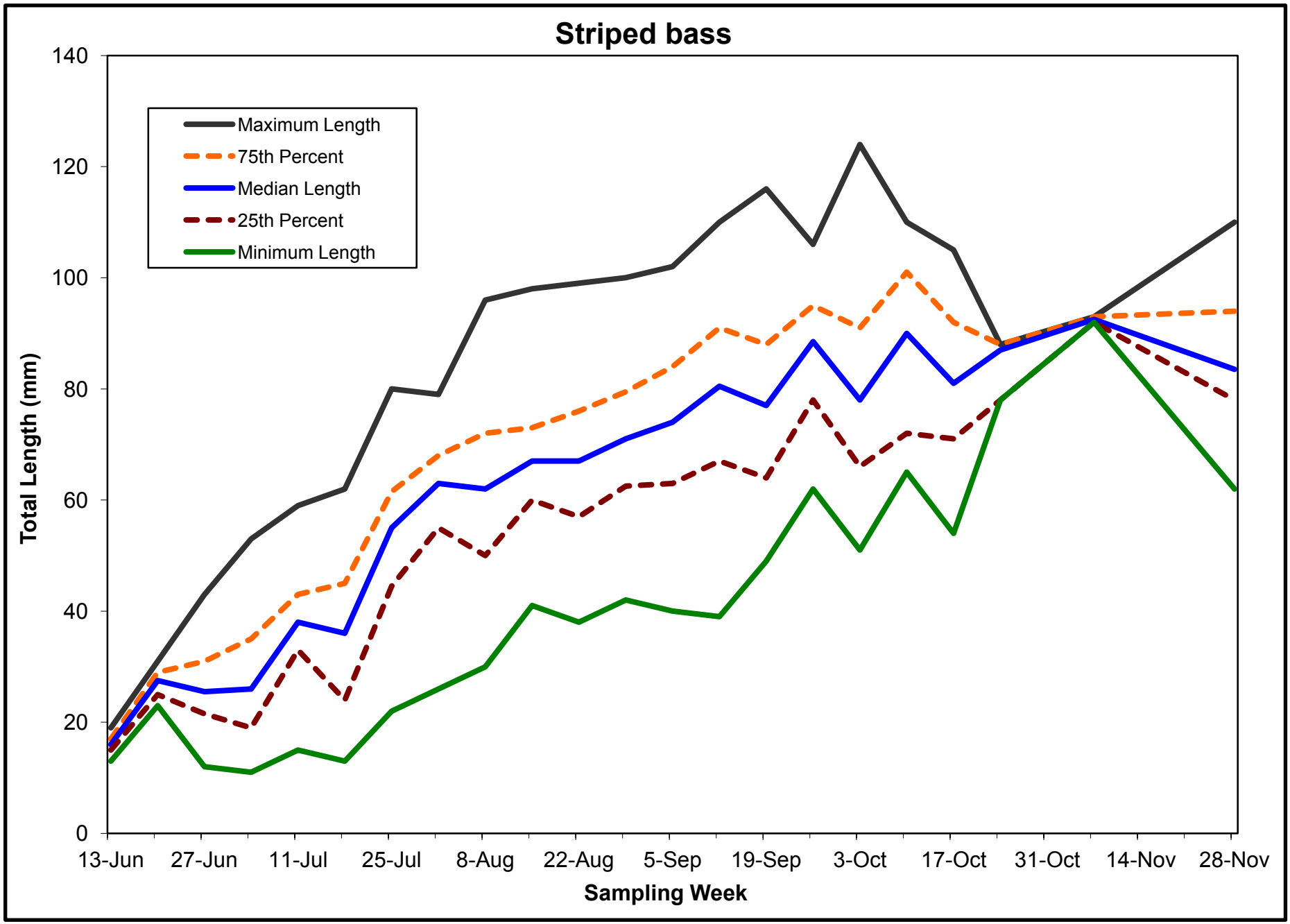


Figure 4-9. Weekly length statistics for young-of-year striped bass in the Hudson River estuary, 2011.

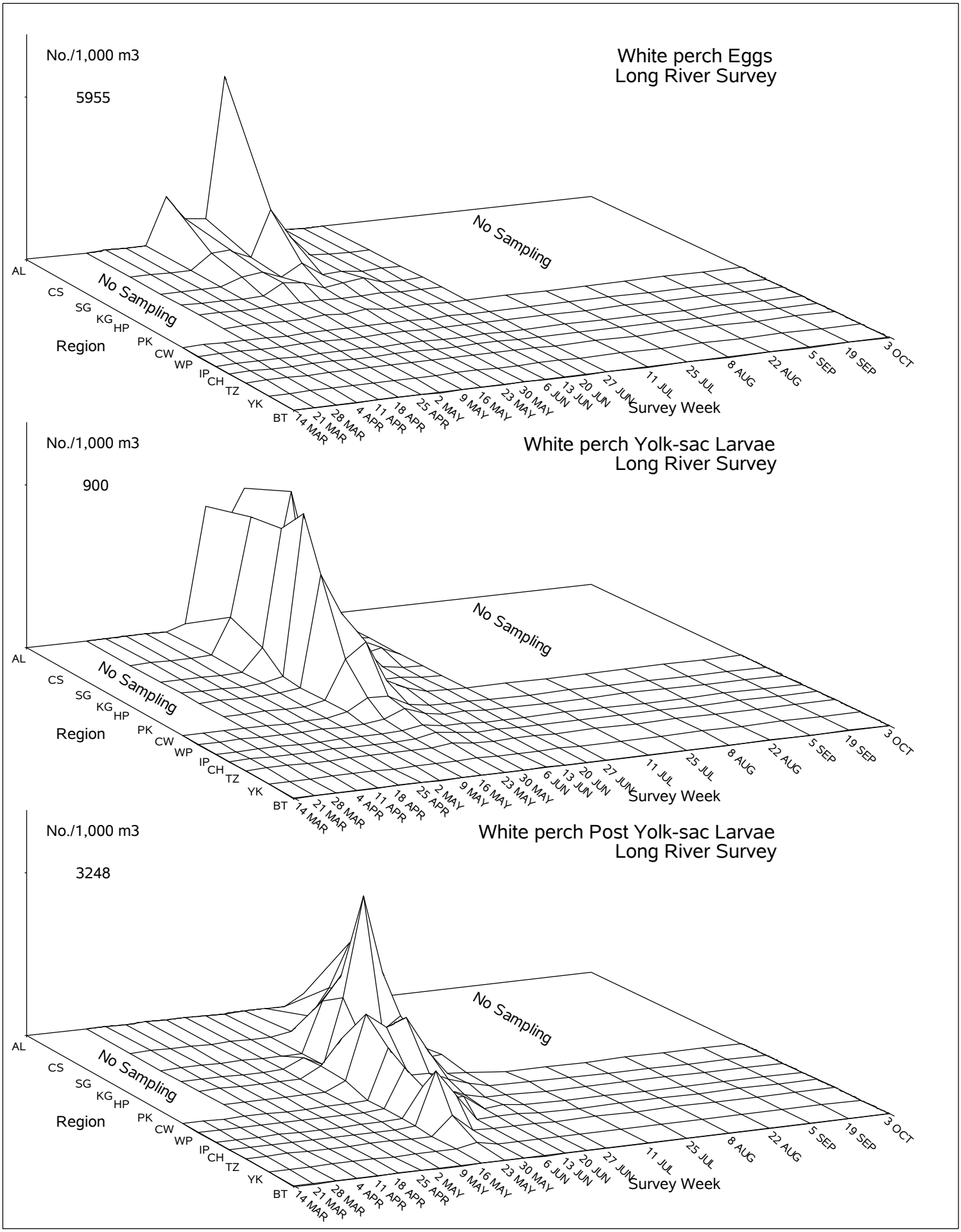


Figure 4-10. Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval white perch in the Hudson River estuary based on the 2011 Long River Survey.

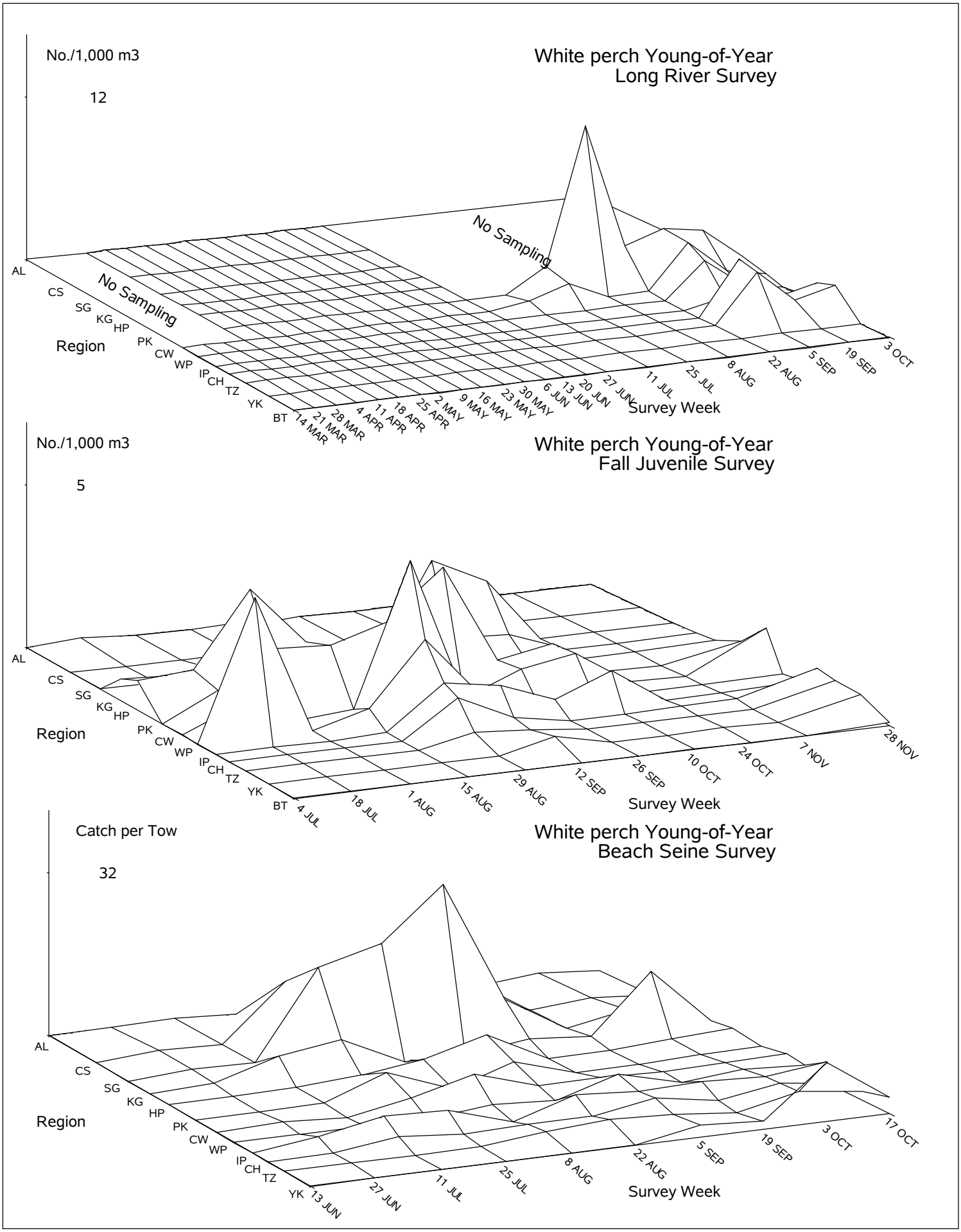


Figure 4-11. Spatiotemporal distribution of young-of-year white perch in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

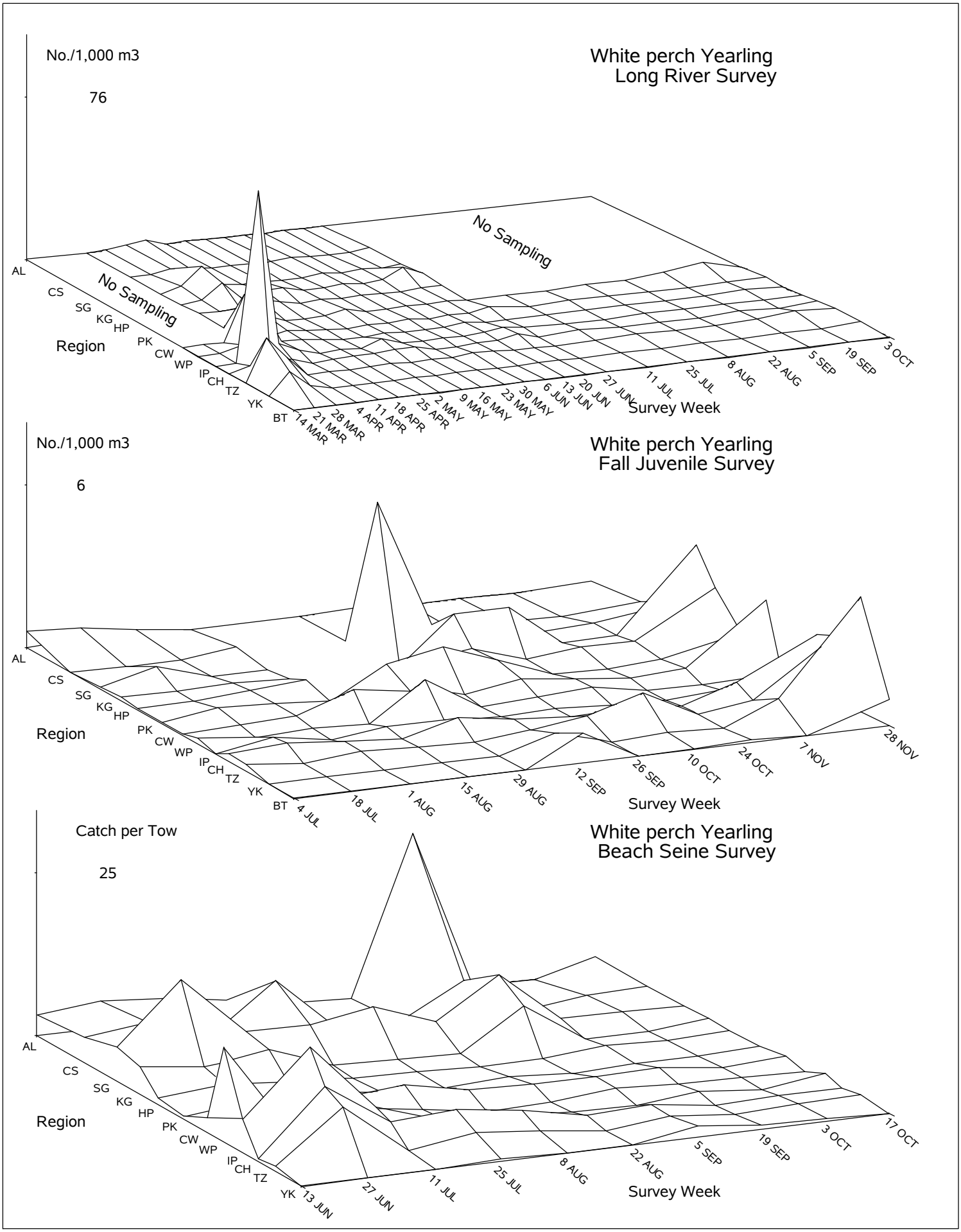


Figure 4-12. Spatiotemporal distribution of yearling white perch in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

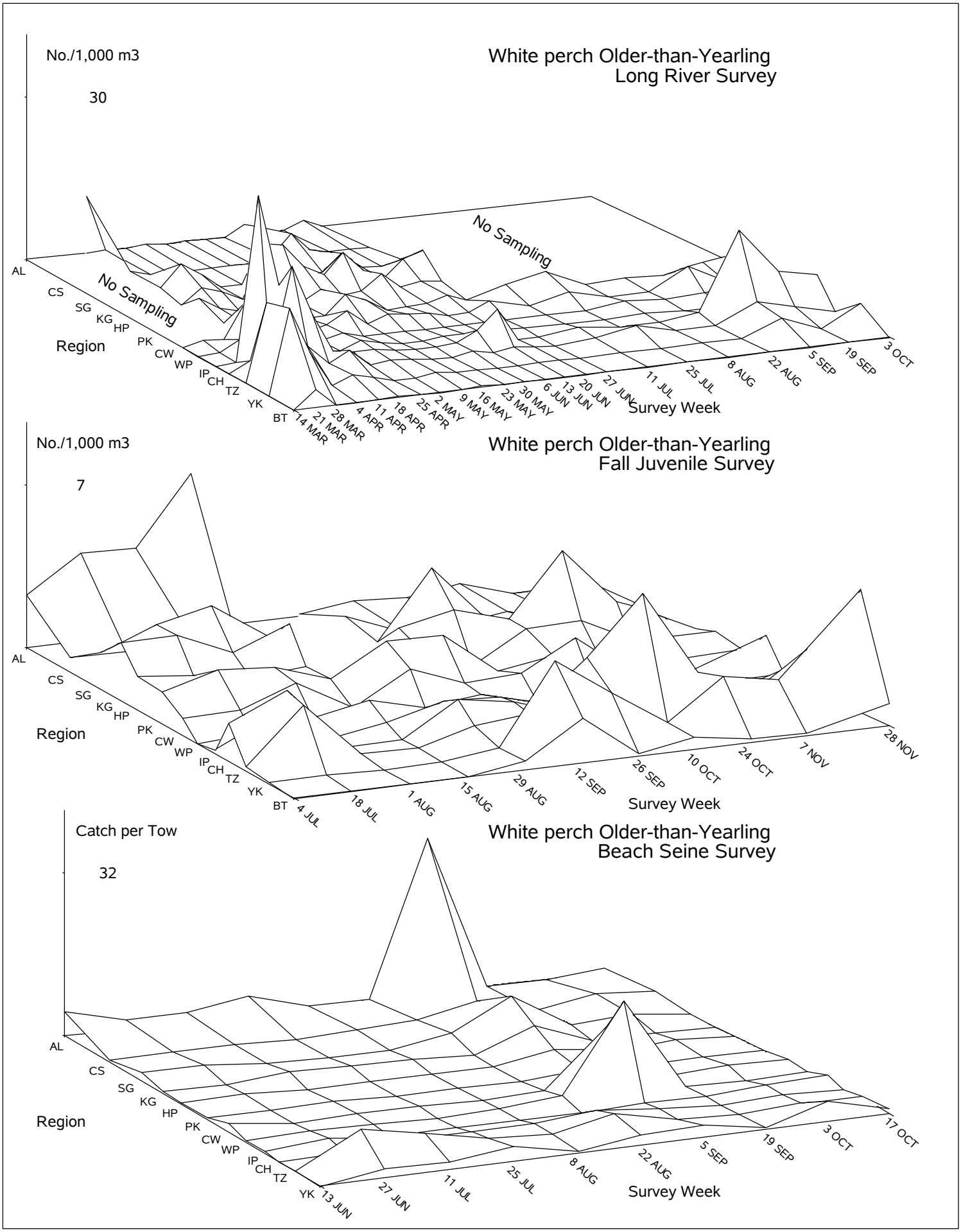


Figure 4-13. Spatiotemporal distribution of older-than-yearling white perch in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

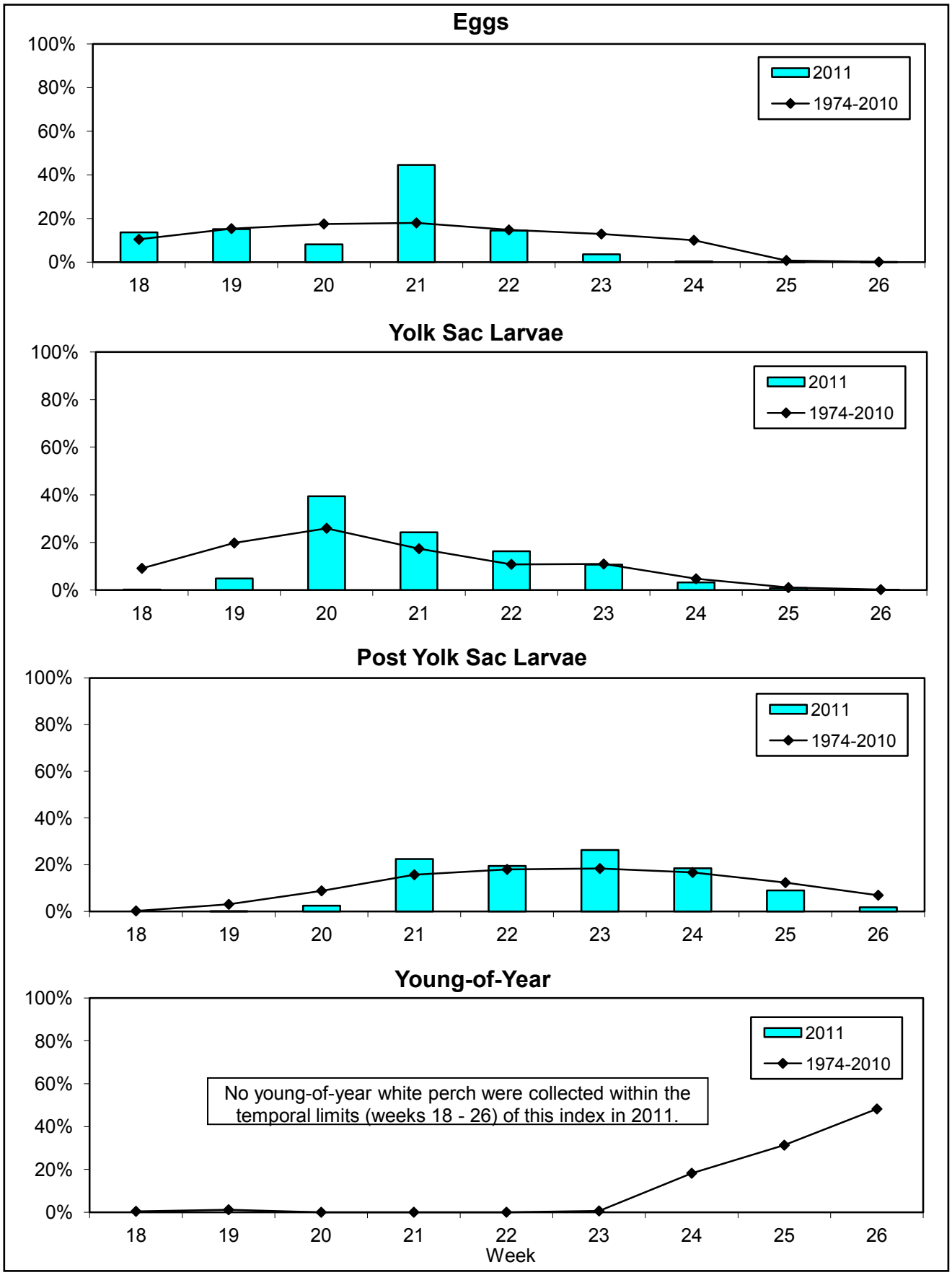


Figure 4-14. Temporal distribution indices for white perch collected during Long River surveys of the Hudson River estuary, 1974-2011.

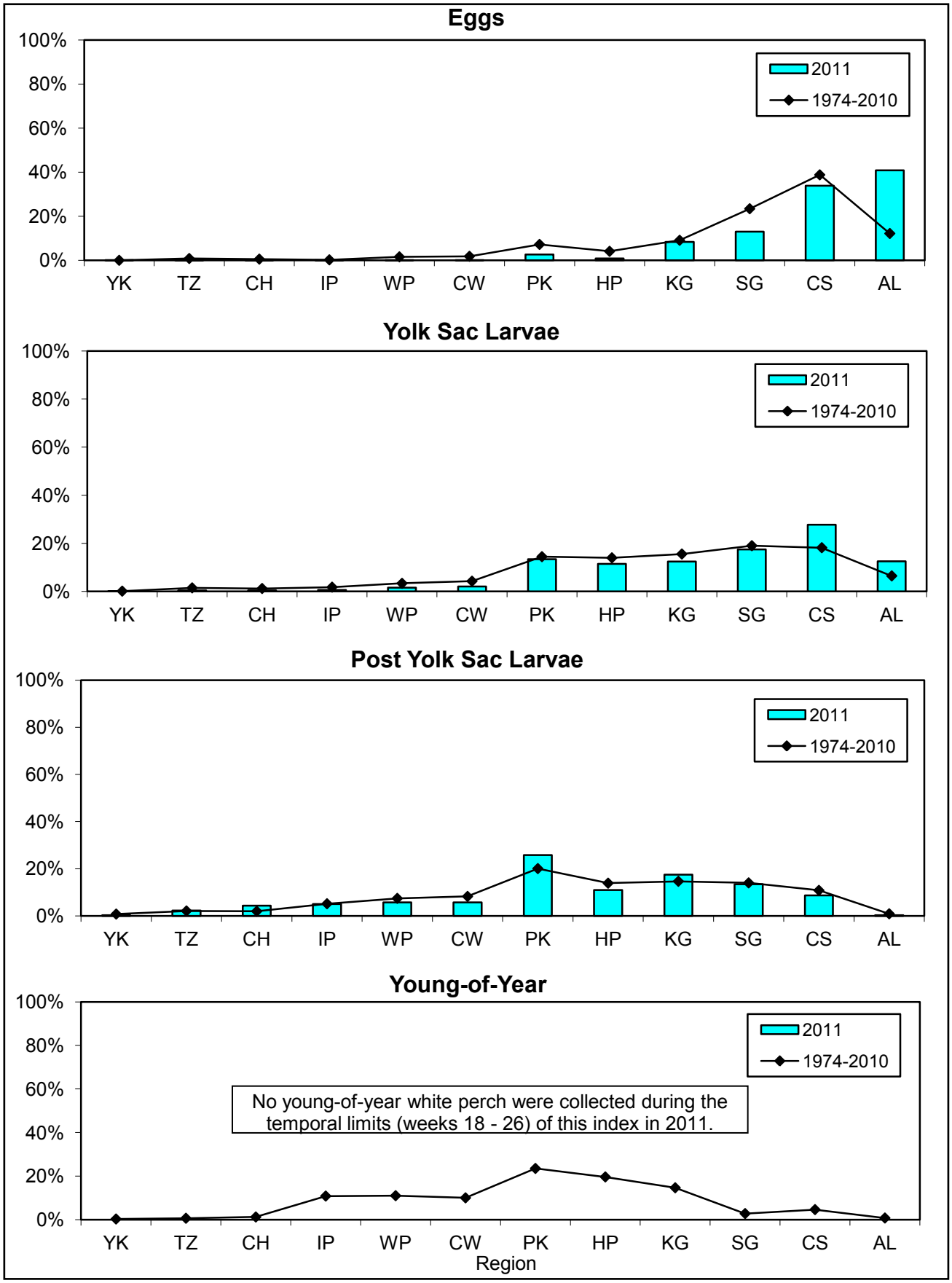


Figure 4-15. Geographic distribution indices for white perch collected during Long River surveys of the Hudson River estuary, 1974-2011.

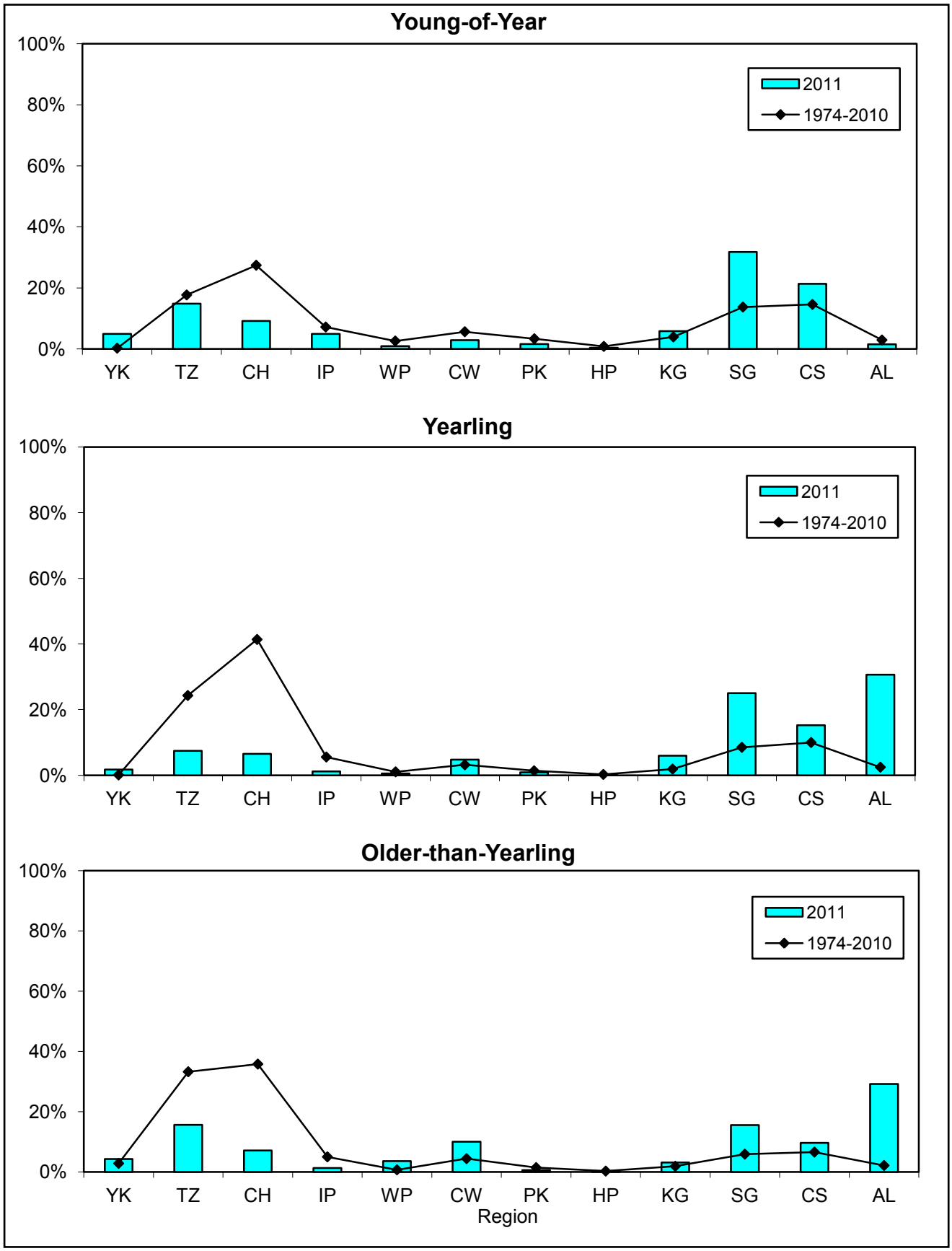


Figure 4-16. Geographic distribution indices for white perch collected during Beach Seine surveys of the Hudson River estuary, 1974-2011.

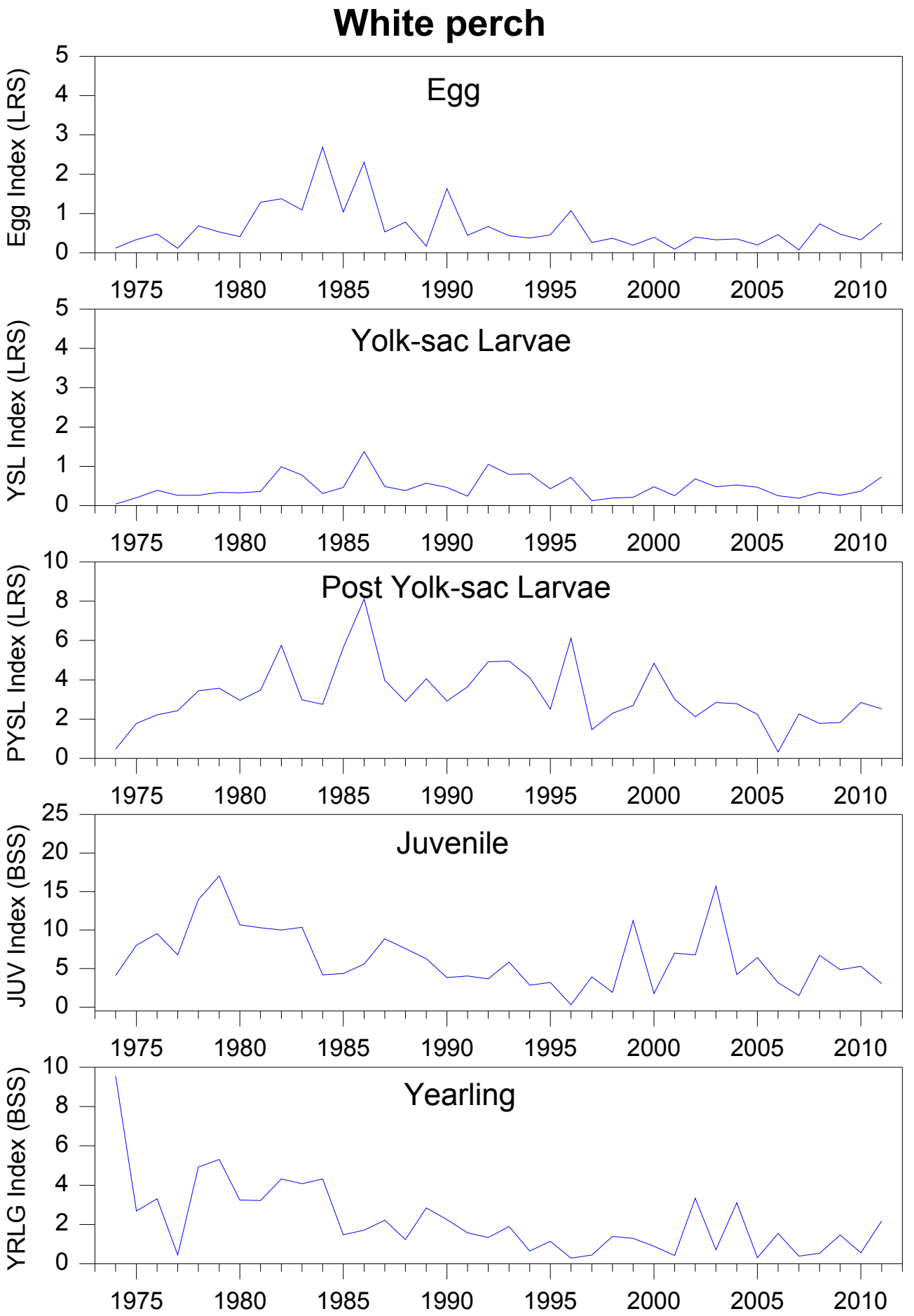


Figure 4-17. White perch indices of annual abundance based on Long River Survey and Beach Seine Survey, 1974-2011.

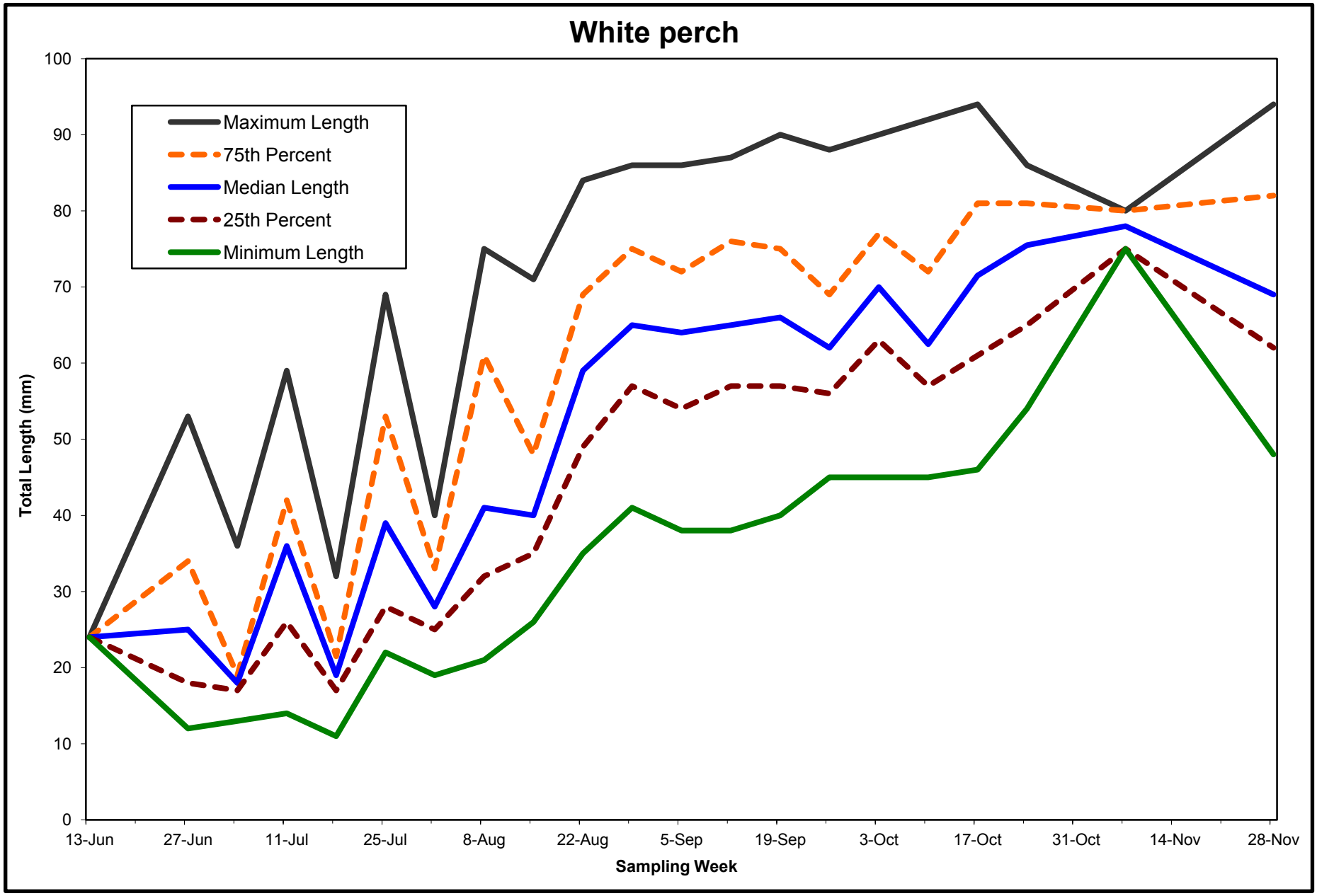


Figure 4-18. Weekly length statistics for young-of-year white perch in the Hudson River estuary, 2011.

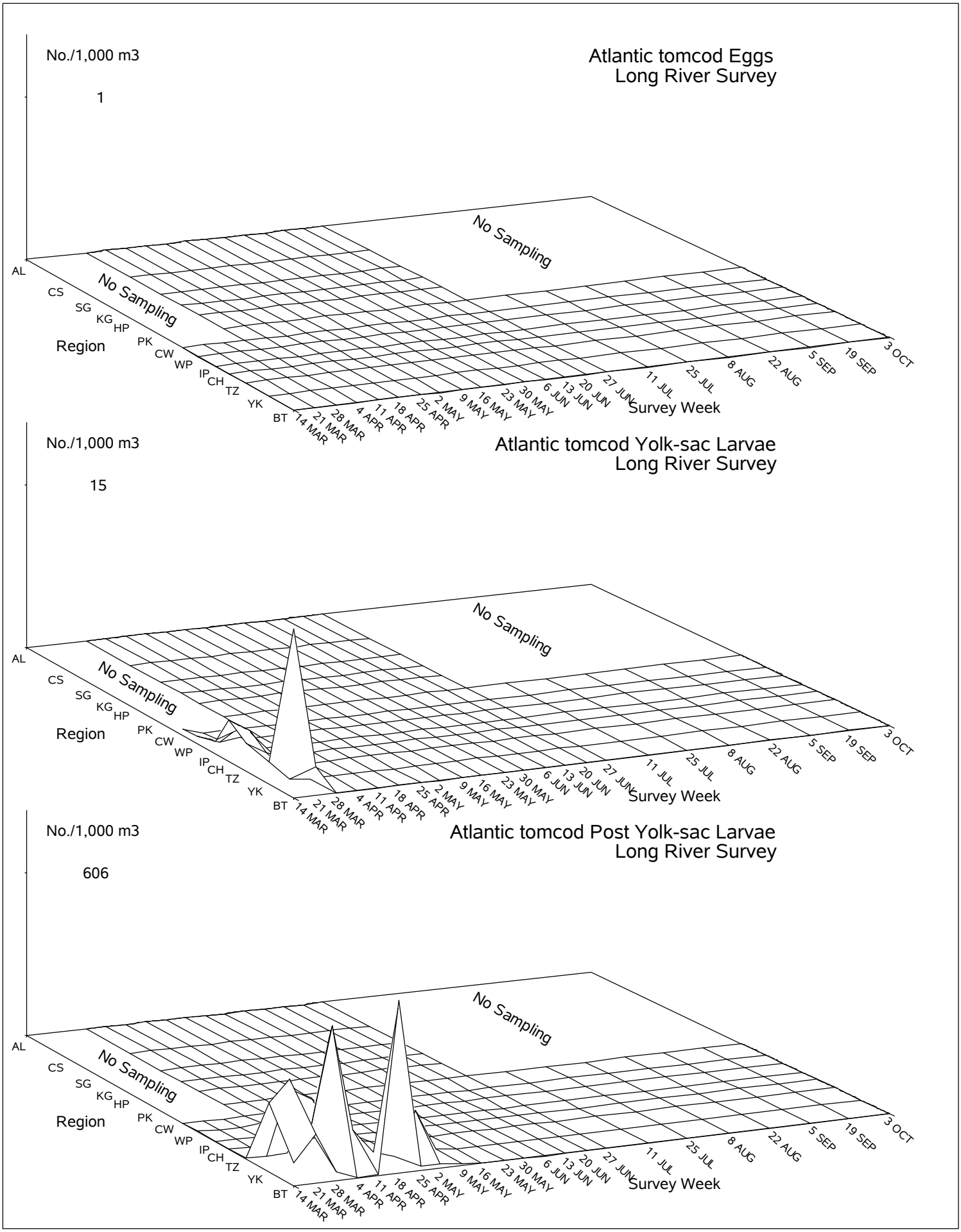


Figure 4-19. Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval Atlantic tomcod in the Hudson River estuary based on the 2011 Long River Survey.

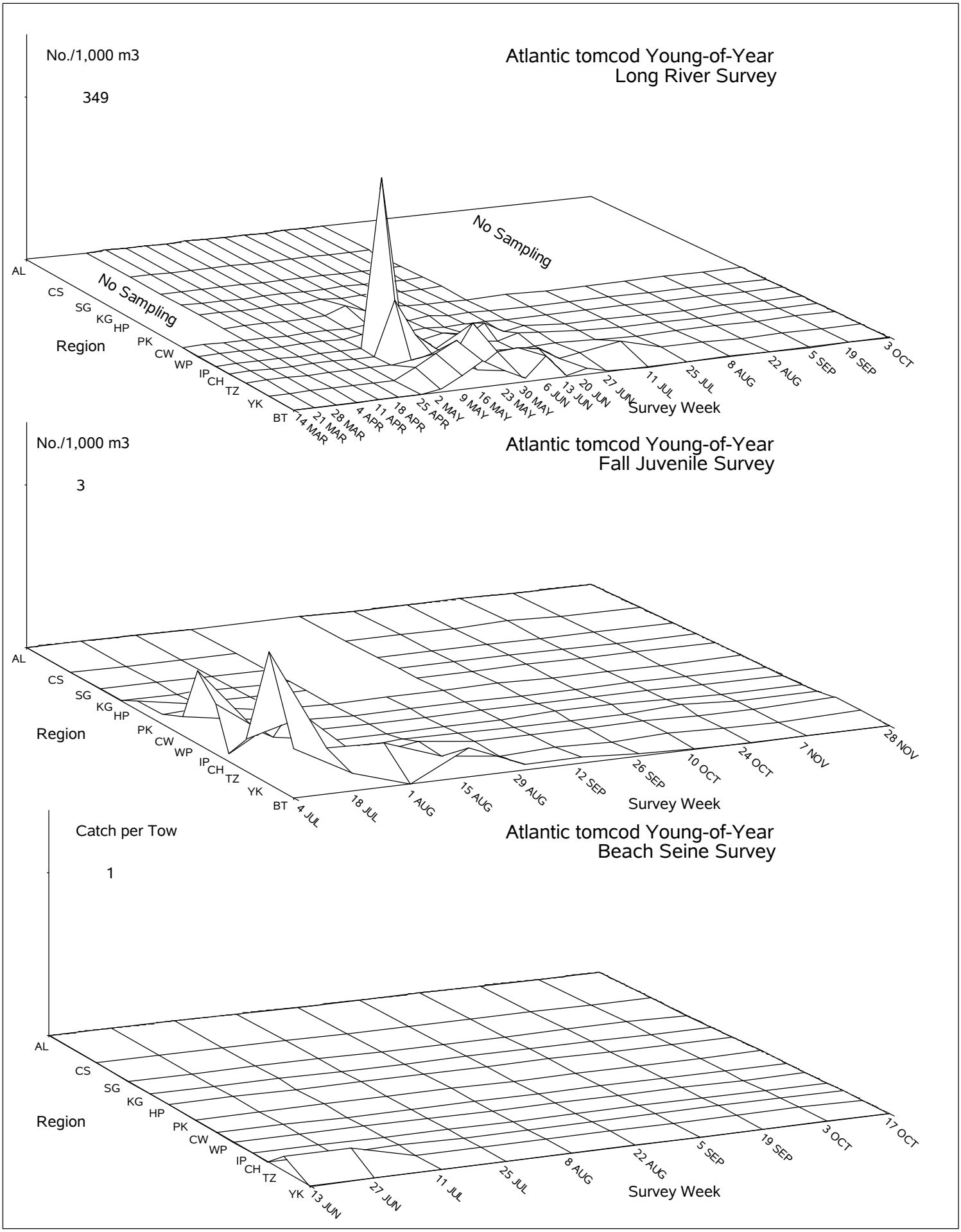


Figure 4-20. Spatiotemporal distribution of young-of-year Atlantic tomcod in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

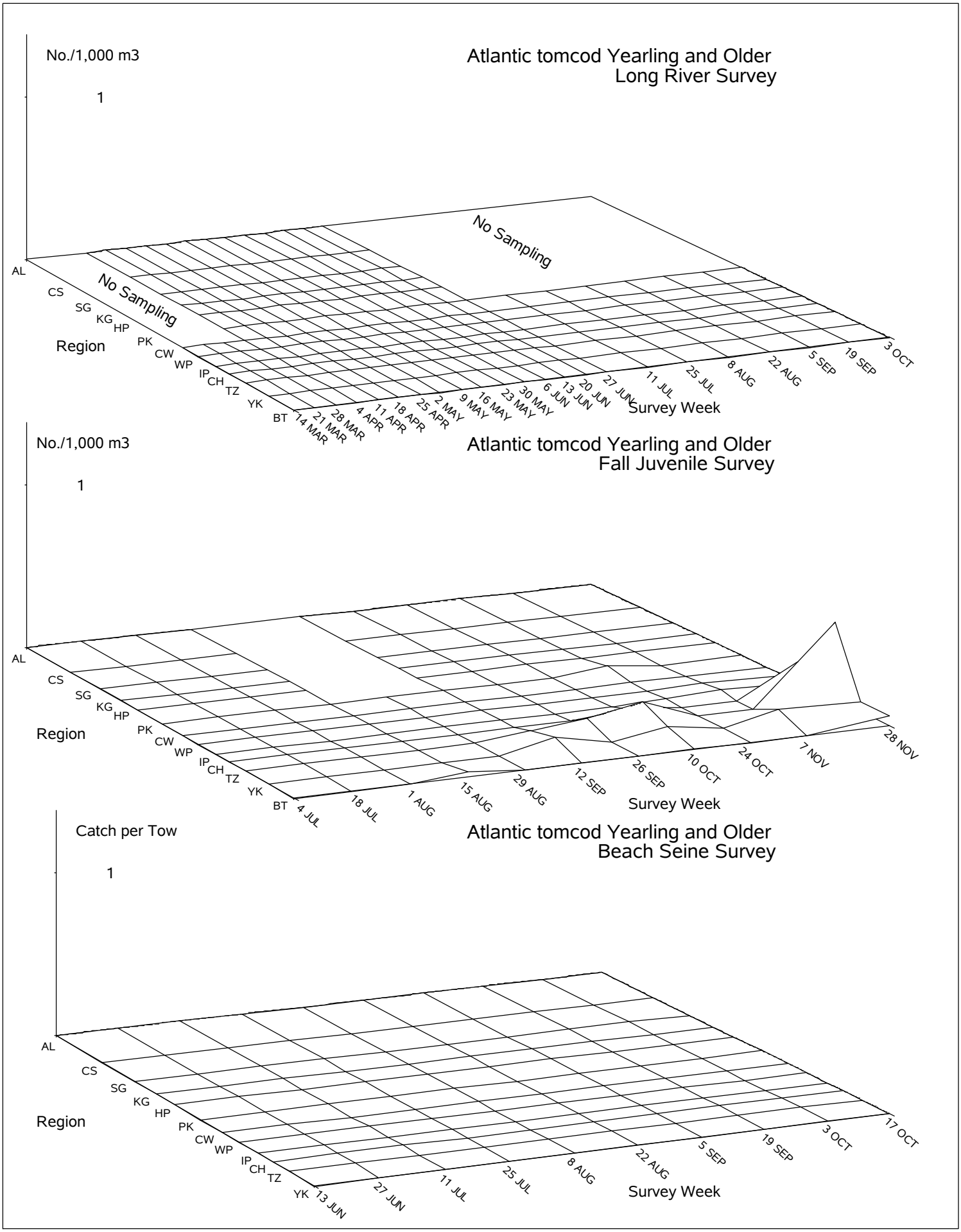


Figure 4-21. Spatiotemporal distribution of yearling and older Atlantic tomcod in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

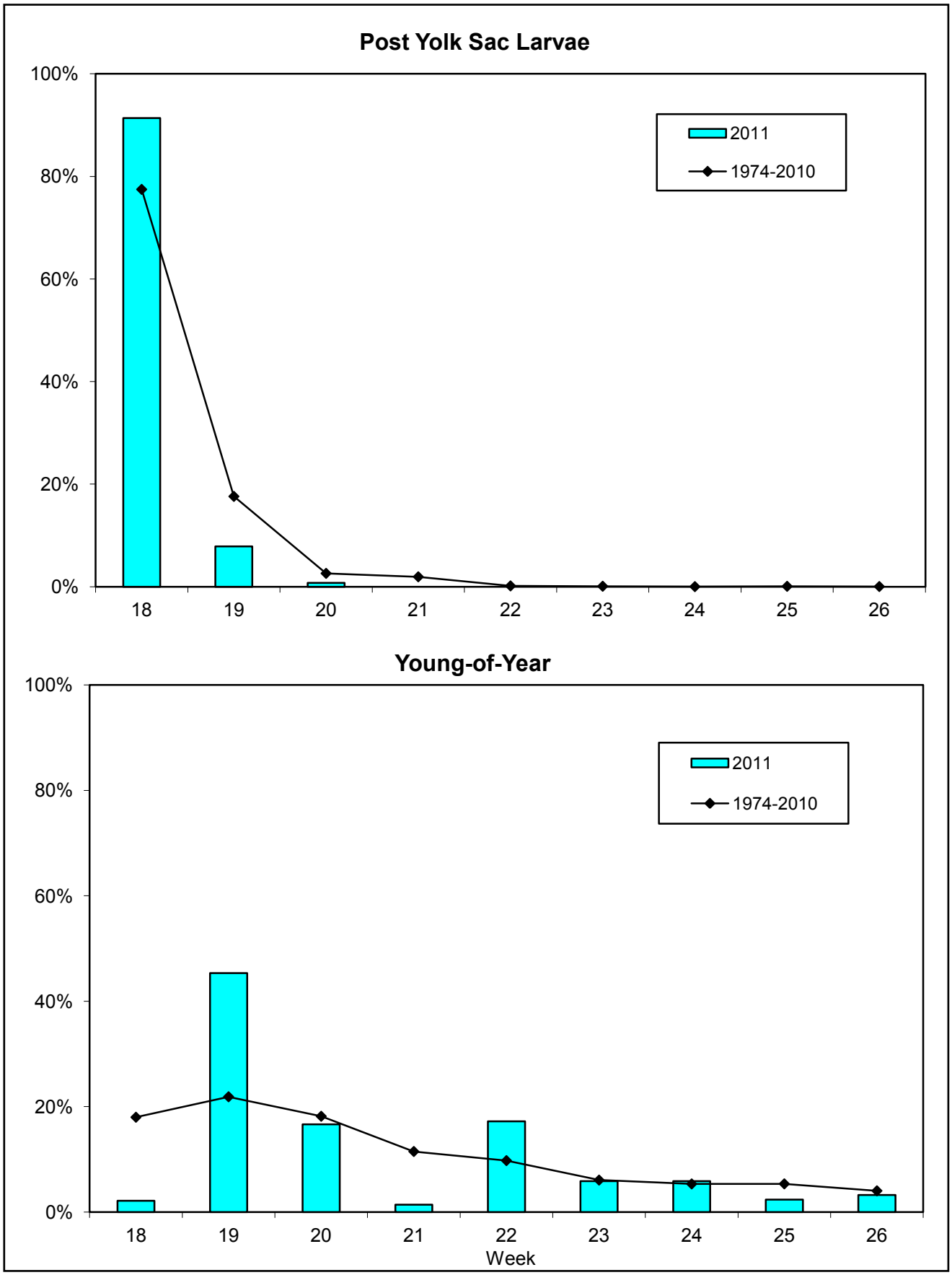


Figure 4-22. Temporal distribution indices for Atlantic tomcod collected during Long River surveys of the Hudson River estuary, 1974-2011.

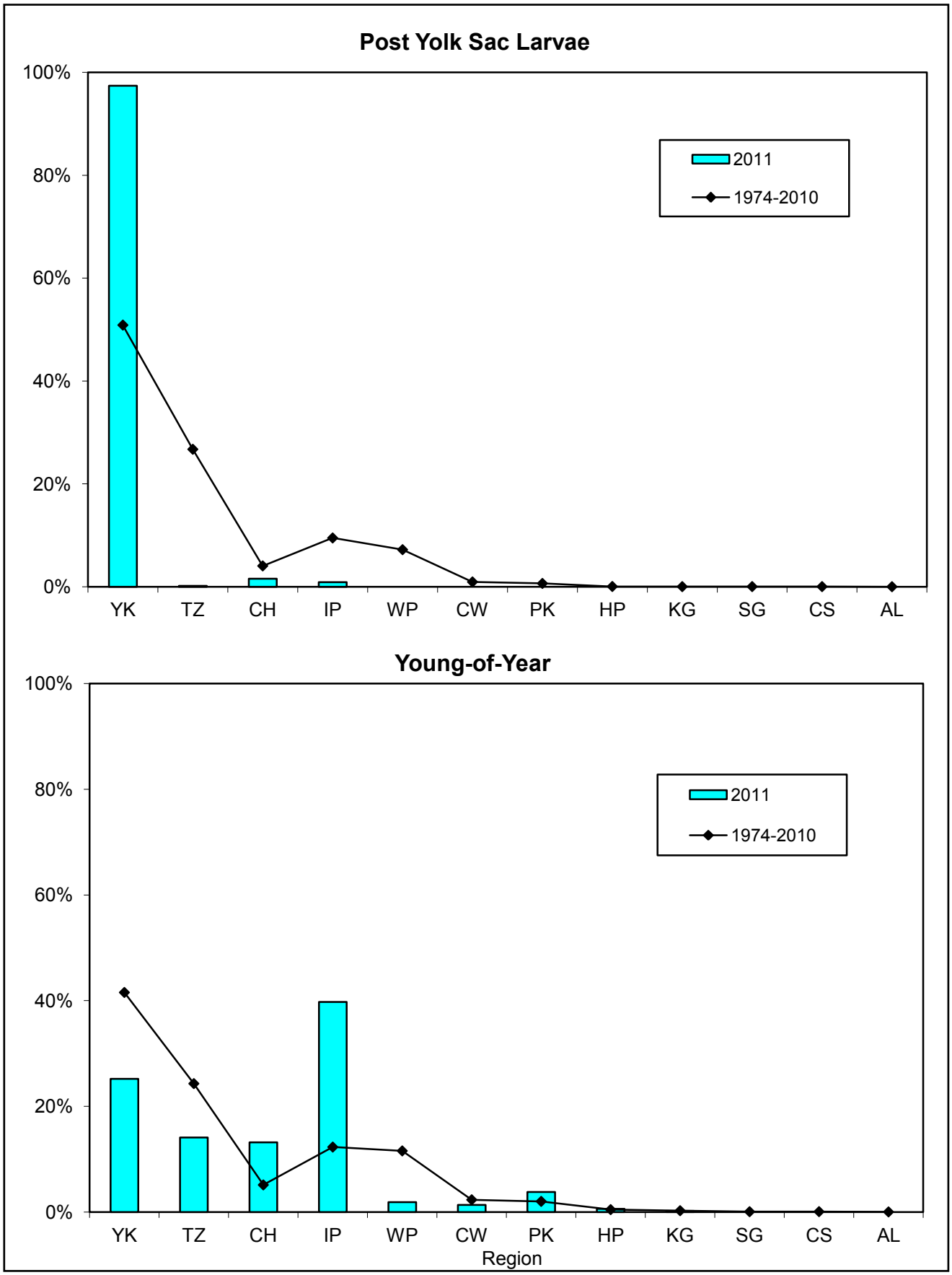


Figure 4-23. Geographic distribution indices for Atlantic tomcod collected during Long River surveys of the Hudson River estuary, 1974-2011.

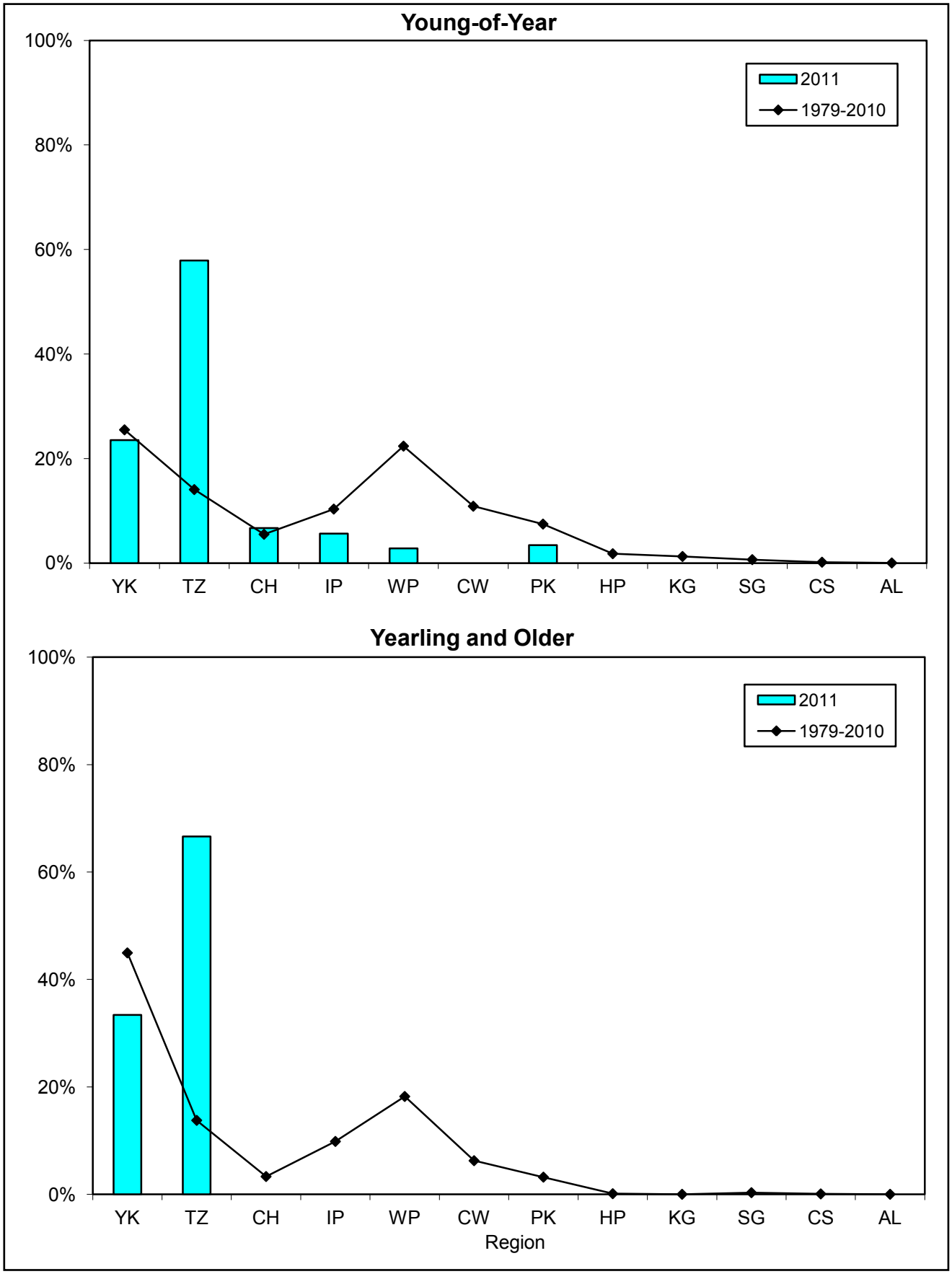


Figure 4-24. Geographic distribution indices for Atlantic tomcod collected during Fall Juvenile surveys of the Hudson River estuary, 1979-2011.

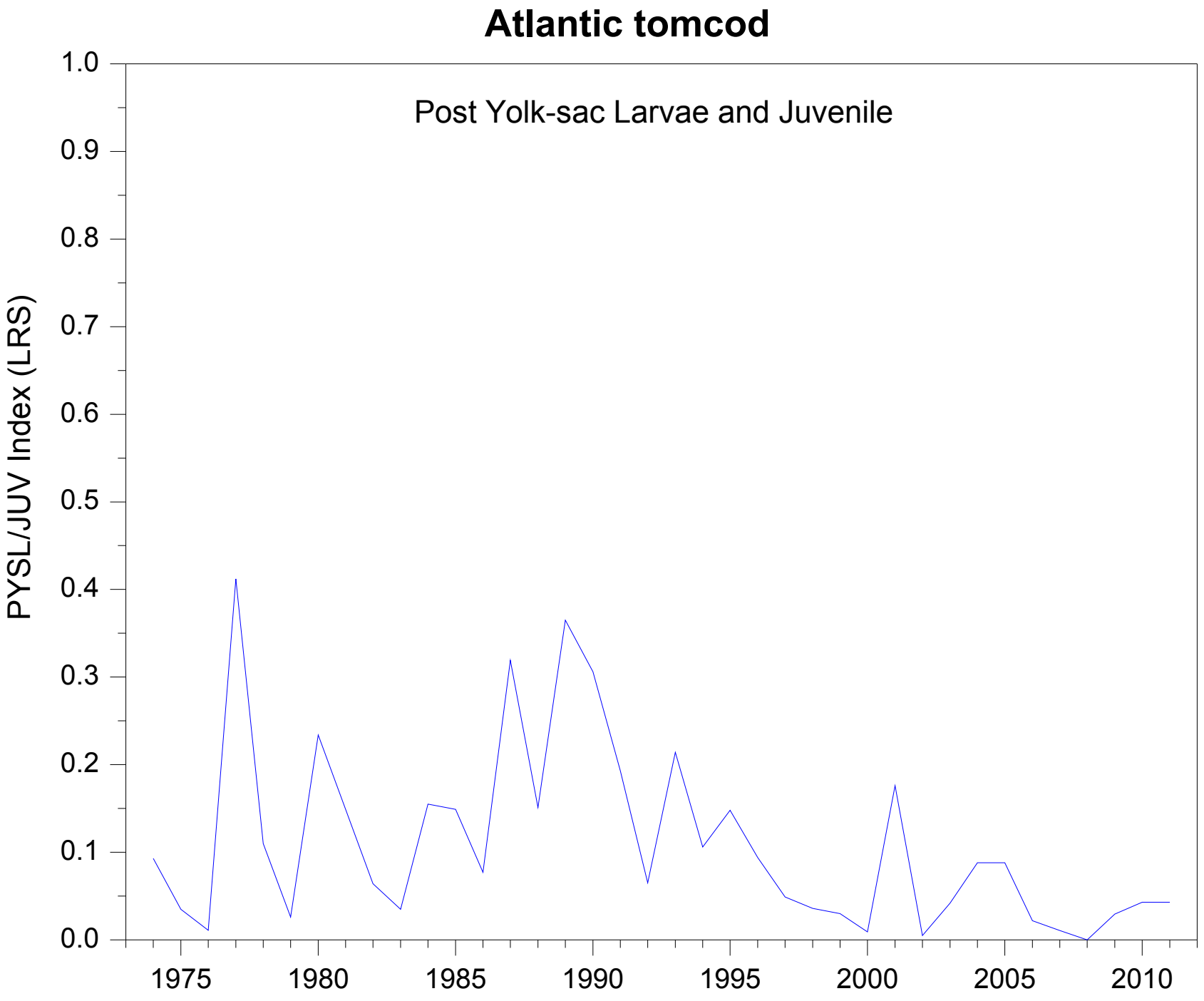


Figure 4-25. Atlantic tomcod indices of annual abundance based on Long River Survey, 1974-2011.

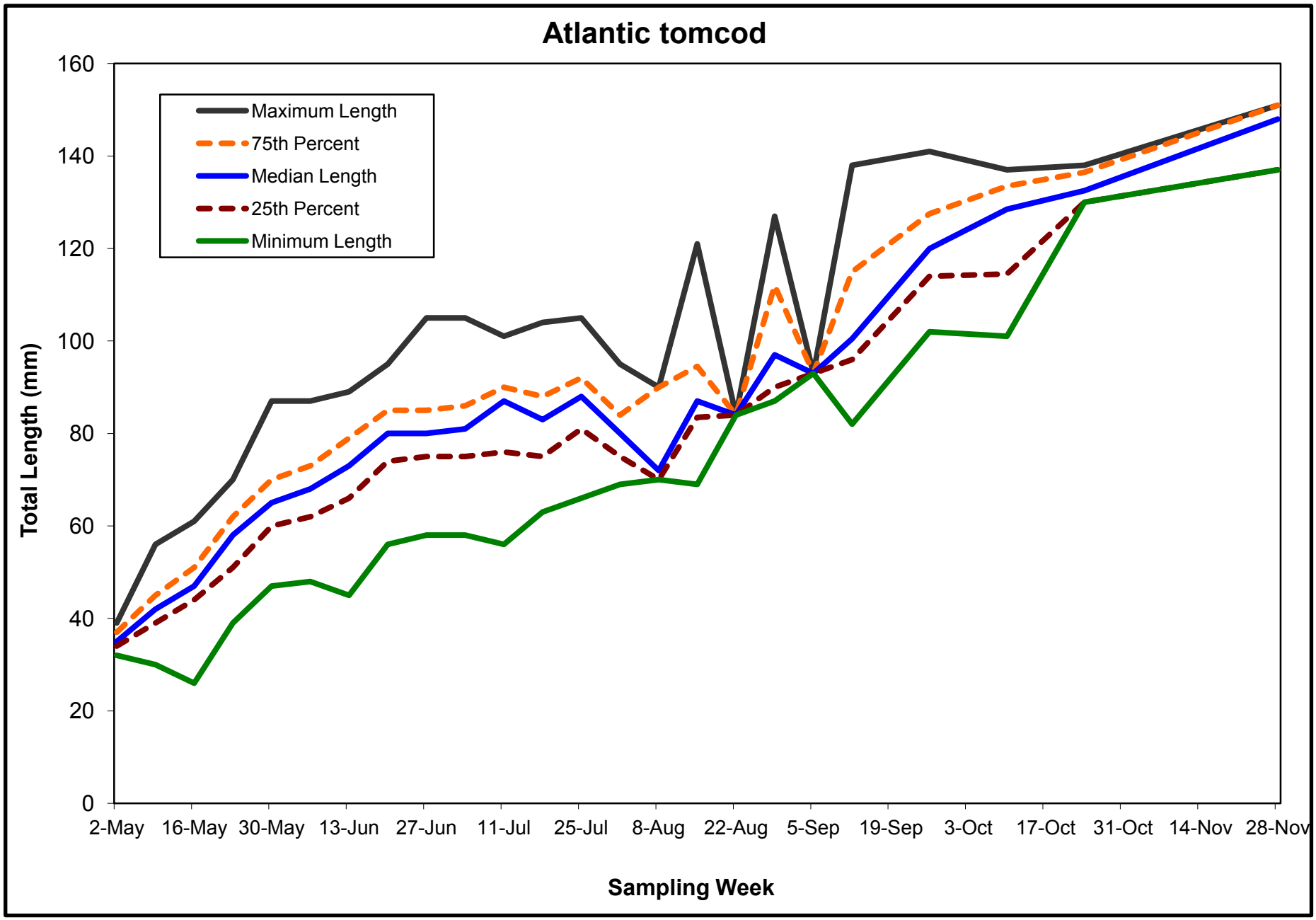


Figure 4-26. Weekly length statistics for young-of-year Atlantic tomcod in the Hudson River estuary, 2011.

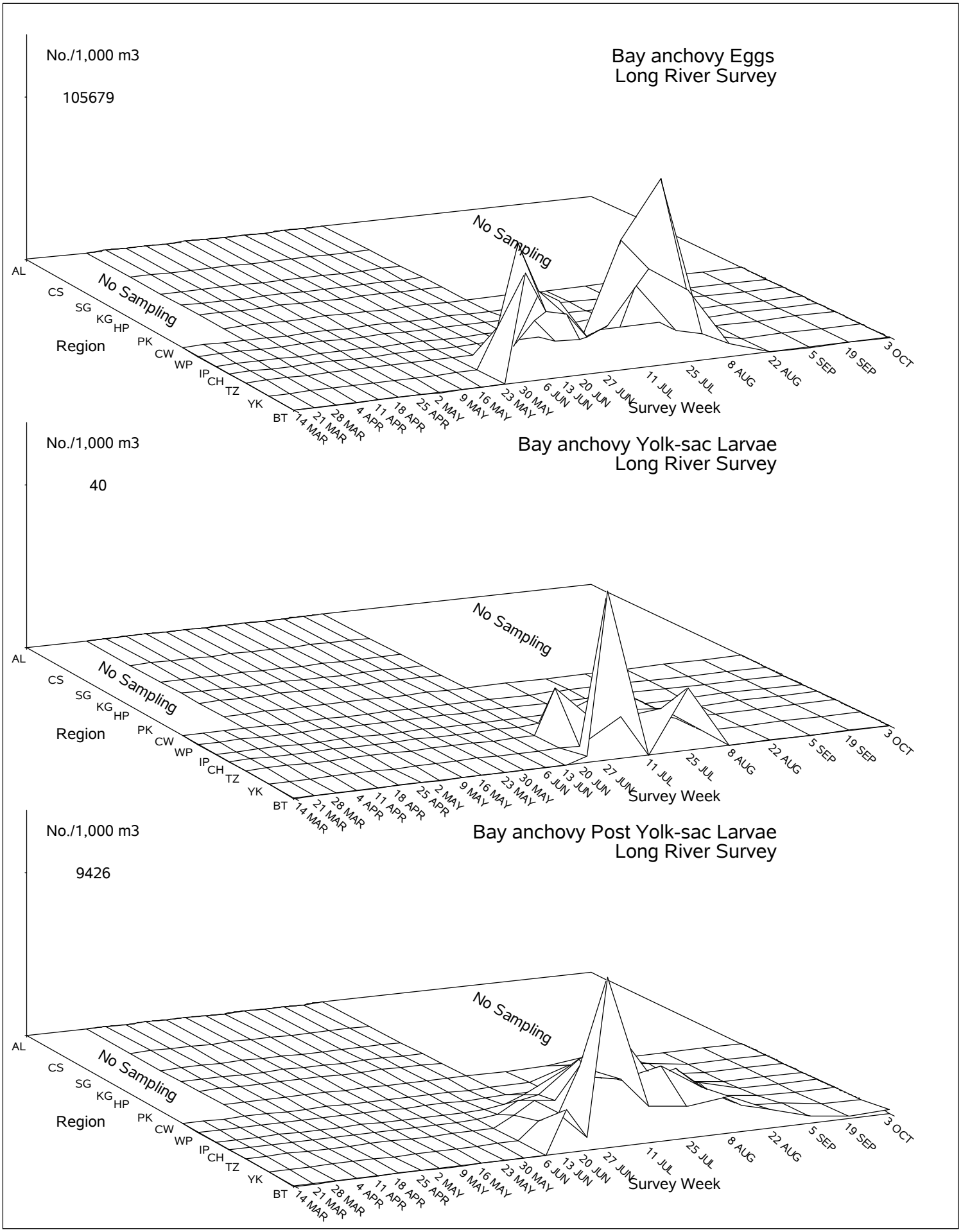


Figure 4-27. Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval bay anchovy in the Hudson River estuary based on the 2011 Long River Survey.

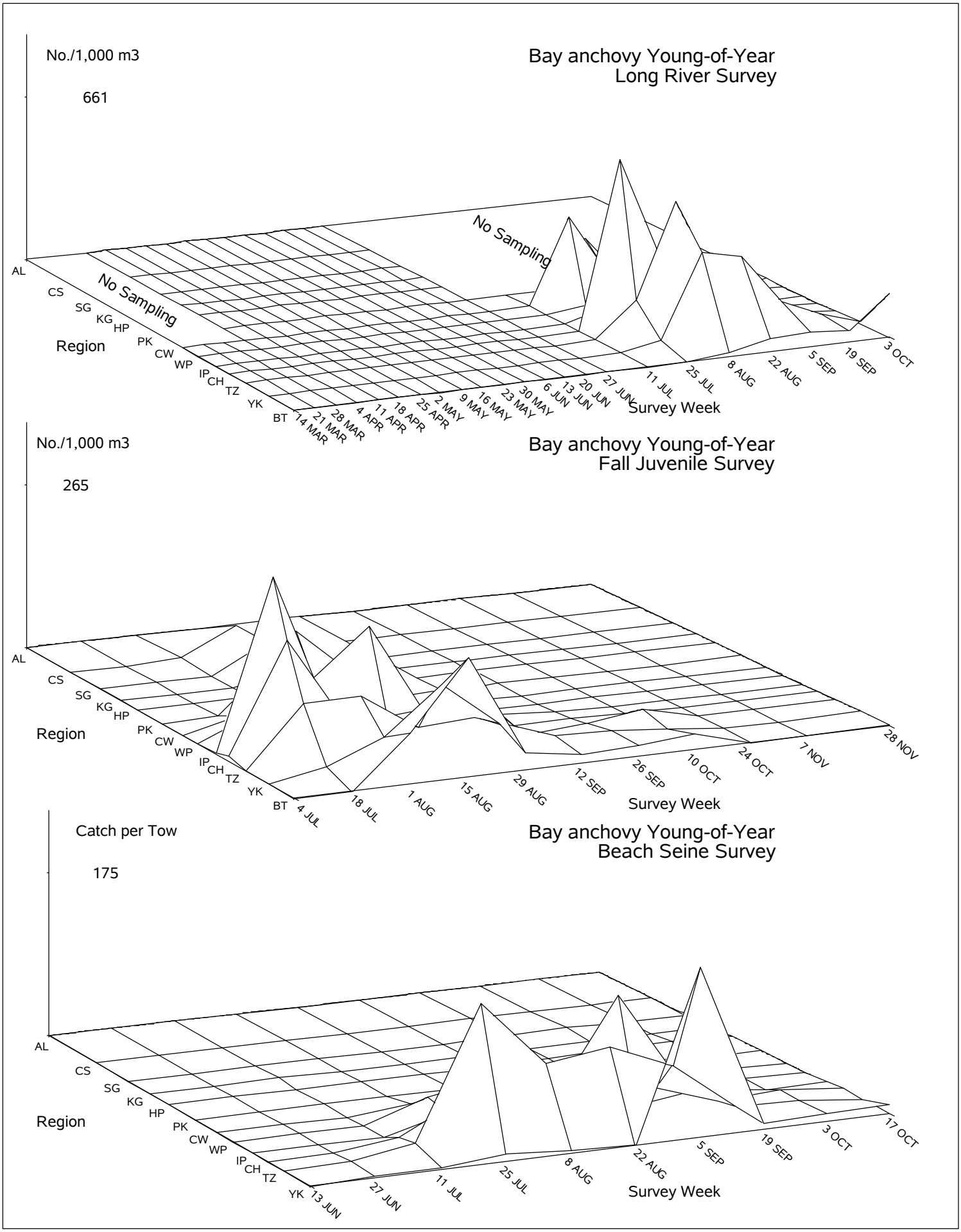


Figure 4-28. Spatiotemporal distribution of young-of-year bay anchovy in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

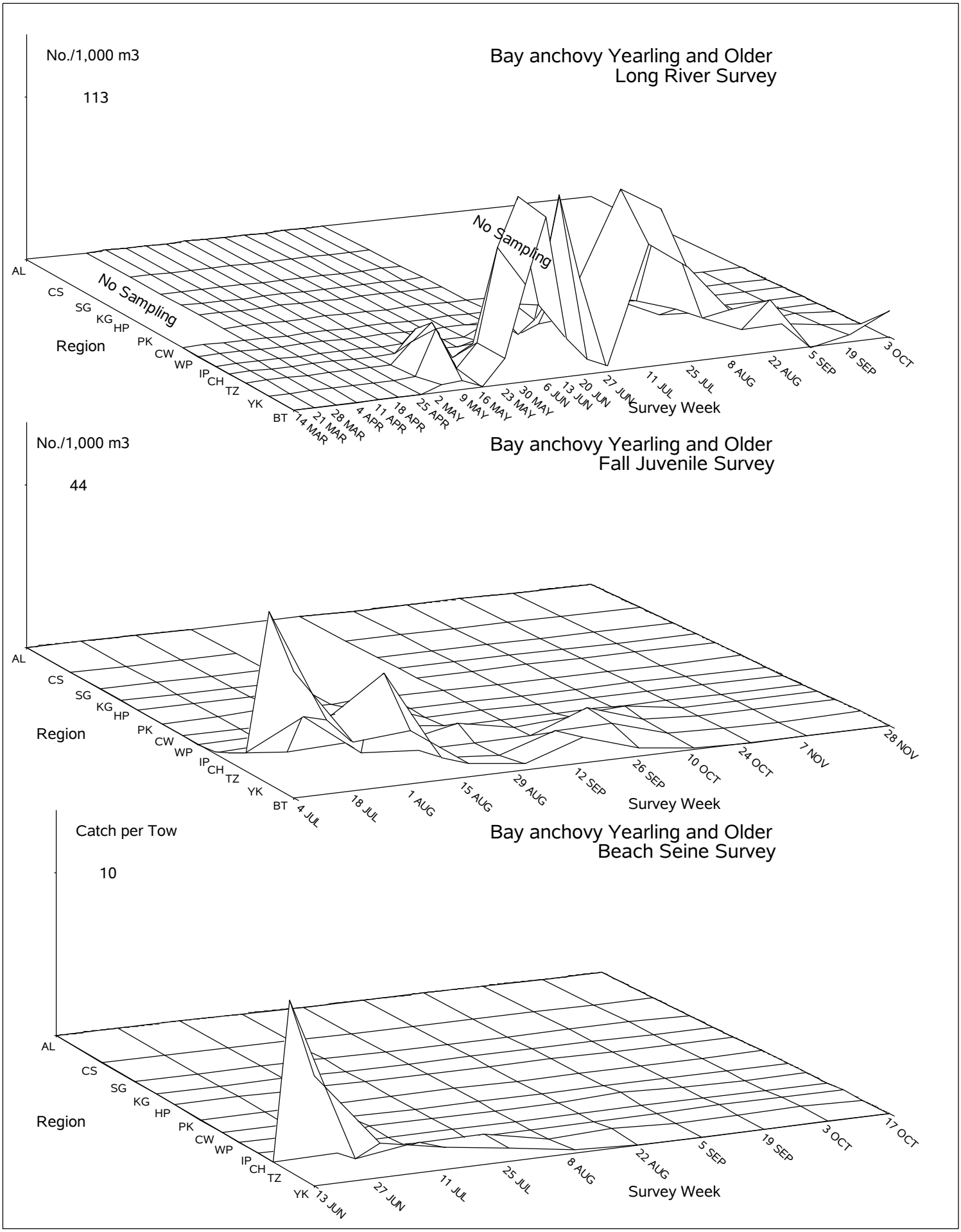


Figure 4-29. Spatiotemporal distribution of yearling and older bay anchovy in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

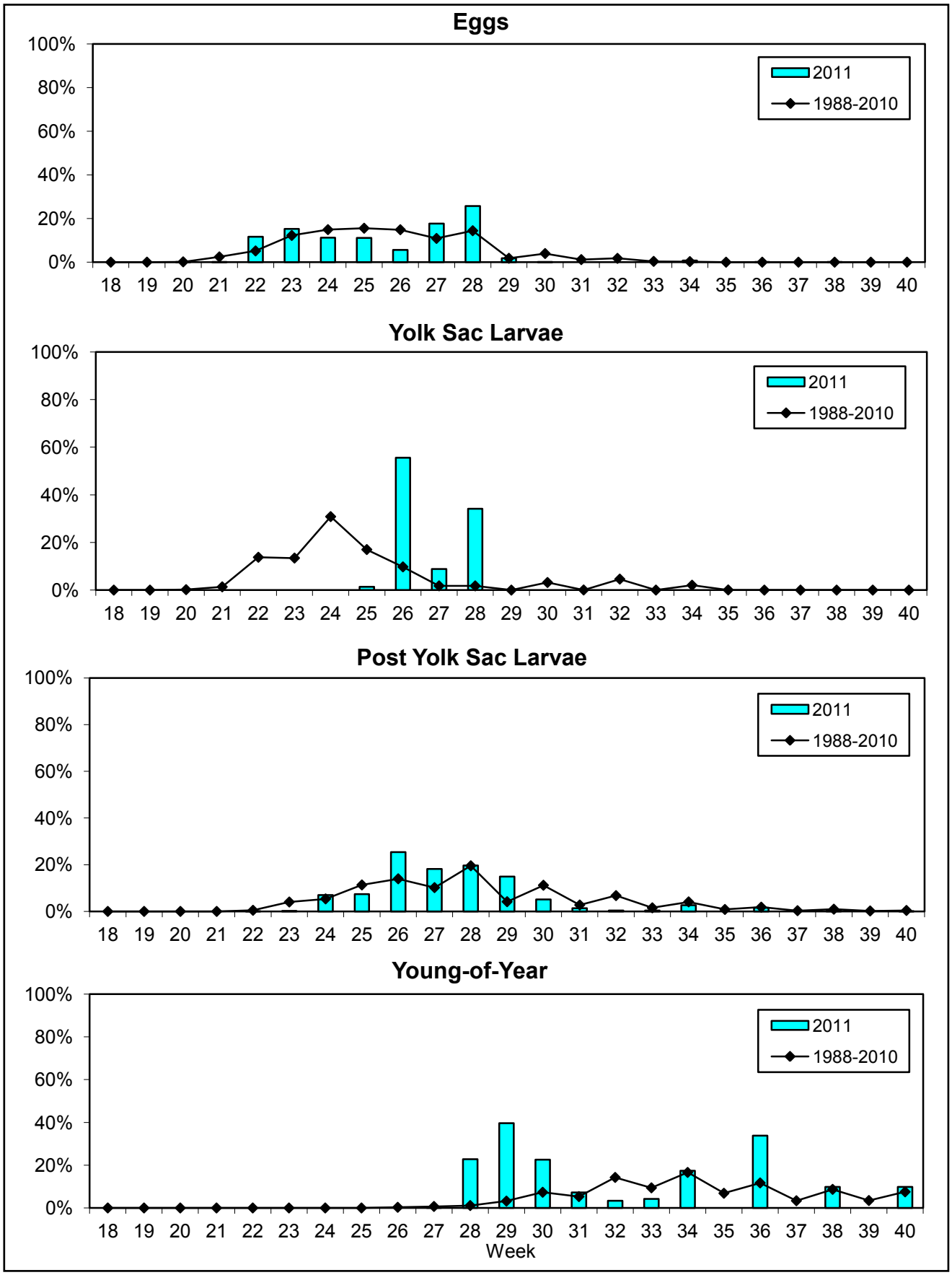


Figure 4-30. Temporal distribution indices for bay anchovy collected during Long River surveys of the Hudson River estuary, 1988-2011.

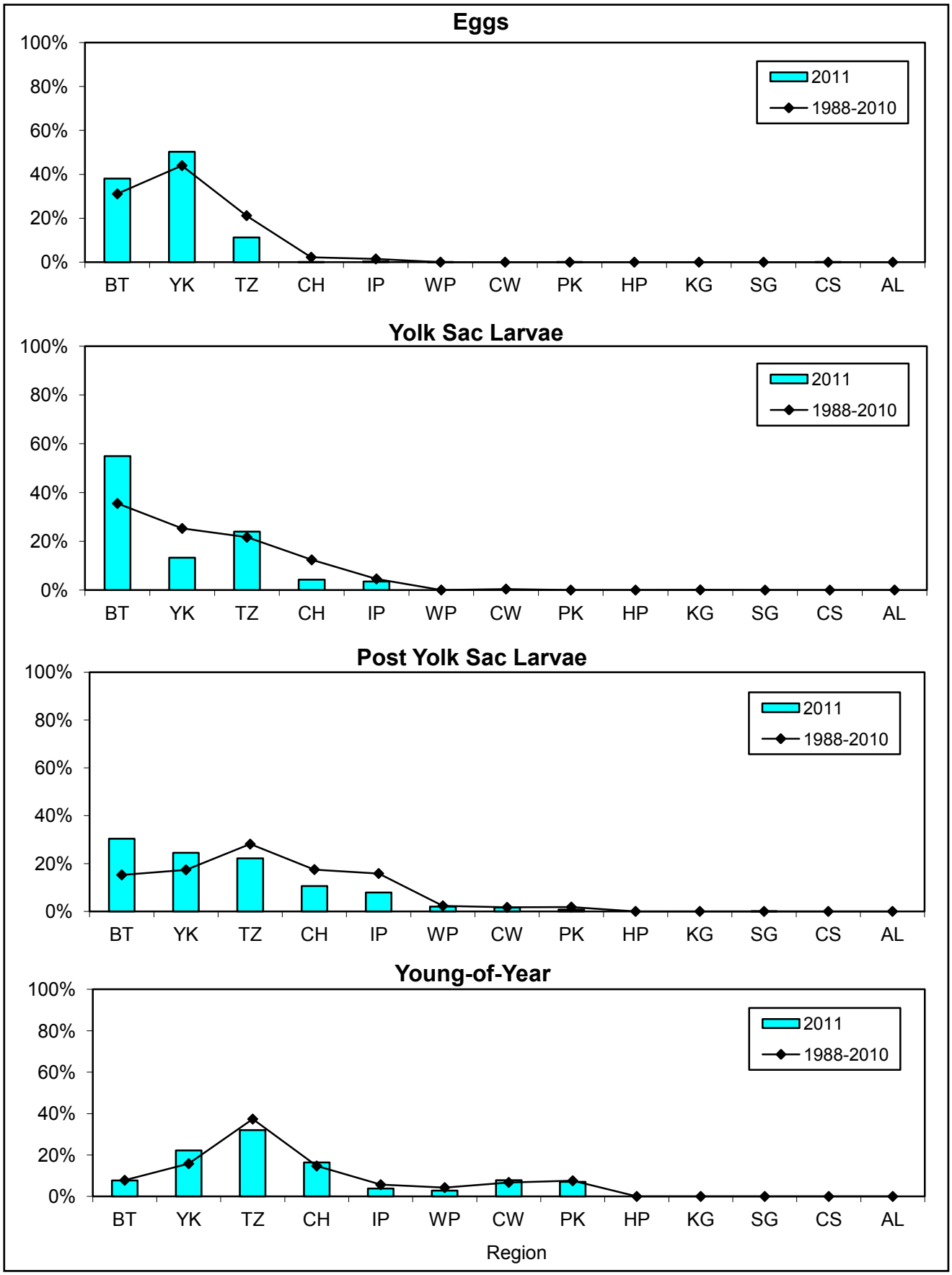


Figure 4-31. Geographic distribution indices for bay anchovy collected during Long River surveys of the Hudson River estuary, 1988-2011.

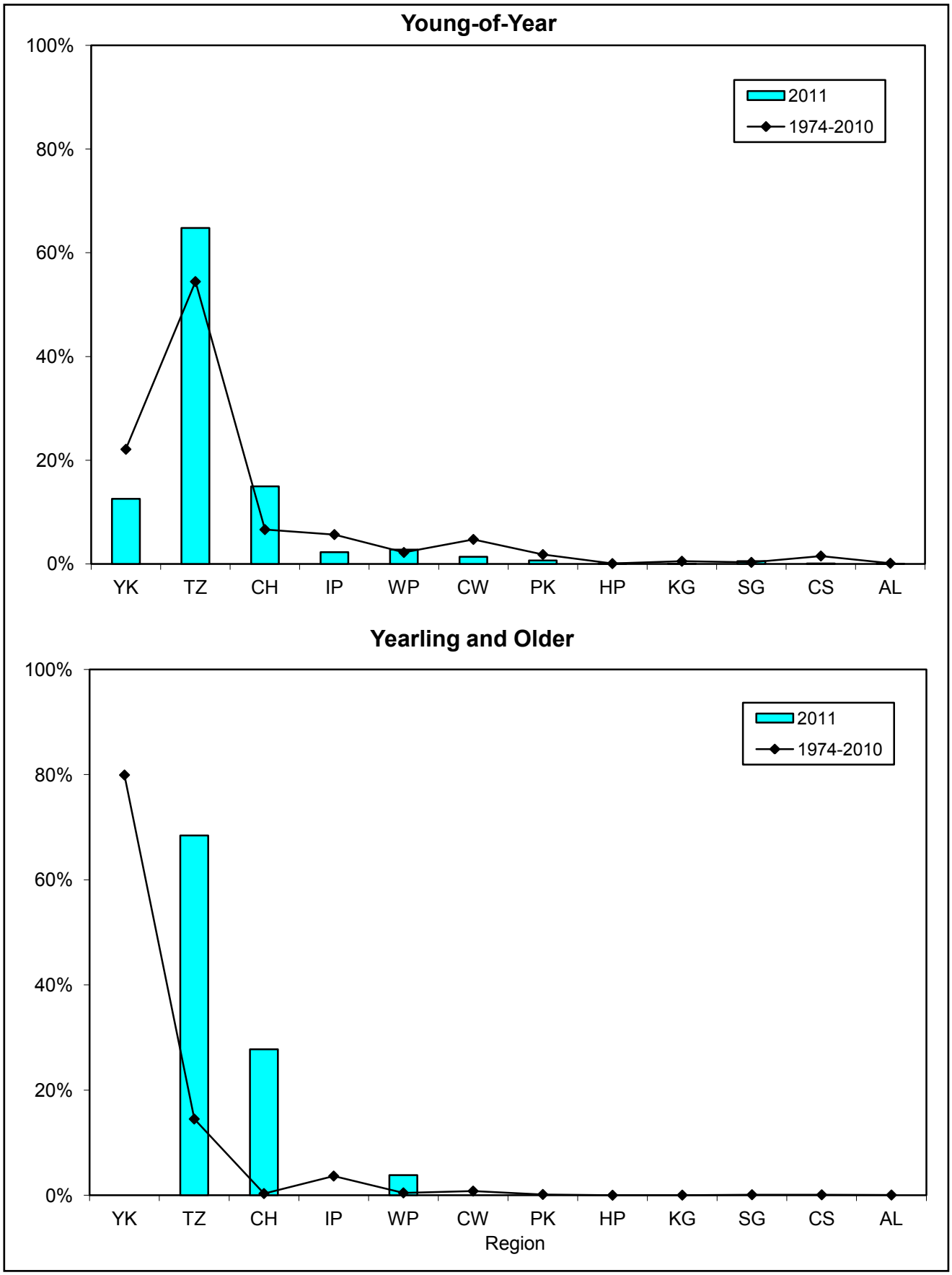


Figure 4-32. Geographic distribution indices for bay anchovy collected during Beach Seine surveys of the Hudson River estuary, 1974-2011.

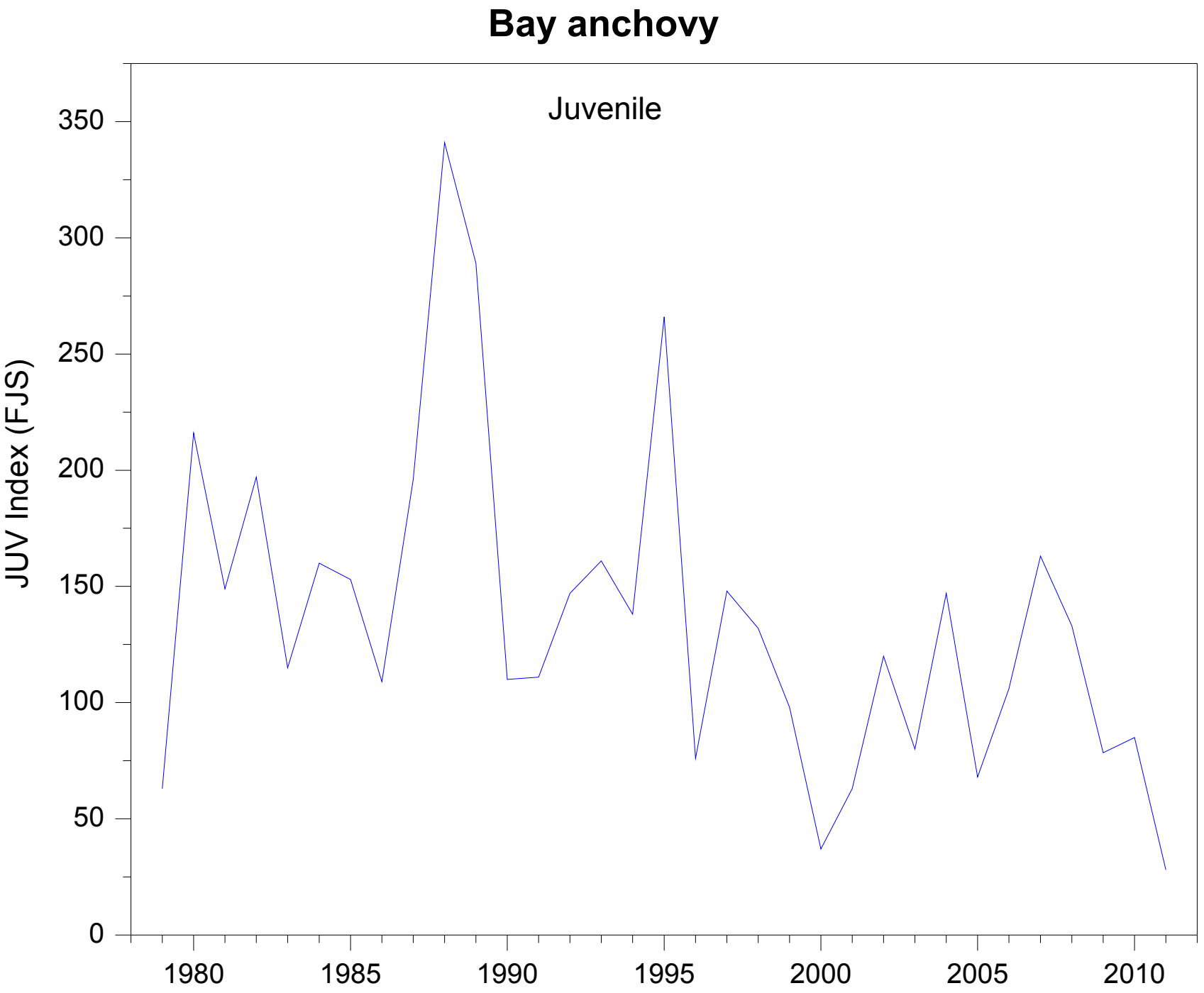


Figure 4-33. Bay anchovy indices of annual abundance based on Fall Juvenile Survey, 1979-2011.

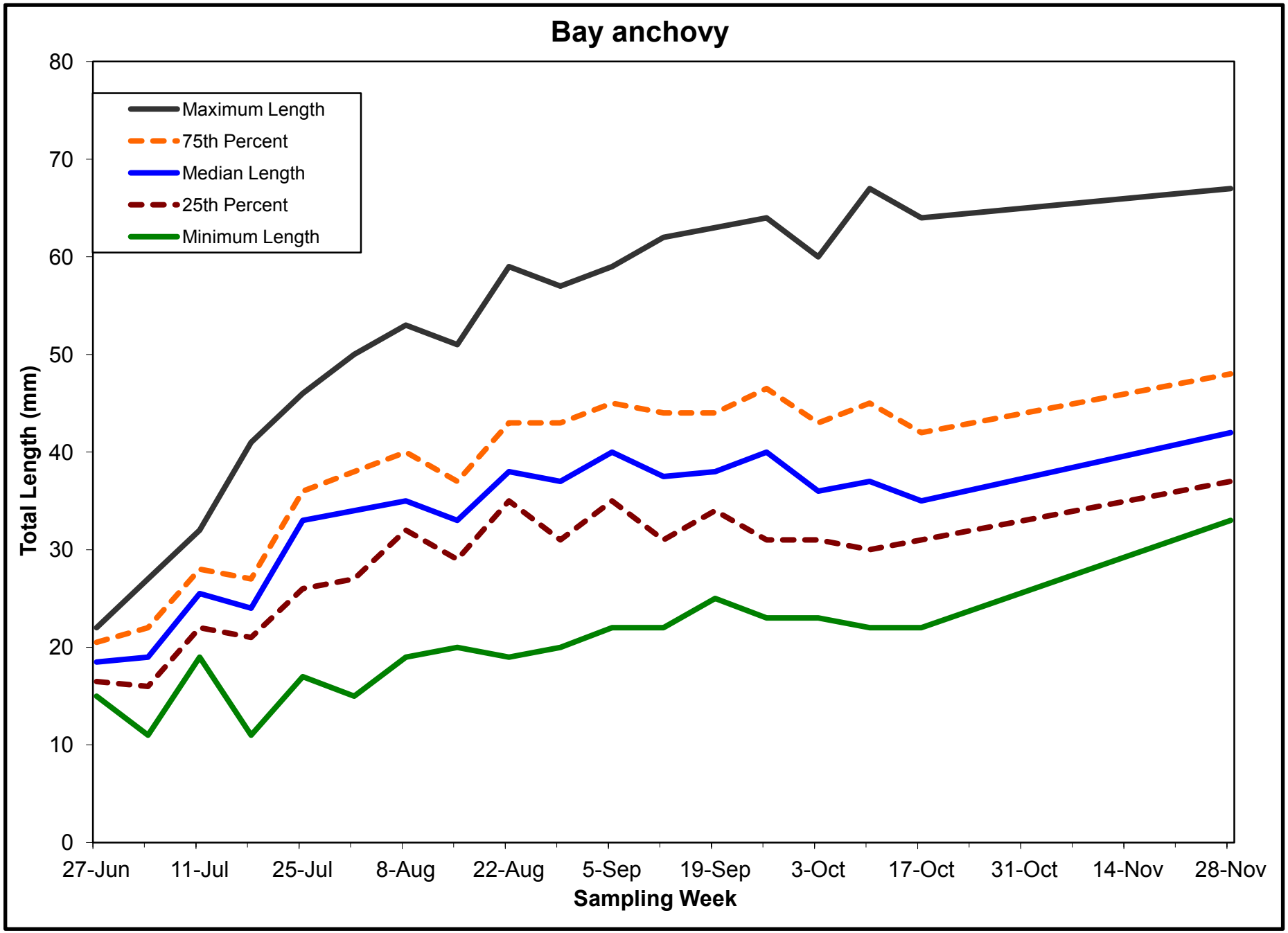


Figure 4-34. Weekly length statistics for young-of-year bay anchovy in the Hudson River estuary, 2011.

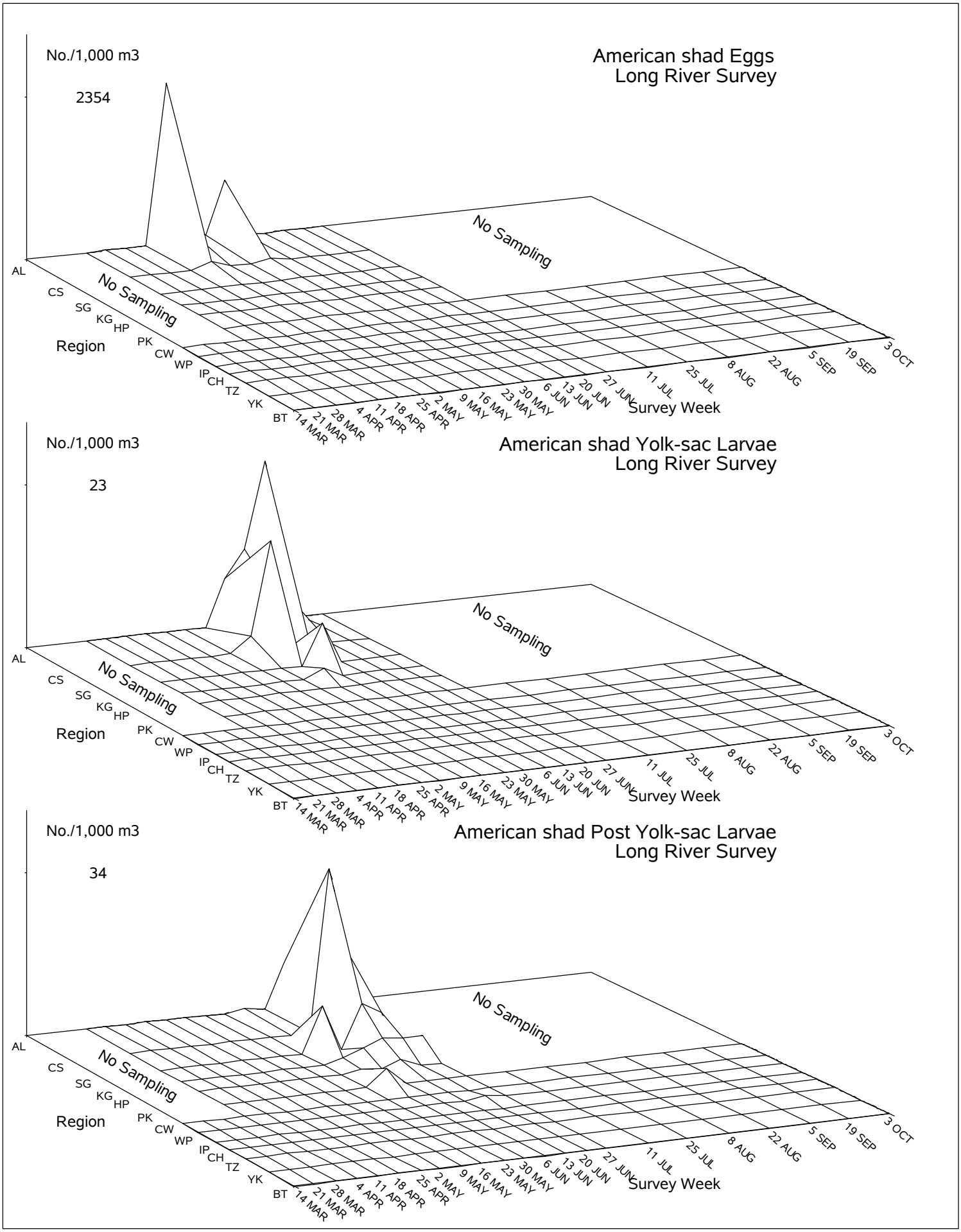


Figure 4-35. Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval American shad in the Hudson River estuary based on the 2011 Long River Survey.

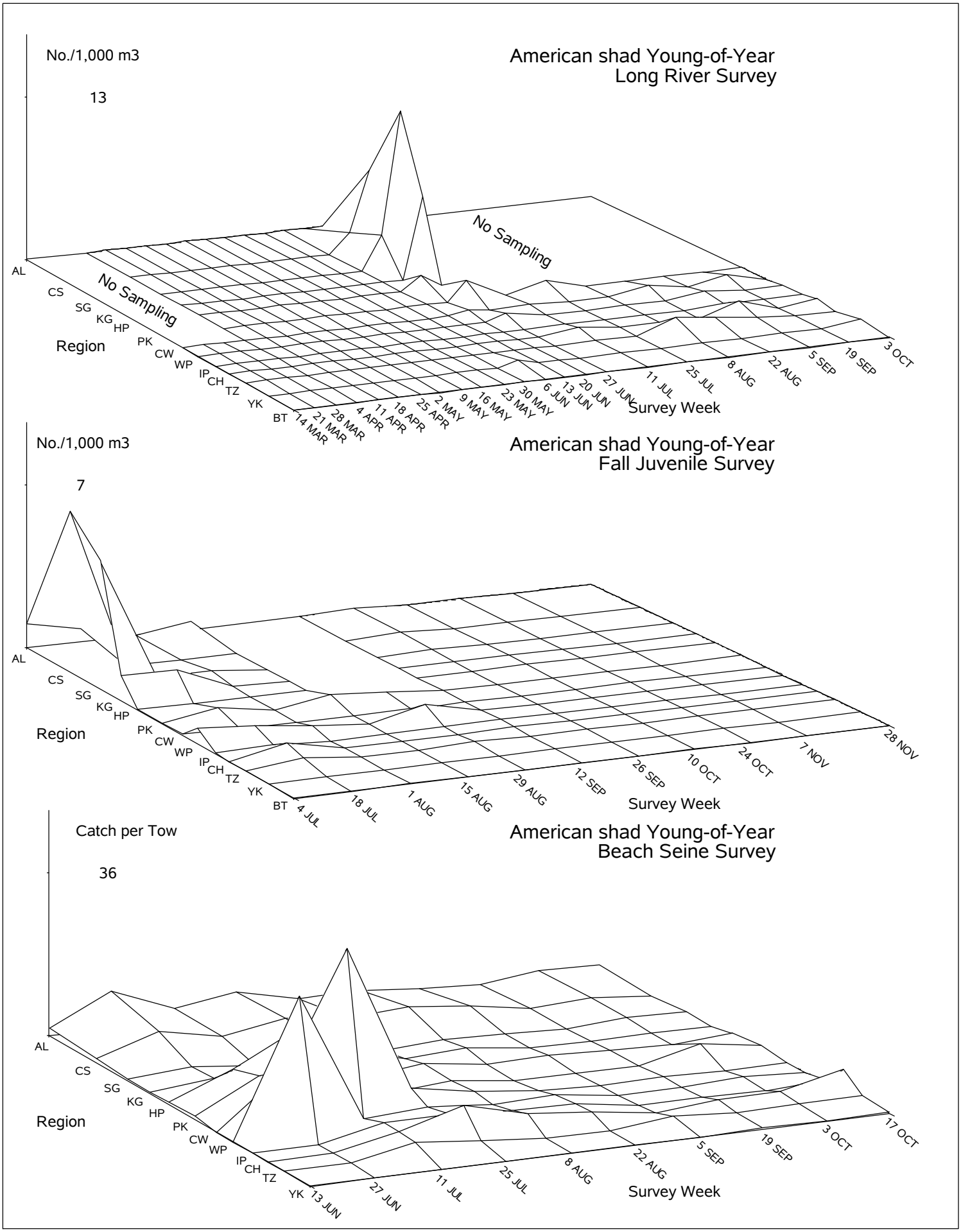


Figure 4-36. Spatiotemporal distribution of young-of-year American shad in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

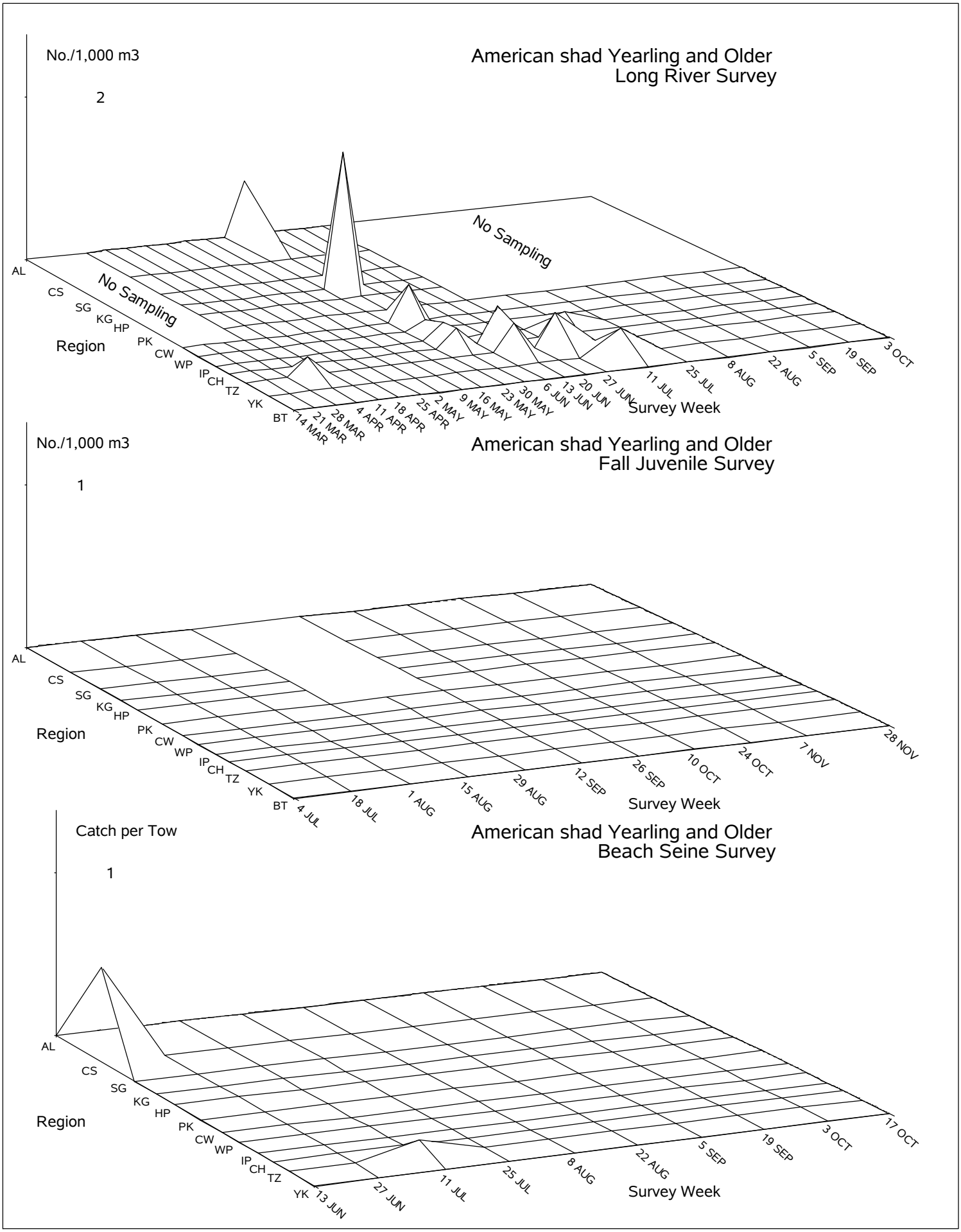


Figure 4-37. Spatiotemporal distribution of yearling and older American shad in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

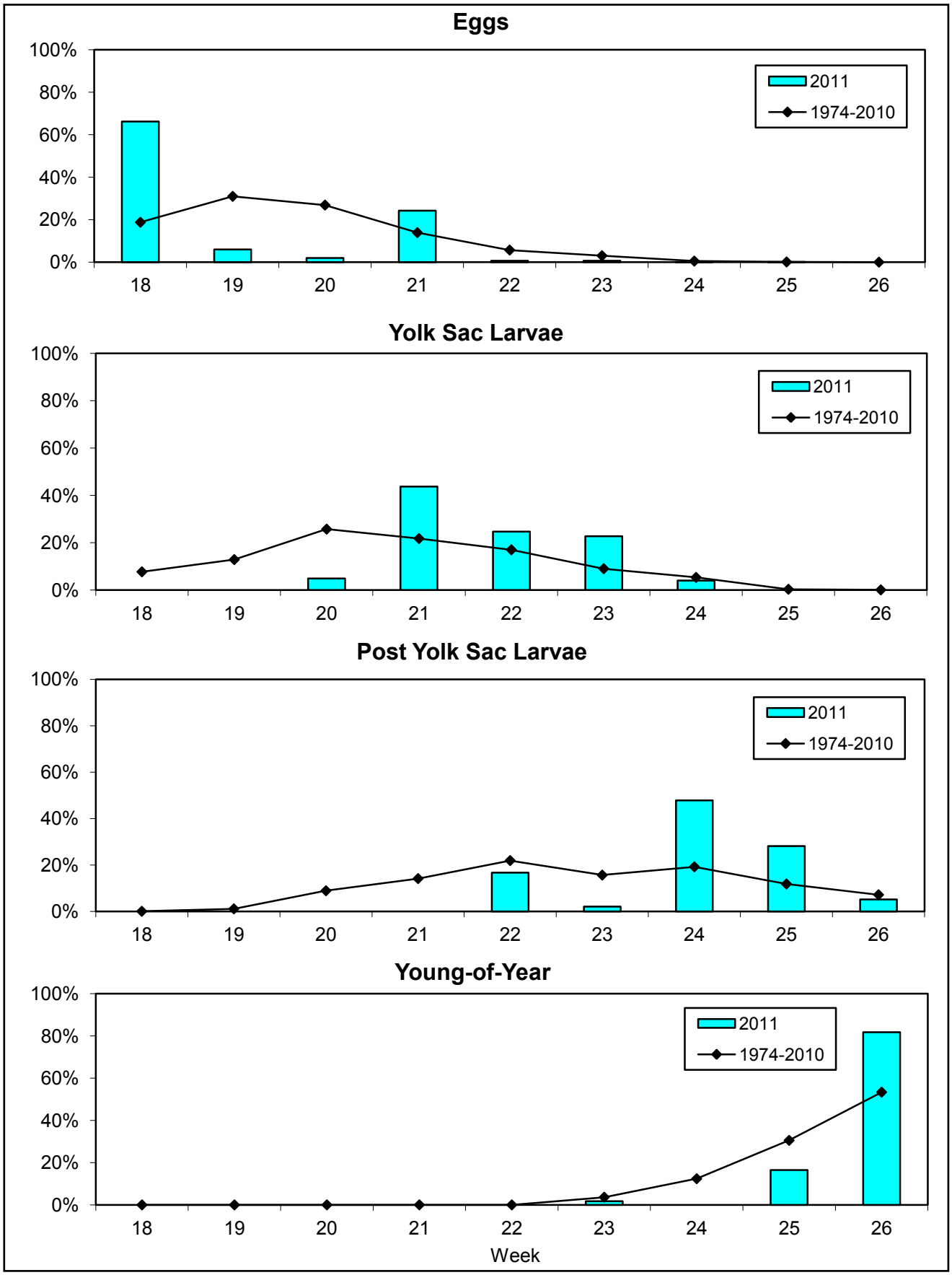


Figure 4-38. Temporal distribution indices for American shad collected during Long River surveys of the Hudson River estuary, 1974-2011.

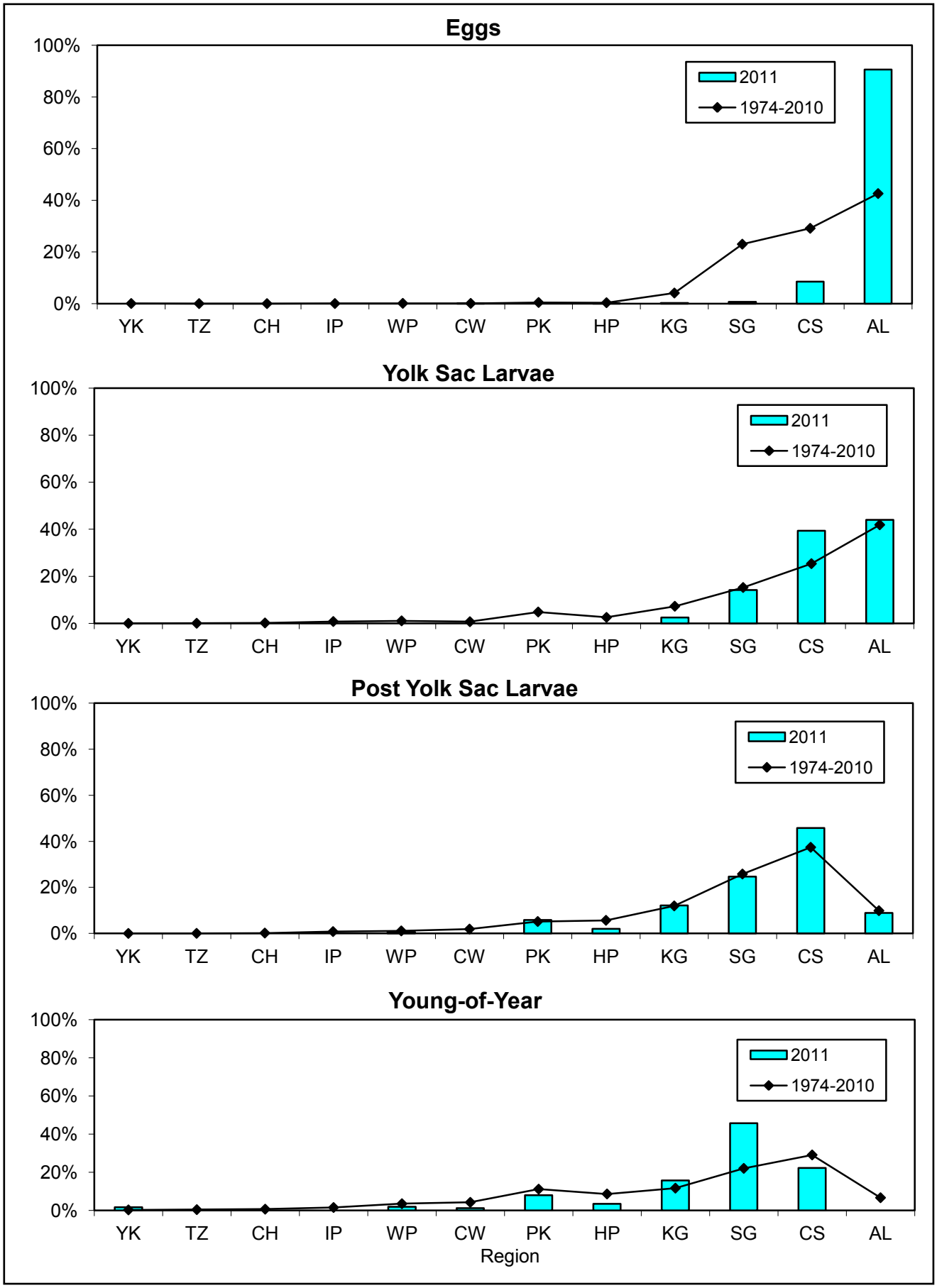


Figure 4-39. Geographic distribution indices for American shad collected during Long River surveys of the Hudson River estuary, 1974-2011.

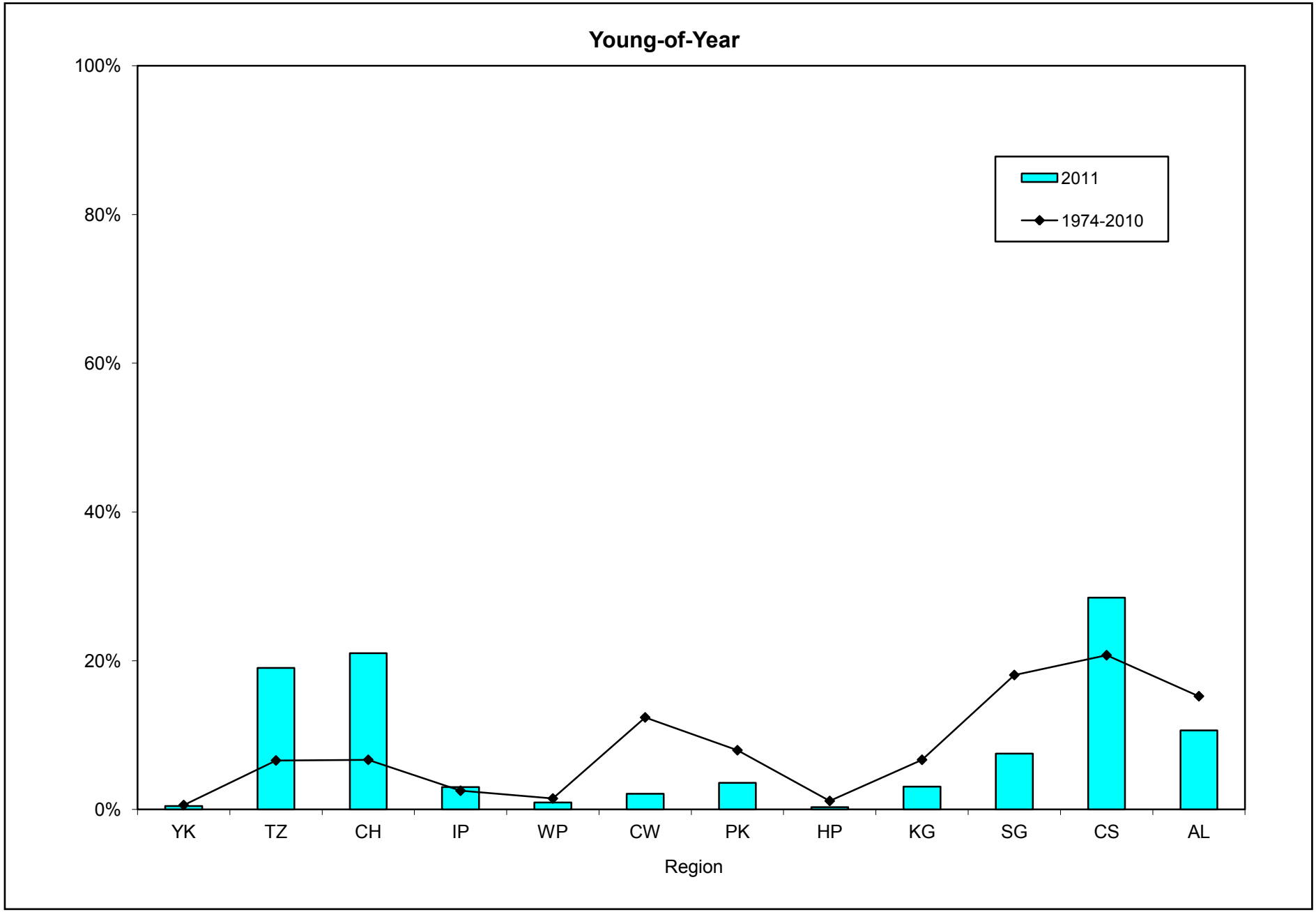


Figure 4-40. Geographic distribution indices for American shad collected during Beach Seine surveys of the Hudson River estuary, 1974-2011.

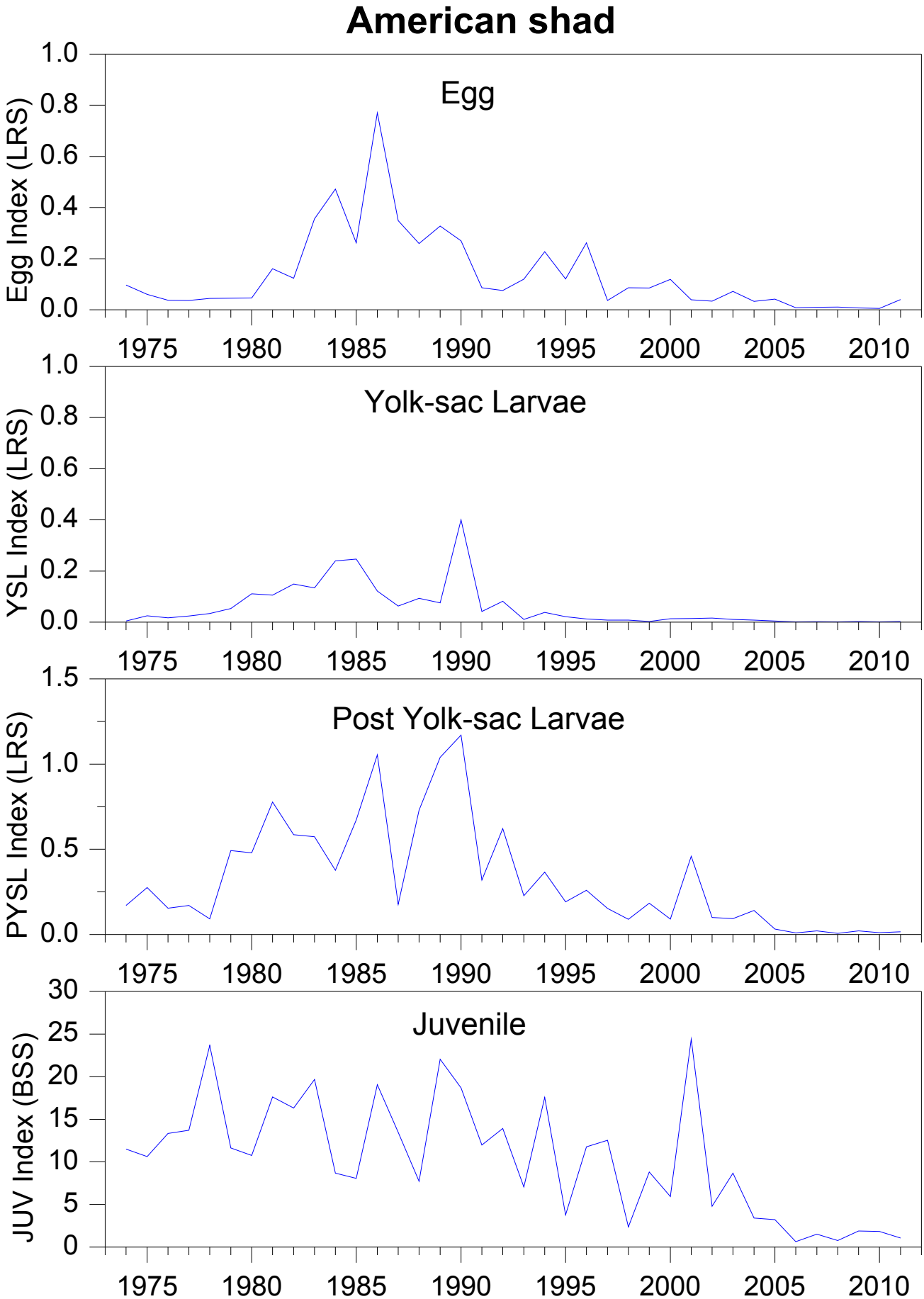


Figure 4-41. American shad indices of annual abundance based on Long River Survey and Beach Seine Survey, 1974-2011.

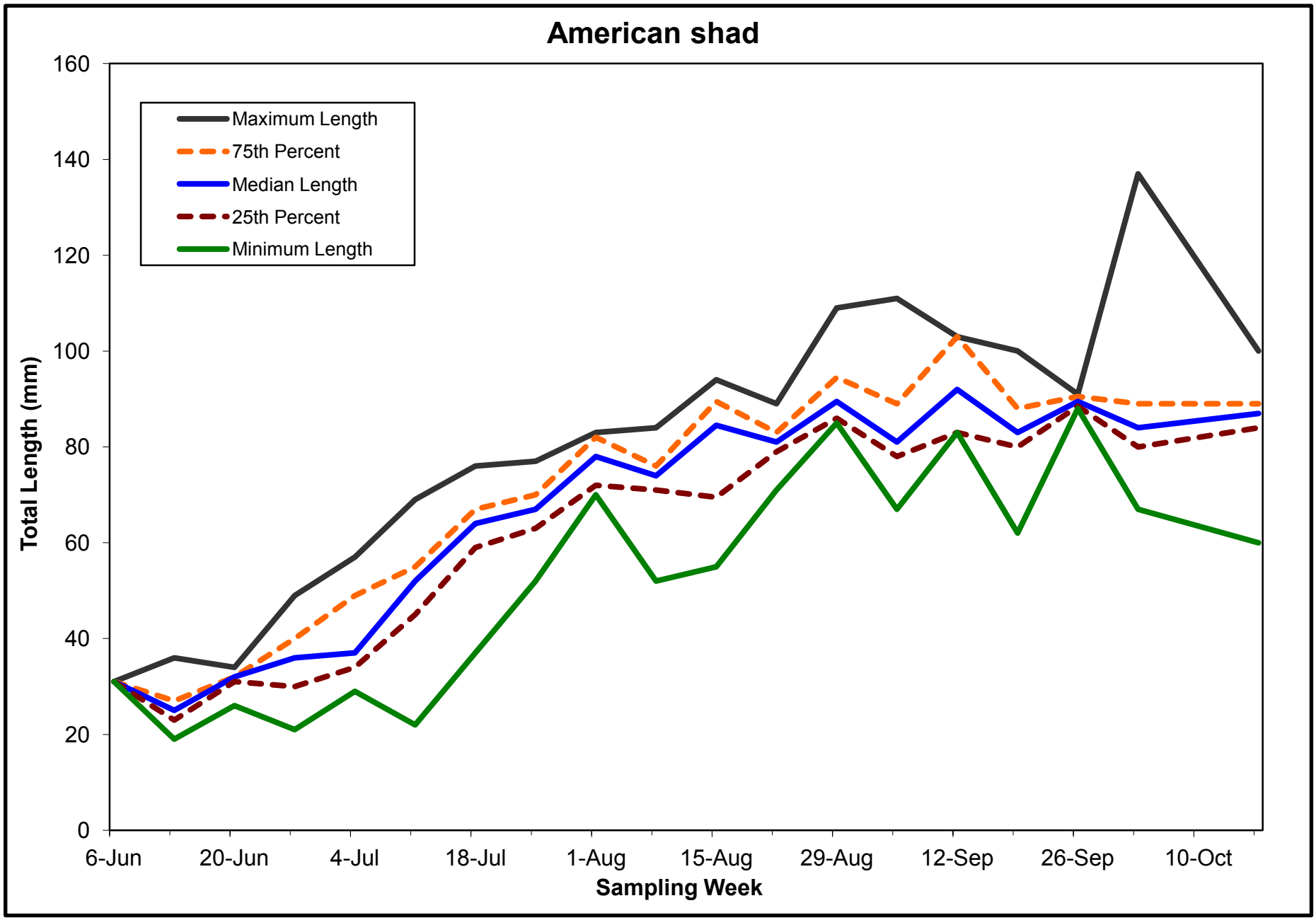


Figure 4-42. Weekly length statistics for young-of-year American shad in the Hudson River estuary, 2011.

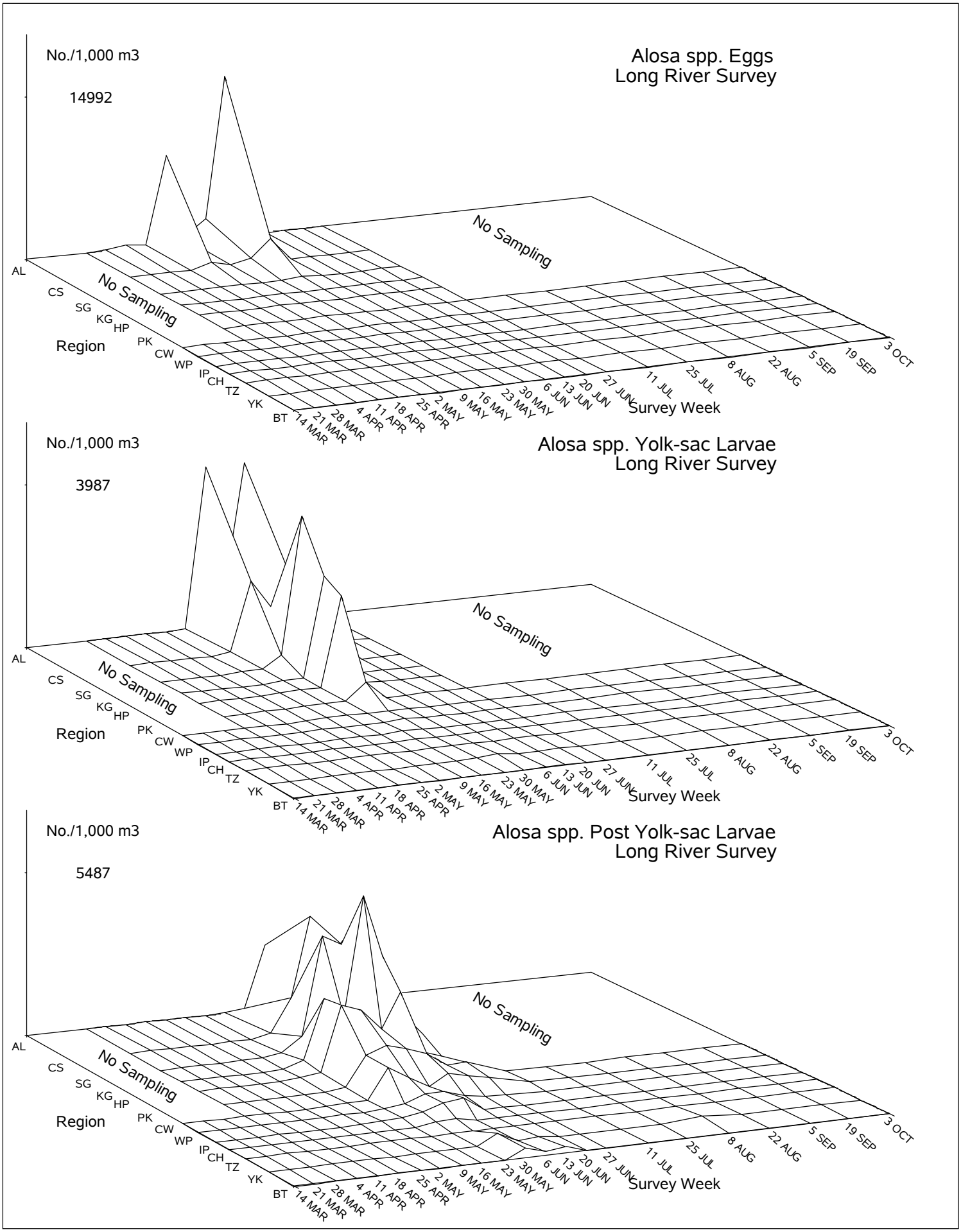


Figure 4-43. Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval Alosa spp. in the Hudson River estuary based on the 2011 Long River Survey.

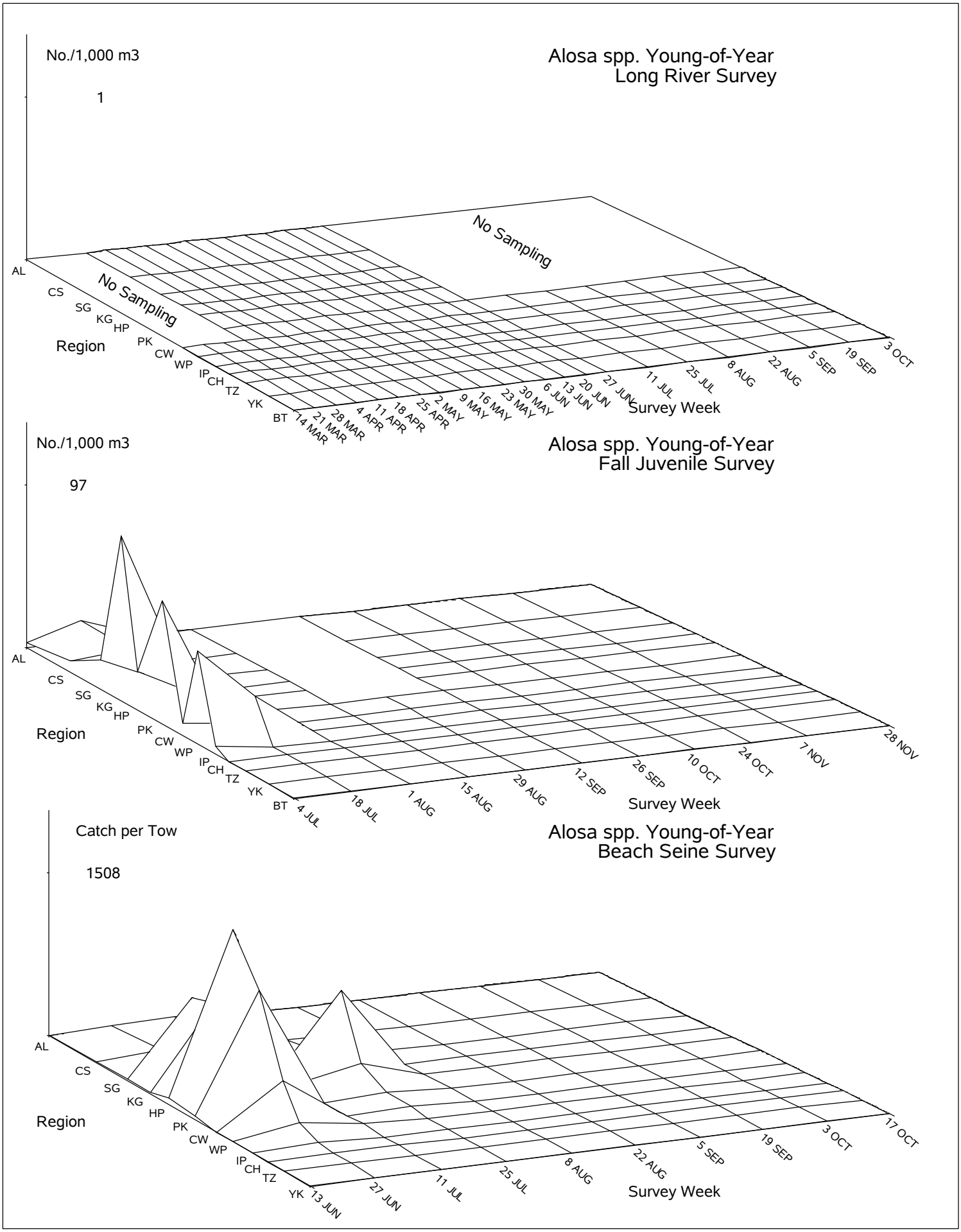


Figure 4-44. Spatiotemporal distribution of young-of-year Alosa spp. in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

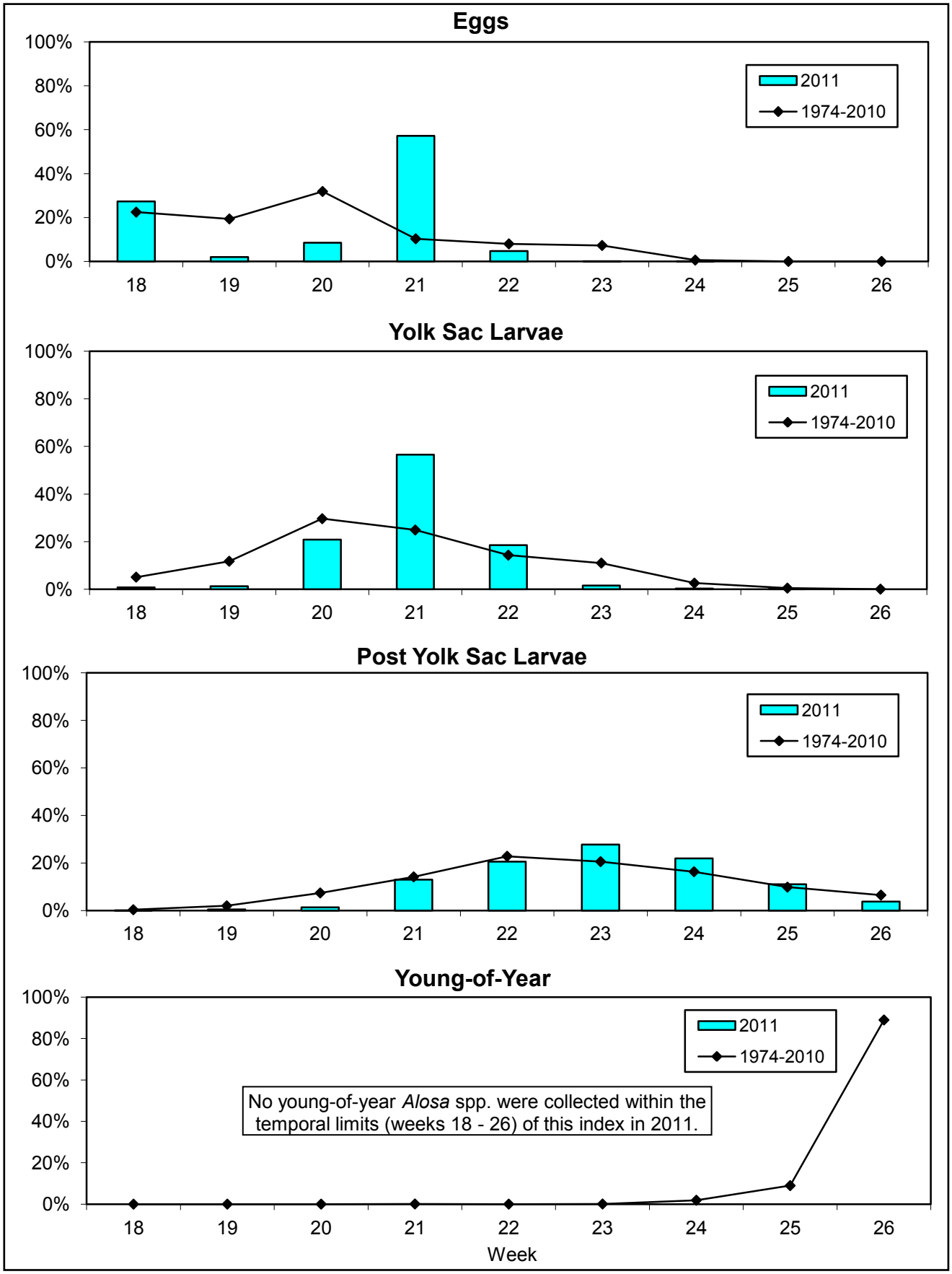


Figure 4-45. Temporal distribution indices for *Alosa* spp. collected during Long River surveys of the Hudson River estuary, 1974-2011.

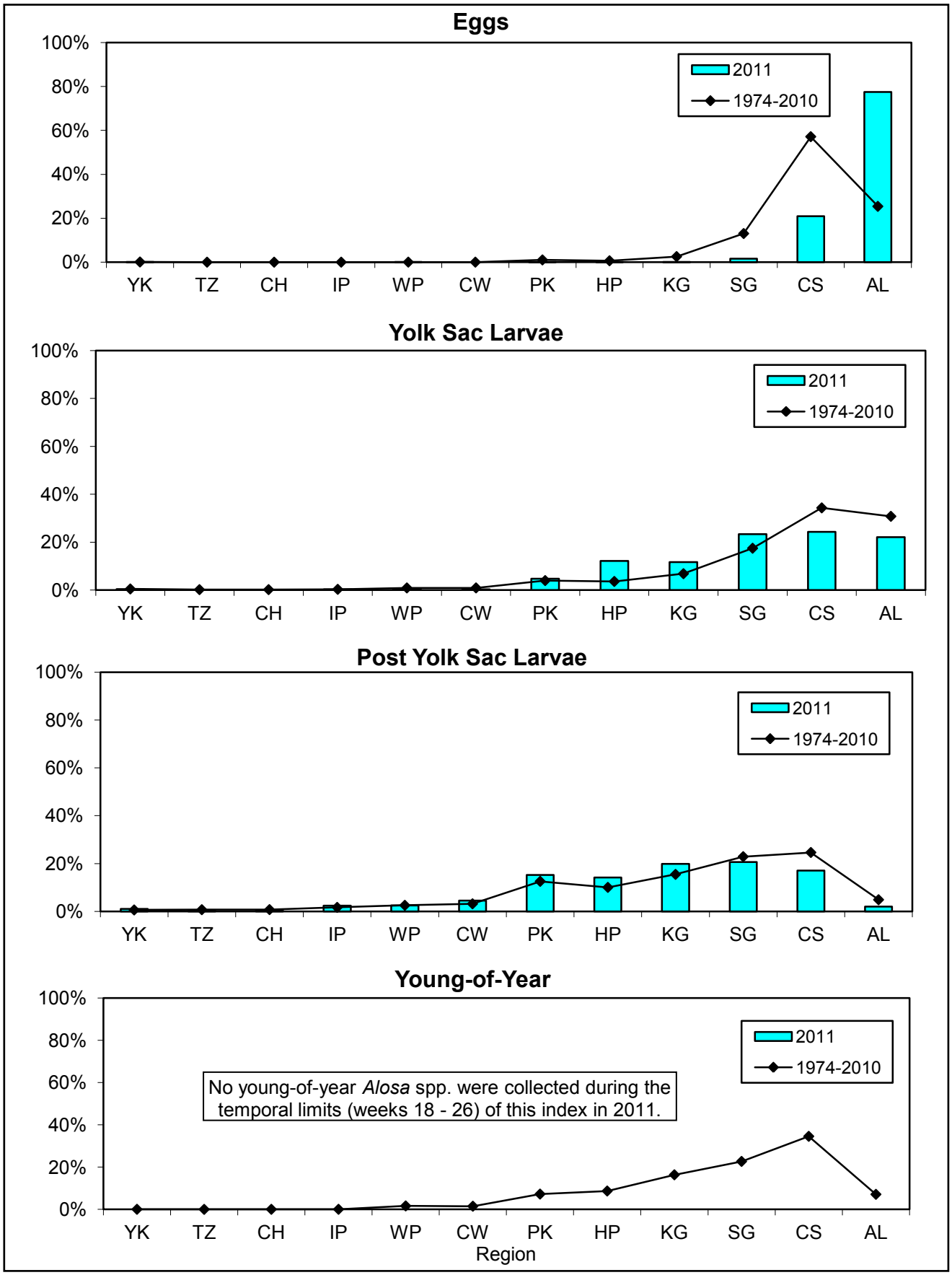


Figure 4-46. Geographic distribution indices for *Alosa* spp. collected during Long River surveys of the Hudson River estuary, 1974-2011.

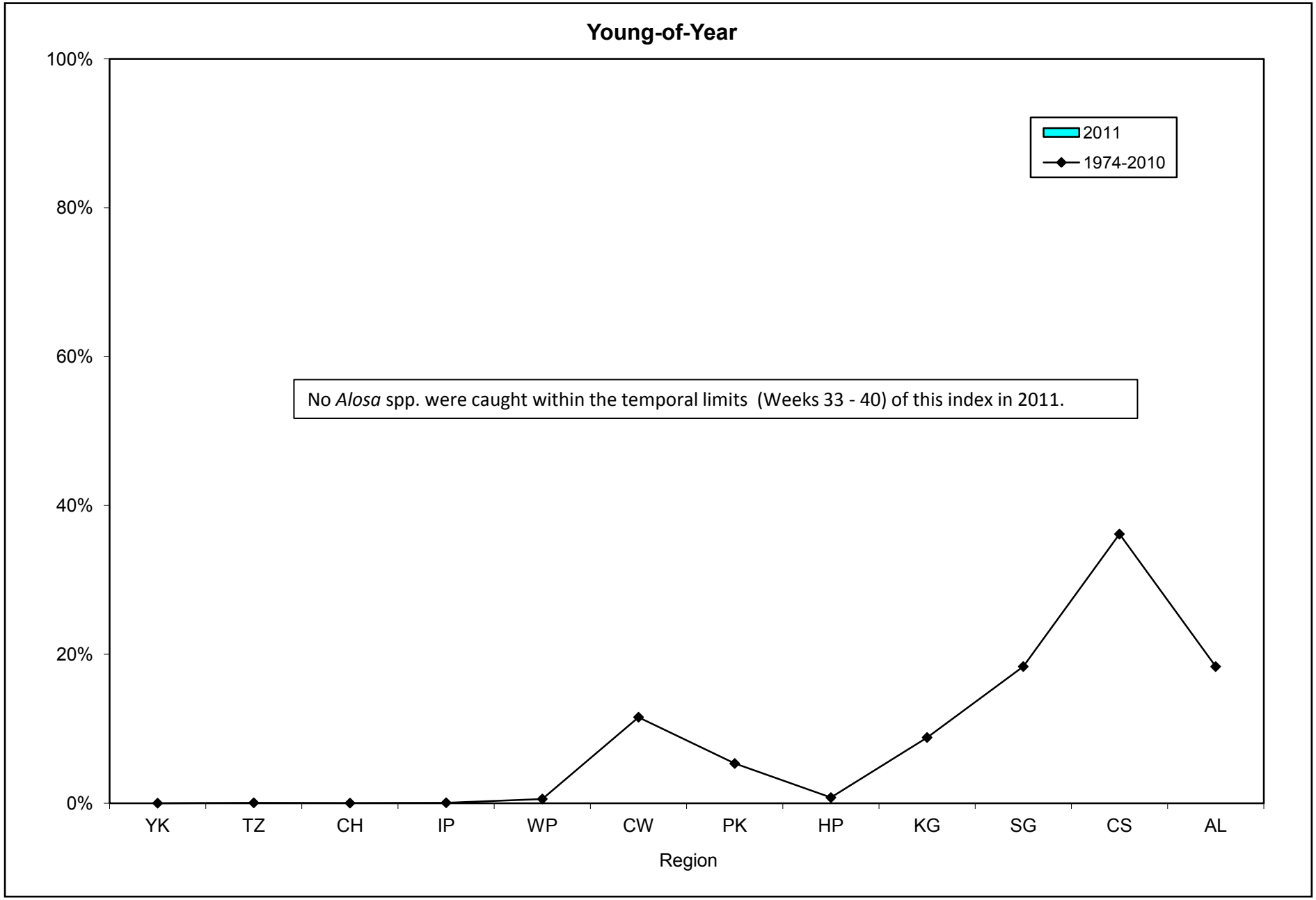


Figure 4-47. Geographic distribution indices for *Alosa* spp. collected during Beach Seine surveys of the Hudson River estuary, 1974-2011.

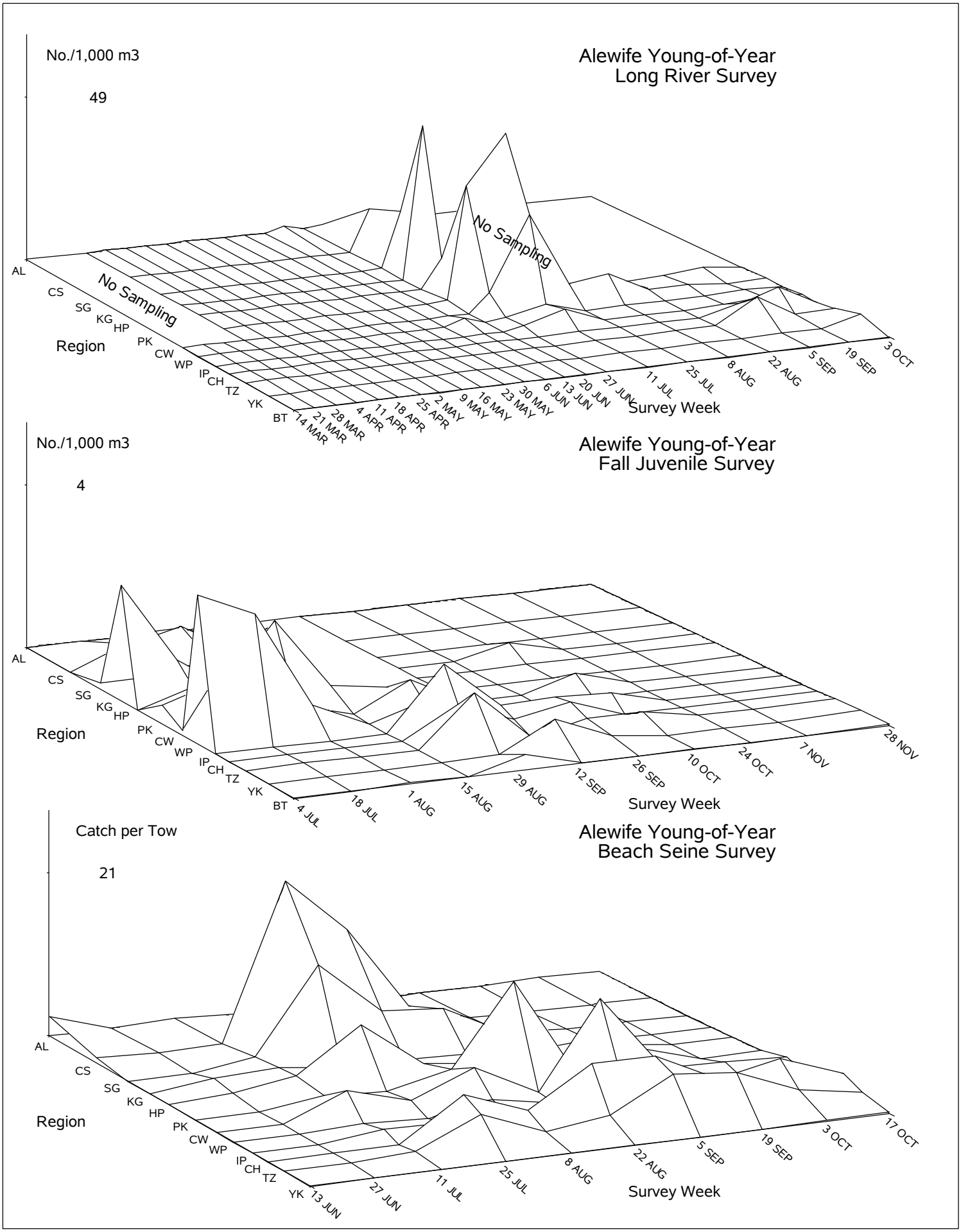


Figure 4-48. Spatiotemporal distribution of young-of-year alewife in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

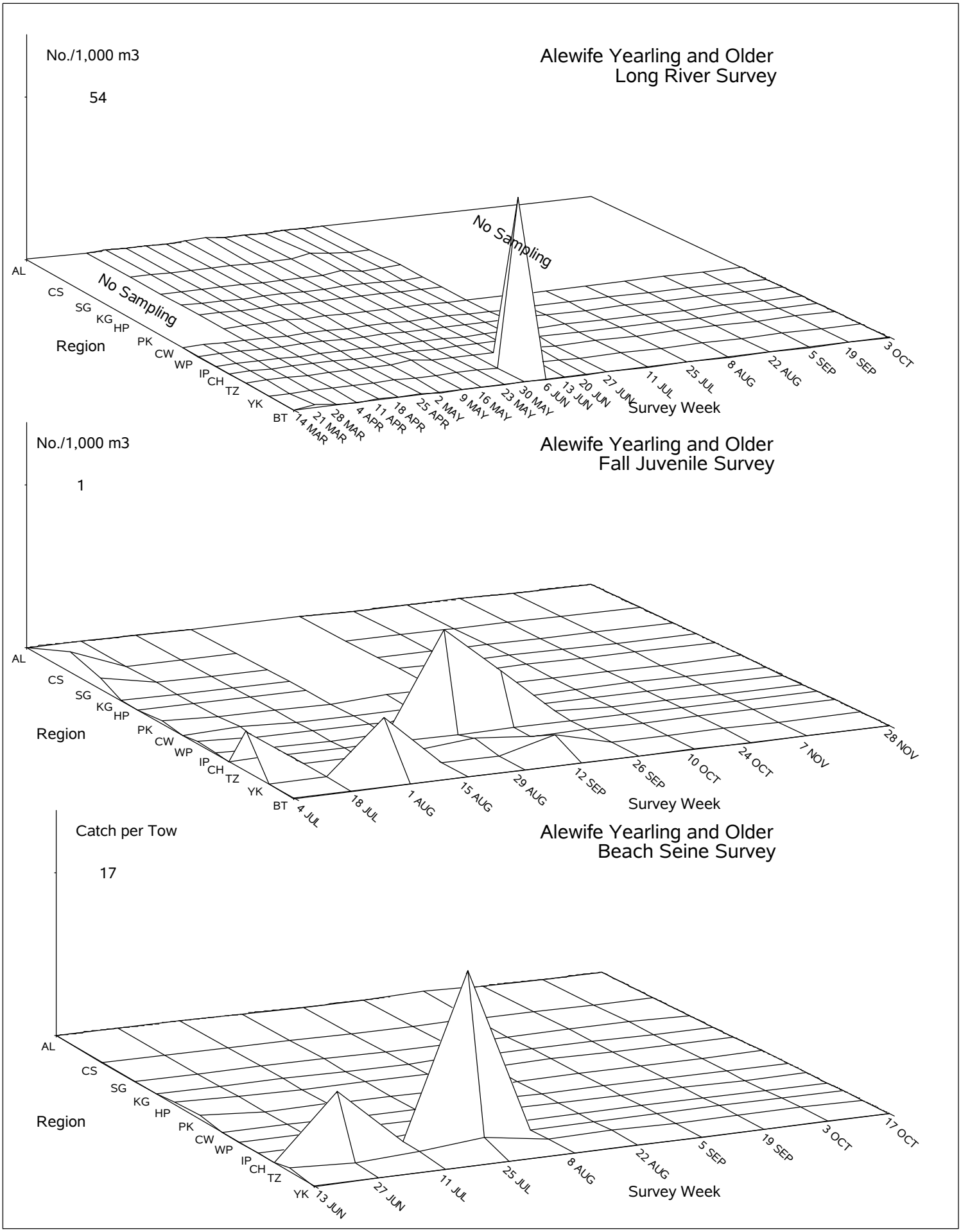


Figure 4-49. Spatiotemporal distribution of yearling and older alewife in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

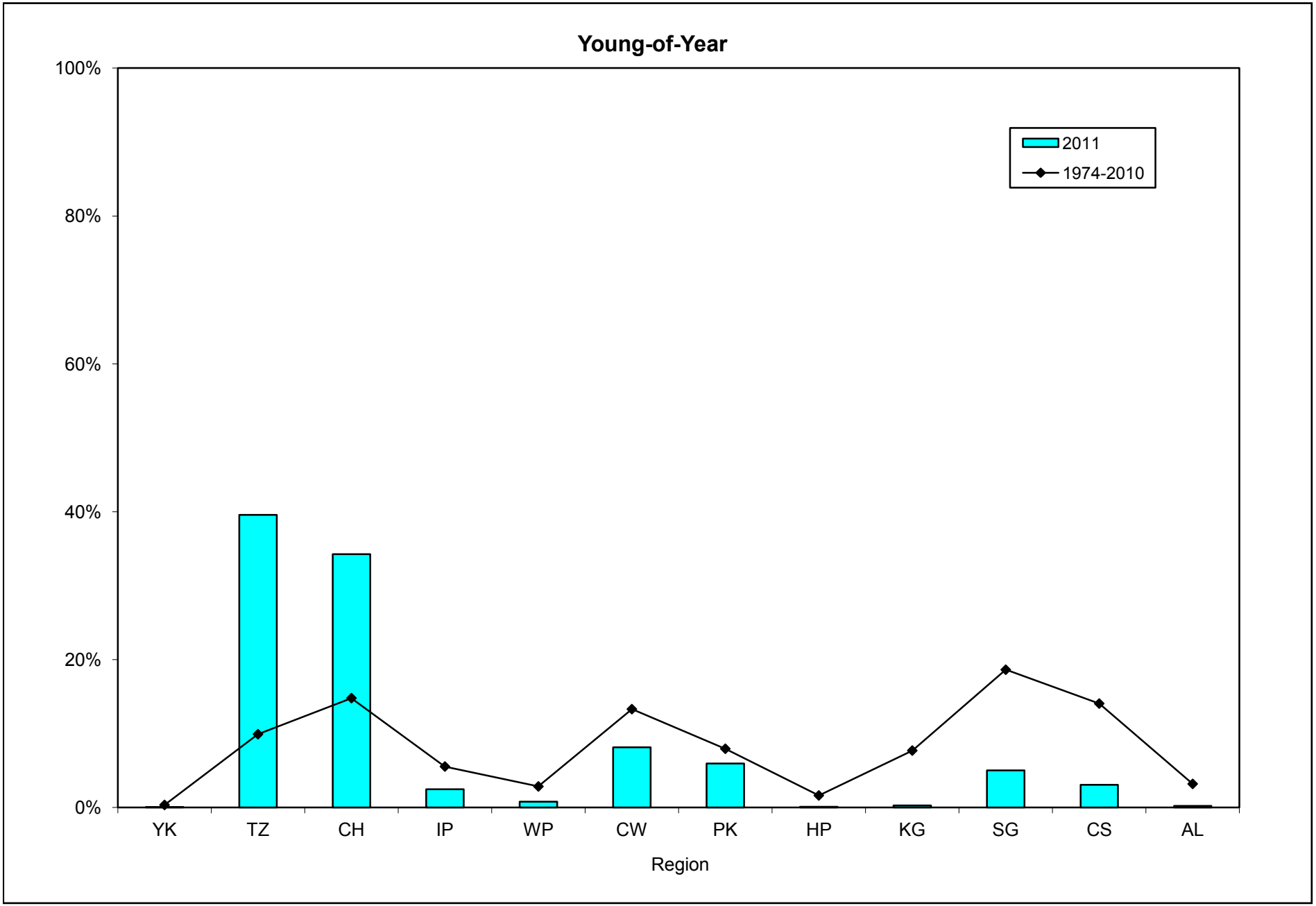


Figure 4-50. Geographic distribution indices for alewife collected during Beach Seine surveys of the Hudson River estuary, 1974-2011.

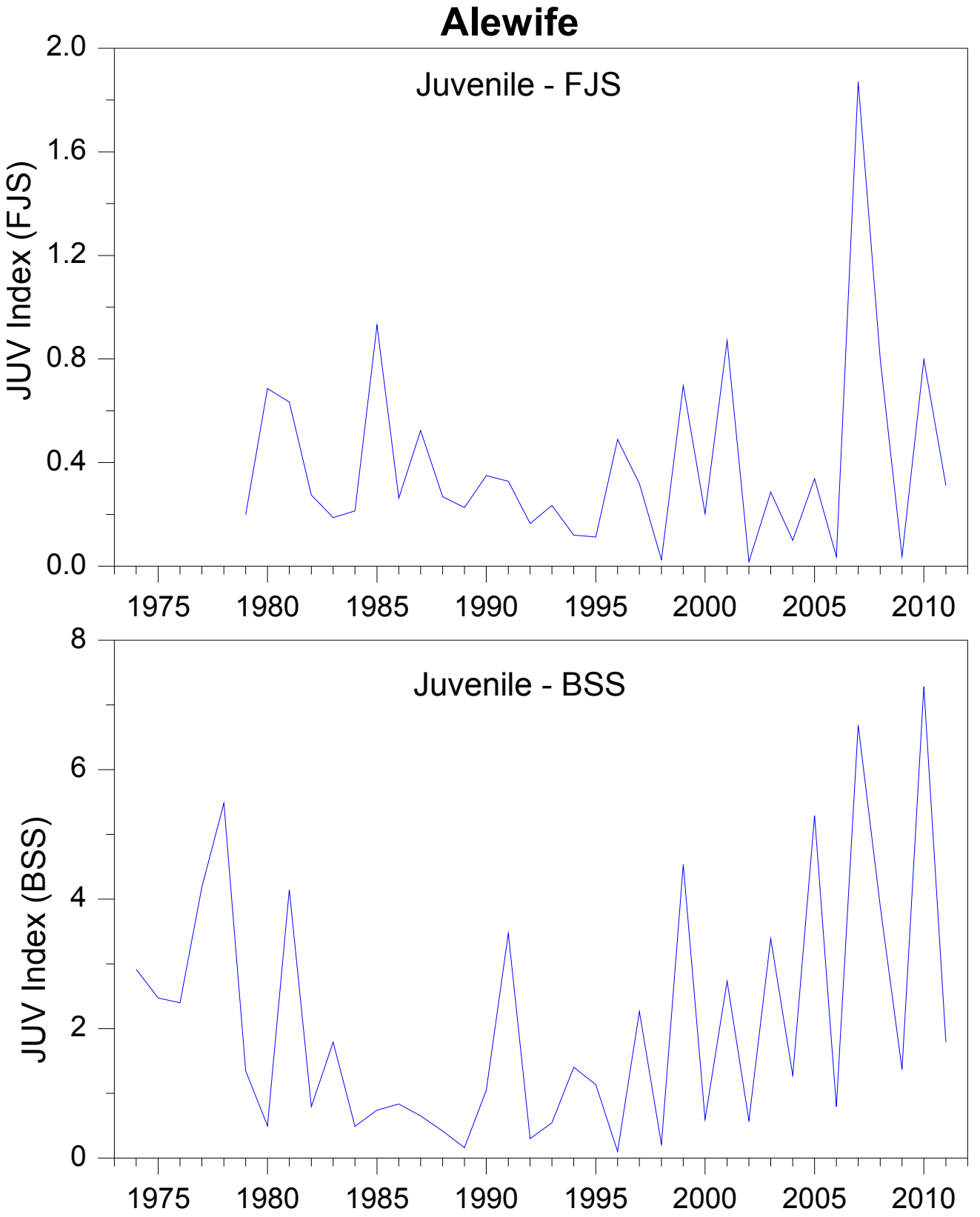


Figure 4-51. Alewife indices of annual abundance based on Fall Juvenile Survey, 1979-2011, and Beach Seine Survey, 1974-2011.

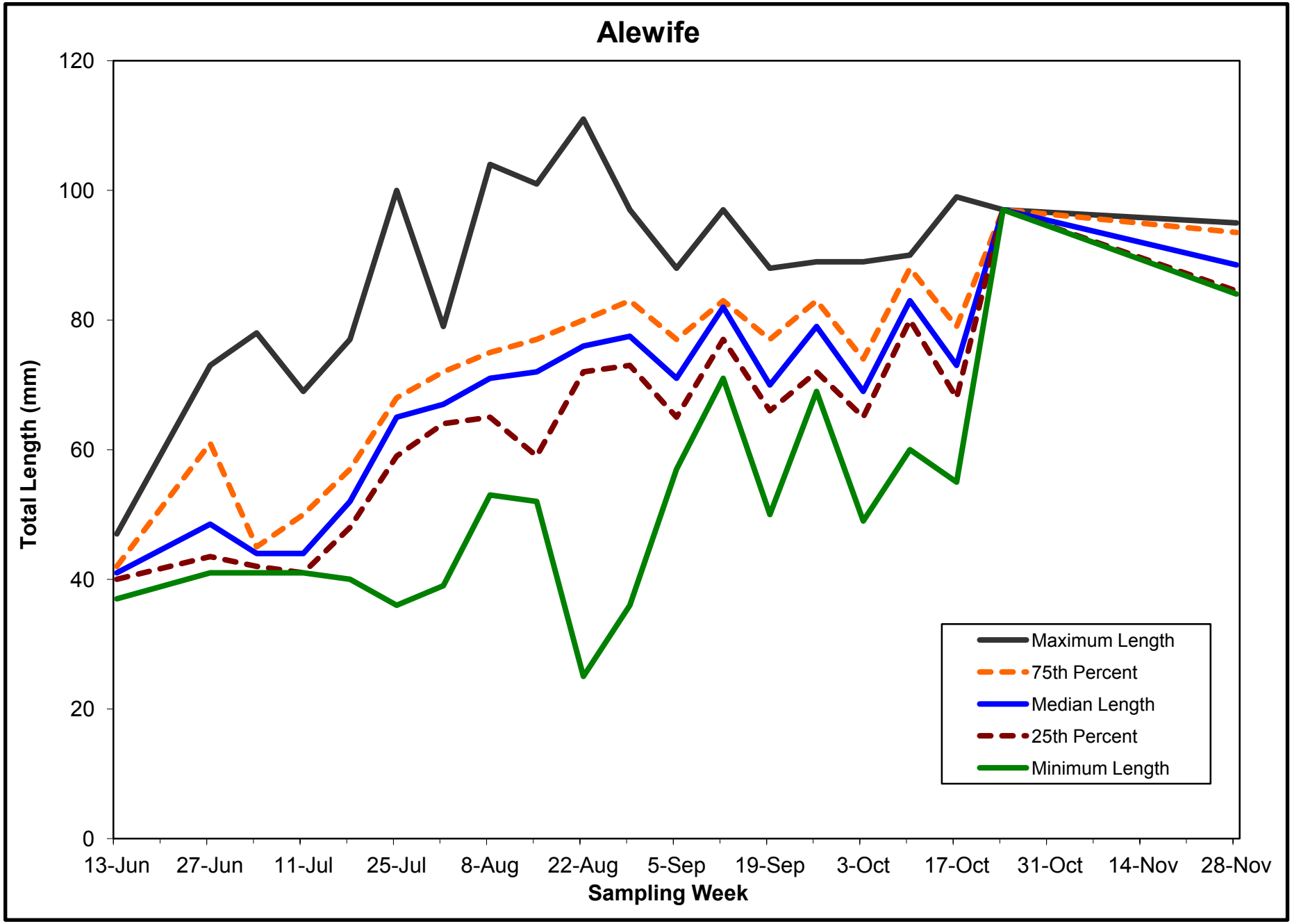


Figure 4-52. Weekly length statistics for young-of-year alewife in the Hudson River estuary, 2011.

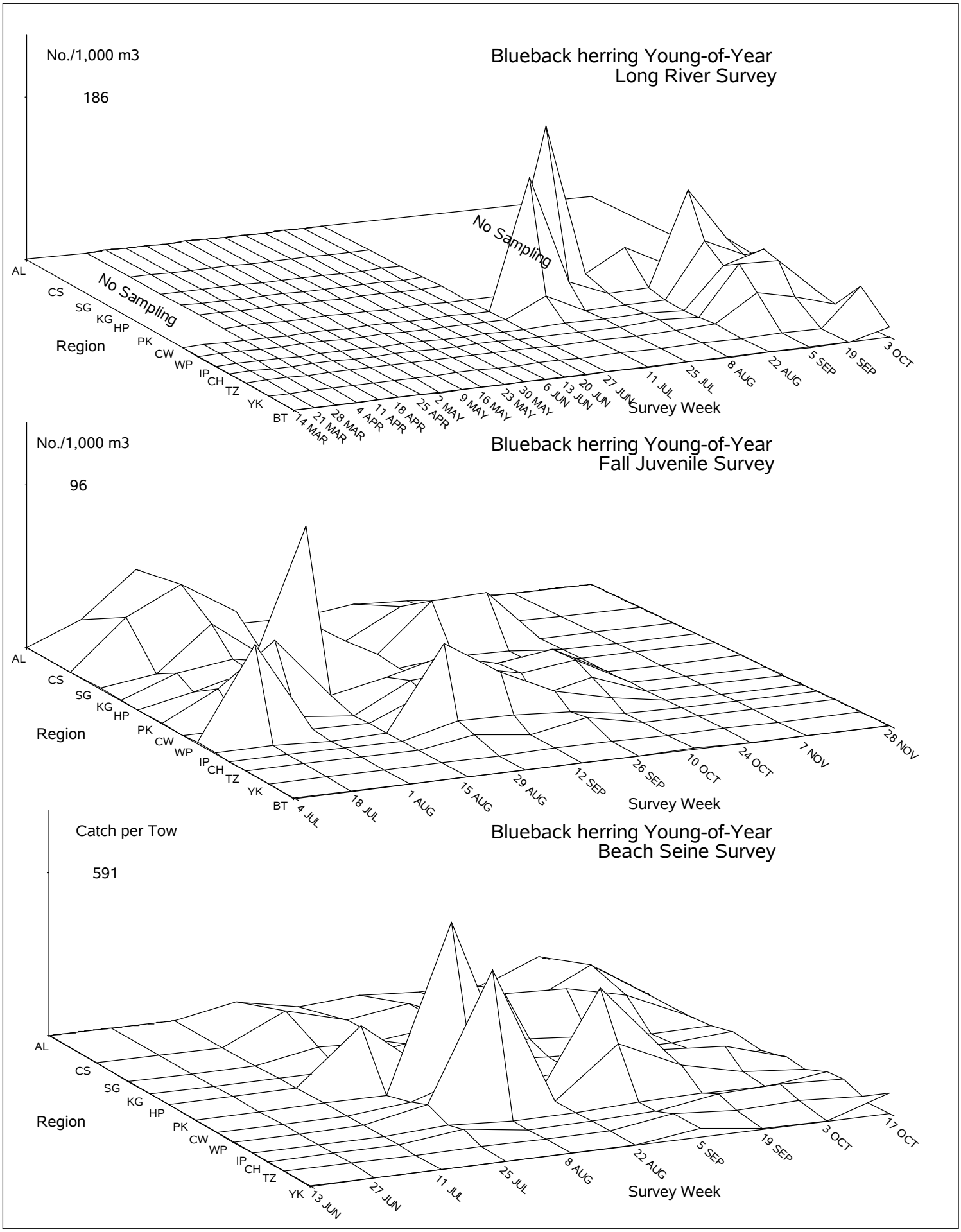


Figure 4-53. Spatiotemporal distribution of young-of-year blueback herring in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

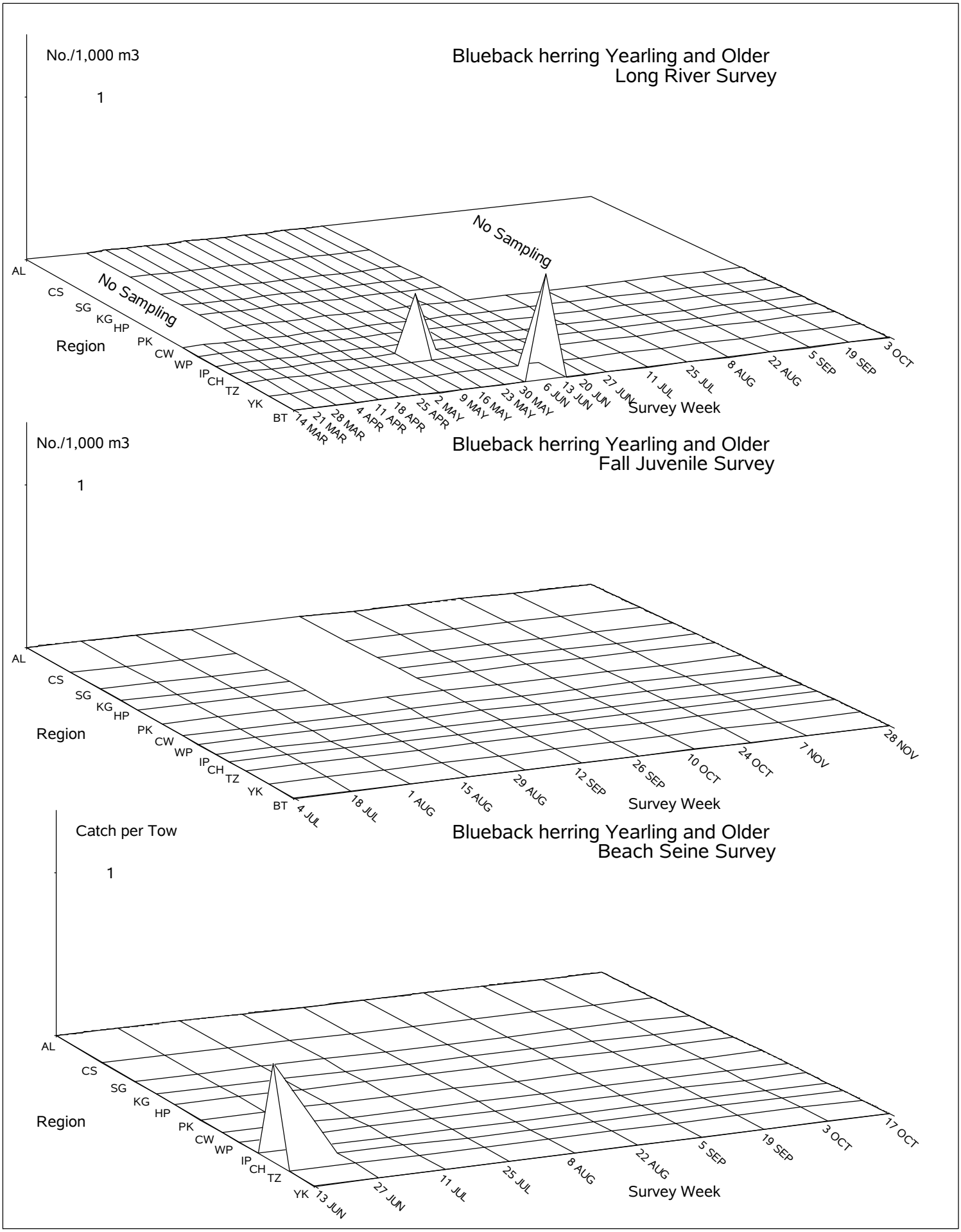


Figure 4-54. Spatiotemporal distribution of yearling and older blueback herring in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

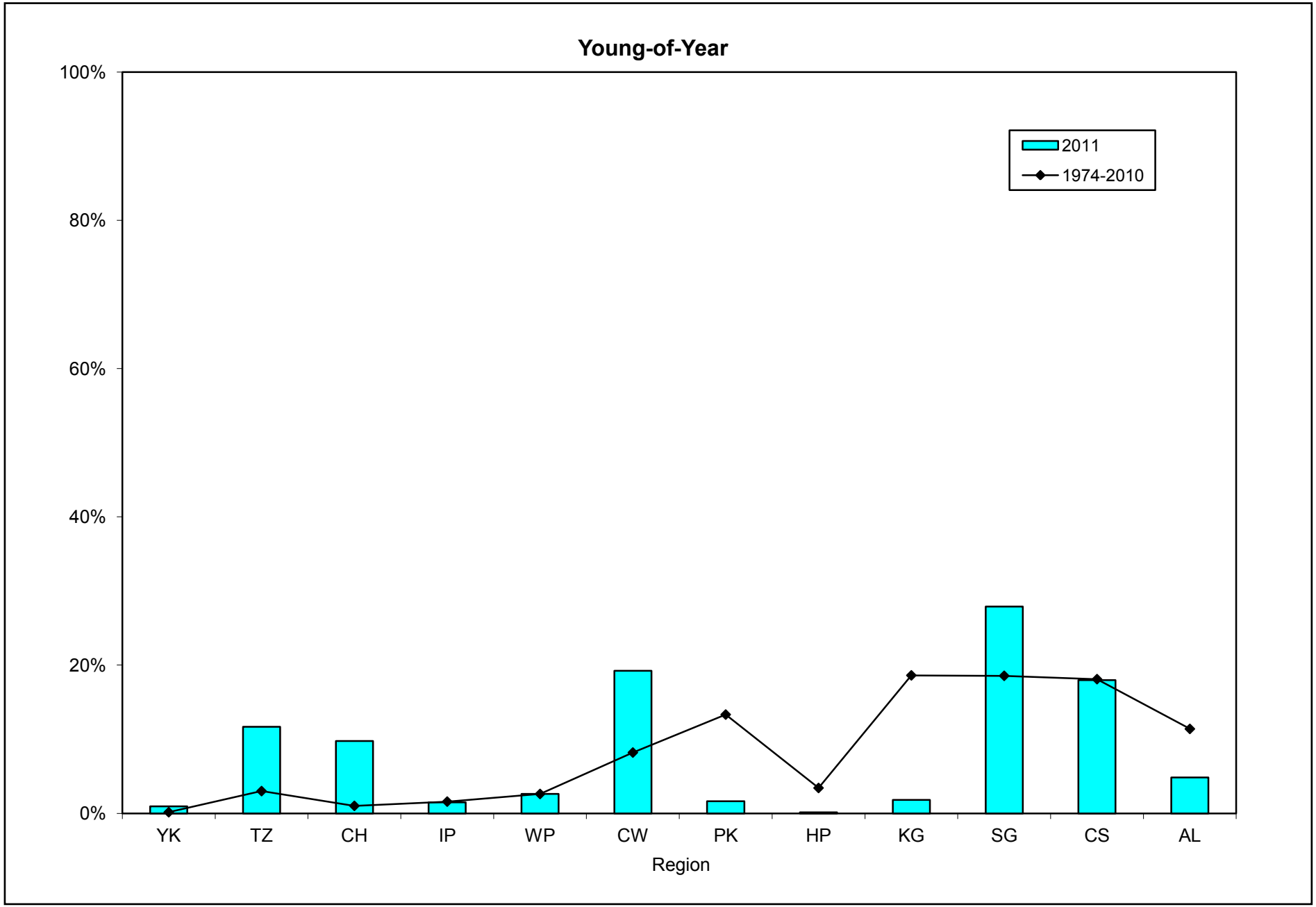


Figure 4-55. Geographic distribution indices for blueback herring collected during Beach Seine surveys of the Hudson River estuary, 1974-2011.

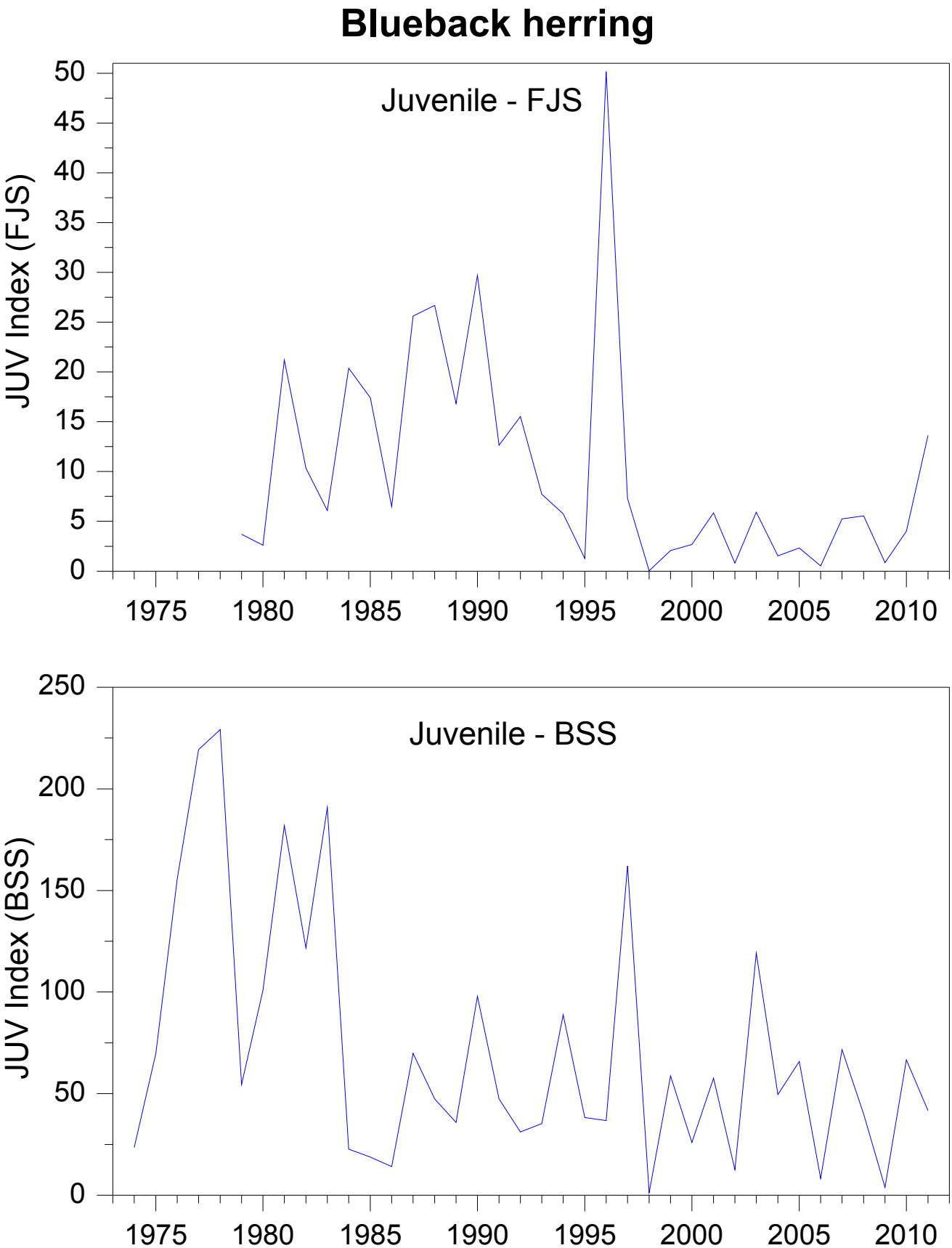


Figure 4-56. Blueback herring indices of annual abundance based on Fall Juvenile Survey, 1979-2011, and Beach Seine Survey, 1974-2011.

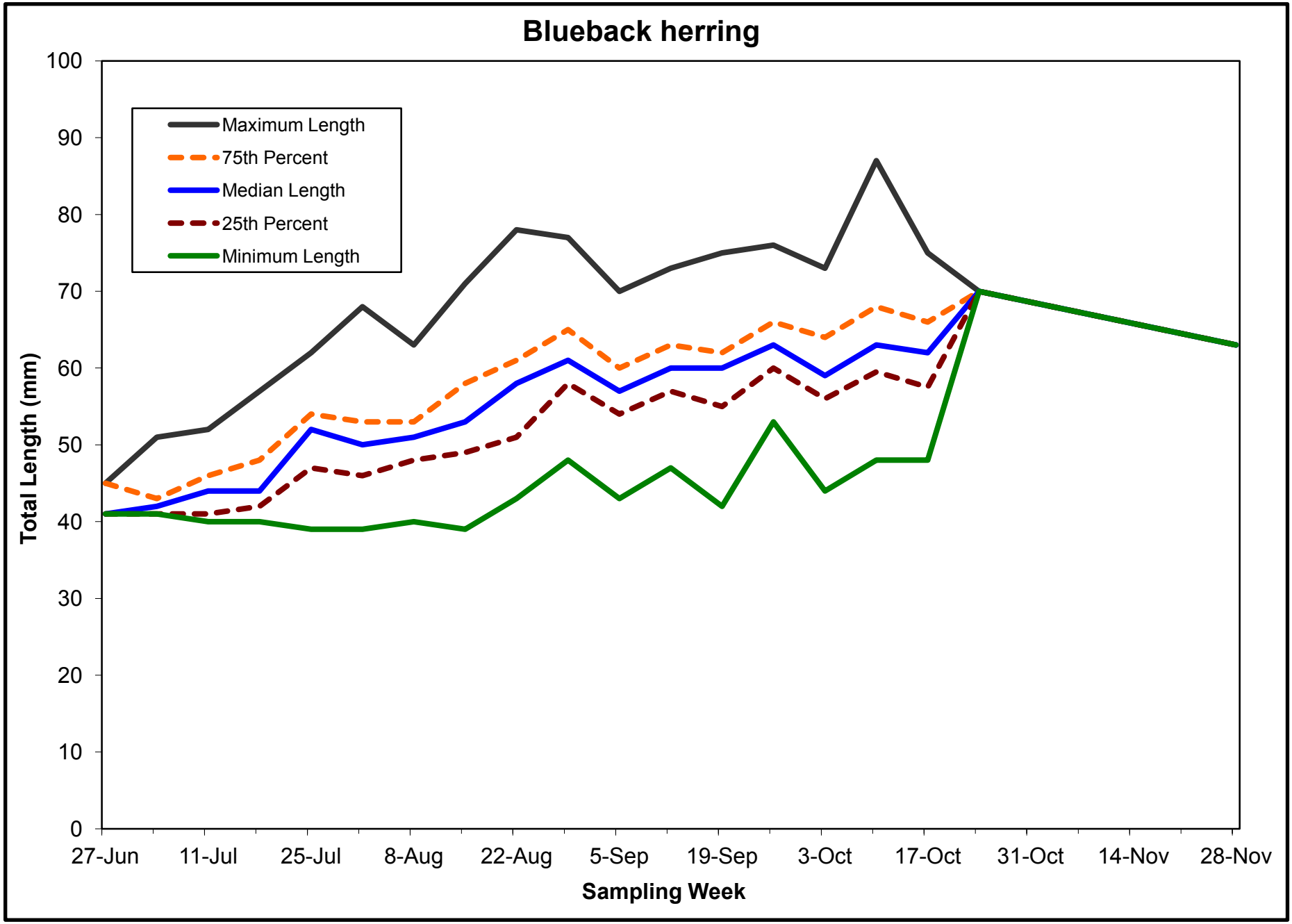


Figure 4-57. Weekly length statistics for young-of-year blueback herring in the Hudson River estuary, 2011.

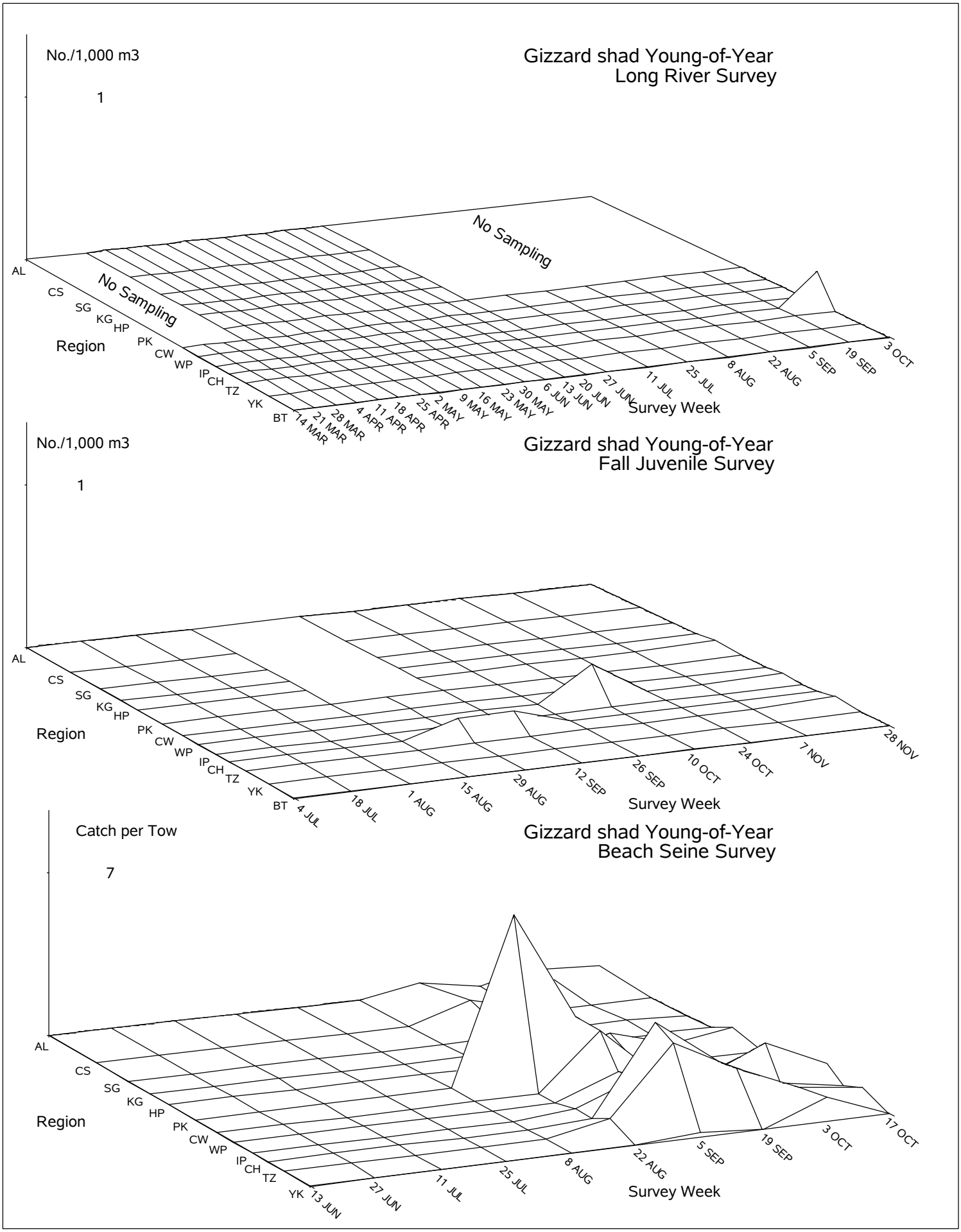


Figure 4-58. Spatiotemporal distribution of young-of-year gizzard shad in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

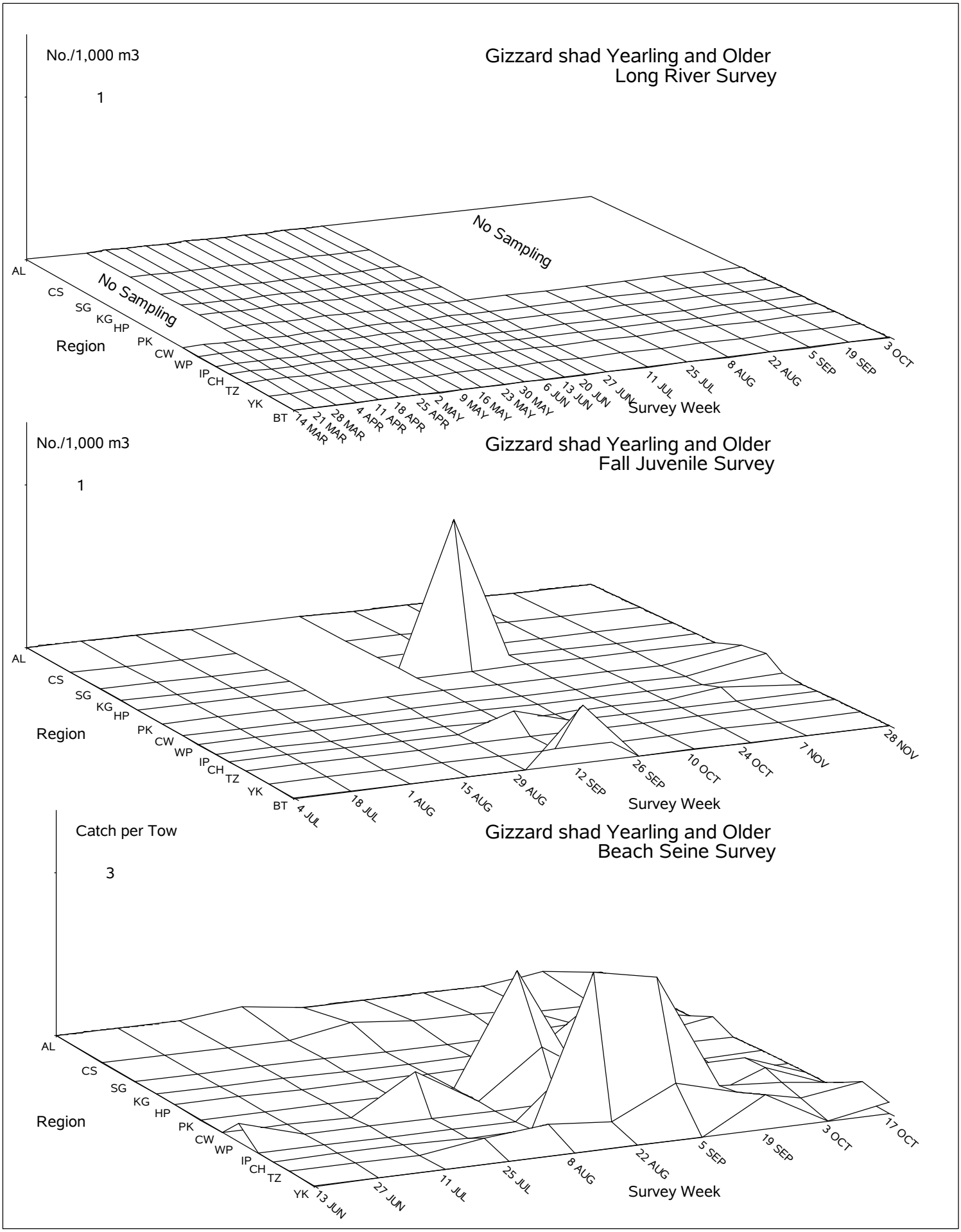


Figure 4-59. Spatiotemporal distribution of yearling and older gizzard shad in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

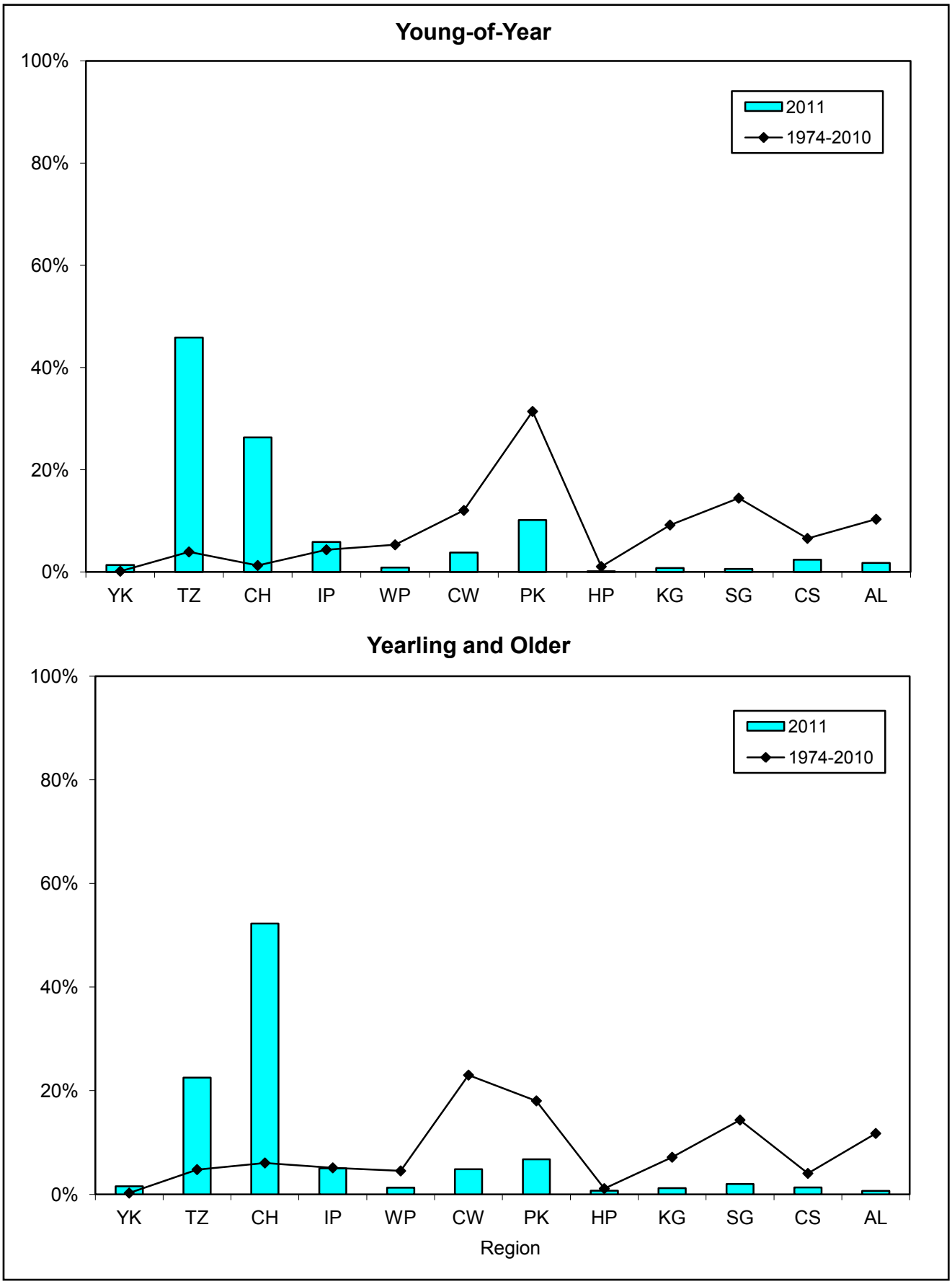


Figure 4-60. Geographic distribution indices for gizzard shad collected during Beach Seine surveys of the Hudson River estuary, 1974-2011.

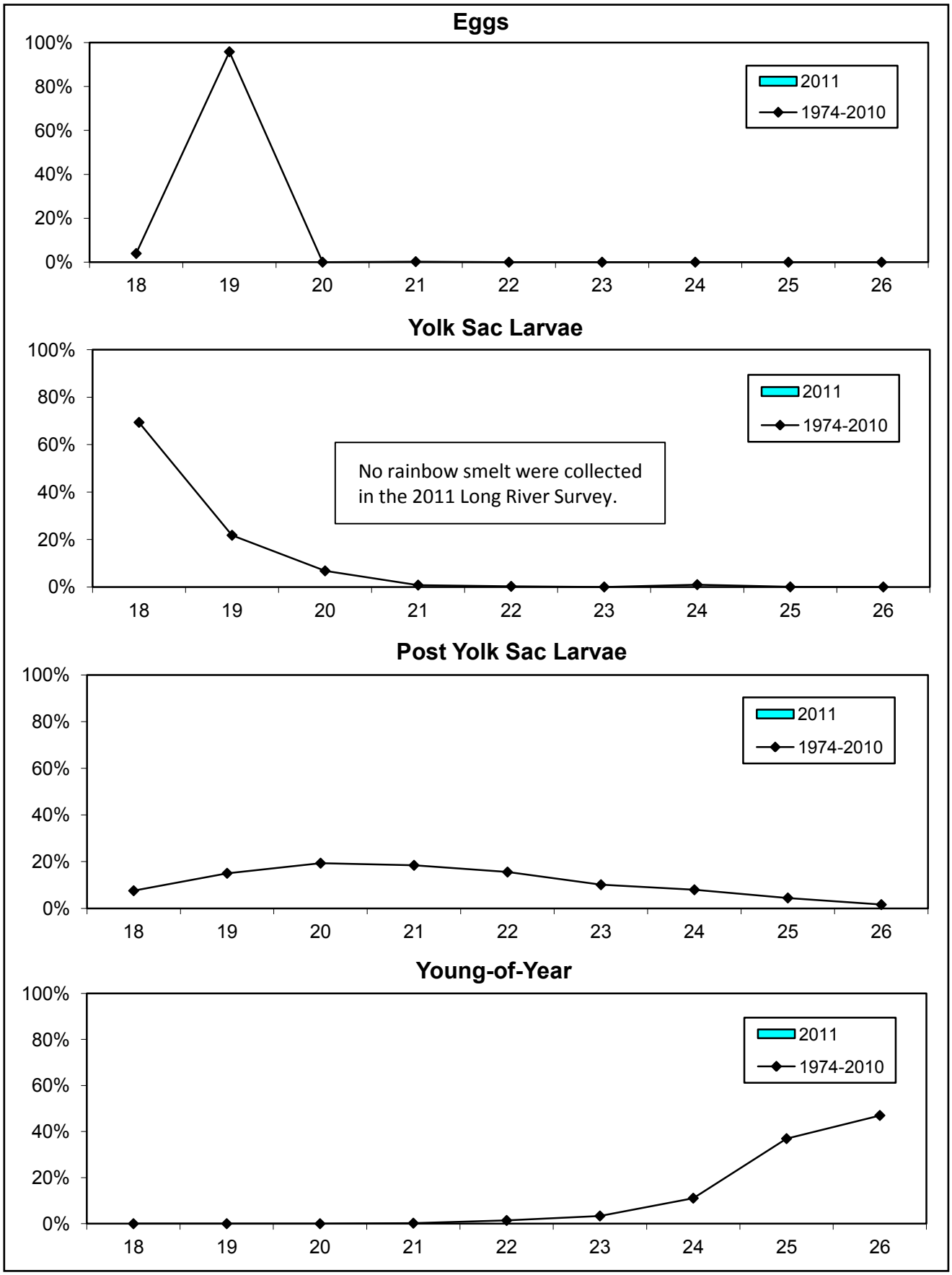


Figure 4-61. Temporal distribution indices for rainbow smelt collected during Long River surveys of the Hudson River estuary, 1974-2011.

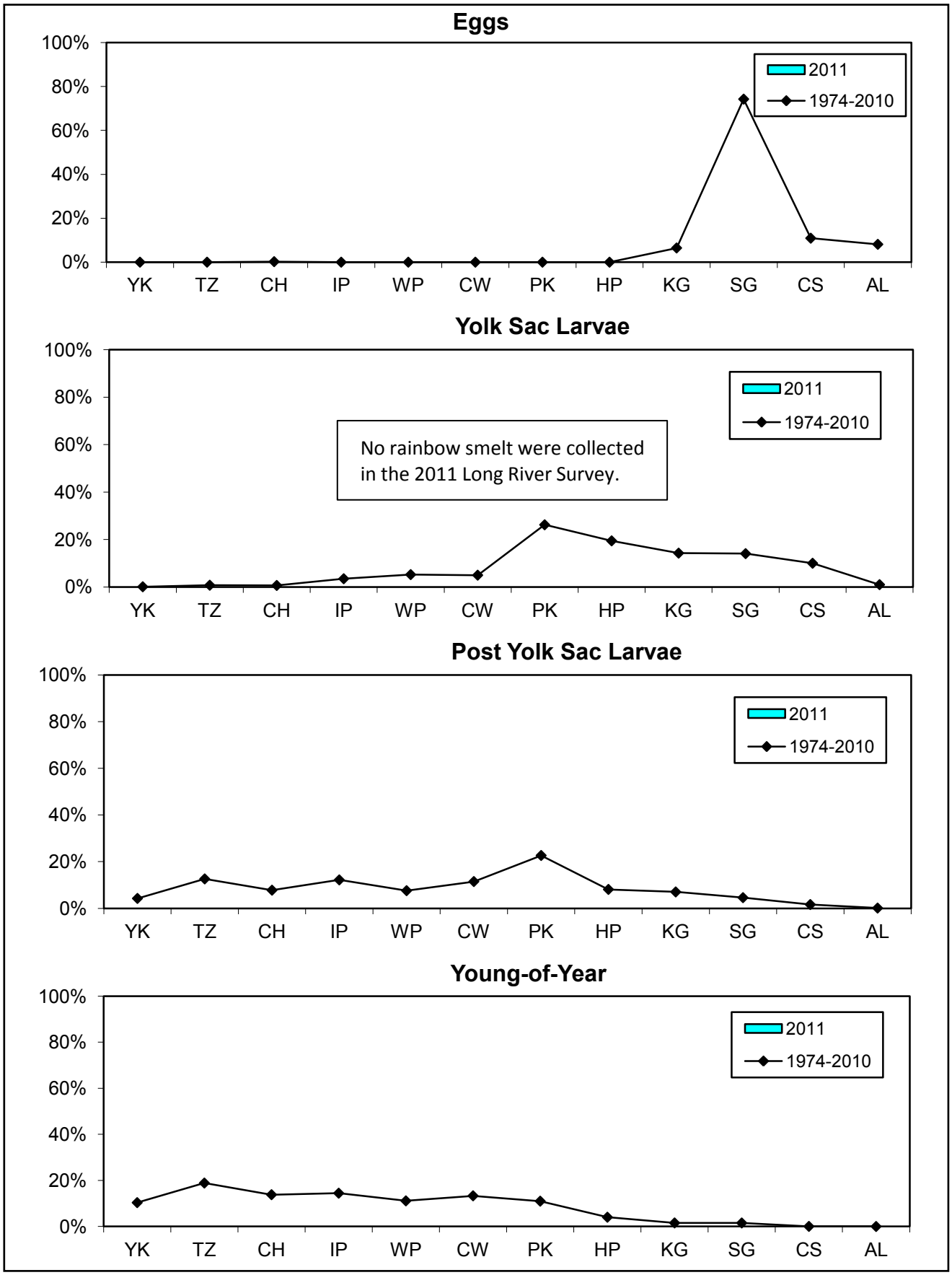


Figure 4-62. Geographic distribution indices for rainbow smelt collected during Long River surveys of the Hudson River estuary, 1974-2011.

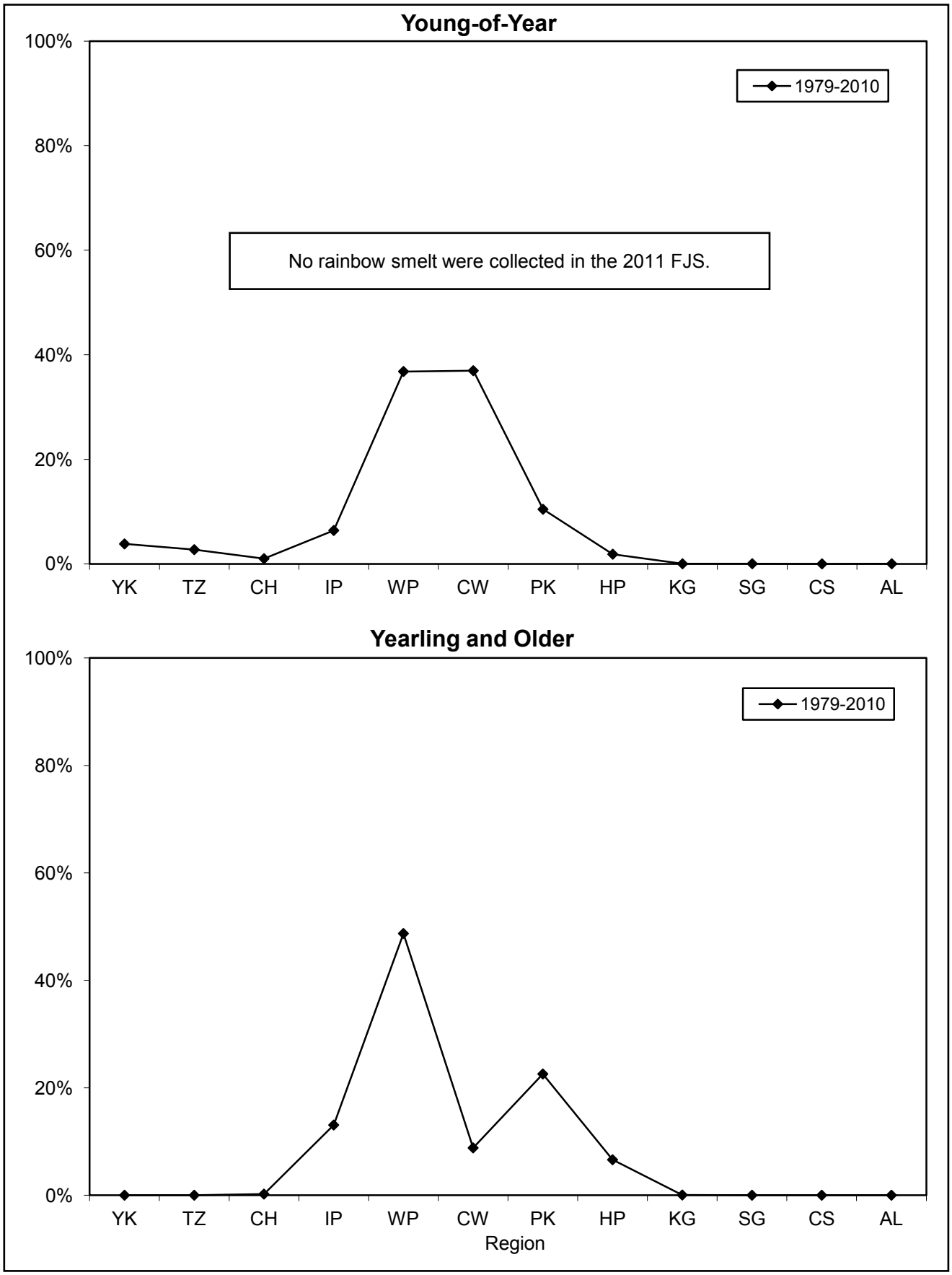


Figure 4-63. Geographic distribution indices for rainbow smelt collected during Fall Juvenile surveys of the Hudson River estuary, 1979-2011.

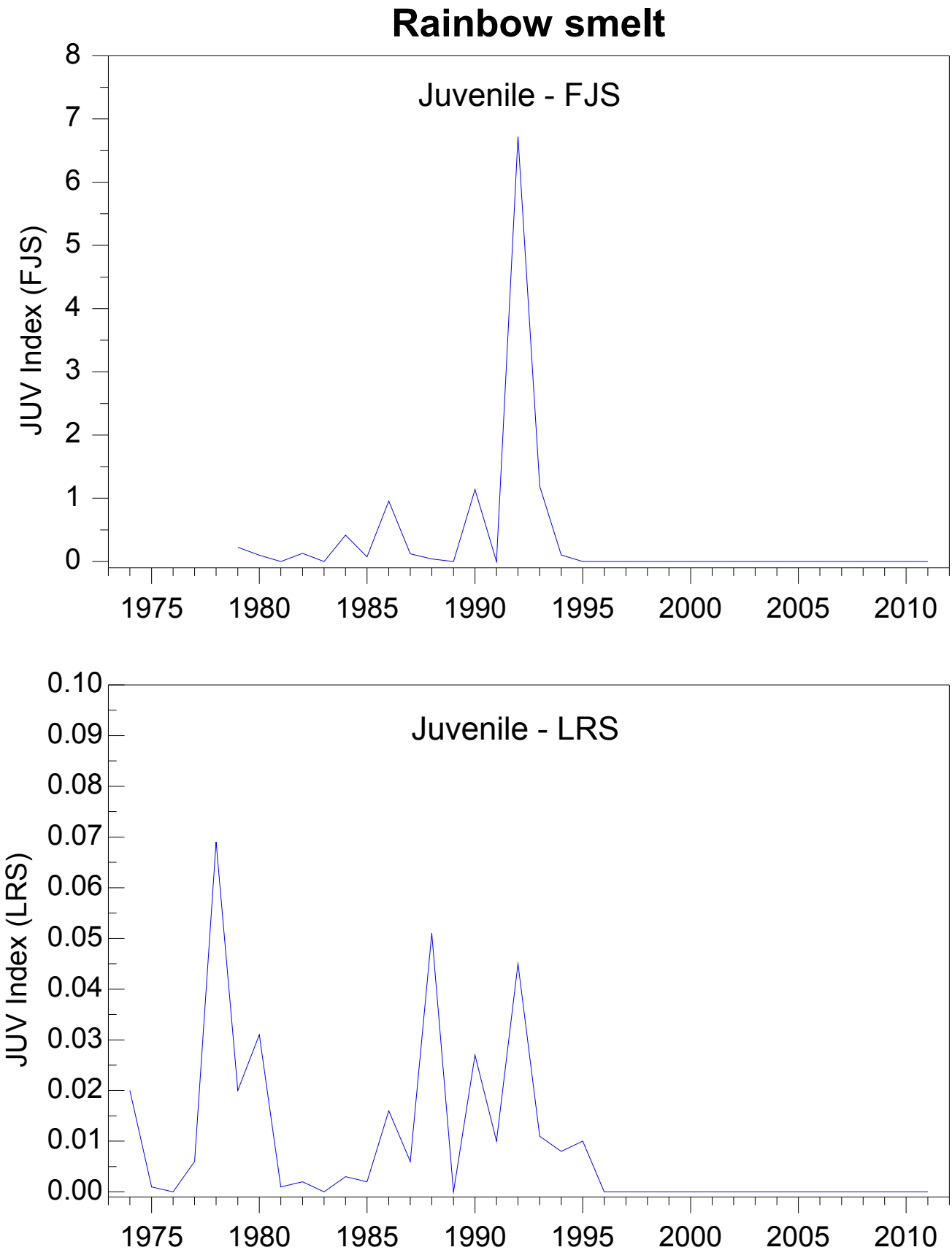


Figure 4-64. Rainbow smelt indices of annual abundance based on Fall Juvenile Survey, 1979-2011, and Long River Survey, 1974-2011.

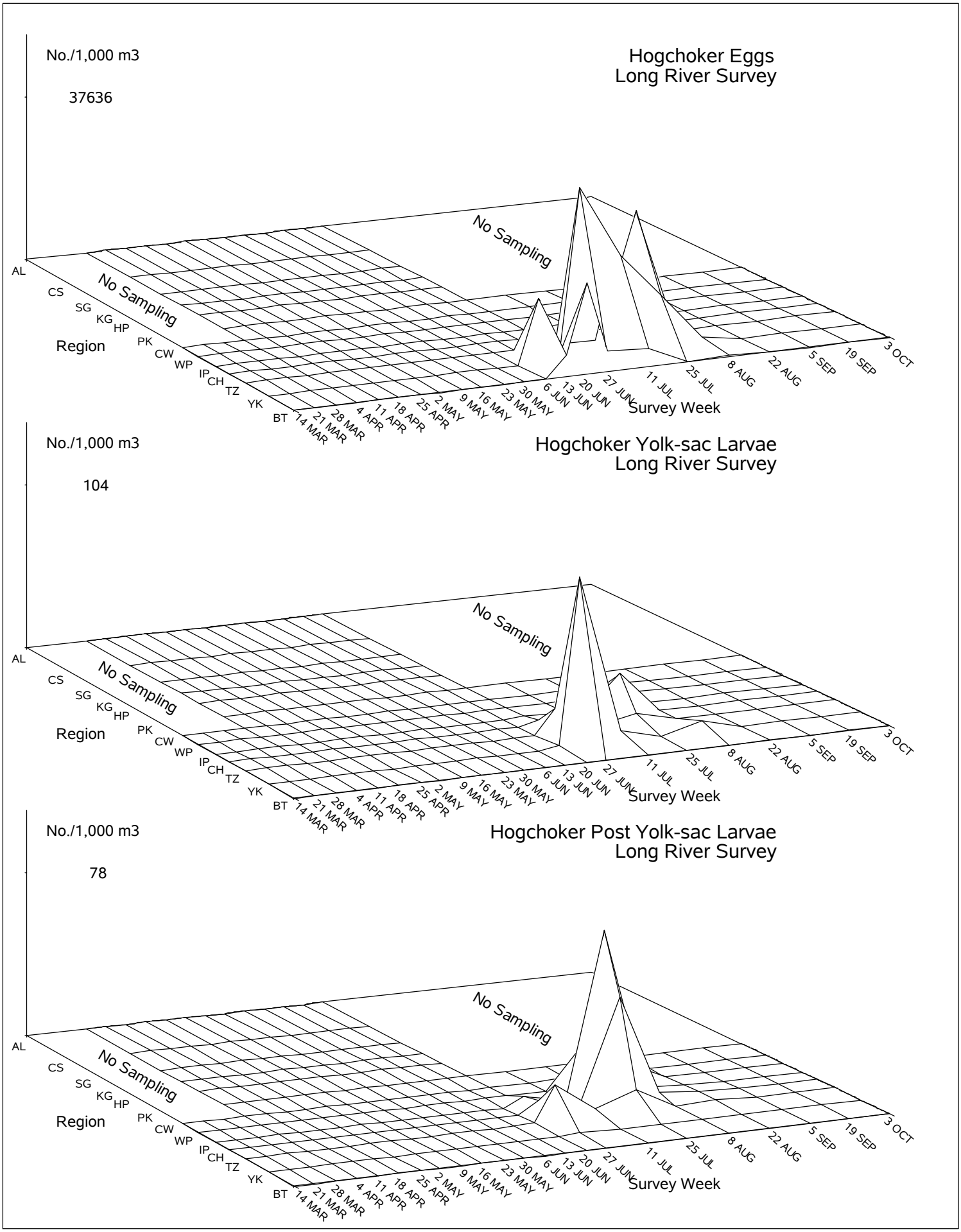


Figure 4-65. Spatiotemporal distribution of eggs, yolk-sac, and post yolk-sac larval hogchoker in the Hudson River estuary based on the 2011 Long River Survey.

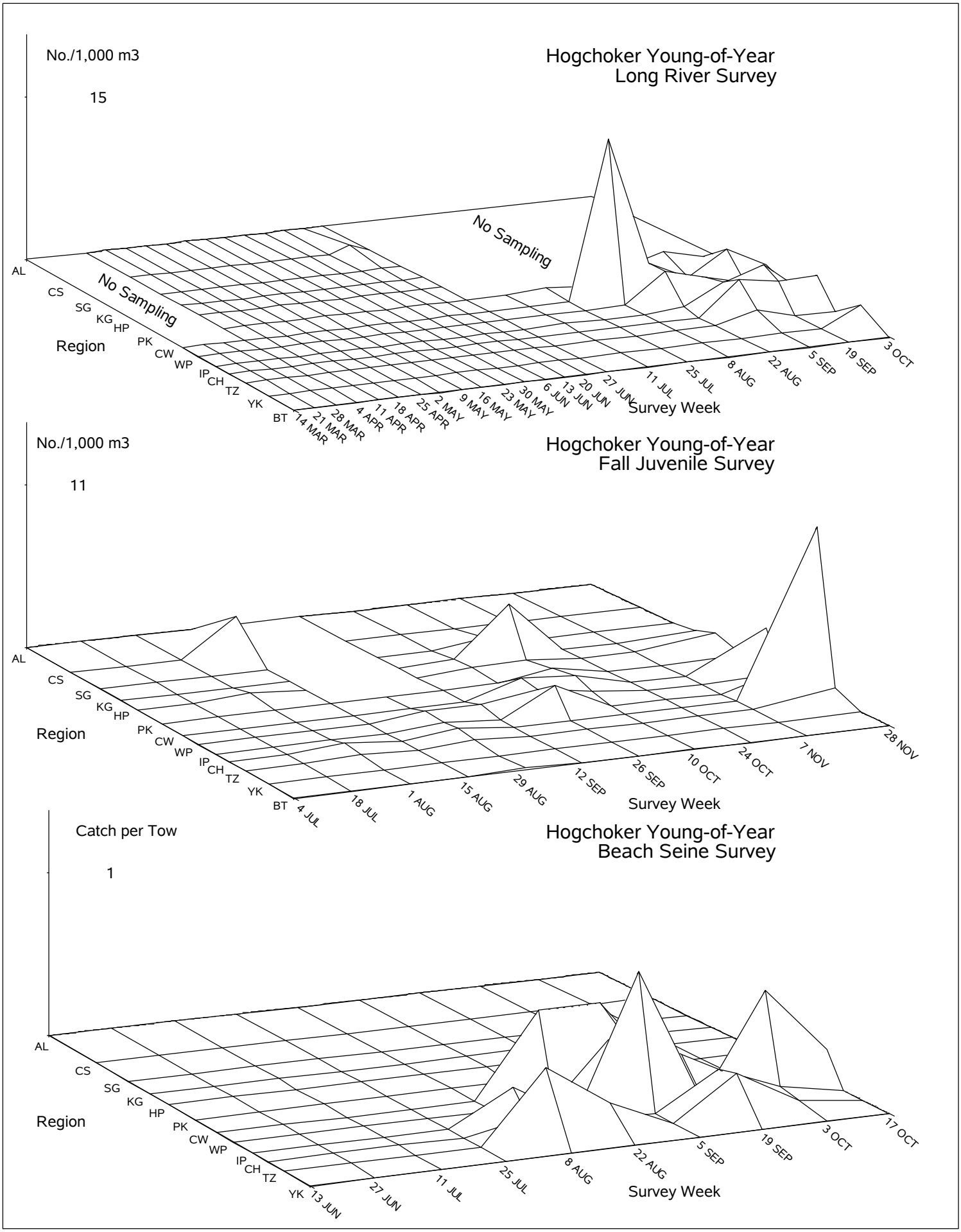


Figure 4-66. Spatiotemporal distribution of young-of-year hogchoker in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

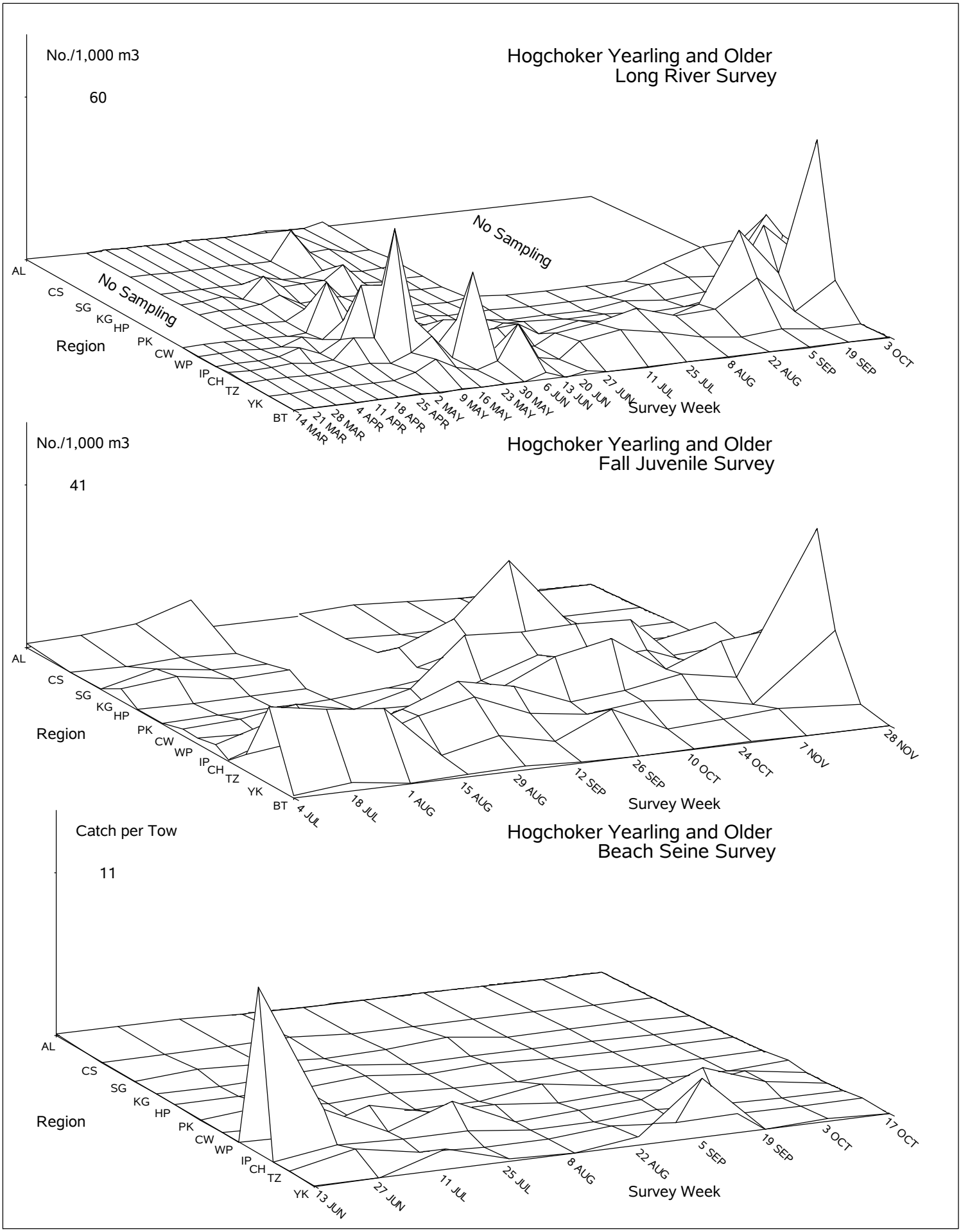


Figure 4-67. Spatiotemporal distribution of yearling and older hogchoker in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

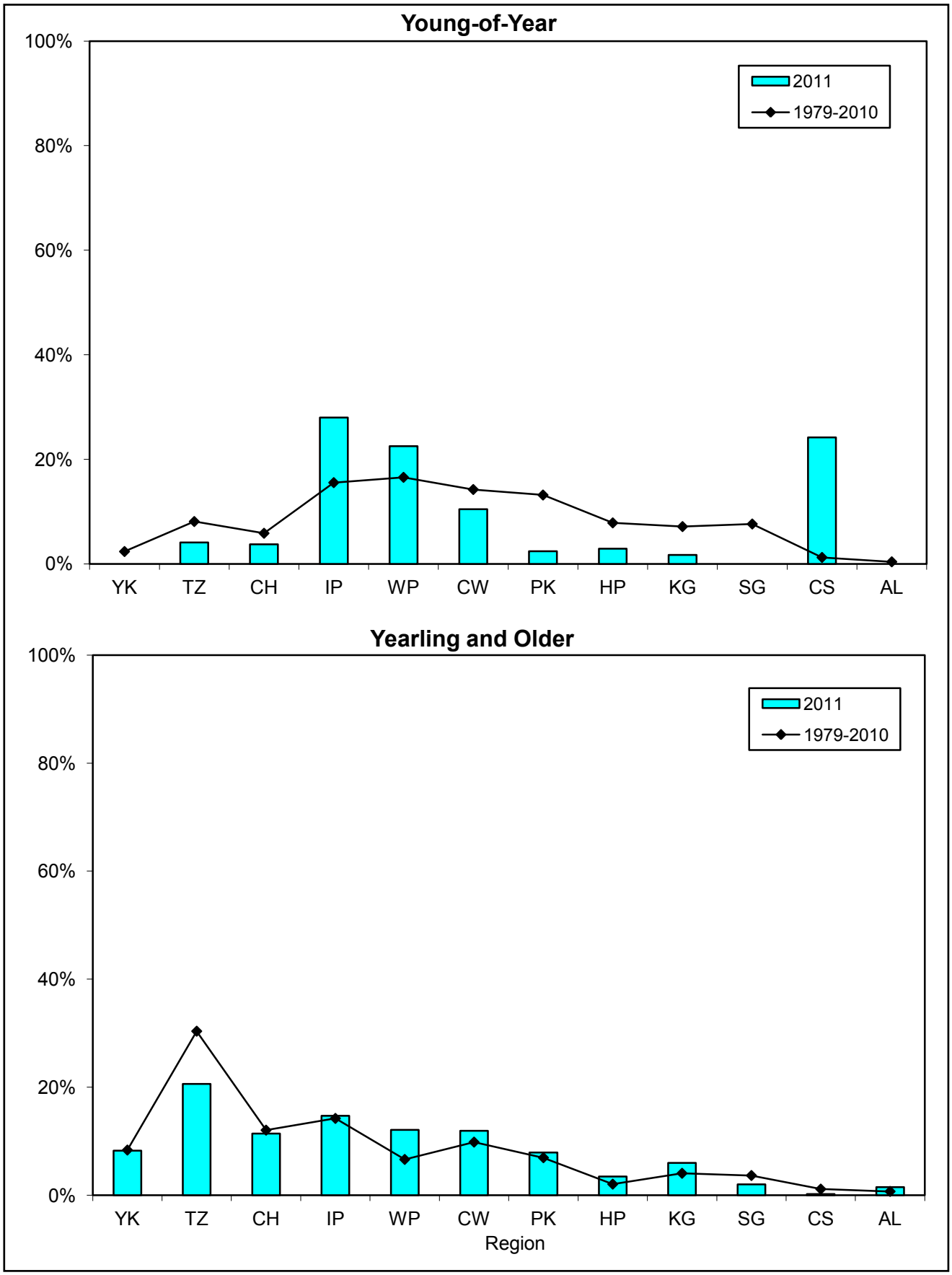


Figure 4-68. Geographic distribution indices for hogchoker collected during Fall Juvenile surveys of the Hudson River estuary, 1979-2011.

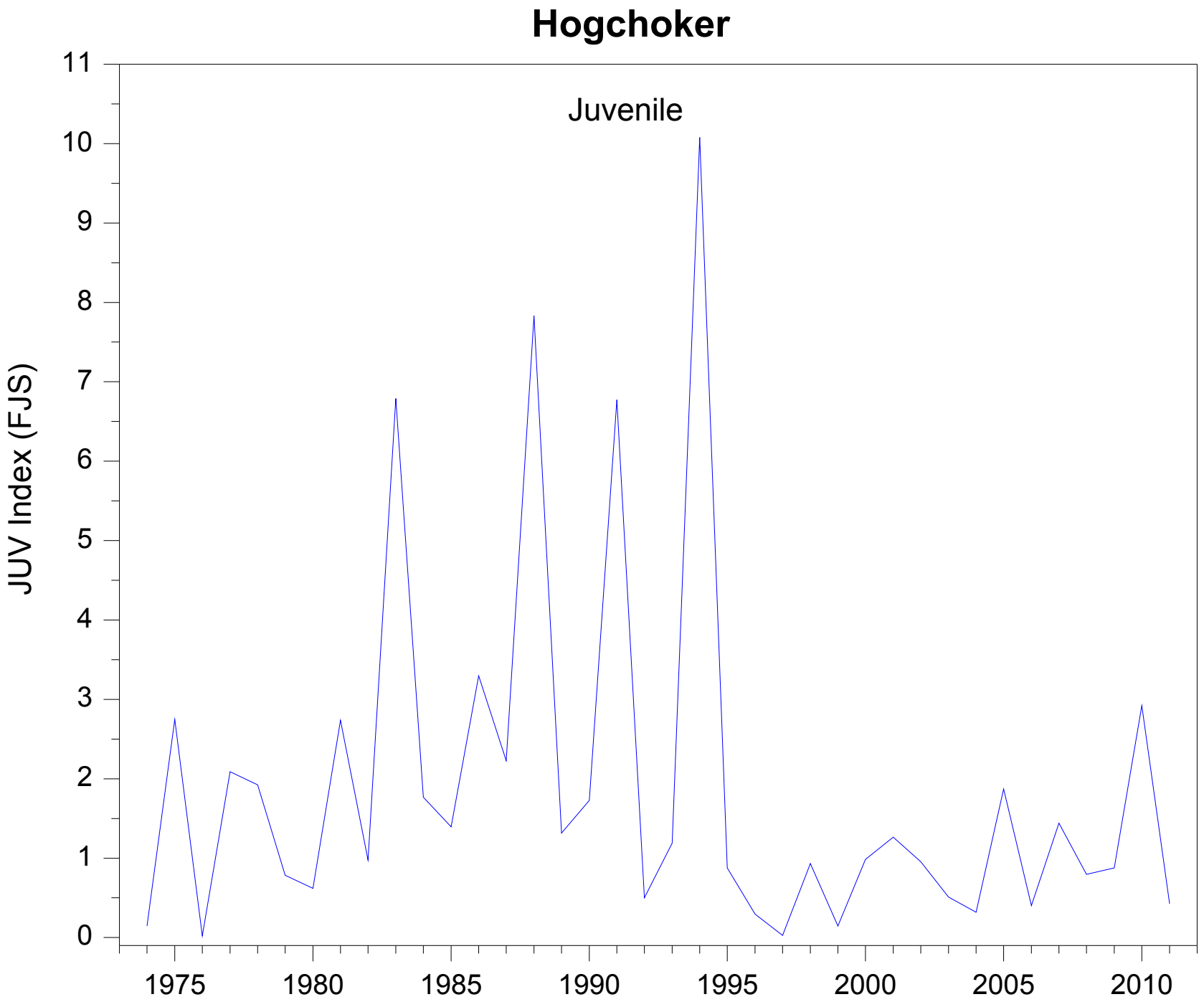


Figure 4-69. Hogchoker indices of annual abundance based on Fall Juvenile Survey, 1974-2011.

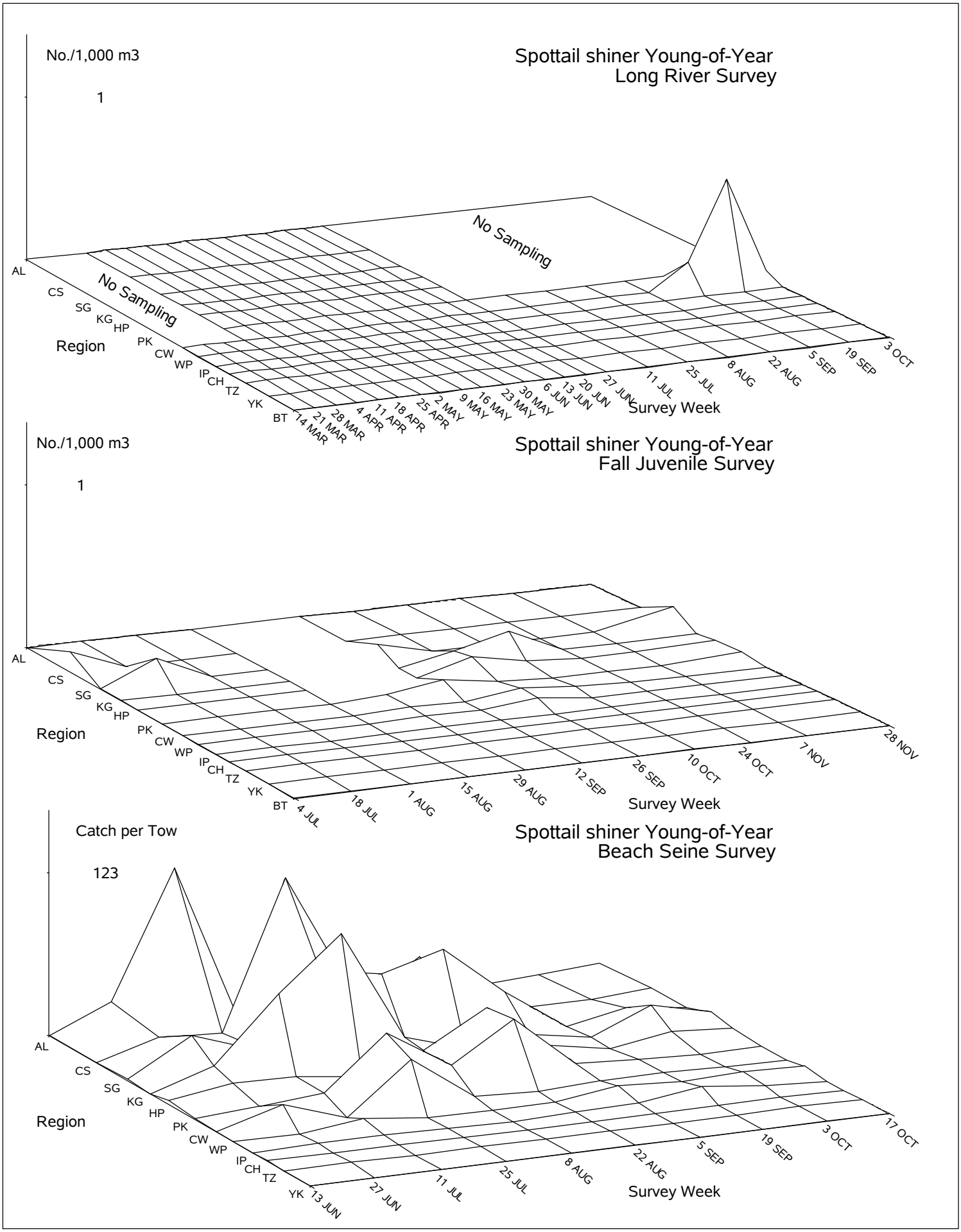


Figure 4-70. Spatiotemporal distribution of young-of-year spottail shiner in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

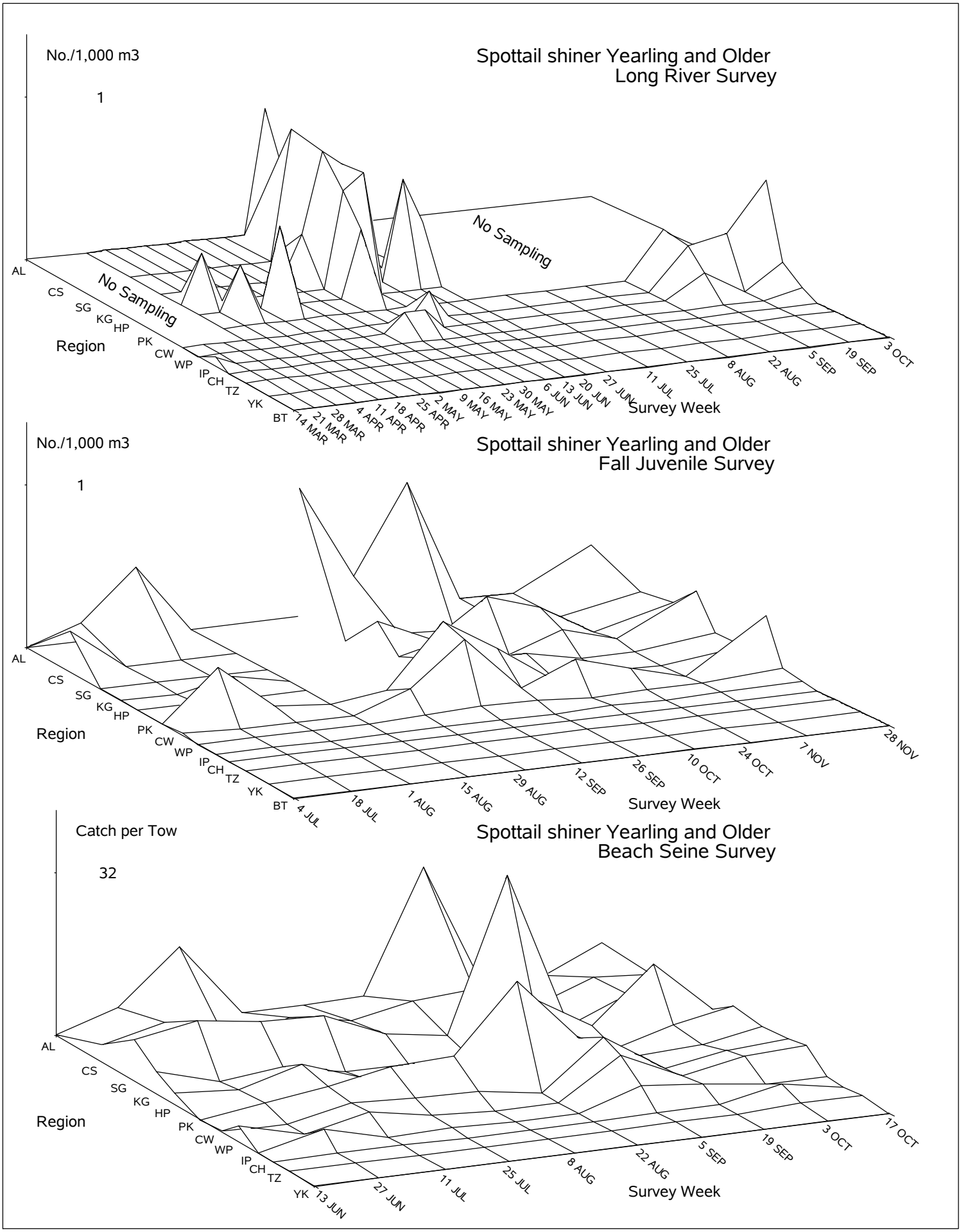


Figure 4-71. Spatiotemporal distribution of yearling and older spottail shiner in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

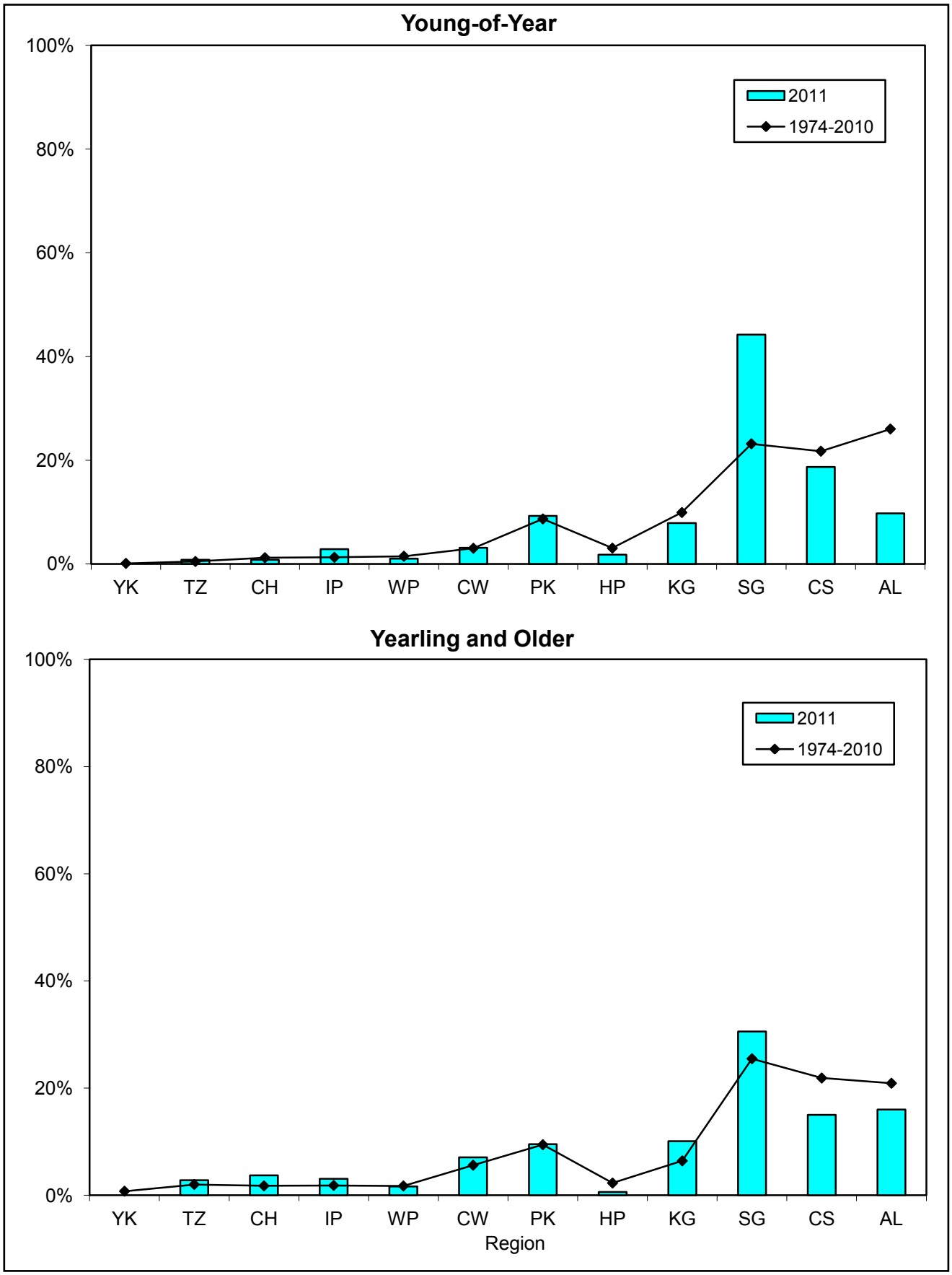


Figure 4-72. Geographic distribution indices for spottail shiner collected during Beach Seine surveys of the Hudson River estuary, 1974-2011.

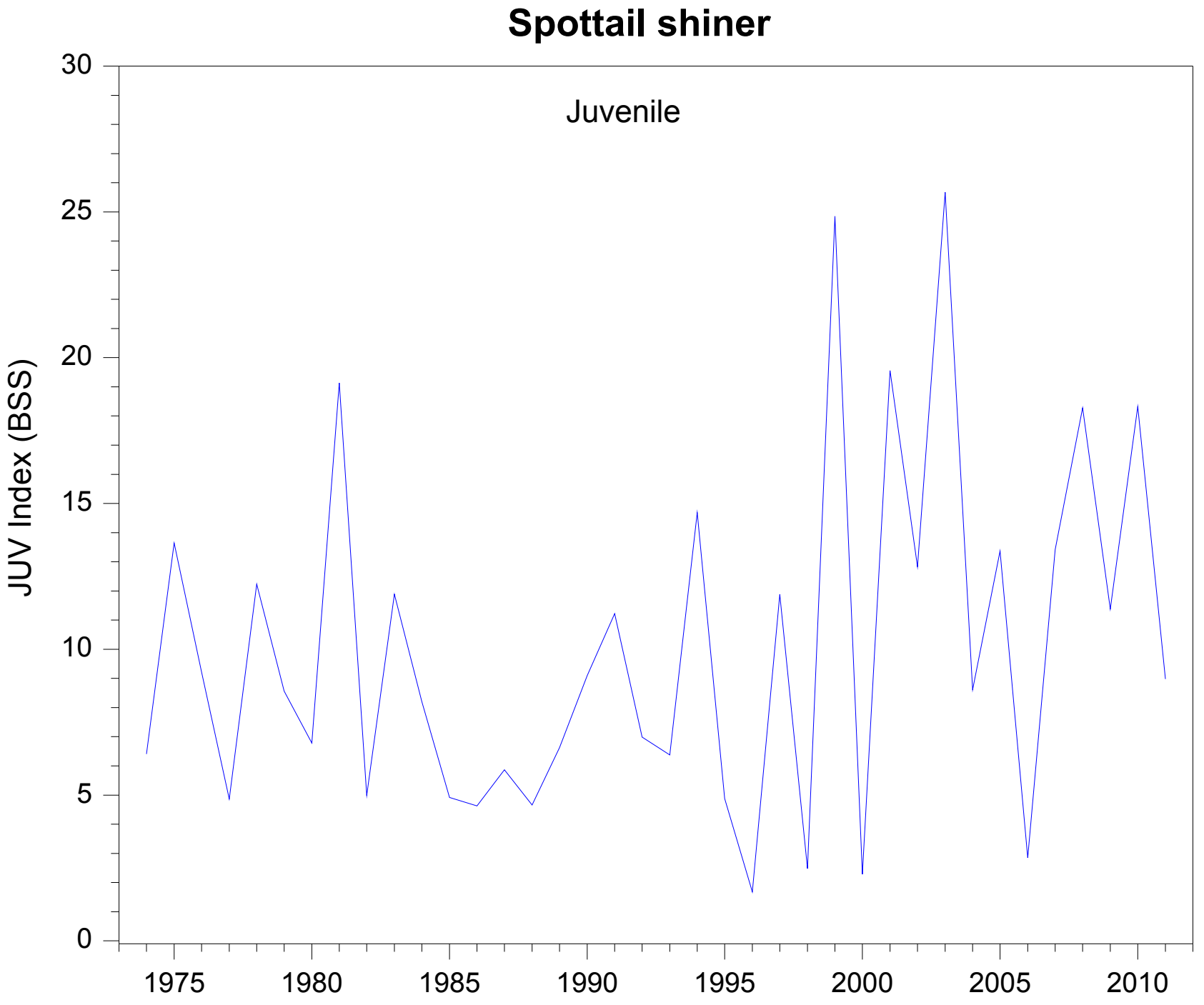


Figure 4-73. Spottail shiner indices of annual abundance based on Beach Seine Survey, 1974-2011.

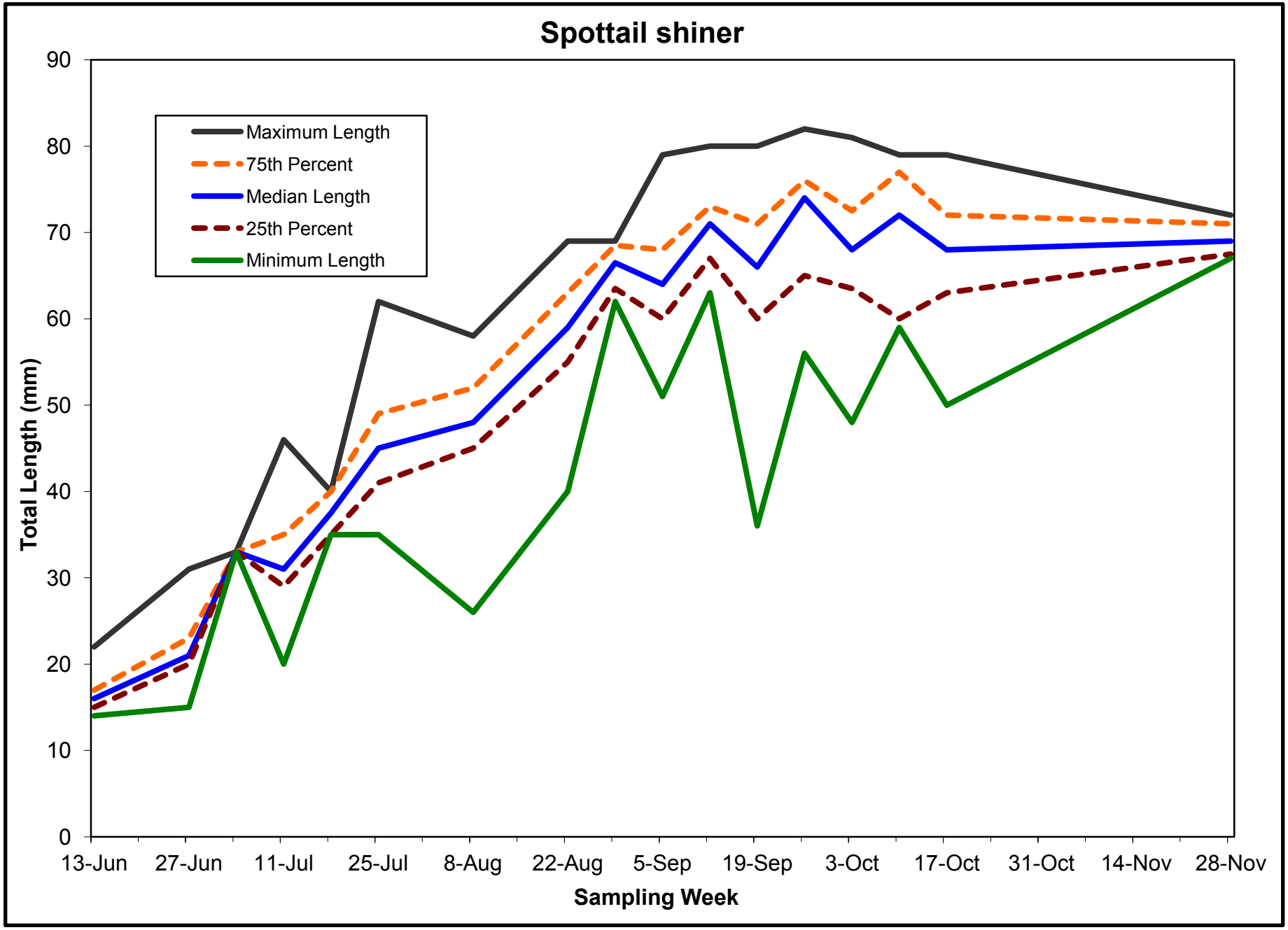


Figure 4-74. Weekly length statistics for young-of-year spottail shiner in the Hudson River estuary, 2011.

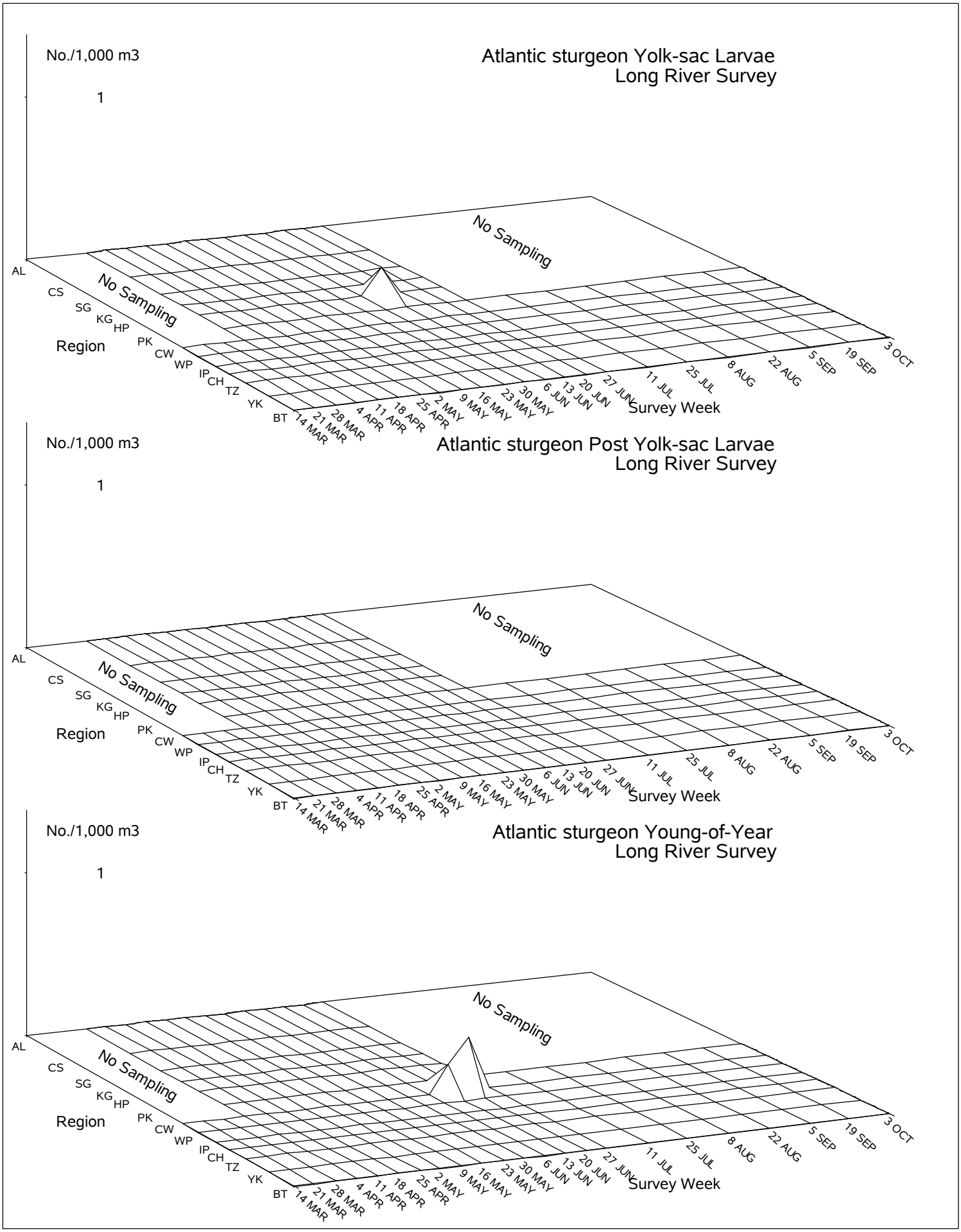


Figure 4-75. Spatiotemporal distribution of yolk-sac, post yolk-sac larval and young-of-year Atlantic sturgeon in the Hudson River estuary based on the 2011 Long River Survey.

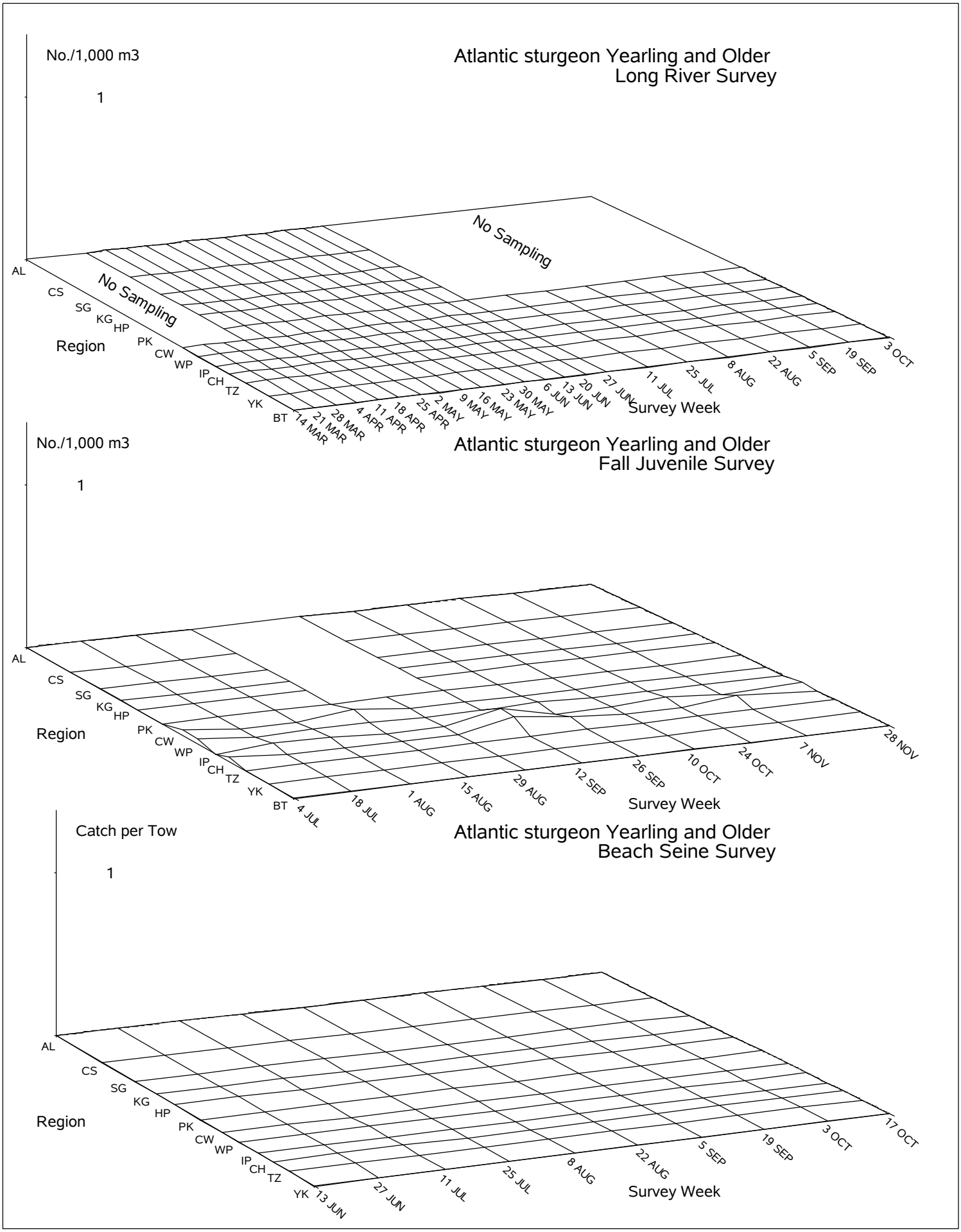


Figure 4-76. Spatiotemporal distribution of yearling and older Atlantic sturgeon in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

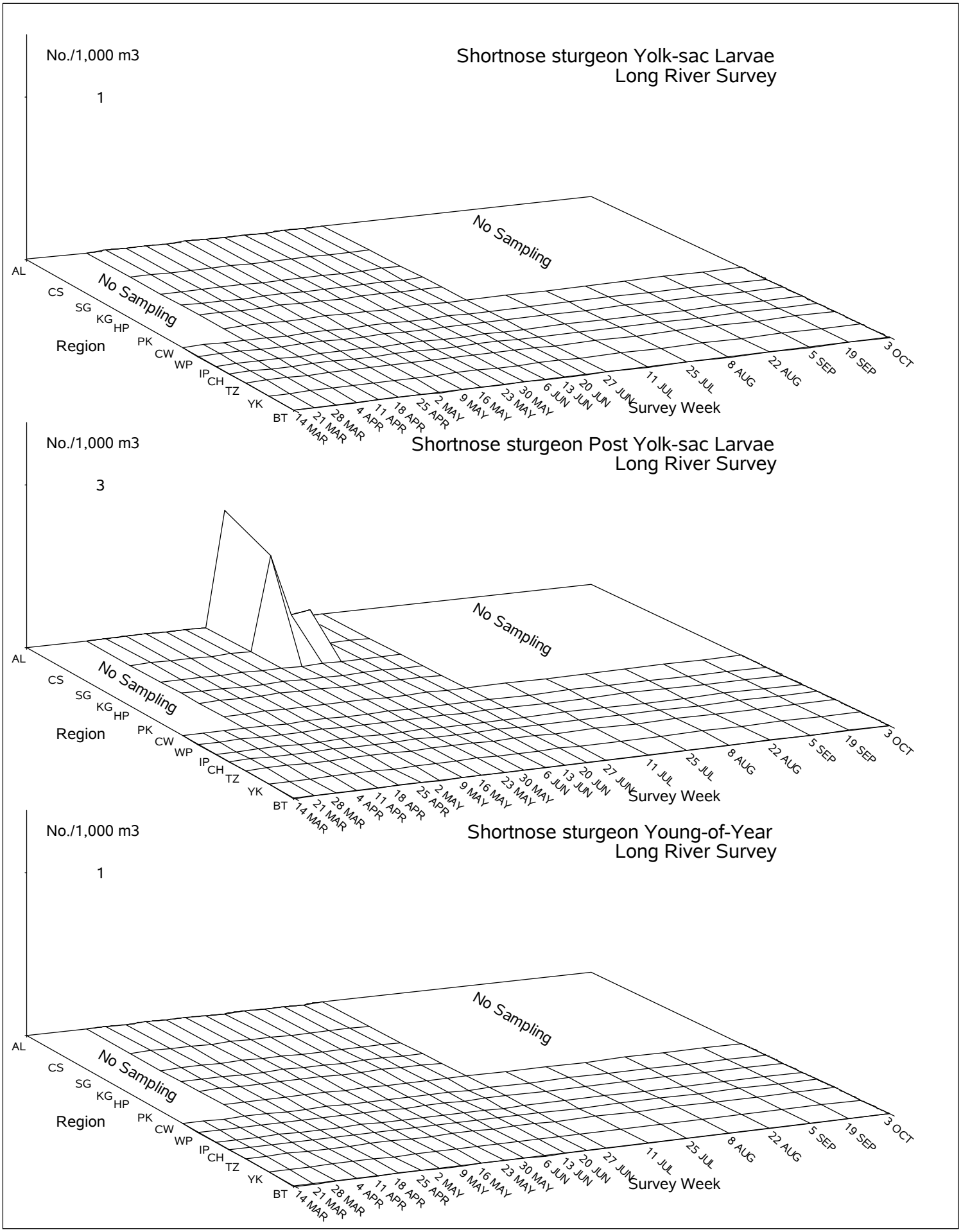


Figure 4-77. Spatiotemporal distribution of yolk-sac, post yolk-sac larval and young-of-year shortnose sturgeon in the Hudson River estuary based on the 2011 Long River Survey.

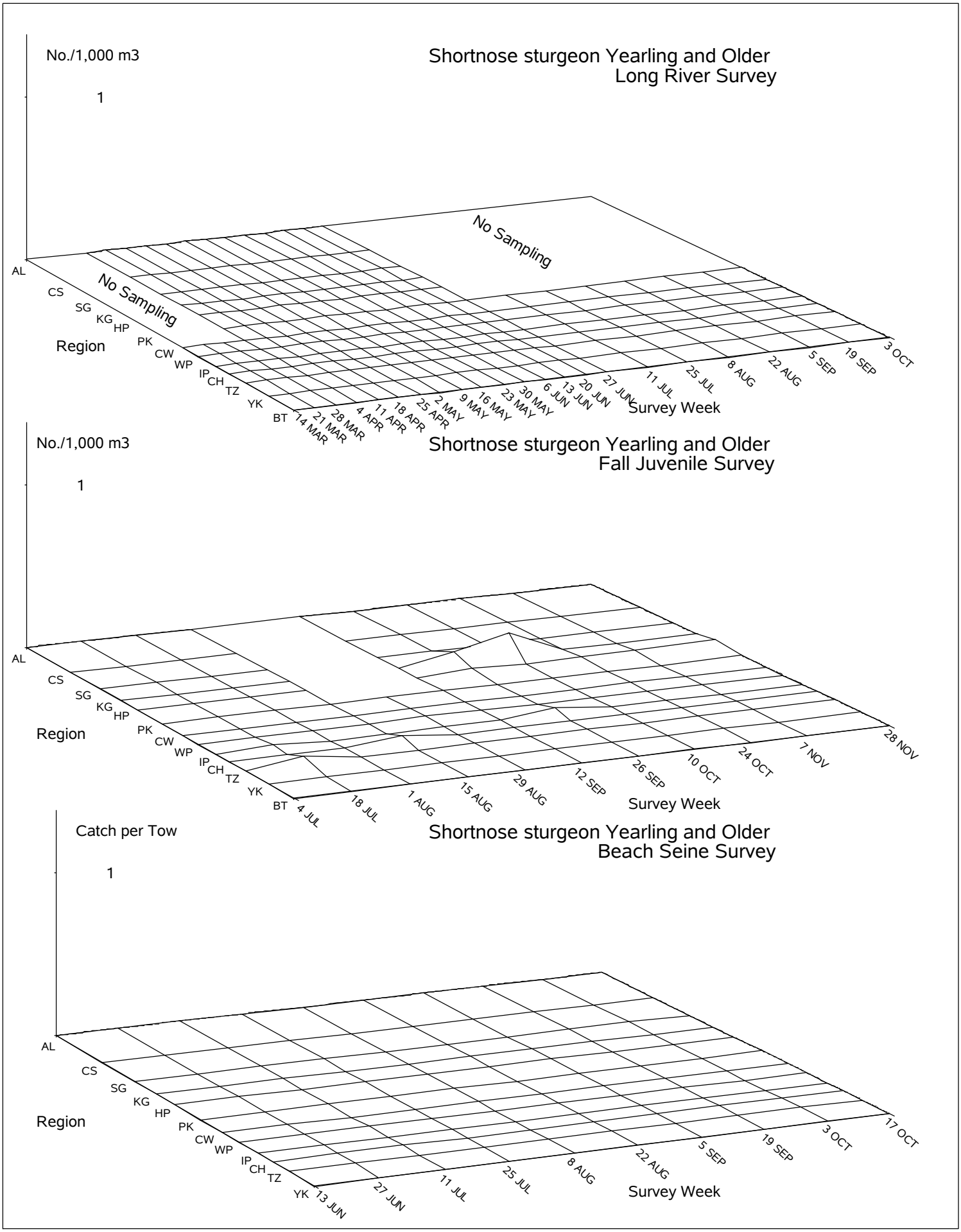


Figure 4-78. Spatiotemporal distribution of yearling and older shortnose sturgeon in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

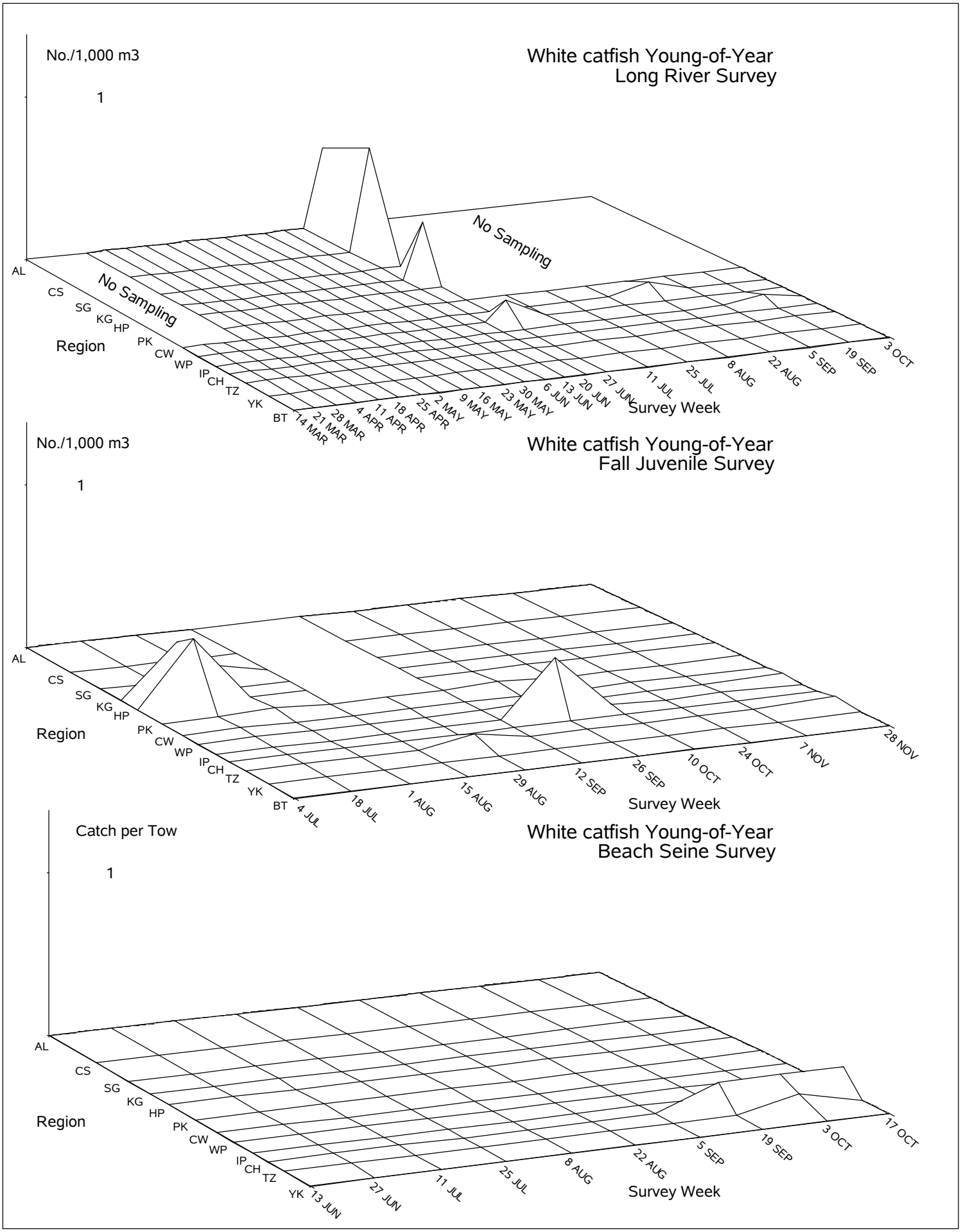


Figure 4-79. Spatiotemporal distribution of young-of-year white catfish in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

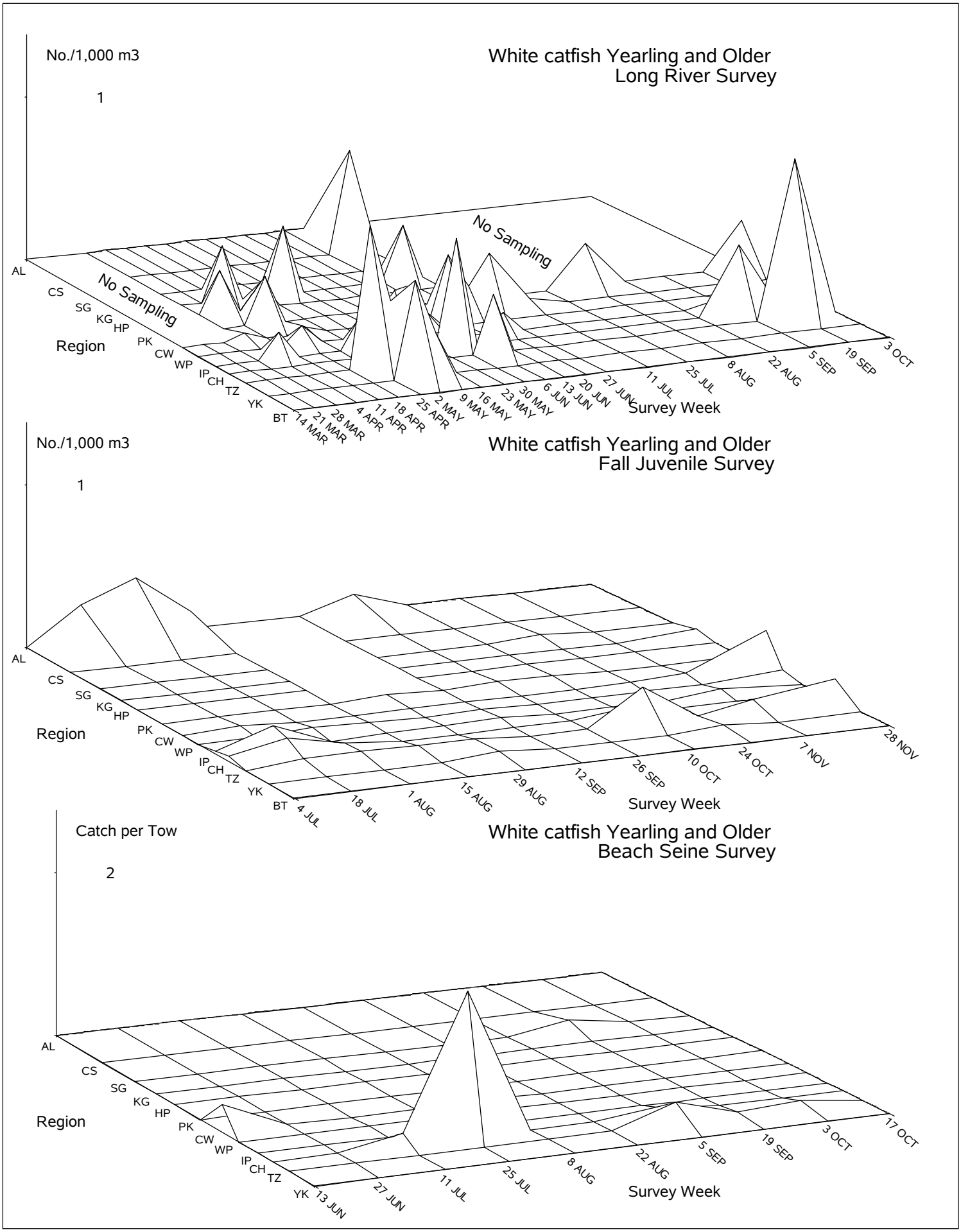


Figure 4-80. Spatiotemporal distribution of yearling and older white catfish in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

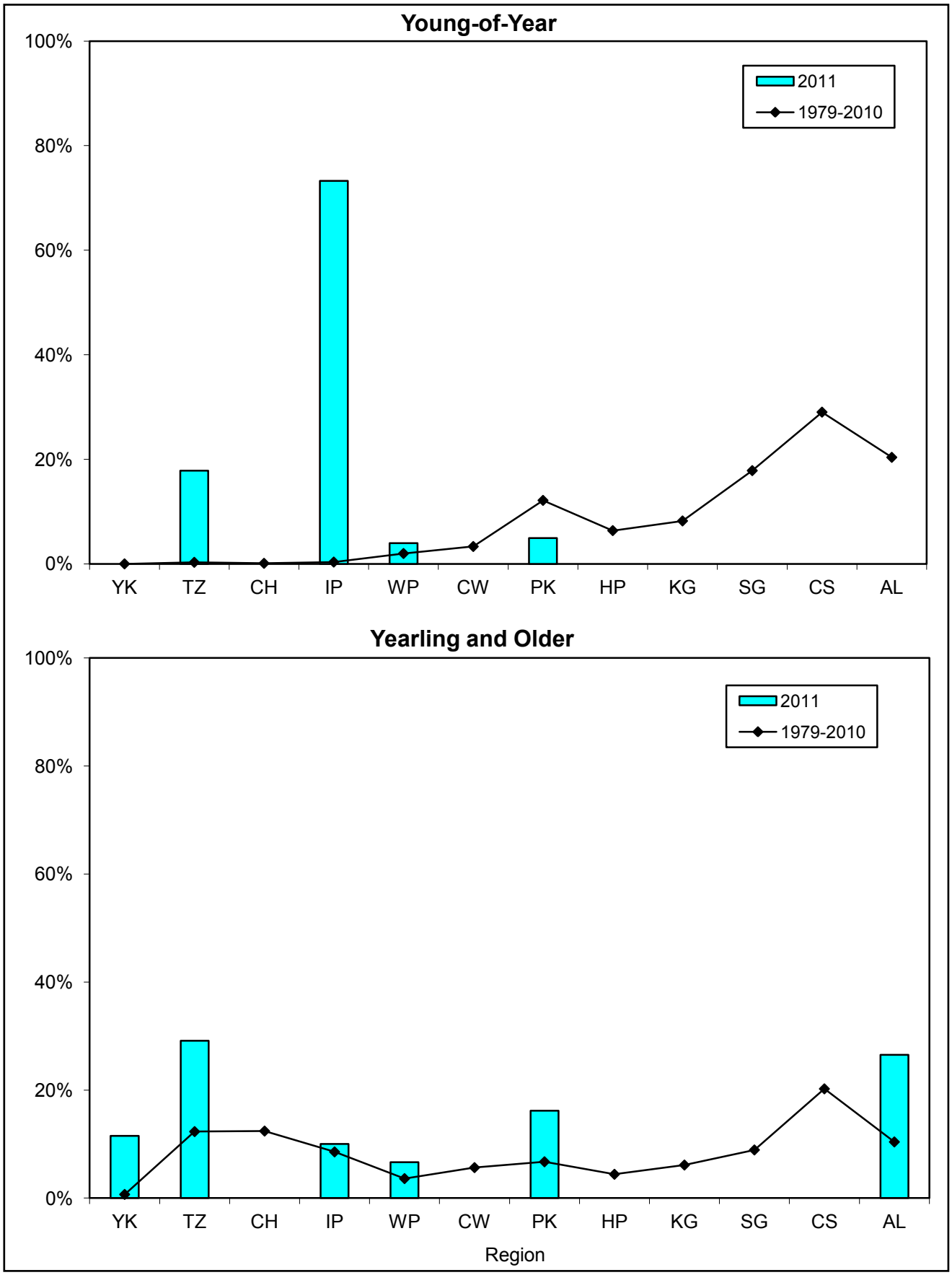


Figure 4-81. Geographic distribution indices for white catfish collected during Fall Juvenile surveys of the Hudson River estuary, 1979-2011.

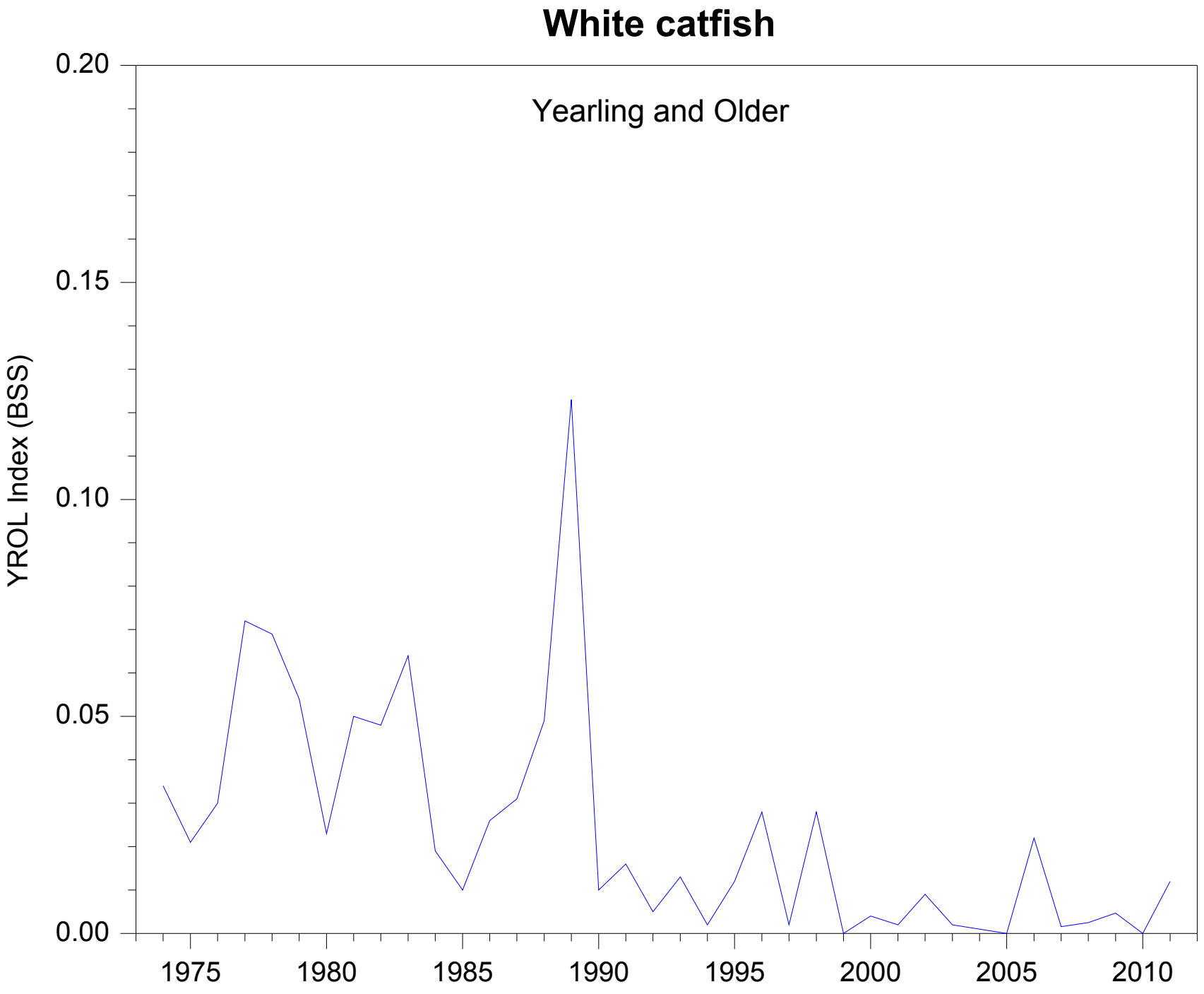


Figure 4-82. White catfish indices of annual abundance based on Beach Seine Survey, 1974-2011.

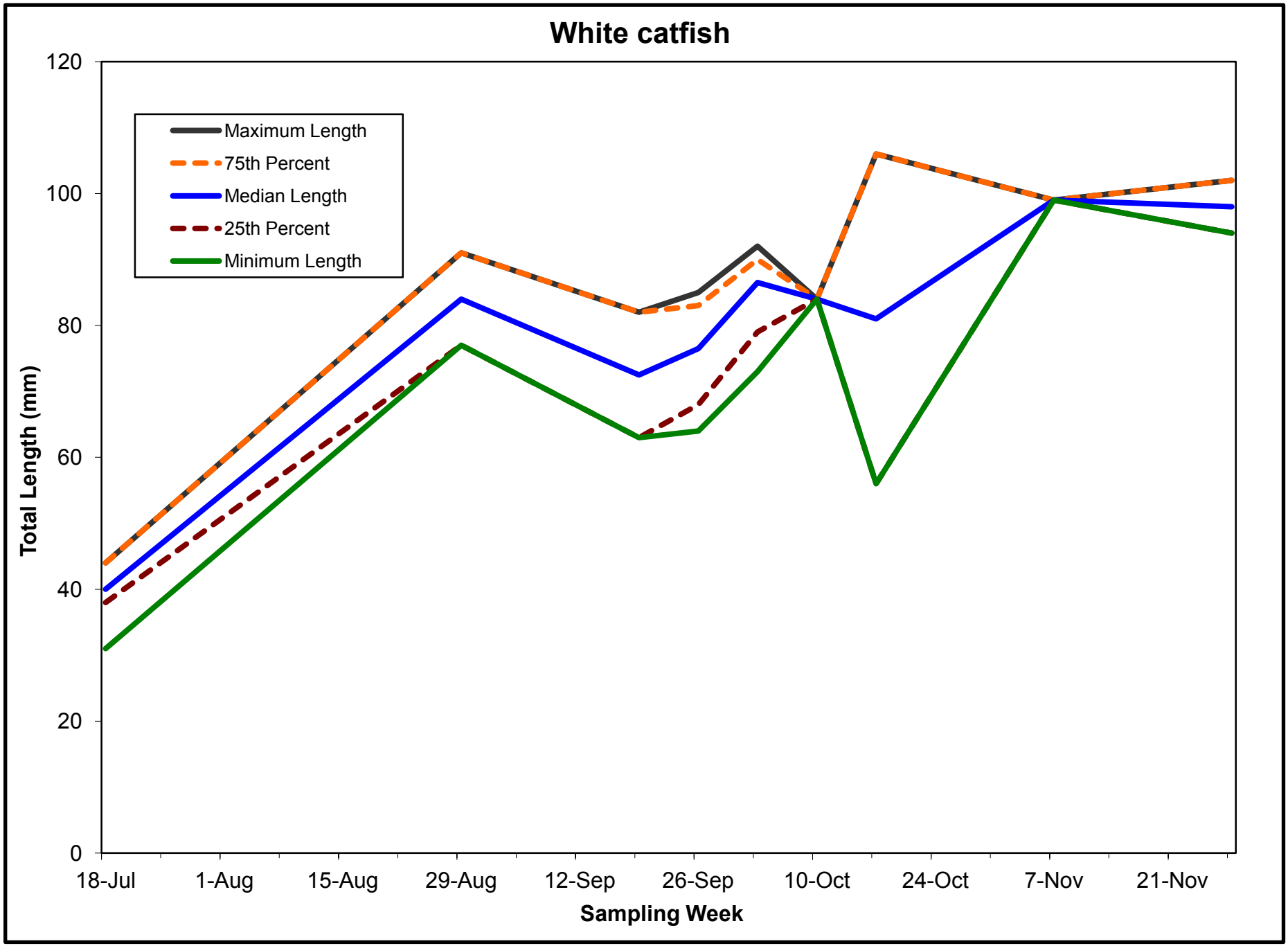


Figure 4-83. Weekly length statistics for young-of-year white catfish in the Hudson River estuary, 2011.

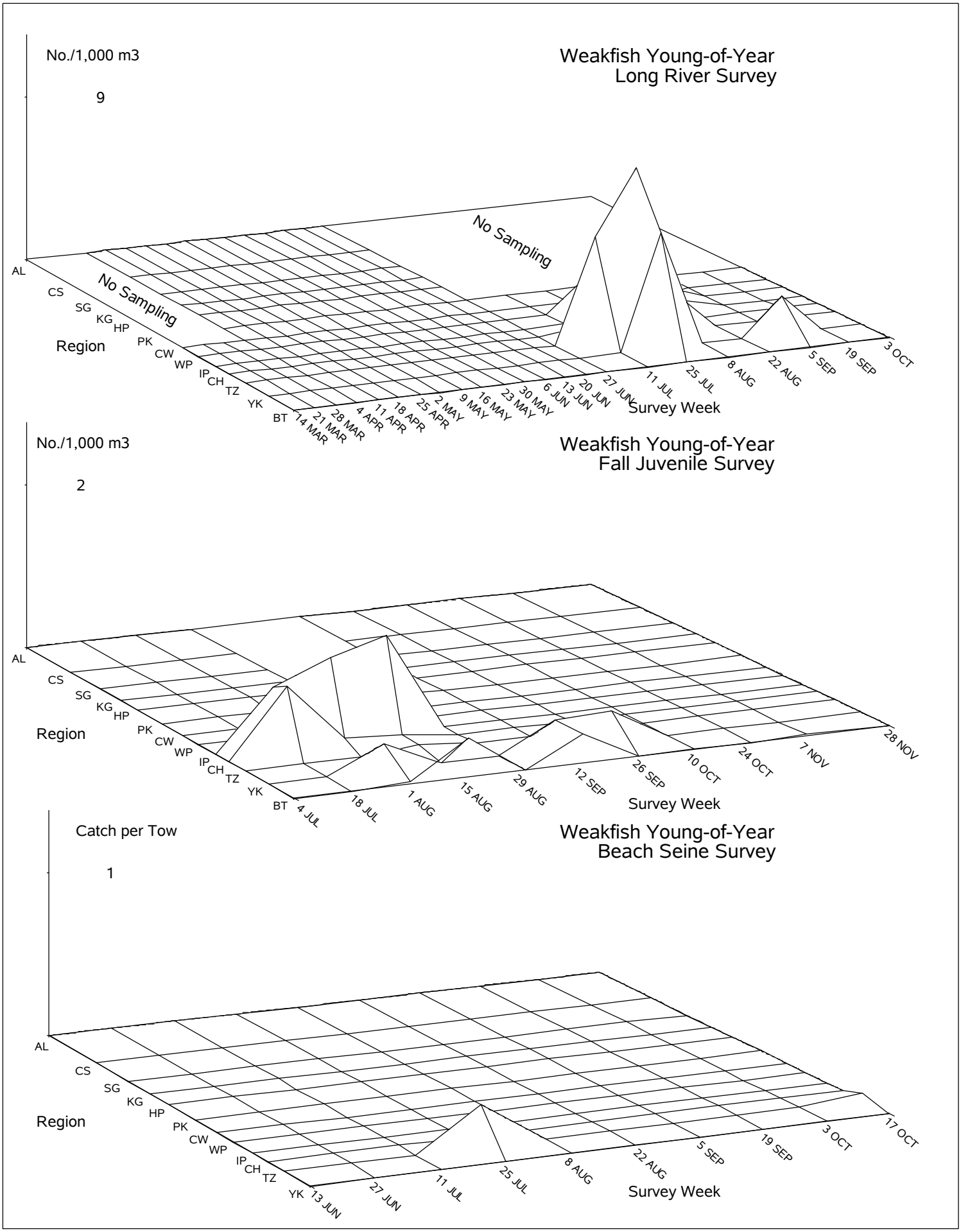


Figure 4-84. Spatiotemporal distribution of young-of-year weakfish in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

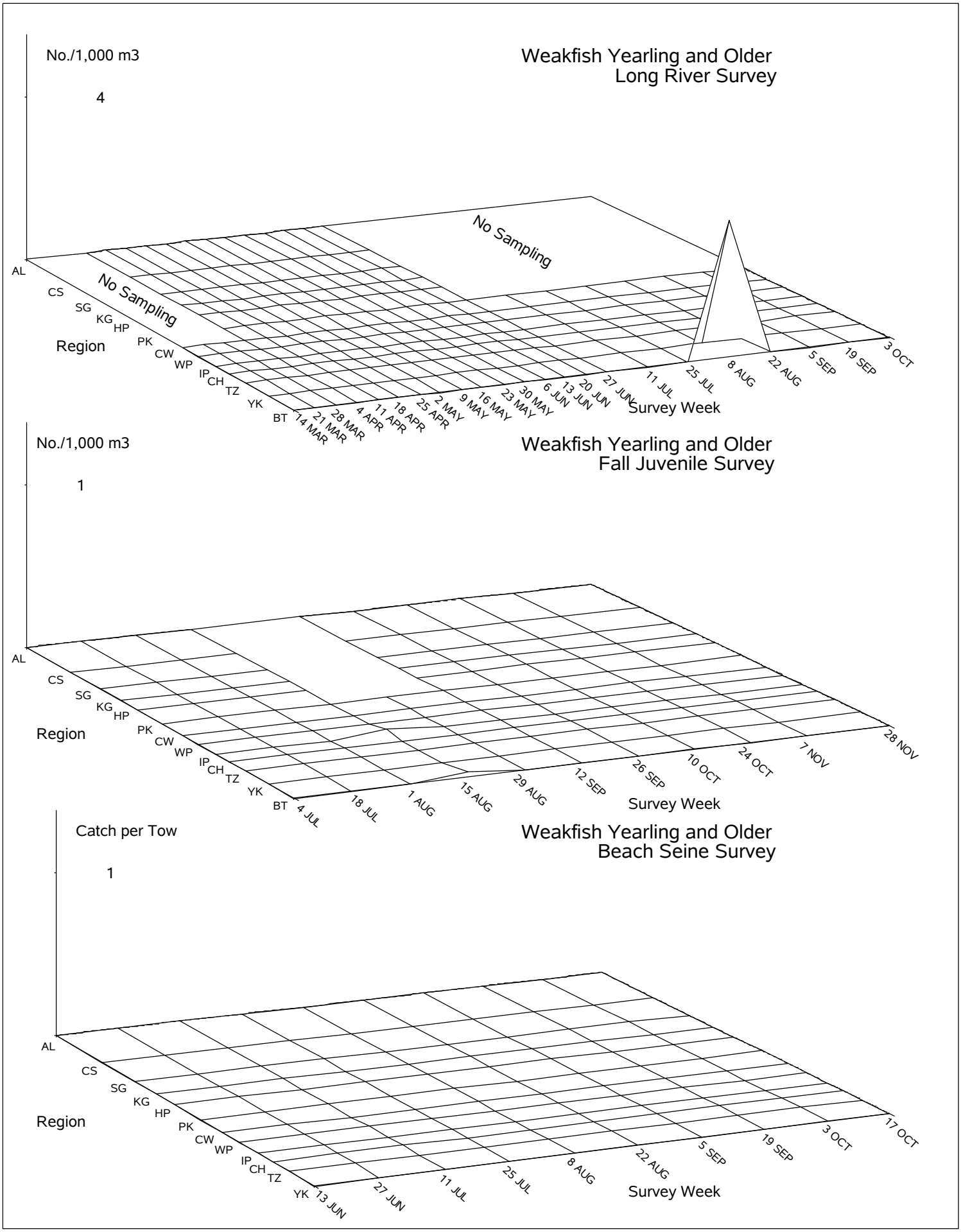


Figure 4-85. Spatiotemporal distribution of yearling and older weakfish in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

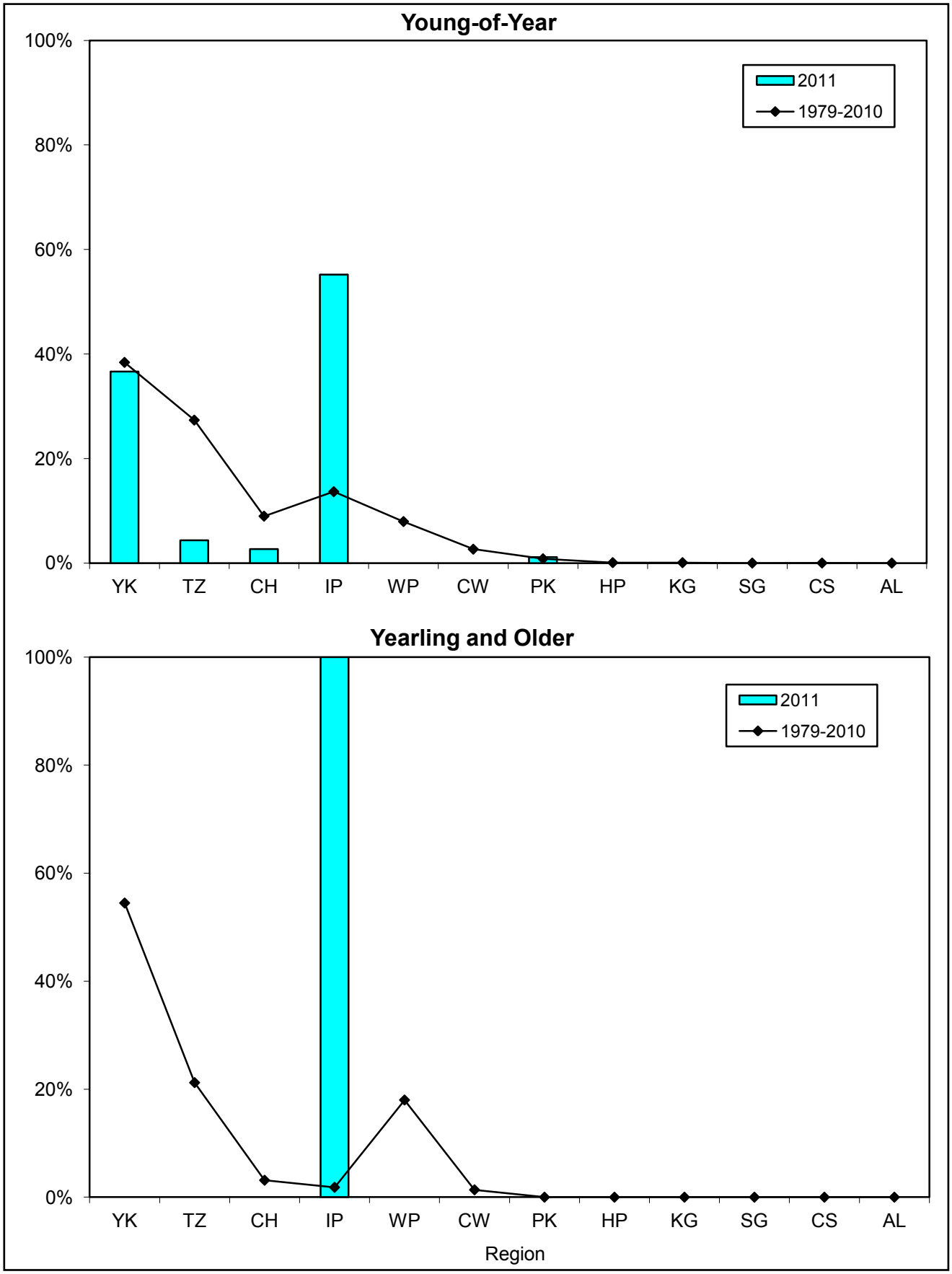


Figure 4-86. Geographic distribution indices for weakfish collected during Fall Juvenile surveys of the Hudson River estuary, 1979-2011.

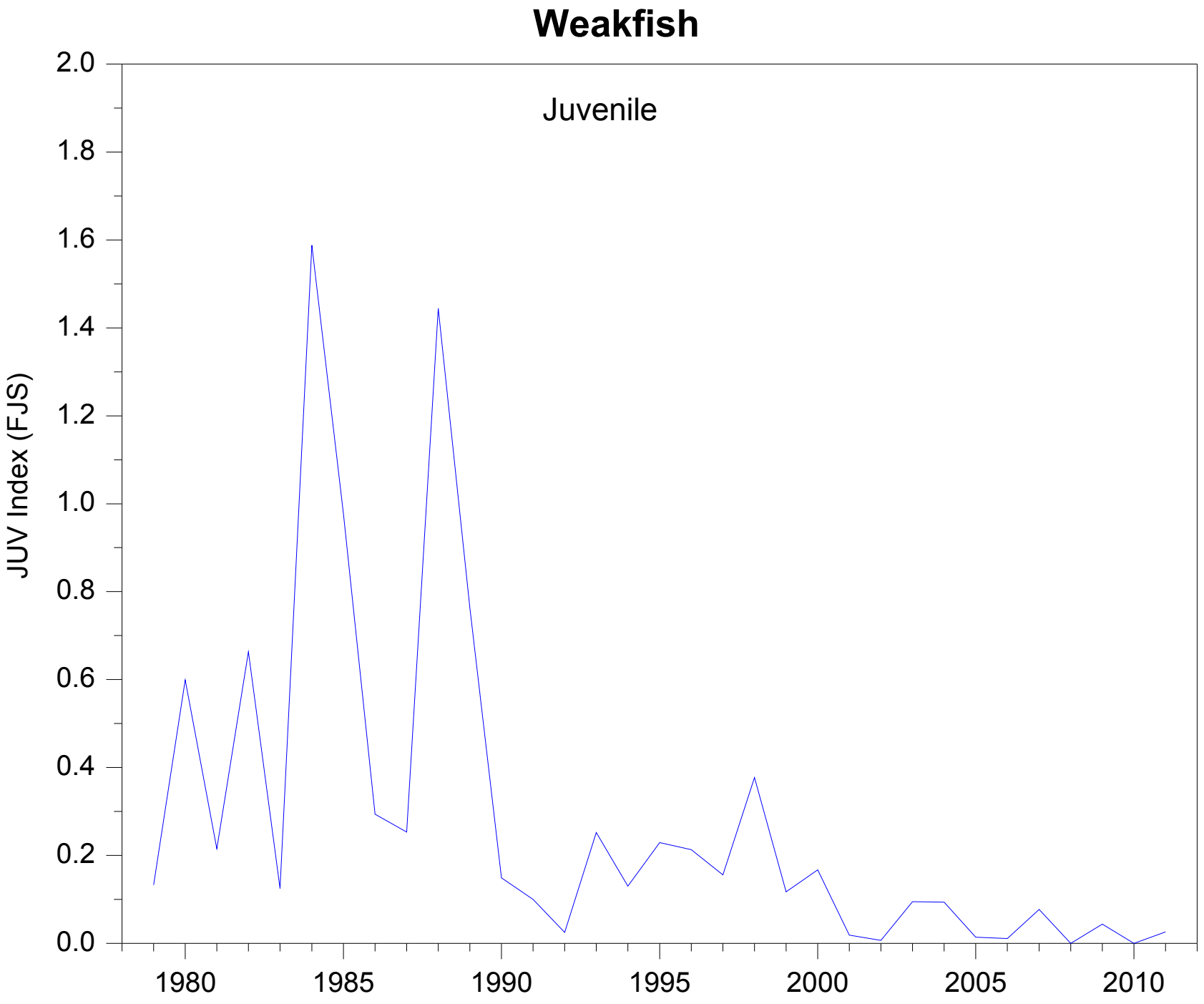


Figure 4-87. Weakfish indices of annual abundance based on Fall Juvenile Survey, 1979-2011.

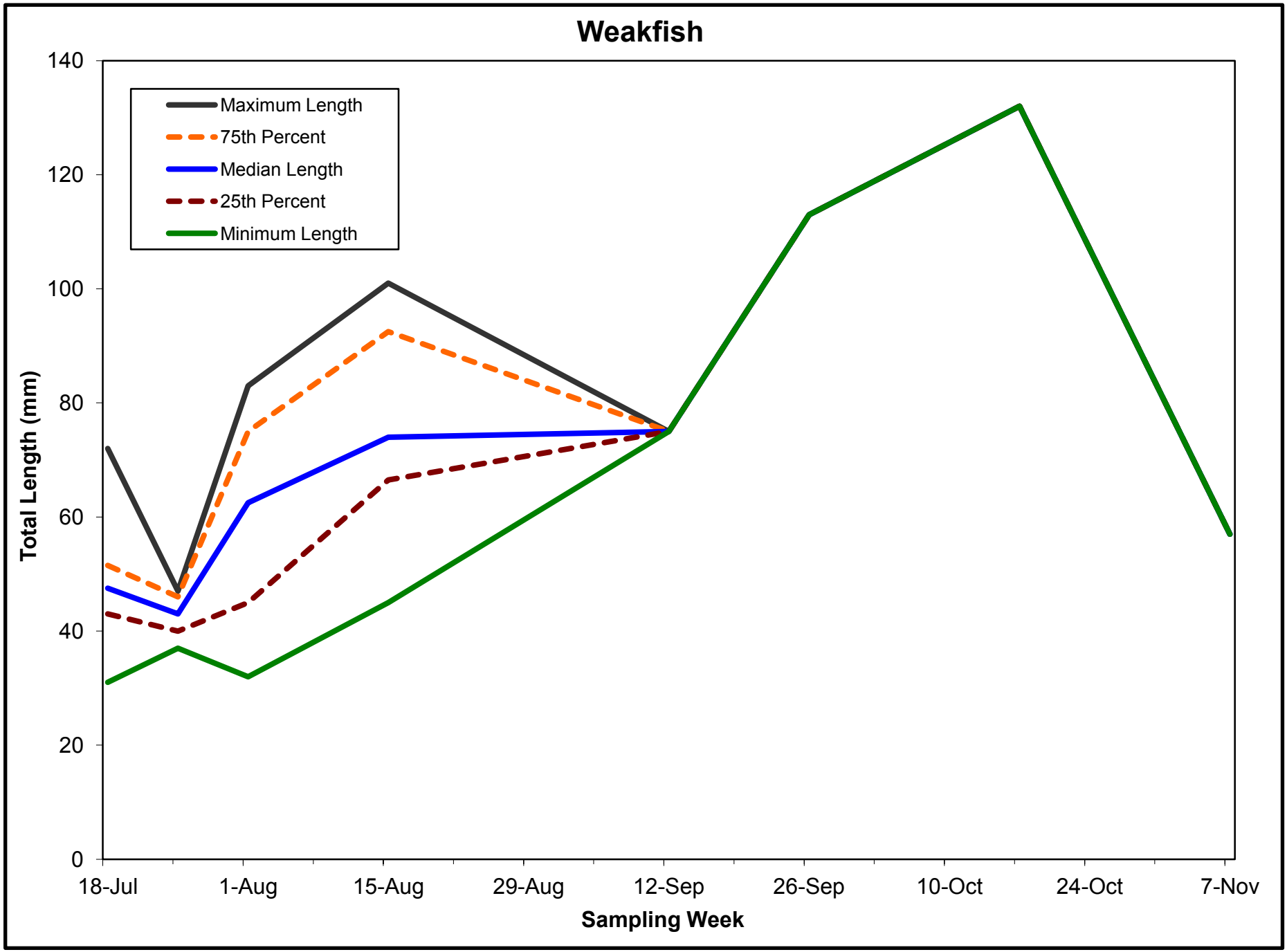


Figure 4-88. Weekly length statistics for young-of-year weakfish in the Hudson River estuary, 2011.

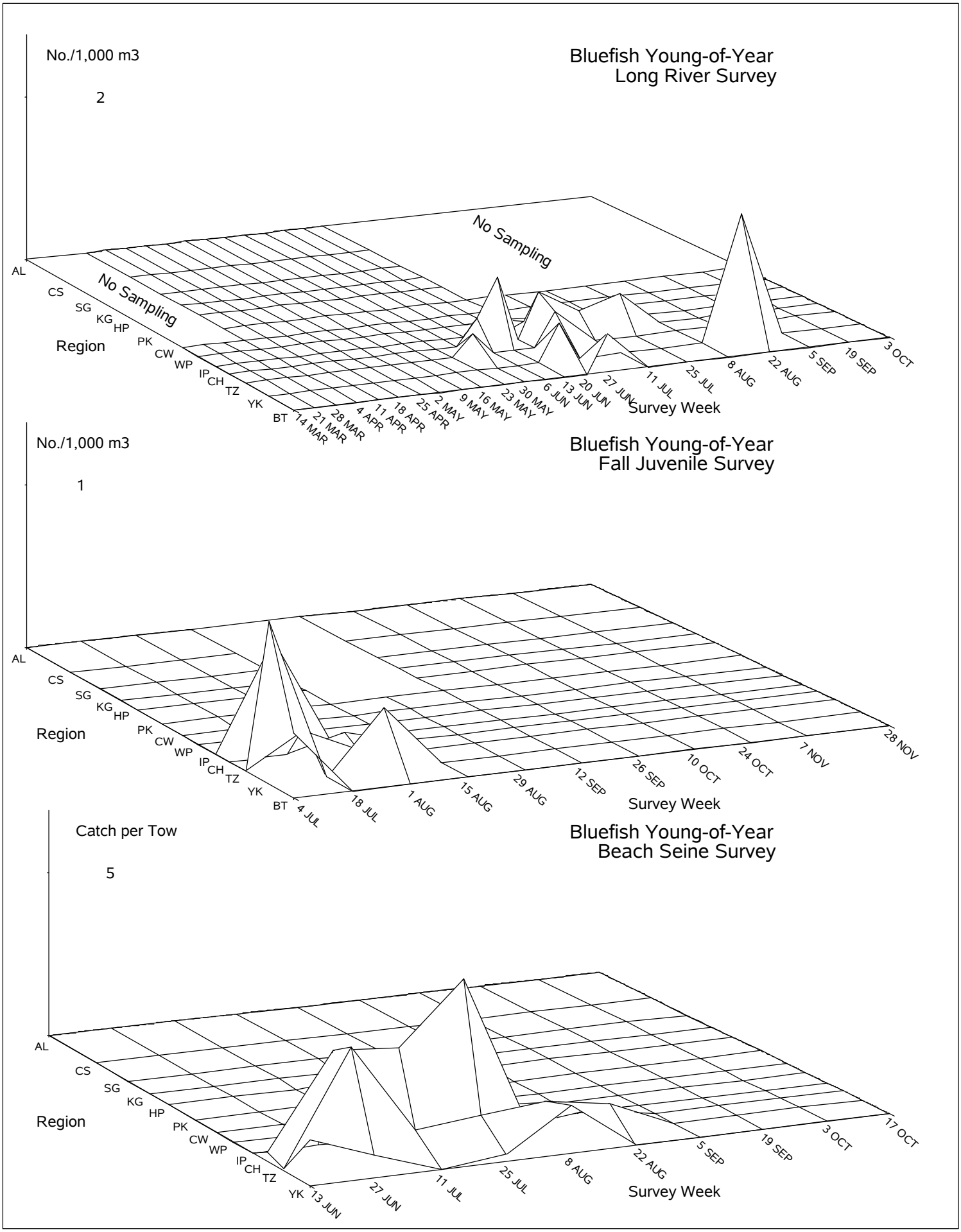


Figure 4-89. Spatiotemporal distribution of young-of-year bluefish in the Hudson River estuary based on the 2011 Long River, Fall Juvenile, and Beach Seine surveys.

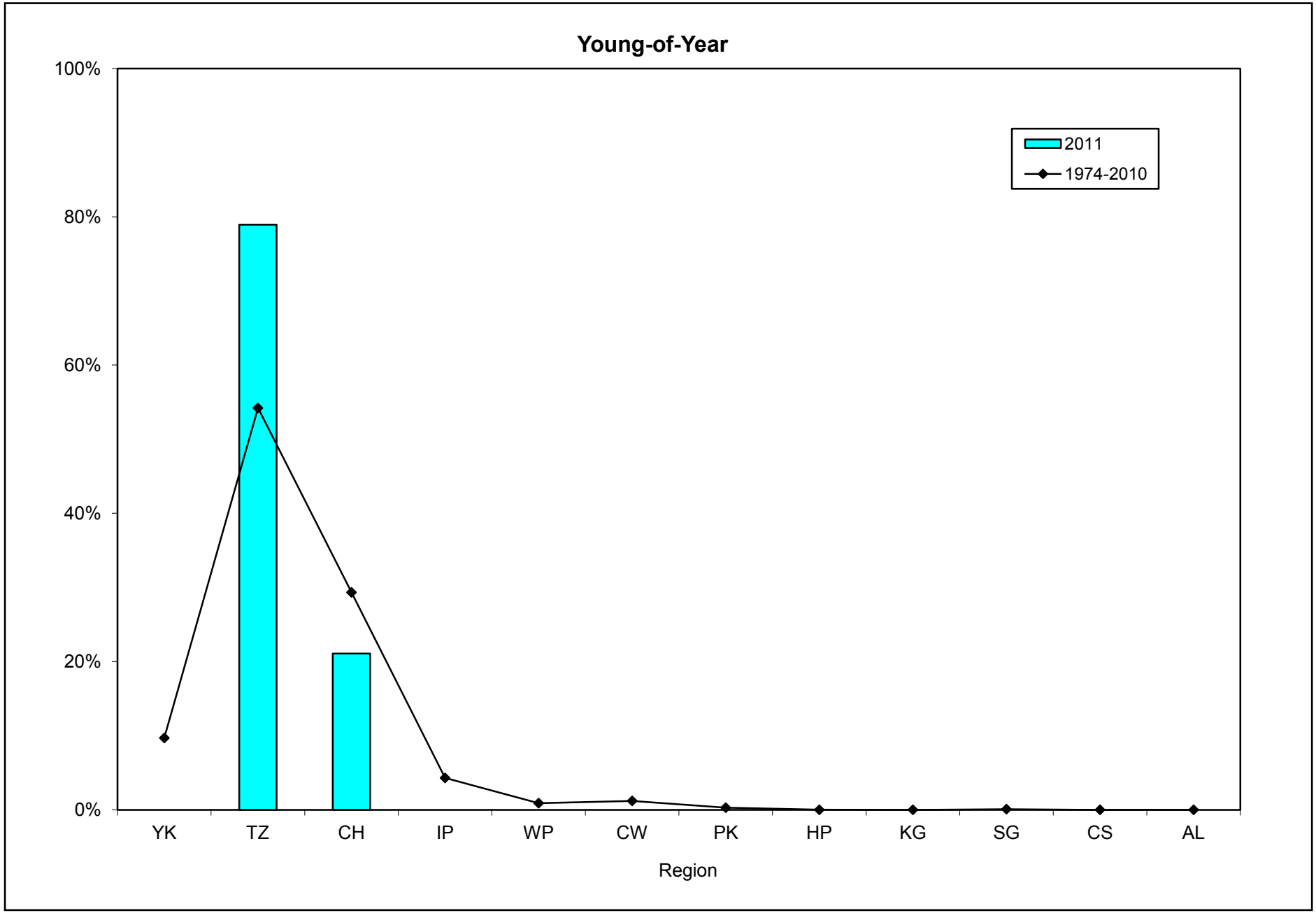


Figure 4-90. Geographic distribution indices for bluefish collected during Beach Seine surveys of the Hudson River estuary, 1974-2011.

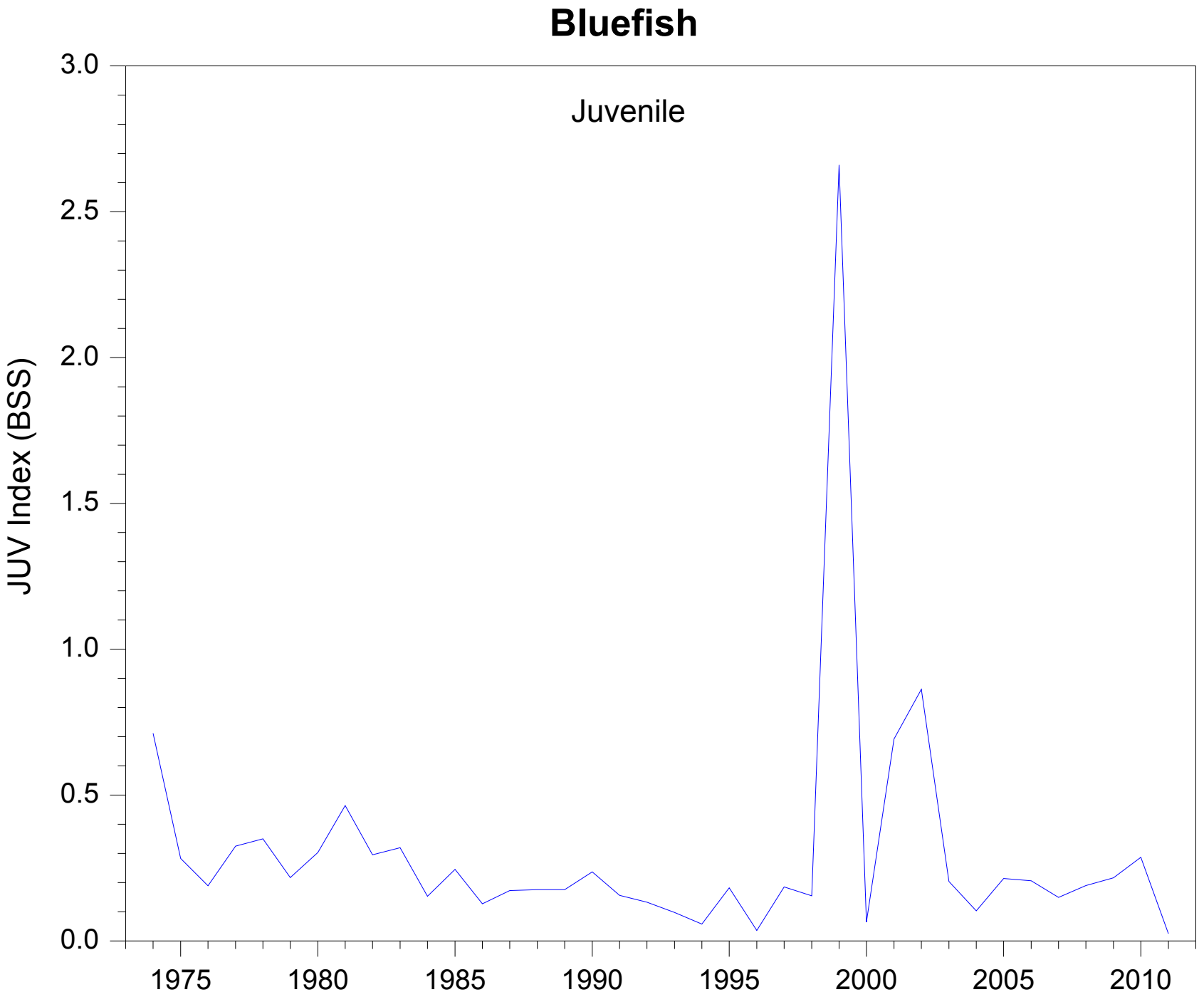


Figure 4-91. Bluefish indices of annual abundance based on Beach Seine Survey, 1974-2011.

Table 4-1 Species Composition of Fish Collected During Hudson River Studies from 1974 to 2011

Common Name	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Anadromous																										
Alewife	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
American shad	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Atlantic sturgeon	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Atlantic tomcod	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Blueback herring	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hickory shad		X			X	X				X			X									X	X	X	X	X
Rainbow smelt	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X
Sea lamprey	X	X				X	X	X			X				X		X							X	X	
Striped bass	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Total	8	9	7	7	8	9	8	8	7	8	8	7	8	7	8	7	8	7	7	7	7	8	7	8	9	8
Catadromous																										
American eel	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Total	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Estuarine																										
Atlantic silverside	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Banded killifish	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fat sleeper													X													X
Fourspine stickleback	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hogchoker	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Inland silverside	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Lined seahorse															X		X	X				X		X	X	X
Mummichog	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Northern pipefish	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Shortnose sturgeon	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Threespine stickleback	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X			X
White catfish	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
White mullet	X	X	X	X	X	X	X		X	X	X	X	X			X	X	X		X				X		
White perch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Total	12	11	12	12	11	12	12	11	12	12	12	12	13	11	12	12	13	13	11	12	10	12	11	12	11	13
Freshwater																										
Black bullhead				X				X			X	X														
Black crappie	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Blacknose dace	X	X	X	X	X	X	X					X		X	X									X		
Bluegill		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Bluntnose minnow	X	X	X	X	X	X	X														X		X		X	X
Bridle shiner	X		X						X																X	
Brook silverside																					X	X	X	X	X	X
Brook stickleback	X	X	X	X				X								X										
Brook trout				X	X													X								

Table 4-1 (Continued)

Common Name	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Brown bullhead	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brown trout			X	X	X	X	X	X				X					X	X	X		X	X				
Carp			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Central mudminnow			X				X							X												
Chain pickerel	X	X	X	X	X	X	X	X	X		X					X			X			X	X	X	X	X
Channel catfish	X							X					X	X	X	X	X	X	X	X	X	X	X	X	X	X
Comely shiner	X						X													X						
Common shiner	X	X	X	X	X	X	X	X		X					X		X		X	X						
Creek chub		X	X	X	X	X	X			X		X						X		X		X	X	X	X	X
Cutlips minnow	X	X	X	X	X	X									X	X										
Eastern mudminnow		X					X																			
Emerald shiner	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Fallfish		X	X	X	X	X	X	X	X	X				X				X	X	X	X	X	X	X	X	X
Fathead minnow	X	X	X	X	X	X	X					X	X			X					X		X			X
Freshwater drum																X			X	X	X	X	X	X	X	X
Gizzard shad	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Golden shiner	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Goldfish	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Grass carp																										
Grass pickerel	X				X												X									
Green sunfish		X		X			X								X											
Largemouth bass	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Logperch	X		X	X		X	X			X					X	X			X	X			X		X	X
Longear sunfish																	X									
Longnose dace		X	X	X	X				X			X														
Margined madtom														X				X			X					
Mimic shiner	X																						X			
Northern hog sucker	X		X	X	X		X	X			X			X	X		X	X	X				X	X	X	X
Northern pike	X	X	X	X	X	X	X		X				X	X	X	X	X	X	X	X	X		X	X	X	X
Pugnose shiner																		X								
Pumpkinseed	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rainbow trout						X																X				
Redbreast sunfish	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Redfin pickerel	X	X	X	X	X	X	X	X	X		X				X			X					X		X	X
Rock bass	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
Rosyface shiner	X																									
Rudd																										
Satinfin shiner	X	X	X	X	X	X	X				X	X	X		X		X			X		X	X	X	X	X
Shield darter							X																			
Silvery minnow	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Slimy sculpin																										
Smallmouth bass	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Spotfin shiner	X	X	X	X	X	X	X	X			X	X	X	X	X					X	X	X	X	X	X	X
Spottail shiner	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Swallowtail shiner																			X						X	X
Tessellated darter	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tiger muskellunge																			X			X	X			
Trout perch	X	X	X	X	X	X					X															
Walleye			X	X	X	X				X	X			X		X		X	X	X	X		X	X	X	
White bass				X																						

Table 4-1 (Continued)

Common Name	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
White crappie	X	X	X	X	X	X	X	X			X		X	X	X		X	X	X		X				X	
White sucker	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Yellow bullhead		X						X								X						X				
Yellow perch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Total	37	36	40	42	38	36	38	30	23	23	27	26	24	28	30	28	26	30	31	29	30	29	35	30	35	33
Marine																										
American sandlance													X	X	X	X	X	X	X		X	X	X		X	X
Ammodytes sp.		X	X	X	X	X	X	X				X														
Atlantic cod							X							X	X											
Atlantic croaker			X	X		X						X	X	X		X	X		X	X	X	X	X	X	X	X
Atlantic cutlassfish																										X
Atlantic herring		X	X		X	X			X				X	X	X	X	X	X	X	X	X	X	X	X	X	X
Atlantic mackerel															X			X	X				X	X	X	X
Atlantic menhaden	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Atlantic needlefish	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Atlantic seasnail																										
Bay anchovy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Black drum																										
Black seabass					X							X			X						X			X	X	X
Blackcheek tonguefish																			X							
Bluefish	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Butterfish	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cobia																										
Conger eel						X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Crevalle jack	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Cunner									X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Cusk																										
Feather blenny																									X	X
Fourbeard rockling						X	X								X	X	X	X	X	X	X	X	X	X	X	X
Fourspot flounder	X						X	X			X	X	X		X	X	X				X			X		X
Goosefish																		X	X							
Gray snapper							X					X	X	X				X								
Grubby													X		X	X	X	X	X	X	X	X	X	X	X	X
Gulf Stream flounder																								X	X	X
Harvestfish																										X
Hightail goby																	X									X
Inshore lizardfish	X					X	X	X			X	X			X	X		X	X	X	X	X		X	X	X
Longhorn sculpin	X	X								X						X				X						
Lookdown	X	X	X	X		X	X	X				X	X	X	X	X	X				X			X	X	X
Moonfish			X										X	X		X			X		X				X	X
Naked goby	X		X								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Northern kingfish	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Northern puffer		X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X
Northern searobin			X		X		X	X	X		X		X	X	X	X	X	X		X	X	X	X	X	X	X
Northern stargazer	X						X		X	X	X	X			X		X	X	X	X	X	X	X	X	X	X

Table 4-1 (Continued)

Common Name	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Orangespotted filefish													X													
Oyster toadfish																			X			X	X		X	X
Permit																			X	X					X	
Pigfish																										
Pinfish																						X				
Pollack		X																						X		
Radiated shanny																										X
Red hake	X		X			X	X	X			X	X			X	X	X		X	X			X	X	X	X
Rock gunnel			X	X											X	X	X	X	X			X	X	X	X	X
Rough silverside		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Scup	X																					X				
Seaboard goby		X	X				X								X			X	X	X		X		X	X	X
Sea raven							X																			
Sheepshead minnow								X																		
Silver anchovy																										
Silver hake	X	X		X									X		X	X	X	X					X	X		X
Silver perch	X					X					X	X	X		X			X	X	X	X	X	X	X	X	X
Skilletfish																										
Smallmouth flounder						X	X		X		X	X			X		X	X	X	X	X	X	X	X	X	X
Spanish mackerel																	X	X		X	X					
Speckled worm eel					X		X				X			X	X								X			
Spot	X	X	X	X			X		X	X		X	X	X	X		X	X	X	X	X		X		X	X
Spotfin butterflyfish									X			X										X				
Spotfin mojarra									X												X				X	
Spotted goatfish																				X						
Spotted hake							X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Striped anchovy		X				X			X			X							X	X	X	X	X	X	X	X
Striped burrfish													X													
Striped cuskeel							X					X	X	X	X	X		X	X	X		X	X	X	X	X
Striped killifish			X																X							
Striped mullet	X		X	X		X	X	X	X	X	X	X	X	X	X			X				X				
Striped searobin		X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Summer flounder	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tautog		X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Weakfish	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Windowpane	X	X		X		X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Winter flounder	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Witch flounder																							X			
Yellowtail flounder	X																		X		X	X	X	X	X	X
Total	24	24	24	20	16	26	33	24	25	20	28	35	35	29	41	34	35	38	42	37	37	39	39	40	45	49
All Categories																										
Total	82	81	84	82	74	84	92	74	68	64	76	81	81	76	92	82	83	89	92	86	85	89	93	91	101	104

Table 4-1 (Continued)

Common Name	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Anadromous												
Alewife	X	X	X	X	X	X	X	X	X	X	X	X
American shad	X	X	X	X	X	X	X	X	X	X	X	X
Atlantic sturgeon	X	X	X	X	X	X	X	X	X	X	X	X
Atlantic tomcod	X	X	X	X	X	X	X	X	X	X	X	X
Blueback herring	X	X	X	X	X	X	X	X	X	X	X	X
Hickory shad						X			X			X
Rainbow smelt	X	X	X				X	X		X		
Sea lamprey							X	X	X			X
Striped bass	X	X	X	X	X	X	X	X	X	X	X	X
Total	7	7	7	6	6	7	8	8	8	7	6	8
Catadromous												
American eel	X	X	X	X	X	X	X	X	X	X	X	X
Total	1	1	1	1	1	1	1	1	1	1	1	1
Estuarine												
Atlantic silverside	X	X	X	X	X	X	X	X	X	X	X	X
Banded killifish	X	X	X	X	X	X	X	X	X	X	X	X
Fat sleeper												
Fourspine stickleback	X	X	X	X	X	X	X	X	X	X	X	X
Hogchoker	X	X	X	X	X	X	X	X	X	X	X	X
Inland silverside	X	X	X	X	X	X	X	X	X	X	X	X
Lined seahorse	X	X	X	X			X		X		X	X
Mummichog	X	X	X	X	X	X	X	X	X	X	X	X
Northern pipefish	X	X	X	X	X	X	X	X	X	X	X	X
Shortnose sturgeon	X	X	X	X	X	X	X	X	X	X	X	X
Threespine stickleback		X	X			X		X		X	X	
White catfish	X	X	X	X	X	X	X	X	X	X	X	X
White mullet			X	X			X	X	X			
White perch	X	X	X	X	X	X	X	X	X	X	X	X
Total	11	12	13	12	10	11	12	12	12	11	12	11
Freshwater												
Black bullhead				X								
Black crappie	X	X	X	X	X	X	X	X	X	X	X	X
Blacknose dace					X					X		
Bluegill	X	X	X	X	X	X	X	X	X	X	X	X
Bluntnose minnow	X			X	X			X		X	X	X
Bridle shiner												
Brook silverside	X		X	X	X	X	X	X	X		X	X
Brook stickleback												
Brook trout												
Brown bullhead	X	X	X	X	X	X	X	X	X	X	X	X
Brown trout												
Carp	X	X	X	X	X	X	X	X	X	X	X	X

Table 4-1 (Continued)

Common Name	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Central mudminnow												
Chain pickerel	X		X		X	X			X	X	X	
Channel catfish	X	X	X	X	X	X	X	X	X	X	X	X
Comely shiner												
Common shiner		X								X	X	
Creek chub				X	X							
Cutlips minnow									X			
Eastern mudminnow												
Emerald shiner	X	X	X	X	X	X	X	X	X	X	X	X
Fallfish				X	X	X	X		X	X	X	X
Fathead minnow	X				X		X			X	X	X
Freshwater drum	X	X	X	X	X	X	X	X	X	X	X	X
Gizzard shad	X	X	X	X	X	X	X	X	X	X	X	X
Golden shiner	X	X	X	X	X	X	X	X	X	X	X	X
Goldfish	X	X	X	X	X	X	X	X	X	X	X	X
Grass carp						X				X		
Grass pickerel												
Green sunfish				X								
Largemouth bass	X	X	X	X	X	X	X	X	X	X	X	X
Logperch		X	X	X	X	X	X	X	X	X	X	X
Longear sunfish								X				X
Longnose dace												
Margined madtom												
Mimic shiner												X
Northern hog sucker	X		X	X	X	X		X	X			
Northern pike	X	X		X	X		X	X	X			X
Pugnose shiner												
Pumpkinseed	X	X	X	X	X	X	X	X	X	X	X	X
Rainbow trout										X		
Redbreast sunfish	X	X	X	X	X	X	X	X	X	X	X	X
Redfin pickerel	X			X	X				X	X	X	
Rock bass	X	X	X	X	X	X	X		X	X	X	X
Rosyface shiner												
Rudd					X				X	X	X	
Satinfin shiner		X	X	X	X	X	X	X	X	X	X	X
Shield darter									X			
Silvery minnow	X	X	X	X	X	X	X	X	X	X		X
Slimy sculpin			X									
Smallmouth bass	X	X	X	X	X	X	X	X	X	X	X	X
Spotfin shiner	X	X	X	X	X	X	X	X	X	X	X	X
Spottail shiner	X	X	X	X	X	X	X	X	X	X	X	X
Swallowtail shiner		X		X								
Tessellated darter	X	X	X	X	X	X	X	X	X	X	X	X
Tiger muskellunge												
Trout perch				X					X			X
Walleye	X	X	X	X	X	X	X	X	X	X	X	X
White bass												
White crappie												
White sucker	X	X	X	X	X	X	X	X	X	X	X	X
Yellow bullhead												X

Table 4-1 (Continued)

Common Name	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Yellow perch	X	X	X	X	X	X	X	X	X	X	X	X
Total	29	27	28	35	35	29	28	28	34	34	31	33
Marine												
American sandlance	X	X	X	X	X	X	X	X	X	X	X	X
Ammodytes sp.												
Atlantic cod				X		X			X	X		X
Atlantic croaker	X	X	X	X	X	X	X	X	X	X	X	X
Atlantic cutlassfish		X					X					
Atlantic herring	X	X	X	X	X	X	X	X	X	X	X	X
Atlantic mackerel	X	X	X	X	X			X		X		X
Atlantic menhaden	X	X	X	X	X	X	X	X	X	X	X	X
Atlantic needlefish	X	X	X	X	X	X	X	X	X	X	X	X
Atlantic seasnail				X								X
Bay anchovy	X	X	X	X	X	X	X	X	X	X	X	X
Black drum												X
Black seabass								X				
Blackcheek tonguefish												
Bluefish	X	X	X	X	X	X	X	X	X	X	X	X
Butterfish	X	X	X	X	X	X	X	X	X	X	X	X
Cobia						X						
Conger eel	X	X	X	X	X	X	X	X	X	X	X	X
Crevalle jack	X	X	X	X	X	X	X	X	X	X	X	X
Cunner	X	X	X	X	X	X	X	X	X	X	X	X
Cusk	X							X				
Feather blenny	X		X						X			X
Fourbeard rockling	X	X	X	X	X	X	X	X	X	X	X	X
Fourspot flounder		X							X			X
Goosefish												
Gray snapper		X		X		X		X				
Grubby	X	X	X	X	X	X	X	X	X	X	X	X
Gulf Stream flounder			X		X							
Harvestfish			X							X		
Hightail goby												
Inshore lizardfish	X	X	X				X		X		X	
Longhorn sculpin												X
Lookdown	X			X		X	X		X	X		
Moonfish	X	X	X	X	X	X	X	X	X	X	X	
Naked goby	X	X	X	X	X	X	X	X	X	X	X	X
Northern kingfish	X	X	X		X	X	X	X	X	X	X	X
Northern puffer	X	X	X		X	X		X	X	X	X	X
Northern searobin		X	X	X	X	X	X	X	X	X		
Northern stargazer	X	X	X	X	X	X	X	X	X	X		
Orangespotted filefish												
Oyster toadfish	X	X	X	X	X	X	X		X	X	X	X
Permit	X	X						X				
Pigfish												X
Pinfish					X							

Table 4-1 (Continued)

Common Name	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Pollack												X
Radiated shanny												
Red hake	X	X		X		X	X		X	X	X	
Rock gunnel	X	X	X	X	X	X	X	X	X	X	X	X
Rough silverside	X	X	X	X	X	X	X	X	X	X	X	X
Scup	X	X	X	X	X	X		X				
Seaboard goby	X	X	X	X	X	X	X	X	X	X	X	X
Sea raven												
Sheepshead minnow												
Silver anchovy											X	
Silver hake	X	X	X		X	X	X	X	X	X	X	X
Silver perch	X		X		X	X		X		X	X	X
Skilletfish												X
Smallmouth flounder	X	X	X	X	X	X	X	X	X	X	X	X
Spanish mackerel					X							X
Speckled worm eel	X		X									
Spot	X	X	X	X		X	X		X	X		X
Spotfin butterflyfish										X		
Spotfin mojarra												
Spotted goatfish												
Spotted hake	X	X	X	X	X	X	X	X	X	X	X	X
Striped anchovy	X		X	X	X		X	X	X		X	X
Striped burrfish							X					
Striped cuskeel	X	X		X	X	X	X	X	X	X	X	X
Striped killifish												
Striped mullet	X		X				X		X	X	X	
Striped searobin	X	X	X	X	X	X	X	X	X	X	X	X
Summer flounder	X	X	X	X	X	X	X	X	X	X	X	X
Tautog	X	X	X	X	X	X	X	X	X	X	X	X
Weakfish	X	X	X	X	X	X	X	X	X	X	X	X
Windowpane	X	X	X	X	X	X	X	X	X	X	X	X
Winter flounder	X	X	X	X	X	X	X	X	X	X	X	X
Witch flounder										X		X
Yellowtail flounder	X	X	X			X			X	X	X	X
Total	46	43	44	39	40	42	40	40	43	45	38	46
All Categories												
Total	94	90	93	93	92	90	89	89	98	98	88	99

Table 4-2 Species Composition of Fish Collected in Each of the Hudson River Surveys During 2011

Common Name	BSS	FSS	LRS
Anadromous			
Alewife	X	X	X
American shad	X	X	X
Atlantic sturgeon		X	X
Atlantic tomcod	X	X	X
Blueback herring	X	X	X
Hickory shad		X	
Sea lamprey			X
Striped bass	X	X	X
Total	5	7	7
Catadromous			
American eel	X	X	X
Total	1	1	1
Estuarine			
Atlantic silverside	X	X	X
Banded killifish	X	X	X
Fourspine stickleback	X		X
Hogchoker	X	X	X
Inland silverside	X		X
Lined sea horse			X
Mummichog	X		
Northern pipefish	X	X	X
Shortnose sturgeon		X	X
White catfish	X	X	X
White perch	X	X	X
Total	9	7	10
Freshwater			
Black crappie	X		X
Bluegill	X	X	
Bluntnose minnow	X		
Brook silverside	X		
Brown bullhead	X	X	X
Carp	X	X	X
Channel catfish	X	X	X
Emerald shiner	X		
Fall fish	X		
Fathead minnow	X		
Freshwater drum	X	X	X
Gizzard shad	X	X	X
Golden shiner	X	X	
Goldfish	X		
Largemouth bass	X		
Logperch	X		

(Continued)

Table 4-2 (Continued)

Common name	BSS	FSS	LRS
Freshwater (continued)			
Longear sunfish			X
Mimic shiner	X		
Northern pike	X		
Pumpkinseed	X	X	X
Redbreast sunfish	X		
Rock bass	X		
Satinfin shiner	X		
Silvery minnow	X		
Smallmouth bass	X		
Spotfin shiner	X		
Spottail shiner	X	X	X
Tesselated darter	X	X	X
Trout perch	X	X	
Walleye			X
White sucker	X	X	X
Yellow bullhead	X		
Yellow perch	X	X	X
Total	31	13	13
Marine			
American sand lance			X
Atlantic cod			X
Atlantic croaker	X	X	X
Atlantic herring			X
Atlantic mackerel			X
Atlantic menhaden	X	X	X
Atlantic needlefish	X	X	X
Atlantic seasnail			X
Bay anchovy	X	X	X
Black drum	X		
Bluefish	X	X	X
Butterfish		X	X
Conger eel			X
Crevalle jack	X		
Cunner			X
Feather blenny			X
Fourbeard rockling			X
Fourspot flounder			X
Grubby			X
Longhorn sculpin			X
Naked goby	X	X	X
Northern kingfish	X		X
Northern puffer			X
Oyster toadfish	X	X	X
Pigfish	X		
Pollack			X
Rock gunnel			X
Rough silverside		X	X
Seaboard goby			X

(Continued)

Table 4-2 (Continued)

Common name	BSS	FSS	LRS
Marine (continued)			
Silver hake		X	
Silver perch	X	X	
Skilletfish			X
Smallmouth flounder			X
Spanish mackerel	X		
Spot			X
Spotted hake		X	X
Striped anchovy	X		X
Striped cuskeel			X
Striped searobin		X	X
Summer flounder	X	X	X
Tautog			X
Weakfish	X	X	X
Windowpane			X
Winter flounder	X	X	X
Witch flounder			X
Yellowtail flounder			X
Total	17	16	40
Undetermined			
Alosa spp.	X	X	X
Atherinidae		X	X
Centrarchidae	X	X	X
Cyprinidae	X	X	X
Gobiidae		X	X
Morone unidentified			X
Searobin			X
Unidentifiable			X
Total	3	5	8

Table 4-3 Collections Of Atlantic Sturgeon During The 2011 Hudson River Surveys

Date	Survey	Region	River Mile	Gear	Number Collected	Total Length (mm)
7-Jun	LRS	Hyde Park	85	1-m Epibenthic Sled	1	YSL
15-Jun	LRS	Cornwall	60	1-m Epibenthic Sled	1	YOY
22-Jun	LRS	Cornwall	59	1-m Epibenthic Sled	2	YOY
7-Jul	FJS	West Point	55	3-m Beam Trawl	1	510
7-Jul	FJS	Cornwall	58	3-m Beam Trawl	1	94
8-Jul	FJS	Croton-Haverstraw	36	3-m Beam Trawl	1	715
8-Jul	FJS	West Point	50	3-m Beam Trawl	1	570
8-Jul	FJS	West Point	51	3-m Beam Trawl	1	570
21-Jul	FJS	Indian Point	42	3-m Beam Trawl	1	559
3-Aug	FJS	West Point	55	3-m Beam Trawl	1	680
4-Aug	FJS	Indian Point	39	3-m Beam Trawl	1	611
17-Aug	FJS	West Point	55	3-m Beam Trawl	1	605
17-Aug	FJS	Cornwall	60	3-m Beam Trawl	1	620
14-Sep	FJS	Croton-Haverstraw	35	3-m Beam Trawl	2	246, 740
14-Sep	FJS	Indian Point	39	3-m Beam Trawl	1	262
15-Sep	FJS	Indian Point	39	3-m Beam Trawl	2	255, 278
15-Sep	FJS	Indian Point	41	3-m Beam Trawl	1	620
28-Sep	FJS	Croton-Haverstraw	34	3-m Beam Trawl	1	510
28-Sep	FJS	West Point	53	3-m Beam Trawl	1	653
25-Oct	FJS	Indian Point	40	3-m Beam Trawl	1	573
10-Nov	FJS	Croton-Haverstraw	38	3-m Beam Trawl	1	620
29-Nov	FJS	Indian Point	41	3-m Beam Trawl	1	320

Table 4-4 Collections of Shortnose Sturgeon During the 2011 Hudson River Surveys

Date	Survey	Region	River Mile	Gear	Number Collected	Total Length (mm)
23-May	LRS	Catskill	112	1-m Tucker Trawl	1	PYSL
23-May	LRS	Catskill	119	1-m Epibenthic Sled	1	PYSL
23-May	LRS	Catskill	124	1-m Epibenthic Sled	1	PYSL
23-May	LRS	Albany	131	1-m Epibenthic Sled	2	PYSL
23-May	LRS	Albany	140	1-m Epibenthic Sled	1	PYSL
30-May	LRS	Catskill	119	1-m Epibenthic Sled	1	PYSL
6-Jun	LRS	Catskill	124	1-m Epibenthic Sled	1	PYSL
20-Jul	FJS	Tappan Zee	26	3-m Beam Trawl	2	700, 760
21-Jul	FJS	Indian Point	41	3-m Beam Trawl	1	713
17-Aug	FJS	Croton-Haverstraw	36	3-m Beam Trawl	1	755
1-Sep	FJS	West Point	54	3-m Beam Trawl	1	726
27-Sep	FJS	Hyde Park	84	3-m Beam Trawl	1	799
27-Sep	FJS	Kingston	88	3-m Beam Trawl	1	760
28-Sep	FJS	Indian Point	41	3-m Beam Trawl	2	771, 843
11-Oct	FJS	Kingston	87	3-m Beam Trawl	1	570
11-Oct	FJS	Kingston	89	3-m Beam Trawl	1	825
26-Oct	FJS	Hyde Park	82	3-m Beam Trawl	1	951
8-Nov	FJS	Hyde Park	82	3-m Beam Trawl	1	585
30-Nov	FJS	Hyde Park	77	3-m Beam Trawl	1	790

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Appendix B

Physical/Chemical Parameters

APPENDIX B

LIST OF TABLES

APPENDIX B

LIST OF TABLES (CONTINUED)

Table B-1 Daily Freshwater Flow (m^3/sec/day) Estimated for Green Island, New York, 2011

DAY OF MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT[1]	NOV[1]	DEC[1]
1	366	221	329	604	1952	719	598	194	769	675	403	732
2	420	223	434	633	1550	660	503	163	613	549	351	610
3	489	206	421	659	1355	548	412	158	591	600	319	537
4	441	210	357	676	1335	525	484	135	538	579	304	466
5	401	206	348	951	1663	441	489	140	758	503	289	452
6	373	219	626	1129	1505	389	386	141	1327	403	263	575
7	341	233	1562	911	1270	374	424	161	1825	349	251	635
8	348	240	1214	877	1128	338	355	181	3234	336	263	1099
9	324	259	976	761	981	366	495	182	2640	275	361	975
10	314	237	846	750	800	359	339	178	1581	264	311	715
11	311	234	1098	815	673	412	324	171	1165	280	281	633
12	328	217	1936	1104	644	480	300	205	910	241	289	592
13	295	211	1508	1302	589	415	228	185	734	291	303	531
14	324	203	1206	1353	503	400	230	162	685	377	328	496
15	306	234	974	1285	511	357	204	205	608	553	405	531
16	299	249	909	1090	677	347	170	439	648	530	467	754
17	324	249	965	1090	869	332	166	427	619	494	409	746
18	321	263	1322	1392	768	382	177	303	506	485	373	669
19	327	354	1806	1225	880	322	141	238	483	436	326	567
20	318	504	1333	1039	1304	267	161	188	471	397	317	532
21	327	427	1078	1171	1281	225	173	213	445	397	403	561
22	337	375	965	1168	1162	268	166	247	485	396	439	799
23	320	333	937	1080	973	640	155	263	632	400	845	1006
24	308	315	909	1225	868	722	126	160	650	387	1114	981
25	301	297	815	1123	812	874	148	251	638	355	749	754
26	320	271	736	1593	732	935	161	261	582	285	590	644
27	317	270	659	1825	664	721	152	355	525	329	541	609
28	261	295	635	2433	805	566	164	1372	438	528	515	782
29	222	NA	609	3092	1005	620	154	4442	600	556	607	788
30	209	NA	595	2733	915	672	155	1983	1208	489	534	659
31	203	NA	572	NA	830	NA	176	1174	NA	460	NA	591

[1] October through December data are provisional.

Table B-2 Long-Term (1947-2010) and 2011 Monthly Mean Freshwater Flow (m^3/sec/day) Estimated for Green Island, New York

MONTH	2011 AVERAGE	LONG-TERM AVERAGE	LONG-TERM MINIMUM	LONG-TERM MAXIMUM
JAN	326	410	118	961
FEB	270	401	128	885
MAR	925	633	258	1,077
APR	1,236	868	257	1,749
MAY	1,000	519	156	1,147
JUN	489	301	101	909
JUL	268	201	87	670
AUG	480	175	48	414
SEP	897	183	58	482
OCT[1]	426	272	71	853
NOV[1]	432	385	93	758
DEC[1]	678	437	173	989
ANNUAL AVERAGE[2]	619	398		

[1] October through December data for 2011 are provisional.
[2] Weighted by number of days in each month. 2011 average is provisional.

Table B-3 Monthly Mean Freshwater Flow (m^3/sec/day) Estimated for Green Island, New York, 1974 to 2011

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
JAN	623	540	417	225	744	571	256	148	321	259	133	439	310	262	268	196	383	512
FEB	527	548	885	227	400	335	128	851	356	352	552	319	362	201	349	256	703	496
MAR	587	670	897	987	619	1,077	633	349	613	580	281	581	1,018	605	461	332	994	696
APR	854	724	1,040	1,092	950	1,009	748	384	897	1,062	761	456	689	981	476	548	894	655
MAY	650	566	900	421	530	508	274	328	354	1,036	651	232	363	156	357	620	990	346
JUN	249	367	431	207	282	216	192	169	431	358	275	157	428	175	123	389	250	144
JUL	333	211	432	162	131	131	144	140	182	127	127	133	250	162	131	92	157	112
AUG	180	254	414	154	169	149	130	133	124	155	48	104	350	118	139	61	248	123
SEP	294	482	271	408	175	221	118	233	122	133	58	171	218	341	164	120	159	136
OCT	256	662	658	853	244	313	158	456	124	71	178	206	336	504	211	254	477	216
NOV	486	637	507	663	227	465	242	393	196	224	277	423	544	453	565	407	653	301
DEC	548	532	398	749	303	430	273	319	233	624	447	338	524	437	330	180	687	364
ANNUAL AVERAGE	466	516	604	512	398	452	275	325	329	415	316	296	449	366	298	288	549	342

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
JAN	304	550	239	490	736	465	922	426	417	291	168	331	488	624	814	849	645	421
FEB	236	276	337	263	503	516	437	473	473	346	423	279	297	391	634	331	710	345
MAR	408	453	562	514	461	683	873	584	861	413	540	914	651	456	491	825	1,032	841
APR	648	1,749	1,375	257	939	873	652	593	1,069	1,375	693	833	676	1,059	566	1,240	1,203	644
MAY	501	375	534	158	1,081	643	349	214	898	341	652	621	526	385	553	496	385	429
JUN	342	203	233	130	353	180	550	115	573	451	483	413	298	301	909	195	204	423
JUL	254	136	248	94	384	153	243	142	314	195	152	188	259	214	670	151	333	343
AUG	203	140	265	97	191	126	153	84	393	105	112	332	399	126	257	114	331	400
SEP	217	158	190	102	185	127	133	257	228	116	138	257	452	161	187	110	173	219
OCT	286	192	177	361	288	133	169	266	264	115	248	533	222	683	569	211	313	446
NOV	531	347	251	693	613	293	190	280	309	163	525	736	350	758	752	427	483	502
DEC	438	403	396	328	989	268	187	298	469	220	406	846	759	639	584	472	750	483
ANNUAL AVERAGE	364	415	401	291	560	372	405	311	522	344	378	524	448	483	582	452	547	458

Table B-3 (Continued)

	2010	2011	Minimum	Maximum	Average
JAN	418	326	133	922	435
FEB	341	270	128	885	414
MAR	1,006	925	281	1,077	670
APR	591	1,236	257	1,749	855
MAY	233	1,000	156	1,081	517
JUN	247	489	115	909	314
JUL	209	268	92	670	213
AUG	250	480	48	480	200
SEP	161	897	58	897	218
OCT[1]	762	426	71	853	338
NOV[1]	620	432	163	758	445
DEC[1]	601	678	180	989	472
ANNUAL AVERAGE	453	619	140	939	424

[1] October through December data for 2011 are provisional.

Table B-4 Average Annual Freshwater Flow (m^3/sec/day) Estimated for Green Island, New York, 1947 to 2011

YEAR	FLOW	YEAR	FLOW
1947	457	1980	275
1948	366	1981	325
1949	350	1982	329
1950	398	1983	415
1951	479	1984	316
1952	432	1985	296
1953	395	1986	449
1954	408	1987	366
1955	414	1988	298
1956	393	1989	288
1957	273	1990	549
1958	363	1991	342
1959	401	1992	364
1960	397	1993	415
1961	304	1994	401
1962	299	1995	291
1963	266	1996	560
1964	247	1997	372
1965	219	1998	405
1966	285	1999	311
1967	316	2000	522
1968	353	2001	344
1969	377	2002	378
1970	337	2003	524
1971	420	2004	448
1972	595	2005	483
1973	493	2006	582
1974	466	2007	452
1975	516	2008	547
1976	604	2009	414
1977	512	2010	453
1978	398	2011[1]	619
1979	452		

[1] Data for 2011 are provisional.

Table B-5 Mean, Minimum, And Maximum Temperature (°C) for Each Day of the Year, Hudson River near Poughkeepsie, 1951 to 2011[1]

MONTH	DAY	LONG-TERM TEMPERATURE (1951-2010) MEAN	MINIMUM	MAXIMUM	2011 ACTUAL TEMPERATURES
1	1	1.4	0.0	4.4	0.1
1	2	1.4	0.0	4.4	0.2
1	3	1.4	0.0	4.4	0.2
1	4	1.4	0.0	3.5	0.1
1	5	1.3	0.0	3.5	0.0
1	6	1.1	0.0	4.0	0.1
1	7	1.1	0.0	3.5	0.1
1	8	1.1	0.0	4.0	0.0
1	9	1.1	0.0	3.5	0.1
1	10	1.1	0.0	3.5	0.1
1	11	1.1	0.0	3.5	0.1
1	12	1.0	0.0	4.0	0.1
1	13	1.0	0.0	4.0	0.0
1	14	1.0	0.0	4.0	0.0
1	15	1.0	0.0	4.0	0.0
1	16	1.0	0.0	3.5	0.1
1	17	0.9	-0.1	2.8	0.1
1	18	0.9	0.0	3.3	0.0
1	19	0.9	0.0	2.8	0.0
1	20	0.8	0.0	2.2	0.0
1	21	0.8	0.0	2.4	-0.1
1	22	0.8	0.0	2.2	-0.1
1	23	0.8	0.0	3.0	-0.1
1	24	0.8	0.0	3.0	-0.1
1	25	0.8	0.0	3.5	-0.1
1	26	0.8	0.0	3.5	-0.1
1	27	0.8	0.0	3.0	0.0
1	28	0.8	0.0	3.0	0.0
1	29	0.8	-0.1	2.5	0.0
1	30	0.8	0.0	2.5	0.0
1	31	0.8	0.0	2.5	0.0
2	1	0.8	0.0	2.5	-0.1
2	2	0.8	0.0	2.2	-0.1
2	3	0.8	0.0	2.2	0.0
2	4	0.7	0.0	2.0	0.0
2	5	0.7	0.0	2.0	0.0
2	6	0.8	0.0	2.5	0.0
2	7	0.7	0.0	2.5	0.0
2	8	0.8	0.0	3.0	0.0
2	9	0.8	0.0	3.0	0.0
2	10	0.8	0.0	3.3	0.0
2	11	0.8	0.0	3.0	0.0
2	12	0.8	0.0	2.5	0.0
2	13	0.9	0.0	2.5	0.0
2	14	0.9	0.0	2.8	0.0
2	15	0.9	0.0	2.8	0.0
2	16	0.9	0.0	2.8	0.1
2	17	0.9	0.0	2.8	0.1
2	18	0.9	0.0	2.8	0.1
2	19	0.9	0.0	2.8	0.0
2	20	0.9	0.0	2.8	-0.1
2	21	1.0	0.0	2.8	-0.1
2	22	1.0	0.0	3.9	-0.1
2	23	1.0	0.0	2.8	-0.1
2	24	1.0	0.0	3.9	0.0
2	25	1.0	0.0	2.8	0.0
2	26	1.1	0.0	3.3	0.0
2	27	1.2	0.0	4.4	0.0
2	28	1.3	0.0	5.0	0.1
2	29	1.4	0.0	4.4	
3	1	1.2	0.0	4.4	0.3
3	2	1.3	0.0	4.4	0.1
3	3	1.2	0.0	3.9	0.2
3	4	1.3	0.0	3.5	0.1
3	5	1.4	0.0	3.5	0.3
3	6	1.5	0.0	4.0	0.7
3	7	1.5	0.0	4.7	0.5
3	8	1.6	0.0	4.9	0.4
3	9	1.6	0.0	4.5	0.4
3	10	1.7	0.0	4.8	0.8
3	11	1.8	0.0	4.4	1.1
3	12	1.9	0.0	4.4	1.4

[1] Data from 1951 through 1992 from Poughkeepsie's Water Treatment Facility. Data from 1993 through 2011 from USGS gaging site 01372058 Hudson River below Poughkeepsie, NY.

Table B-5 (Continued)

MONTH	DAY	LONG-TERM TEMPERATURE (1951-2010) MEAN	MINIMUM	MAXIMUM	2011 ACTUAL TEMPERATURES
3	13	2.0	0.0	4.5	2.0
3	14	2.2	0.0	4.5	2.2
3	15	2.3	0.0	5.0	2.6
3	16	2.4	0.0	5.6	2.8
3	17	2.5	0.0	5.7	3.0
3	18	2.5	0.0	5.9	3.3
3	19	2.6	0.0	7.7	3.6
3	20	2.8	0.0	7.5	4.0
3	21	2.9	0.0	7.3	4.3
3	22	3.0	0.0	7.2	4.6
3	23	3.2	0.0	7.1	4.6
3	24	3.4	0.5	7.1	4.6
3	25	3.6	0.5	6.7	4.5
3	26	3.7	0.5	6.5	4.2
3	27	4.0	0.5	6.7	4.1
3	28	4.3	1.0	7.0	4.0
3	29	4.5	1.1	7.0	4.1
3	30	4.7	1.1	7.8	4.3
3	31	5.0	1.1	8.3	4.3
4	1	5.2	1.7	9.4	4.2
4	2	5.4	2.0	8.5	4.3
4	3	5.6	2.5	10.0	4.6
4	4	5.8	2.5	10.0	4.7
4	5	5.9	2.8	9.5	4.8
4	6	6.0	3.0	9.0	5.0
4	7	6.2	2.8	9.4	5.4
4	8	6.4	2.8	9.8	5.5
4	9	6.4	2.8	10.3	5.9
4	10	6.6	2.8	10.9	6.3
4	11	6.9	2.8	11.5	7.0
4	12	7.0	2.8	11.8	7.5
4	13	7.2	2.8	12.1	7.6
4	14	7.4	2.8	12.3	8.3
4	15	7.7	2.8	12.6	8.7
4	16	7.8	3.3	12.7	8.6
4	17	8.0	3.9	12.7	9.2
4	18	8.2	4.5	12.7	9.7
4	19	8.5	5.0	12.7	9.5
4	20	8.7	5.0	13.5	9.2
4	21	9.1	5.5	13.5	8.9
4	22	9.3	6.5	13.5	8.5
4	23	9.5	6.7	13.5	8.4
4	24	9.8	6.7	14.0	8.5
4	25	9.9	6.7	13.5	8.4
4	26	10.2	6.7	13.5	8.7
4	27	10.4	7.2	13.5	9.1
4	28	10.6	7.8	13.5	9.6
4	29	10.8	8.3	13.9	10.6
4	30	11.2	8.9	13.9	11.9
5	1	11.4	8.9	14.4	12.8
5	2	11.6	8.9	14.4	12.8
5	3	11.7	8.9	14.4	12.9
5	4	12.0	8.9	15.0	12.7
5	5	12.2	8.9	15.0	12.5
5	6	12.4	8.9	15.0	12.4
5	7	12.6	8.9	15.0	12.5
5	8	12.7	8.9	15.2	12.5
5	9	12.9	8.9	15.6	12.6
5	10	13.0	8.9	16.1	12.7
5	11	13.2	9.4	16.1	12.9
5	12	13.3	9.4	16.1	13.3
5	13	13.6	10.0	16.2	13.3
5	14	13.8	10.6	16.7	13.4
5	15	14.1	11.1	17.5	13.5
5	16	14.3	11.1	18.0	13.5
5	17	14.5	11.7	18.0	13.7
5	18	14.6	11.5	17.5	14.1
5	19	14.9	12.0	17.5	14.6
5	20	15.1	12.2	18.0	14.8
5	21	15.4	12.5	18.0	14.9
5	22	15.6	12.8	18.5	15.0
5	23	15.7	12.8	19.0	15.2
5	24	15.9	12.8	19.0	15.7
5	25	16.0	12.8	20.0	16.2
5	26	16.3	12.2	20.5	16.8
5	27	16.5	12.2	20.6	17.3
5	28	16.8	12.2	21.0	17.8

Table B-5 (Continued)

MONTH	DAY	LONG-TERM TEMPERATURE (1951-2010) MEAN	MINIMUM	MAXIMUM	2011 ACTUAL TEMPERATURES
5	29	17.1	12.8	20.7	18.3
5	30	17.2	12.8	21.5	19.0
5	31	17.3	13.3	21.3	19.8
6	1	17.6	13.3	22.0	20.4
6	2	18.0	13.3	22.2	20.8
6	3	18.2	14.4	22.1	21.0
6	4	18.3	13.9	22.5	21.2
6	5	18.5	15.0	22.2	21.3
6	6	18.6	15.6	22.4	21.6
6	7	18.8	15.0	22.4	21.9
6	8	19.0	16.1	22.5	22.3
6	9	19.3	16.5	23.0	22.7
6	10	19.5	16.5	23.2	22.9
6	11	19.7	17.0	23.4	22.8
6	12	19.9	17.0	23.3	22.7
6	13	20.0	17.0	23.4	22.8
6	14	20.1	17.0	23.3	22.6
6	15	20.3	17.0	23.5	22.7
6	16	20.5	17.5	23.8	22.8
6	17	20.6	17.8	23.8	22.7
6	18	20.8	17.5	24.2	23.0
6	19	21.0	17.8	24.1	23.0
6	20	21.1	17.8	24.0	23.2
6	21	21.3	17.8	24.3	23.3
6	22	21.5	17.2	24.3	23.3
6	23	21.6	17.2	24.1	23.1
6	24	21.7	17.8	24.1	23.1
6	25	21.9	17.8	24.5	23.2
6	26	22.1	17.8	24.5	23.2
6	27	22.3	17.8	25.0	23.2
6	28	22.4	17.8	25.0	23.3
6	29	22.6	17.8	25.0	23.3
6	30	22.7	17.8	25.5	23.3
7	1	22.9	18.9	25.5	23.3
7	2	22.9	18.9	25.5	23.5
7	3	23.1	19.4	25.5	23.5
7	4	23.2	19.4	26.0	23.7
7	5	23.4	20.0	26.0	23.9
7	6	23.5	20.0	26.0	24.1
7	7	23.5	20.0	26.0	24.3
7	8	23.6	20.0	26.3	24.3
7	9	23.8	20.0	26.4	24.4
7	10	23.8	20.6	26.4	24.6
7	11	23.9	20.6	26.5	24.9
7	12	24.0	21.1	26.6	25.1
7	13	24.2	21.7	26.7	25.2
7	14	24.3	21.7	26.7	25.1
7	15	24.4	21.7	26.8	25.2
7	16	24.5	22.2	27.0	25.4
7	17	24.6	22.2	27.2	25.6
7	18	24.6	22.2	27.3	25.7
7	19	24.8	22.2	27.3	25.9
7	20	24.9	22.2	27.4	26.1
7	21	24.9	22.8	27.5	26.4
7	22	25.0	22.2	27.4	26.8
7	23	25.0	22.2	27.2	27.0
7	24	25.1	22.8	27.5	27.1
7	25	25.1	22.8	27.5	26.9
7	26	25.1	22.8	27.5	27.0
7	27	25.3	22.8	27.5	27.0
7	28	25.3	22.8	27.5	27.1
7	29	25.4	22.8	27.5	27.1
7	30	25.4	23.0	27.5	27.1
7	31	25.4	23.0	28.0	27.2
8	1	25.4	23.0	28.0	27.3
8	2	25.5	22.8	28.0	27.4
8	3	25.5	23.3	28.0	27.3
8	4	25.5	23.3	28.0	27.4
8	5	25.5	23.3	28.0	27.5
8	6	25.5	23.3	28.0	27.3
8	7	25.5	23.3	28.0	27.4
8	8	25.5	23.3	28.0	27.5
8	9	25.5	23.3	28.0	27.4
8	10	25.5	23.3	28.0	27.5
8	11	25.5	22.8	28.0	27.3
8	12	25.4	22.8	28.1	27.2
8	13	25.4	22.2	28.5	27.1

Table B-5 (Continued)

MONTH	DAY	LONG-TERM TEMPERATURE (1951-2010) MEAN	MINIMUM	MAXIMUM	2011 ACTUAL TEMPERATURES
8	14	25.3	22.2	28.5	27.0
8	15	25.2	22.2	28.4	26.7
8	16	25.2	22.2	28.4	26.6
8	17	25.2	22.2	28.1	26.6
8	18	25.1	22.8	28.0	26.4
8	19	25.1	22.2	27.7	26.3
8	20	25.1	22.8	27.6	26.1
8	21	25.0	22.2	27.5	26.0
8	22	24.9	22.2	27.5	25.6
8	23	24.8	22.8	27.0	25.4
8	24	24.8	22.2	27.0	25.3
8	25	24.7	21.7	27.0	25.1
8	26	24.7	21.7	27.0	25.0
8	27	24.7	22.2	26.5	25.0
8	28	24.6	22.2	26.5	
8	29	24.5	22.2	26.7	
8	30	24.5	22.2	26.5	
8	31	24.4	22.2	26.5	20.5
9	1	24.3	22.2	26.5	20.2
9	2	24.2	22.2	26.7	20.2
9	3	24.1	22.2	26.1	20.3
9	4	24.1	22.2	26.0	20.6
9	5	24.0	21.7	26.0	20.7
9	6	24.0	22.0	26.0	20.8
9	7	23.8	21.7	26.0	20.7
9	8	23.7	21.7	26.0	19.8
9	9	23.6	21.7	25.6	19.0
9	10	23.5	21.1	25.6	18.8
9	11	23.4	21.1	25.6	18.7
9	12	23.3	21.1	25.6	19.1
9	13	23.1	20.0	25.6	19.4
9	14	23.0	18.9	25.5	19.6
9	15	22.8	17.8	25.5	19.6
9	16	22.6	17.2	25.5	19.7
9	17	22.4	17.2	25.5	19.7
9	18	22.2	16.7	25.5	19.6
9	19	22.2	16.7	25.5	19.7
9	20	22.0	17.2	25.5	19.6
9	21	21.7	16.7	25.0	19.6
9	22	21.6	16.1	25.0	19.6
9	23	21.3	16.1	25.0	19.5
9	24	21.1	15.6	24.5	19.4
9	25	20.9	15.6	24.5	19.2
9	26	20.8	15.6	24.0	19.4
9	27	20.7	16.1	24.0	19.5
9	28	20.4	15.6	23.5	19.5
9	29	20.2	15.6	23.5	19.6
9	30	20.0	15.6	23.0	19.7
10	1	19.8	16.1	22.7	19.2
10	2	19.6	15.6	22.5	18.6
10	3	19.5	15.6	22.6	18.4
10	4	19.2	15.6	22.7	18.0
10	5	19.0	15.0	22.7	17.9
10	6	18.8	15.0	22.7	17.7
10	7	18.6	15.0	22.6	17.5
10	8	18.3	14.4	22.6	17.4
10	9	18.1	14.4	22.4	17.3
10	10	18.0	14.4	22.2	17.3
10	11	17.8	13.9	22.0	17.3
10	12	17.5	13.3	21.5	17.1
10	13	17.3	13.3	21.1	17.0
10	14	17.1	12.8	21.1	17.0
10	15	16.9	12.2	20.5	16.5
10	16	16.6	12.2	20.3	16.3
10	17	16.4	12.8	20.2	16.1
10	18	16.3	12.2	20.2	16.0
10	19	16.0	11.7	20.2	15.7
10	20	15.7	10.6	20.0	15.7
10	21	15.4	10.6	19.7	15.2
10	22	15.1	10.0	19.6	15.0
10	23	14.9	10.0	19.6	14.9
10	24	14.7	10.0	19.3	14.8
10	25	14.6	10.0	19.0	14.7
10	26	14.2	10.0	18.6	14.5
10	27	13.9	9.4	18.2	14.0
10	28	13.8	8.9	17.8	13.7
10	29	13.4	8.3	17.8	13.1

Table B-5 (Continued)

MONTH	DAY	LONG-TERM TEMPERATURE (1951-2010) MEAN	MINIMUM	MAXIMUM	2011 ACTUAL TEMPERATURES
10	30	13.2	7.8	16.7	12.4
10	31	13.1	7.2	16.7	12.1
11	1	12.8	7.2	16.7	11.6
11	2	12.6	7.2	16.1	11.2
11	3	12.4	7.2	16.1	10.7
11	4	12.2	7.2	15.6	10.2
11	5	11.9	7.2	15.6	9.8
11	6	11.7	6.7	15.6	9.5
11	7	11.5	6.1	15.0	9.3
11	8	11.3	6.1	15.0	9.3
11	9	11.0	5.6	15.0	9.2
11	10	10.7	5.0	14.4	9.3
11	11	10.5	5.0	13.9	8.9
11	12	10.2	5.0	13.3	8.6
11	13	10.0	5.0	13.3	8.6
11	14	9.9	5.0	13.3	8.6
11	15	9.7	5.0	12.8	8.7
11	16	9.5	5.0	12.8	8.7
11	17	9.2	5.0	12.8	8.4
11	18	9.0	5.0	12.8	8.1
11	19	8.8	5.0	12.2	8.1
11	20	8.6	5.0	11.1	8.2
11	21	8.4	3.9	11.1	8.3
11	22	8.1	3.9	11.1	8.0
11	23	8.0	3.9	11.1	7.8
11	24	7.7	3.9	10.6	7.7
11	25	7.4	3.9	10.6	7.5
11	26	7.2	3.3	10.5	7.3
11	27	7.0	3.3	10.5	7.1
11	28	6.9	3.3	10.5	7.1
11	29	6.7	3.3	10.5	7.1
11	30	6.5	2.8	10.5	7.1
12	1	6.2	2.2	10.5	6.9
12	2	6.0	3.0	10.0	6.8
12	3	5.7	2.2	9.5	6.7
12	4	5.5	1.3	9.5	6.6
12	5	5.3	2.8	9.5	6.7
12	6	5.2	2.6	9.5	6.7
12	7	5.1	2.0	9.5	6.6
12	8	4.8	2.0	9.0	6.3
12	9	4.5	1.7	9.0	6.4
12	10	4.3	1.1	9.0	6.2
12	11	4.1	1.1	8.5	6.0
12	12	3.9	0.6	8.5	5.7
12	13	3.7	0.6	8.5	5.4
12	14	3.5	0.5	8.5	5.3
12	15	3.3	0.5	8.5	5.3
12	16	3.1	0.5	8.0	4.7
12	17	3.0	0.0	8.0	4.3
12	18	2.8	0.0	7.5	3.8
12	19	2.6	0.0	7.5	3.6
12	20	2.5	0.0	7.5	3.7
12	21	2.3	0.0	7.0	3.7
12	22	2.1	0.0	6.5	3.8
12	23	2.0	0.0	6.5	3.7
12	24	2.0	0.0	6.5	3.3
12	25	1.9	0.0	6.0	3.1
12	26	1.7	0.0	6.1	3.2
12	27	1.7	0.0	6.1	3.1
12	28	1.7	0.0	6.1	3.1
12	29	1.6	0.0	6.1	2.7
12	30	1.5	0.0	6.1	2.8
12	31	1.5	0.0	5.0	2.8

Table B-6 Average Annual Water Temperature (°C), Hudson River near Poughkeepsie, 1951 to 2011[1]

YEAR	TEMPERATURE	YEAR	TEMPERATURE
1951	11.66	1982	12.48
1952	12.25	1983	13.01
1953	12.87	1984	13.04
1954	11.92	1985	13.05
1955	12.40	1986	12.69
1956	11.92	1987	12.66
1957	13.03	1988	12.57
1958	12.18	1989	12.09
1959	12.90	1990	12.77
1960	11.29	1991	13.67
1961	12.17	1992	12.10
1962	11.63	1993	12.09
1963	11.82	1994	12.24
1964	12.99	1995	12.47
1965	12.51	1996	11.83
1966	12.75	1997	12.07
1967	12.05	1998	13.66
1968	13.10	1999	13.08
1969	12.59	2000	12.00
1970	12.79	2001	13.24
1971	12.31	2002	12.85
1972	11.35	2003	11.80
1973	12.73	2004	12.37
1974	11.61	2005	12.68
1975	12.37	2006	12.77
1976	11.43	2007	12.97
1977	11.97	2008	12.54
1978	12.27	2009	12.30
1979	12.49	2010	13.11
1980	12.72	2011	12.41
1981	12.63		

[1] Data from 1951 through 1992 from Poughkeepsie's Water Treatment Facility. Data from 1993 through 2011 from USGS gaging site 01372058 Hudson River below Poughkeepsie, NY.

Table B-7 Weighted Mean Temperature (°C) by Region and Week from 2011 Long River/Fall Juvenile Survey

WEEK BEGINNING MONDAY	REGIONS												
	BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL
14MAR11	3.5	2.7	2.4	2.8	2.6	2.6	2.6	.	.	.	.	.	.
21MAR11	4.9	4.7	4.4	4.1	4.0	4.1	4.3	.	.	.	.	.	.
28MAR11	4.5	4.5	4.7	5.0	5.0	4.8	4.6	.	.	.	.	.	.
04APR11	5.7	5.8	6.2	6.1	5.6	5.3	5.1	5.0	5.4	5.7	5.9	5.8	5.6
11APR11	7.5	8.0	8.0	7.8	6.8	7.1	7.2	7.5	8.3	8.2	8.2	8.2	7.7
18APR11	8.7	9.0	9.0	9.3	9.4	9.4	9.7	9.1	8.5	8.2	7.5	6.8	6.5
25APR11	10.7	12.0	12.1	10.6	10.6	10.1	9.4	8.5	8.3	8.1	7.8	7.5	8.1
02MAY11	10.9	12.0	11.7	12.4	12.7	13.1	13.5	12.9	12.4	12.2	11.6	11.0	10.9
09MAY11	13.0	14.5	14.6	14.7	14.6	13.7	13.3	12.8	12.6	12.2	12.2	12.1	11.8
16MAY11	13.2	14.3	15.3	15.0	14.7	14.2	13.8	14.3	14.7	14.4	14.1	14.2	14.5
23MAY11	15.9	16.4	16.7	16.9	16.3	15.6	15.5	15.6	15.9	16.0	16.1	16.2	16.4
30MAY11	19.2	19.4	20.3	20.6	20.3	19.4	19.3	20.1	21.5	21.1	21.4	21.6	21.2
06JUN11	18.6	20.6	21.2	22.2	21.6	21.1	21.5	22.2	22.3	21.9	21.4	21.1	20.8
13JUN11	19.2	20.2	21.9	23.0	22.8	22.2	22.3	22.6	22.7	22.7	22.4	22.0	21.2
20JUN11	21.6	22.5	23.1	24.6	24.3	23.3	23.5	23.4	23.1	23.0	22.7	22.3	22.1
27JUN11	22.3	23.1	23.7	24.5	24.4	23.8	23.8	23.5	23.1	22.8	22.8	22.0	21.1
04JUL11	23.5	24.6	26.2	26.3	25.5	24.8	24.7	24.2	24.1	23.5	23.2	23.4	23.6
11JUL11	23.1	24.7	26.3	27.0	26.9	25.8	25.8	25.5	.	.	.	.	.
18JUL11	24.5	25.6	26.9	28.1	28.3	26.5	26.5	26.1	26.5	26.1	26.3	26.5	26.5
25JUL11	22.2	24.6	26.0	27.4	27.3	27.1	27.1	27.2	.	.	.	.	.
01AUG11	25.4	25.6	26.6	27.7	28.0	27.4	27.4	27.5	27.5	27.4	27.3	27.4	27.0
08AUG11	25.0	26.1	27.1	28.4	28.5	27.6	27.2	27.4	.	.	.	.	.
15AUG11	24.9	25.2	25.9	27.2	26.9	26.0	26.1	26.5	26.0	25.7	25.5	25.3	25.1
22AUG11	23.4	25.4	26.2	27.2	26.6	25.9	25.9	25.7	.	.	.	.	.
29AUG11	24.2	23.8	23.0	22.0	21.6	21.3	21.2	20.5	.	.	.	.	.
05SEP11	21.6	22.4	22.2	21.2	20.4	20.5	20.7	20.8	.	.	.	.	.
12SEP11	21.4	21.2	20.8	20.6	19.8	19.6	19.4	19.5	19.5	19.6	19.2	19.3	19.3
19SEP11	19.4	19.6	19.9	20.4	19.5	18.9	19.1	19.6	.	.	.	.	.
26SEP11	20.8	21.0	21.5	21.4	20.8	20.4	20.3	19.7	19.7	19.7	19.5	19.3	19.5
03OCT11	20.1	19.3	19.2	19.5	18.5	18.3	18.2	18.2	.	.	.	.	.
10OCT11	18.6	18.8	18.7	18.4	19.1	18.1	17.8	17.3	16.9	16.4	16.2	15.9	15.8
24OCT11	17.9	16.4	16.5	16.4	16.3	15.5	14.8	14.7	14.4	13.9	12.7	12.2	11.9
07NOV11	12.8	12.6	12.6	12.7	12.7	10.9	10.1	9.5	8.6	8.0	7.9	7.9	7.9
28NOV11	11.0	10.4	9.3	8.8	8.7	8.0	7.6	7.2	6.8	6.5	6.8	6.9	7.2

Note: Dots (.) indicate no sampling.

Table B-8 Average Annual Temperature (°C) from Long River/Fall Juvenile Surveys, 1974 to 2011

YEAR	TEMPERATURE
1974	21.54
1975	22.10
1976	20.04
1977	20.79
1978	20.16
1979	21.53
1980	21.23
1981	20.96
1982	19.16
1983	19.14
1984	19.22
1985	21.69
1986	21.28
1987	21.41
1988	21.80
1989	20.65
1990	20.97
1991	23.59
1992	21.06
1993	21.01
1994	21.93
1995	21.78
1996	20.18
1997	20.96
1998	22.26
1999	23.17
2000	20.43
2001	21.43
2002	22.07
2003	21.09
2004	21.94
2005	22.14
2006	21.08
2007	21.69
2008	22.22
2009	21.01
2010	22.93
2011	22.17

Table B-9 Mean Temperature (°C) by Region and Week from 2011 Beach Seine Survey

WEEK BEGINNING MONDAY	REGIONS YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL
13JUN11	21.5	21.5	22.2	22.6	22.7	23.6	23.6	23.3	22.9	22.0	22.3	21.1
27JUN11	24.7	26.0	25.3	26.3	23.9	24.7	25.2	23.8	23.6	23.2	23.4	22.1
11JUL11	27.7	27.5	28.0	28.0	26.3	26.8	26.1	25.6	25.3	25.8	26.8	26.3
25JUL11	28.0	27.2	27.5	28.6	27.3	27.5	26.7	26.5	26.1	27.7	27.5	26.9
08AUG11	27.3	27.5	29.1	27.4	27.8	27.6	27.5	27.4	26.8	26.6	27.2	26.7
22AUG11	26.2	25.4	26.4	26.3	25.9	26.8	25.4	24.1	23.8	25.9	25.7	24.2
05SEP11	21.6	21.9	21.9	21.7	21.5	21.1	20.7	19.3	19.6	19.9	20.0	20.0
19SEP11	19.5	19.4	19.9	19.8	20.0	20.4	20.1	18.9	19.4	19.9	18.6	17.7
03OCT11	19.4	18.5	18.8	19.9	18.9	18.5	17.9	17.3	17.9	17.6	16.9	16.1
17OCT11	17.9	17.3	17.6	17.1	16.0	15.3	15.7	15.3	15.6	15.7	15.2	14.2

Table B-10 Average Annual Temperature (°C) from Beach Seine Surveys, 1974 to 2011

YEAR	TEMPERATURE
1974	21.34
1975	21.59
1976	22.21
1977	22.85
1978	23.71
1979	23.05
1980	24.29
1981	21.91
1982	22.73
1983	24.53
1984	23.17
1985	23.38
1986	22.02
1987	23.03
1988	23.16
1989	24.15
1990	24.34
1991	23.63
1992	22.07
1993	23.48
1994	22.39
1995	23.85
1996	24.42
1997	22.41
1998	24.20
1999	23.42
2000	22.32
2001	24.89
2002	24.52
2003	23.69
2004	22.60
2005	25.69
2006	23.27
2007	23.74
2008	23.85
2009	23.88
2010	23.06
2011	22.01

Table B-11 Weighted Mean Salinity (ppt) by Region and Week from 2011 Long River/Fall Juvenile Survey

WEEK BEGINNING MONDAY	REGIONS												
	BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL
14MAR11	14.1	3.1	0.1	0.1	0.1	0.1	0.1	.	.	.	.	.	.
21MAR11	9.2	3.0	0.1	0.2	0.1	0.1	0.1	.	.	.	.	.	.
28MAR11	13.6	6.1	2.6	2.6	0.2	0.1	0.1	.	.	.	.	.	.
04APR11	16.6	12.6	6.2	3.1	1.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11APR11	15.4	6.3	2.2	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
18APR11	10.2	1.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25APR11	11.3	3.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
02MAY11	11.1	3.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
09MAY11	11.8	4.8	4.5	2.0	0.9	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16MAY11	15.7	8.4	2.8	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23MAY11	8.6	2.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30MAY11	15.0	11.1	3.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
06JUN11	14.5	7.0	4.2	2.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
13JUN11	17.7	11.6	4.5	1.5	0.9	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20JUN11	15.0	8.7	5.3	1.3	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27JUN11	15.9	10.1	5.5	2.3	2.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
04JUL11	15.0	8.5	2.8	0.7	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11JUL11	18.3	11.5	4.0	1.0	0.3	0.1	0.1	0.1	.	.	.	.	.
18JUL11	16.0	10.8	5.9	2.7	1.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25JUL11	21.2	15.4	10.7	6.1	5.8	3.4	1.4	0.1	.	.	.	.	.
01AUG11	17.8	15.5	10.0	7.1	6.1	2.7	2.0	0.3	0.1	0.1	0.1	0.1	0.1
08AUG11	21.9	14.7	9.1	6.2	4.4	2.8	1.7	0.3	.	.	.	.	.
15AUG11	14.2	10.8	6.6	3.5	2.2	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1
22AUG11	18.7	10.0	5.5	2.7	1.8	0.3	0.2	0.1	.	.	.	.	.
29AUG11	1.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.	.	.	.	.
05SEP11	13.5	3.6	0.1	0.1	0.1	0.1	0.1	0.1	.	.	.	.	.
12SEP11	7.1	2.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19SEP11	12.7	5.5	3.6	1.1	0.5	0.1	0.1	0.1	.	.	.	.	.
26SEP11	14.0	10.0	2.8	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
03OCT11	9.4	0.9	0.1	0.1	0.1	0.1	0.1	0.1	.	.	.	.	.
10OCT11	12.7	7.4	5.1	1.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
24OCT11	18.8	7.3	1.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
07NOV11	17.8	9.8	3.1	1.9	1.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
28NOV11	11.8	6.0	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Note: Dots (.) indicate no sampling.

Table B-12 Mean Salinity (ppt) by Region and Week from 2011 Beach Seine Survey

WEEK BEGINNING MONDAY	REGIONS											
	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL
13JUN11	6.1	4.1	1.7	0.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27JUN11	3.1	1.7	1.4	1.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11JUL11	4.6	2.5	0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25JUL11	4.8	4.7	3.2	4.4	1.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1
08AUG11	10.4	7.8	6.1	3.1	1.6	0.8	0.1	0.1	0.1	0.1	0.2	0.1
22AUG11	5.9	3.8	2.3	1.0	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
05SEP11	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19SEP11	1.4	0.6	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
03OCT11	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
17OCT11	2.6	0.9	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1

Table B-13 Weighted Mean Dissolved Oxygen (mg/L) by Region and Week from 2011 Long River/Fall Juvenile Survey

WEEK BEGINNING MONDAY	REGIONS												
	BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL
14MAR11	11.3	13.5	14.3	14.5	14.5	.	14.7	.	.	.	.	.	.
21MAR11	11.0	13.5	14.4	14.5	14.7	14.7	14.5	.	.	.	.	.	.
28MAR11	10.1	12.0	12.9	14.2	14.6	14.6	14.7	.	.	.	.	.	.
04APR11	10.4	13.1	.	13.7	14.4	14.8	14.8	14.9	14.8	14.7	14.4	14.7	14.9
11APR11	9.0	10.0	11.2	12.6	14.2	14.2	14.3	14.5	14.6	.	.	13.5	.
18APR11	11.7	13.6	14.0	13.7	13.6	13.5	13.5	.	.	.	14.2	14.6	14.9
25APR11	8.9	10.0	10.6	10.7	11.2	11.5	11.2	11.1	11.2	11.1	10.9	11.0	10.0
02MAY11	8.6	9.4	10.1	10.2	9.9	9.5	9.6	9.4	9.8	9.9	10.0	10.1	10.5
09MAY11	7.5	7.6	7.9	9.3	9.4	9.7	10.5	10.4	9.9	10.2	10.3	10.3	10.5
16MAY11	7.9	8.2	9.1	9.4	9.6	9.9	10.1	10.5	10.4	9.8	9.6	9.9	10.0
23MAY11	8.1	9.1	9.4	9.5	9.3	8.3	8.1	9.4	9.2	9.4	9.6	9.7	10.1
30MAY11	7.2	7.2	7.9	8.4	8.4	8.0	7.9	7.7	8.0	8.2	8.0	8.2	8.4
06JUN11	7.0	7.3	7.3	7.2	7.7	8.1	7.7	7.6	7.6	7.9	8.1	8.3	8.8
13JUN11	5.6	5.7	6.6	6.8	6.6	7.6	8.7	7.6	7.4	7.4	7.6	7.9	8.8
20JUN11	5.1	5.5	5.5	6.0	6.2	6.8	7.0	6.8	7.2	7.5	8.5	8.9	8.7
27JUN11	6.5	6.5	6.2	6.2	6.4	6.8	6.5	7.2	7.9	7.7	7.9	8.5	9.3
04JUL11	5.2	5.8	6.5	6.0	6.9	7.6	7.5	7.7	7.7	7.6	7.4	7.7	7.9
11JUL11	6.5	6.5	6.6	6.6	5.3	5.6	6.4	6.6	.	.	.	.	.
18JUL11	4.8	5.1	6.0	6.0	6.4	6.9	6.7	7.3	7.0	7.0	6.9	6.9	7.2
25JUL11	6.1	6.1	5.8	5.8	5.5	6.2	7.1	8.2	.	.	.	.	.
01AUG11	5.5	5.7	6.1	6.2	6.0	6.4	6.6	7.2	7.7	7.6	7.8	8.6	7.4
08AUG11	5.5	5.4	6.7	6.8	5.7	5.8	6.3	6.7	.	.	.	.	.
15AUG11	4.6	5.4	6.3	5.4	6.2	7.4	6.9	5.9	6.2	6.8	6.9	7.1	7.2
22AUG11	6.5	.	.	.	5.7	6.2	6.4	6.4	.	.	.	.	.
29AUG11	6.1	6.2	6.4	7.2	7.3	7.3	6.6	6.3	.	.	.	.	.
05SEP11	5.5	6.3	6.6	6.2	6.8	7.0	7.1	7.4	.	.	.	.	.
12SEP11	6.0	7.4	7.9	8.0	8.5	8.8	8.7	8.8	9.2	9.2	9.3	9.8	10.2
19SEP11	7.3	8.1	7.8	8.5	7.7	7.6	7.6	7.5	.	.	.	.	.
26SEP11	4.8	5.4	7.1	7.6	6.9	7.1	7.1	7.5	7.8	7.9	8.3	8.9	9.3
03OCT11	5.9	7.5	7.5	7.3	7.9	8.0	8.0	8.2	.	.	.	.	.
10OCT11	7.4	7.9	8.1	9.0	8.9	8.7	9.0	9.0	8.7	8.6	8.9	8.8	7.6
24OCT11	5.8	6.7	7.2	8.2	8.4	8.7	8.6	8.6	8.8	9.1	8.6	9.0	9.4
07NOV11	7.8	8.1	9.3	9.5	9.4	10.1	10.2	10.1	10.6	11.0	11.3	11.4	11.8
28NOV11	8.2	9.4	10.9	11.1	11.1	11.5	11.6	11.7	11.8	11.8	11.6	11.7	11.5

Note: Dots (.) indicate no sampling.

Table B-14 Average Annual Dissolved Oxygen (mg/l) from Long River/Fall Juvenile Surveys, 1974 to 2011

YEAR	DISSOLVED OXYGEN
1974	7.26
1975	7.69
1976	8.37
1977	7.66
1978	7.86
1979	8.02
1980	7.77
1981	7.82
1982	7.99
1983	8.29
1984	8.64
1985	8.14
1986	8.19
1987	7.79
1988	7.58
1989	7.58
1990	7.77
1991	7.10
1992	7.67
1993	7.59
1994	7.95
1995	7.90
1996	7.95
1997	7.91
1998	7.61
1999	7.56
2000	7.97
2001	7.54
2002	7.51
2003	7.51
2004	7.12
2005	7.04
2006	7.13
2007	7.21
2008	6.81
2009	7.29
2010	6.99
2011	7.36

Table B-15 Mean Dissolved Oxygen (mg/L) by Region and Week from 2011 Beach Seine Survey

WEEK BEGINNING MONDAY	REGIONS											
	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL
13JUN11	5.9	6.5	6.5	5.9	5.8	6.3	6.8	6.5	6.6	6.8	7.0	7.0
27JUN11	7.1	7.0	6.9	6.3	6.1	7.1	6.8	6.3	6.5	7.3	7.7	7.8
11JUL11	7.6	7.1	6.7	6.2	6.5	7.8	6.8	6.8	6.7	6.8	7.2	6.5
25JUL11	6.7	6.6	6.1	5.8	5.9	6.9	7.1	6.3	6.3	6.8	7.0	6.8
08AUG11	5.1	6.3	6.9	6.3	5.8	6.9	6.3	6.4	6.2	6.4	7.1	6.9
22AUG11	6.6	6.7	7.1	6.7	6.6	7.0	7.1	6.9	6.5	7.2	7.4	6.7
05SEP11	7.0	6.7	6.3	6.1	6.0	6.4	6.6	7.0	7.2	7.0	7.6	8.2
19SEP11	6.4	6.6	6.6	6.5	6.7	7.4	6.3	7.0	6.4	7.1	7.7	8.0
03OCT11	6.7	7.1	7.3	7.1	7.1	7.1	7.6	7.7	7.3	7.4	7.9	8.6
17OCT11	7.1	8.3	7.9	7.2	7.9	8.1	7.8	7.9	8.1	8.2	8.3	8.8

Table B-16 Average Annual Dissolved Oxygen (mg/l) from Beach Seine Surveys, 1974 to 2011

YEAR	DISSOLVED OXYGEN
1974	8.71
1975	7.82
1976	7.89
1977	7.35
1978	7.29
1979	8.61
1980	8.08
1981	8.34
1982	7.85
1983	7.14
1984	8.42
1985	7.98
1986	8.28
1987	8.63
1988	7.95
1989	7.60
1990	7.90
1991	8.82
1992	8.56
1993	7.39
1994	8.33
1995	7.67
1996	6.93
1997	8.44
1998	7.42
1999	7.62
2000	7.38
2001	7.37
2002	6.76
2003	7.09
2004	7.20
2005	6.44
2006	7.26
2007	6.46
2008	6.86
2009	6.34
2010	6.29
2011	6.84

Table B-17 Weighted Mean Percent Oxygen Saturation by Region and Week from 2011 Long River/Fall Juvenile Survey

WEEK BEGINNING MONDAY	REGIONS												
	BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL
14MAR11	93.2	101.6	104.4	106.9	107.1	.	109.4	.	.	.	.	.	.
21MAR11	91.5	107.0	111.4	110.9	112.7	112.4	111.6	.	.	.	.	.	.
28MAR11	85.8	97.0	102.5	115.9	114.6	114.0	114.2	.	.	.	.	.	.
04APR11	93.8	115.8	.	113.2	115.8	117.2	116.7	117.2	117.5	117.6	115.3	118.0	118.7
11APR11	83.7	88.7	95.6	106.0	117.0	117.5	118.9	121.4	123.9	.	.	115.5	.
18APR11	108.2	119.5	121.3	119.7	119.2	118.0	118.9	.	.	.	118.3	119.6	121.4
25APR11	87.0	94.9	98.8	96.0	100.6	101.9	97.6	95.4	95.5	93.6	91.8	91.8	84.7
02MAY11	83.8	88.8	93.6	95.5	93.3	90.6	91.9	89.5	91.7	92.2	91.9	92.0	95.0
09MAY11	77.2	77.5	79.7	93.3	92.6	93.8	99.9	98.2	93.1	95.1	96.1	95.7	97.3
16MAY11	84.0	85.3	92.4	93.9	94.6	96.7	97.5	103.0	103.1	96.3	93.6	97.0	98.0
23MAY11	86.1	94.2	96.9	97.7	94.5	83.2	81.7	94.3	92.7	95.2	97.4	99.3	103.2
30MAY11	85.9	83.8	89.3	93.6	92.9	87.1	85.7	84.9	90.7	92.0	90.6	93.1	94.7
06JUN11	82.2	85.4	85.0	84.4	87.6	90.4	87.3	87.4	87.8	90.1	91.9	93.8	98.3
13JUN11	68.1	68.4	77.5	80.4	76.4	87.6	99.8	88.1	85.6	85.9	87.5	90.0	99.1
20JUN11	64.3	67.3	66.7	72.7	74.6	79.4	82.0	80.3	84.1	87.4	98.3	102.0	99.5
27JUN11	82.3	80.9	76.2	75.6	77.9	80.7	77.2	85.1	92.2	89.9	91.1	97.0	104.6
04JUL11	67.7	73.2	81.6	74.9	83.8	91.0	90.3	91.4	91.5	89.4	86.5	90.8	93.7
11JUL11	86.1	84.5	83.9	83.4	67.0	68.8	78.6	80.8	.	.	.	.	.
18JUL11	63.8	66.3	78.3	78.3	83.0	85.4	82.7	90.1	86.6	85.9	84.8	85.7	89.8
25JUL11	81.2	79.9	75.7	76.2	72.1	79.1	89.7	103.5	.	.	.	.	.
01AUG11	74.7	76.4	81.3	82.4	79.3	82.0	84.5	90.8	97.0	96.3	98.0	109.0	92.8
08AUG11	76.6	72.6	88.9	90.6	74.8	74.4	80.5	85.0	.	.	.	.	.
15AUG11	60.6	69.6	80.1	69.9	78.5	92.0	85.8	73.4	77.0	83.5	83.7	86.5	86.7
22AUG11	86.5	.	.	.	71.6	76.3	78.5	78.7	.	.	.	.	.
29AUG11	72.7	73.2	74.7	82.2	82.7	82.1	74.8	70.3	.	.	.	.	.
05SEP11	68.0	74.0	75.5	70.4	75.5	78.0	79.3	82.1	.	.	.	.	.
12SEP11	71.0	84.1	88.4	89.0	92.9	95.8	94.8	95.6	99.9	99.9	101.1	106.3	110.4
19SEP11	85.4	90.9	87.9	94.3	83.9	82.2	82.5	82.3	.	.	.	.	.
26SEP11	59.1	65.1	81.5	86.6	76.6	78.5	78.6	81.8	85.0	86.1	90.6	97.1	101.7
03OCT11	69.2	81.3	80.9	79.9	84.3	85.0	85.4	87.2	.	.	.	.	.
10OCT11	85.9	88.8	90.0	96.1	95.9	91.7	94.7	94.0	89.7	88.2	90.7	88.8	76.6
24OCT11	69.5	72.3	74.7	84.1	85.7	87.4	84.9	84.7	86.7	88.2	80.9	84.2	87.2
07NOV11	83.3	81.7	88.8	91.1	89.5	91.3	90.7	88.2	90.5	93.1	95.7	95.7	99.2
28NOV11	80.6	87.3	95.1	96.0	95.7	97.0	97.1	97.1	96.7	95.9	95.2	96.4	95.3

Note: Dots (.) indicate no sampling.

Table B-18 Mean Percent Oxygen Saturation by Region and Week from 2011 Beach Seine Survey

WEEK BEGINNING MONDAY	REGIONS											
	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL
13JUN11	70.1	75.6	75.9	68.1	66.8	74.5	80.3	75.7	77.0	77.3	80.2	78.1
27JUN11	86.7	86.8	84.9	79.2	71.8	85.3	82.0	75.1	76.2	85.4	90.1	89.8
11JUL11	99.2	90.9	85.6	79.4	80.8	97.2	83.8	82.7	81.5	83.4	90.4	80.5
25JUL11	88.1	85.6	78.8	76.3	74.4	87.4	88.8	77.9	77.4	86.6	89.1	85.4
08AUG11	69.1	83.6	92.8	81.0	74.1	87.5	79.3	80.9	77.5	80.0	89.5	86.2
22AUG11	85.2	84.1	89.1	83.7	81.0	87.4	86.8	82.7	77.2	88.6	91.2	80.0
05SEP11	79.7	76.9	71.7	69.6	67.8	71.9	73.5	75.8	79.1	77.3	84.0	90.0
19SEP11	70.3	71.8	73.0	71.6	74.0	82.1	69.9	75.7	69.8	77.6	82.0	84.4
03OCT11	72.4	76.3	78.8	78.1	75.9	75.9	80.7	80.4	77.5	77.4	81.3	86.8
17OCT11	76.5	87.2	83.2	74.7	79.6	80.9	78.7	78.8	81.9	83.0	83.2	86.1

Table B-19 Weighted Mean Conductivity (mS/cm @ 25°C) by Region and Week from 2011 Long River/Fall Juvenile Survey

WEEK BEGINNING MONDAY	REGIONS												
	BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL
14MAR11	22.6	5.3	0.2	0.2	0.2	0.2	0.2	.	.	.	.	.	.
21MAR11	15.5	5.2	0.2	0.3	0.2	0.2	0.2	.	.	.	.	.	.
28MAR11	22.0	10.1	4.5	4.5	0.3	0.3	0.2	.	.	.	.	.	.
04APR11	27.2	21.1	10.7	5.6	2.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2
11APR11	25.1	10.8	3.9	1.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
18APR11	17.1	3.1	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2
25APR11	18.4	6.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
02MAY11	18.3	5.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2
09MAY11	19.6	8.2	7.7	3.6	1.6	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1
16MAY11	25.8	14.4	4.9	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
23MAY11	14.3	3.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
30MAY11	24.6	18.6	5.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
06JUN11	23.9	12.0	7.2	4.1	0.6	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
13JUN11	28.9	19.5	7.8	2.6	1.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
20JUN11	24.7	14.8	9.2	2.4	1.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
27JUN11	26.1	16.9	9.4	4.0	3.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
04JUL11	24.7	14.4	4.9	1.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
11JUL11	29.8	19.3	7.0	1.7	0.5	0.2	0.2	0.2	.	.	.	.	.
18JUL11	26.2	18.2	10.2	4.7	2.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25JUL11	33.9	25.1	17.9	10.5	10.0	5.9	2.5	0.2	.	.	.	.	.
01AUG11	29.1	25.6	16.9	12.2	10.6	4.7	3.4	0.5	0.2	0.2	0.2	0.3	0.3
08AUG11	35.1	24.3	15.5	10.7	7.6	5.0	3.1	0.6	.	.	.	.	.
15AUG11	23.6	18.2	11.4	6.1	3.8	0.9	0.6	0.2	0.2	0.2	0.2	0.3	0.3
22AUG11	30.2	16.8	9.5	4.7	3.2	0.5	0.3	0.2	.	.	.	.	.
29AUG11	1.9	0.3	0.2	0.2	0.2	0.2	0.2	0.2	.	.	.	.	.
05SEP11	22.1	6.2	0.2	0.2	0.2	0.2	0.2	0.2	.	.	.	.	.
12SEP11	12.1	4.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19SEP11	21.0	9.3	6.2	1.9	0.9	0.2	0.2	0.2	.	.	.	.	.
26SEP11	23.2	16.9	4.8	1.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
03OCT11	15.8	1.5	0.2	0.2	0.2	0.2	0.2	0.2	.	.	.	.	.
10OCT11	21.1	12.7	8.8	1.9	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
24OCT11	30.5	12.5	2.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
07NOV11	29.0	16.5	5.5	3.3	1.9	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
28NOV11	19.7	10.3	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Note: Dots (.) indicate no sampling.

Table B-20 Mean Conductivity (mS/cm @ 25°C) by Region and Week from 2011 Beach Seine Survey

WEEK BEGINNING MONDAY	REGIONS											
	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL
13JUN11	10.5	7.2	3.0	1.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
27JUN11	5.5	3.0	2.5	2.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
11JUL11	8.0	4.3	1.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
25JUL11	8.4	8.2	5.6	7.6	1.9	0.5	0.3	0.2	0.2	0.2	0.2	0.2
08AUG11	17.5	13.4	10.5	5.5	2.9	1.5	0.2	0.2	0.2	0.2	0.3	0.3
22AUG11	10.3	6.6	4.0	1.8	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3
05SEP11	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19SEP11	2.5	1.0	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
03OCT11	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
17OCT11	4.5	1.7	0.4	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2

Appendix C

Numbers of Fish Collected in the Long River (1988-2011), Fall Juvenile (1985-2011),and Beach Seine (1985-2011) Surveys

APPENDIX C

LIST OF TABLES

Table C-1 Total Number of Fish Collected in the Long River Survey, 1988-2011

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Anadromous																		
Alewife	8,200	624	60	2,727	555	1,275	1,679	293	1,787	171	235	10,231	320	5,284	183	537	641	5,479
Alosa spp.	258,802	423,742	714,369	250,755	465,613	191,558	206,819	122,644	460,957	58,794	128,111	124,710	391,708	180,190	145,643	141,877	126,035	103,618
American shad	51,162	62,755	49,242	25,128	30,345	15,867	31,213	12,120	23,378	6,744	8,887	12,185	11,567	14,048	6,732	15,676	4,711	7,126
Atlantic sturgeon	11	2	5	26	4	.	7	1	1	3	2	.	.	1	10	3	4	.
Atlantic tomcod	25,414	37,397	38,431	40,804	10,558	21,343	20,724	64,680	17,375	71,070	91,679	13,625	10,337	57,412	7,556	20,724	92,099	55,146
Blueback herring	4,992	2,568	1,230	28,397	30,496	3,290	9,315	1,412	18,354	2,358	246	4,367	1,907	1,100	578	8,760	801	1,977
Hickory shad	.	.	.	.	.	.	.	1	4	5	.	.	.	.	.	.	.	.
Rainbow smelt	24,693	767	6,838	2,494	23,035	12,002	59,829	2,354	.	.	4	.	1	1	.	.	.	.
Sea lamprey	.	.	.	.	.	.	.	.	.	1	4	.	.	.	.	.	.	.
Striped bass	61,072	225,498	264,907	359,994	462,382	459,384	674,881	383,781	962,335	272,329	443,766	790,358	1,376,173	1,192,084	151,199	732,410	416,917	387,265
Catadromous																		
American eel	789	917	848	1,372	827	1,505	921	1,388	1,230	527	519	294	468	708	262	476	365	513
Estuarine																		
Atlantic silverside	152	11	67	49	27	19	144	323	52	4	12	29	98	35	35	54	188	50
Banded killifish	5	2,274	1	.	5	3	4	24	2	.	2	2	.	1	.	.	.	13
Fat sleeper	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.
Fourspine stickleback	6	1	1	2	1	7	5	.	7	1	.	1	.	.	.	.	1	1
Hogchoker	301,192	589,469	13,591	908,378	44,337	87,673	159,013	130,281	51,986	22,814	36,279	23,050	24,894	13,417	28,225	17,313	36,061	24,267
Inland silverside	98	101	.	58	42	209	857	149	166	40	9	69	12	57	97	51	338	169
Lined sea horse	11	.	1	9	.	.	.	2	.	1	3	1	1	.	.	.	.	.
Mummichog	1	.	.	.	.	.	2	6	.	.	.	1	2	.	20	4	2	1
Northern pipefish	1,135	153	102	2,059	137	416	186	277	291	170	120	427	82	186	226	64	130	238
Shortnose sturgeon	3	.	2	3	3	14	8	7	38	2	5	1	4	13	1	4	4	1
Threespine stickleback	2	.	1	.	.	2	.	2	3	.	.	1	.	.	.	.	.	.
White catfish	77	100	87	76	52	25	214	196	205	96	70	172	70	80	56	78	38	79
White perch	138,753	198,953	157,348	147,232	265,656	221,021	172,995	115,842	287,690	69,844	130,785	136,518	267,801	134,744	142,260	140,645	138,513	107,406
Freshwater																		
Black bullhead	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.
Black crappie	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.
Bluegill	.	.	.	5	.	.	1	1	.	.	.	.	3	.	.	1	1	.
Brown bullhead	1	12	33	30	4	7	18	25	31	11	8	3	8	22	1	48	36	10
Brown trout	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Carp	730	651	.	340	731	136	121	147	1,199	867	161	211	533	22	130	597	455	647
Catostomidae	.	.	.	1	1	.	.	.	.	.	.	.	.	4	.	.	.	.
Centrarchidae	30	66	46	40	132	40	125	11	152	26	100	16	137	552	155	50	136	67
Chain pickerel	.	.	.	.	.	.	.	.	2	1	.	1	.	.	1	.	.	.
Channel catfish	.	.	.	1	1	.	.	5	5	4	.	11	8	23	24	118	91	101
Common shiner	.	.	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Creek chub	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.
Cyprinidae	470	1,736	6,839	1,764	2,576	2,276	2,044	910	2,709	696	1,358	2,705	3,482	3,101	2,623	1,150	1,073	786
Emerald shiner	.	.	.	.	.	.	.	.	.	.	19	2	.	1	.	.	.	.
Fathead minnow	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Freshwater drum	.	.	.	.	1	1	.	8	124	1	10	27	8	15	90	55	255	640
Gizzard shad	.	85	5	3	535	123	440	1,065	688	708	885	1,281	2,383	161	9,060	1,292	360	80
Golden shiner	.	1	7	.	.	1	2	11	1	.	1	.	2	1	.	.	.	2
Goldfish	113	217	.	97	22	7	18	.	5	2	2	.	.	.	.	.	.	.
Largemouth bass	.	1	.	2	.	1	1	.	.	.	1	.	.	.	.	.	2	.
Logperch	48	20	.	.	179	.	.	.	.	.	3	.	.	.	.	3	4	.

Table C-1 (Continued)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Freshwater (cont.)																		
Northern hog sucker	19	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Percidae	2	15	.	18	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Pumpkinseed	132	1	.	2	.	4	1	.	.	1	.	1	.	.	.	2	.	.
Rock bass	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Satinfin shiner	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.
Silvery minnow	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.
Slimy sculpin	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.
Smallmouth bass	.	3	1	.	23	.	1	.	.	.	2	.	1	3	.	.	.	2
Spotfin shiner	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Spottail shiner	60	98	55	83	45	33	62	94	156	89	53	45	62	87	9	42	23	29
Tesselated darter	2,898	2,805	2,290	1,566	2,836	1,936	1,714	2,205	1,550	1,493	2,834	2,726	2,822	1,884	1,455	1,990	2,642	718
Walleye	.	26	.	1	2	12	32	.	23	22	29	.	80	5	5	132	31	279
White crappie	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.
White sucker	.	10	44	.	1	.	.	1	13	5	24	6	11	3	3	2	3	2
Yellow bullhead	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.
Yellow perch	152	325	610	157	369	225	333	69	764	141	307	127	1,062	228	476	1.096	1,145	801
Marine																		
American sand lance	48	8	2	4	4	.	1	42	6	.	7	2	11	119	2	49	47	20
Atlantic cod	68	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	3
Atlantic croaker	.	.	.	.	157	1	5	409	3	.	3,405	3,781	6,512	1,371	2,574	1,260	11,094	544
Atlantic herring	522	178	76	1,177	842	1,151	37	3,986	5,485	2,614	3,809	4,585	27	1,984	18	887	325	279
Atlantic mackerel	4	.	.	1	2	.	.	.	1,968	1,076	9	141	6	1	603	32	4	.
Atlantic menhaden	6	12	671	1,301	404	268	13,009	2,678	3,036	35,979	18,041	68,998	4,887	29,431	9,644	10,873	7,420	78,741
Atlantic needlefish	.	.	3	.	.	1	.	1	.	.	.	.	.	.	.	.	.	20
Atlantic seasnail	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.
Bay anchovy	2,852,331	444,854	900,354	3,831,982	1,341,076	1,849,143	3,051,491	1,271,339	1,337,747	795,707	698,247	339,031	215,316	146,897	671,428	363,737	1,749,221	790,847
Black sea bass	.	.	.	.	.	.	4	.	.	1	3	6	.	.	.	.	.	.
Blackcheek tonguefish	.	.	.	.	10	.	.	.	.	.	.	.	.	.	.	.	.	.
Blenniidae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.
Bluefish	85	54	165	151	147	78	73	61	43	35	21	71	46	62	15	26	28	34
Bothidae	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Butterfish	143	18	18	27	46	38	108	11	12	29	22	273	6	120	7	13	240	24
Conger eel	132	72	54	29	124	195	175	45	117	14	10	1	71	22	29	42	3	13
Cottidae	128	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Crevalle jack	1	4	.	1	.	.	.	.	1	.	2	1	.	.	.	.	.	.
Cunner	11,129	1,429	.	1,955	4,221	996	2,176	3,790	4,932	3,106	1,884	4,733	1,739	6,210	3,658	3,325	5,293	6,416
Cusk	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.
Feather blenny	.	.	.	.	.	.	.	.	.	.	1	23	3	.	5	.	.	.
Fourbeard rockling	108	209	2	404	691	4	4,157	6,487	571	7,586	3,116	391	184	2,319	2,205	389	1,360	5,072
Fourspot flounder	.	1	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.
Gadidae	6	.	.	.	.	10	.	1	.	.	.	.	.	.	.	.	.	2
Gobiidae	9,007	5,593	22,569	78,349	26,599	3,794	3,411	2,683	1,108	936	3,411	28,420	16,276	15,046	22,722	7,756	20,143	23,597
Goosefish	.	.	.	8	12	.	.	.	1	.	.	.	.	.	.	.	.	.
Grubby	605	387	167	521	248	66	99	2,516	317	1,768	1,525	575	161	898	702	122	1,207	904
Gulf stream flounder	.	.	.	.	.	.	.	.	.	3	1	1	.	.	2	.	1	.
Harvestfish	.	.	.	.	.	.	.	.	.	.	.	2	.	.	1	.	.	.
Inshore lizardfish	8	8	.	3	14	1	2	1	.	4	36	4	2	8	.	.	.	.
King mackerel	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Labridae	.	.	.	48	.	.	.	.	1	.	.	.	.	.	.	1	.	.
Longhorn sculpin	.	2	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.
Lookdown	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.
Moonfish	.	.	.	.	.	.	1	.	.	.	.	.	.	2	.	.	.	.
Myoxocephalus spp.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.
Naked goby	279	44	1,619	8	73	9	1	3	6	.	5	369	107	6	169	72	8	19

Table C-1 (Continued)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Marine (cont.)																		
Northern kingfish	.	118	.	10	10	1	39	1	.	.	2	16	.	.	1	.	.	.
Northern puffer	1	5	32	279	.	2	.	4	14	2	.	11	1	3	.	.	4	2
Northern searobin	40	2	17	19	1	4	27	5	48	1	14	37	.	23	1	4	.	1
Northern stargazer	129	.	.	.	.	.	53	.	.	.	1	4	.	2	1	.	.	.
Oyster toadfish	.	1	.	.	.	.	.	.	.	.	1	1	1	.	.	1	.	7
Phycidae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	35
Pinfish	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.
Pleuronectidae	.	.	.	144	.	.	.	.	.	16	2	3	.	.	.	.	.	.
Pleuronectiformes	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.
Pollack	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.
Radiated shanny	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.
Red hake	3	1	1	.	1	1	.	.	9	13	19	15	2	1	.	.	.	1
Rock gunnel	9	2	1	5	6	.	.	35	32	54	28	17	13	49	7	44	72	71
Rough silverside	110	19	.	41	44	30	447	218	37	33	4	26	66	12	22	7	4	50
Sciaenidae	.	3	.	.	.	2	65	.	.	.	.	.	.	.	.	.	.	1
Scup	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	1	.	.
Seaboard goby	1	.	.	4	19	1	.	1	.	19	4	14	77	10	234	116	2	19
Searobin	8	.	312	26	.	16	.	.	.	8	1	399	.	4	65	70	33	697
Sharptail goby	.	.	1	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.
Silver anchovy	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Silver hake	1	3	.	.	.	.	.	.	2	.	.	1	.	2	.	.	1	.
Silver perch	.	.	.	.	.	.	2	1	.	.	.	.	.	.	.	.	.	.
Skilletfish	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Smallmouth flounder	38	.	1	91	71	32	175	22	7	18	40	37	47	6	6	20	61	4
Spanish mackerel	.	.	.	20	.	2	1	.	.	.	.	.	.	.	.	.	.	.
Speckled worm eel	1	.	.	.	.	.	.	.	1	.	.	.	1	.	2	.	.	.
Spot	.	.	2	.	.	20	9	.	8	.	.	.	11	.	3	.	.	.
Spotted hake	62	1	1	19	40	13	6	146	186	76	49	52	38	90	35	193	111	40
Striped anchovy	.	.	.	.	.	.	.	5	35	6	3	5	.	.	.	.	65	.
Striped burrfish	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Striped cuskeel	2	1	.	4	3	1	.	1	3	18	8	9	19	8	.	3	3	4
Striped killifish	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Striped searobin	43	4	.	234	5	41	671	3	4	112	45	85	15	1	39	21	27	5
Summer flounder	.	24	1	39	18	.	7	23	11	5	8	8	26	26	10	8	22	4
Tautog	1,205	3,432	.	969	488	241	439	3,171	3,396	3,009	490	2,908	2,028	6,129	4,192	4,483	8,668	9,966
Tetraodontidae	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Weakfish	1,586	2,602	122,082	6,821	1,206	1,621	2,804	623	59,707	13,345	145,785	224,618	50,800	83,380	51,266	57,429	94,647	108,943
Windowpane	8,866	5,162	49	1,500	14,953	166,221	6,917	17,602	7,074	13,902	1,635	3,210	1,816	13,095	1,563	4,134	2,192	2,557
Winter flounder	900	178	64	340	794	188	362	4,754	774	4,109	2,325	3,996	9,831	1,905	4,353	10,306	9,580	1,921
Witch flounder	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.
Yellowtail flounder	.	.	.	.	2	.	1	162	2	6	13	7	1	5	2	.	.	6
Unidentified																		
Acipenseridae	4	6	18	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Atherinidae	.	1	.	259	.	16	45	19	26	44	1	4	1	.	.	1	.	.
Cyprinodontidae	.	8	.	.	.	5	.	.	.	5	.	.	.	.	1	.	.	.
Fundulus spp.	.	2	4	3	1	111	4	3	2	.	1	62	.	1	.	1	1	1
Gasterosteidae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.
Menidia spp.	12	7	193	.	2	.	1	1	.	52	11	1	.	.	1	.	.	.
Morone unidentified	2,180	13,473	955	17,620	7,246	12,406	8,350	5,416	29,225	3,094	31,732	54,420	58,042	37,644	5,768	16,709	9,721	2,233
Petromyzontidae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Unidentifiable	49,244	7,031	36,103	113,576	18,496	9,938	32,546	1,131	7,378	480	1,125	1,240	1,146	2,979	448	1,914	4,528	1,320

Table C-1 (Continued)

	2006	2007	2008	2009	2010	2011
Anadromous						
Alewife	153	2,474	5,054	183	3,108	964
Alosa spp.	75,365	155,009	73,937	77,940	84,981	269,239
American shad	800	995	1,115	987	593	9,867
Atlantic sturgeon	1	4	3	3	3	4
Atlantic tomcod	9,049	9.176	27,107	23,395	32,819	13,352
Blueback herring	177	2,366	2,881	195	4,471	4,393
Hickory shad	.	.	.	.	.	.
Rainbow smelt	1	3	.	1	.	.
Sea lamprey	1	1	2	.	.	2
Striped bass	109,061	532,870	176,428	511,009	497,462	247,276
Catadromous						
American eel	276	449	301	533	480	517
Estuarine						
Atlantic silverside	157	454	239	292	228	75
Banded killifish	.	.	2	7	6	1
Fat sleeper	.	.	.	.	.	.
Fourspine stickleback	.	.	.	.	1	1
Hogchoker	44,711	96,691	86,813	19,204	62,847	261,778
Inland silverside	162	195	168	171	218	203
Lined sea horse	.	.	2	.	1	1
Mummichog	1	.	3	2	3	.
Northern pipefish	36	246	135	130	194	405
Shortnose sturgeon	5	11	2	.	2	8
Threespine stickleback	.	.	.	.	.	.
White catfish	147	72	43	98	92	56
White perch	95,979	92,203	95,325	88,826	124,046	150,844
Freshwater						
Black bullhead	.	.	.	.	.	.
Black crappie	.	.	.	.	2	7
Bluegill	.	.	3	.	.	.
Brown bullhead	32	4	28	36	42	52
Brown trout	.	.	.	.	.	.
Carp	1,219	735	629	359	847	429
Catostomidae	.	.	.	.	.	.
Centrarchidae	151	40	183	56	93	62
Chain pickerel	.	.	.	.	.	.
Channel catfish	137	.	148	185	184	219
Common shiner	.	.	.	.	.	.
Creek chub	.	.	.	.	.	.
Cyprinidae	1,622	979	1,644	1,102	1,431	2,112
Emerald shiner	.	.	.	.	.	.
Fathead minnow	.	.	.	.	.	.
Freshwater drum	590	675	760	362	1,878	1,720
Gizzard shad	1,230	417	138	307	175	81
Golden shiner	7	.	1	.	.	.
Goldfish	.	.	.	.	.	.
Largemouth bass	.	16	1	.	1	.
Logperch	1	1	.	.	.	.
Northern hog sucker	.	.	.	.	.	.
Percidae	.	.	.	.	.	.

Table C-1 (Continued)

	2006	2007	2008	2009	2010	2011
Freshwater (cont.)						
Pumpkinseed	1	1	.	1	1	1
Rock bass	.	.	.	.	.	.
Satinfin shiner	.	.	.	.	.	.
Silvery minnow	.	.	.	.	.	.
Slimy sculpin	.	.	.	.	.	.
Smallmouth bass	3	.	.	2	.	.
Spotfin shiner	7	.	.	.	.	.
Spottail shiner	33	89	58	62	34	49
Tesselated darter	1,484	1,109	1,730	3,029	842	1,117
Walleye	105	54	12	5	20	95
White crappie	.	.	.	.	.	.
White sucker	12	2	3	6	2	23
Yellow bullhead	.	.	.	.	.	.
Yellow perch	538	243	487	218	484	1,307
Marine						
American sand lance	8	12	8	2	68	39
Atlantic cod	.	.	1	10	.	18
Atlantic croaker	2,000	378	273	1,075	556	12
Atlantic herring	48	2	148	88	706	869
Atlantic mackerel	.	21	.	464	.	50
Atlantic menhaden	10,562	22,125	13,606	13,108	15,631	6,534
Atlantic needlefish	.	.	2	1	.	1
Atlantic seasnail	.	.	.	.	.	3
Bay anchovy	374,336	1,036,876	1,955,290	856,886	1,148,252	1,248,518
Black sea bass	.	.	.	.	.	.
Blackcheek tonguefish	.	.	.	.	.	.
Blenniidae	.	.	.	1	.	.
Bluefish	18	28	23	18	22	29
Bothidae	.	.	.	.	.	.
Butterfish	37	20	165	133	10	12
Conger eel	13	55	36	15	27	8
Cottidae	.	.	.	.	.	.
Crevalle jack	.	1	1	.	.	.
Cunner	1,363	8,882	14,716	7,173	5,601	37,730
Cusk	.	1	.	.	.	.
Feather blenny	.	.	17	.	.	9
Fourbeard rockling	2,189	2,222	2,191	2,063	867	1,831
Fourspot flounder	.	.	2	.	.	28
Gadidae	.	.	.	.	.	.
Gobiidae	14,995	32,595	10,882	22,108	21,434	21,559
Goosefish	.	.	.	.	.	.
Grubby	620	638	788	3,647	520	1,188
Gulf stream flounder	.	.	.	.	.	.
Harvestfish	.	.	.	1	.	.
Inshore lizardfish	.	.	1	.	2	.
King mackerel	.	.	.	.	.	.
Labridae	.	192	2	.	.	.
Longhorn sculpin	.	.	.	.	.	20
Lookdown	.	.	.	.	.	.
Moonfish	.	.	1	1	.	.
Myoxocephalus spp.	.	.	.	.	.	.
Naked goby	94	41	5	34	99	50
Northern kingfish	.	.	.	32	.	8
Northern puffer	.	4	16	2	.	13

Table C-1 (Continued)

	2006	2007	2008	2009	2010	2011
Marine (cont.)						
Northern searobin	1	33	5	1	.	.
Northern stargazer	1	.	.	.	.	.
Oyster toadfish	.	.	3	3	.	11
Phycidae	2	.	16	1	.	.
Pinfish	.	.	.	.	.	.
Pleuronectidae	.	.	.	.	.	.
Pleuronectiformes	.	.	.	.	.	.
Pollack	.	.	.	.	.	1
Radiated shanny	.	.	.	.	.	.
Red hake	1	.	.	1	1	.
Rock gunnel	19	40	37	181	26	117
Rough silverside	55	144	14	123	72	34
Sciaenidae	.	.	.	.	.	.
Scup	.	.	.	.	.	.
Seaboard goby	235	68	35	27	45	16
Searobin	20	1,028	971	280	17,988	119
Sharptail goby	.	.	.	.	.	.
Silver anchovy					1	.
Silver hake	.	.	.	.	.	.
Silver perch	.	.	.	1	.	.
Skilletfish	.	.	.	.	.	1
Smallmouth flounder	29	3	13	16	1	10
Spanish mackerel	.	.	.	.	.	.
Speckled worm eel	.	.	.	.	.	.
Spot	5	.	3	.	.	1
Spotted hake	144	18	63	99	185	139
Striped anchovy	.	4	12	.	19	57
Striped burrfish	1	.	.	.	.	.
Striped cuskeel	.	3	1	1	6	2
Striped killifish	.	.	.	.	.	.
Striped searobin	16	9	24	72	2	4
Summer flounder	18	12	30	154	39	52
Tautog	1,177	5,281	10,313	12,889	5,560	56,700
Tetraodontidae	.	.	.	.	.	.
Weakfish	17,960	52,305	59,310	33,795	23,342	27,058
Windowpane	978	2,825	2,389	2,883	1,625	1,997
Winter flounder	1,312	4,015	1,155	4,744	406	3,689
Witch flounder	.	.	.	1	.	1
Yellowtail flounder	.	.	2	1	5	9
Unidentified						
Acipenseridae	.	.	.	.	.	.
Atherinidae	.	.	9	.	.	6
Cyprinodontidae	.	1	.	3	.	.
Fundulus spp.	.	.	6	1	.	.
Gasterosteidae	.	.	.	.	.	.
Menidia spp.	3	2	2	1	.	.
Morone unidentified	3,677	3,299	1,671	1,461	5,450	11,398
Petromyzontidae	1	.	1	.	.	.
Unidentifiable	101	550	381	34	1,013	2,010

Table C-1 (Continued)

Sampling Statistics for Long River Survey, 1988-2011

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Start Date	18-Apr	17-Apr	19-Apr	15-Apr	13-Apr	12-Apr	11-Apr	6-Mar	12-Mar	11-Mar
End Date	25-Aug	23-Aug	16-Aug	17-Oct	14-Oct	5-Oct	5-Oct	12-Oct	9-Oct	9-Oct
Volume Sampled (m3)	524,777	519,252	419,294	537,825	632,978	596,043	579,959	649,908	675,698	671,661
Sample Size	1,663	1,641	1,561	1,991	1,986	1,987	1,986	2,431	2,362	2,365

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Start Date	2-Mar	23-Mar	7-Mar	15-Mar	4-Mar	19-Mar	2-Mar	16-Mar	8-Mar	14-Mar
End Date	7-Oct	6-Oct	5-Oct	9-Oct	9-Oct	9-Oct	7-Oct	6-Oct	5-Oct	3-Oct
Volume Sampled (m3)	810,440	774,435	857,373	711,723	716,977	704,211	706,106	654,297	689,180	691,098
Sample Size	2,435	2,329	2,435	2,300	2,438	2,433	2,439	2,433	2,436	2,437

	2008	2009	2010	2011
Start Date	4-Mar	16-Mar	16-Mar	14-Mar
End Date	9-Oct	7-Oct	7-Oct	5-Oct
Volume Sampled (m3)	645,337	628,594	626,562	635,472
Sample Size	2,439	2,442	2,440	2,442

Table C-2 Total Number of Fish Collected in the Fall Juvenile Survey, 1985-2011

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Anadromous																					
Alewife	1,142	554	702	379	327	459	994	790	730	719	519	830	868	97	3,925	746	2,118	379	1,077	307	1,980
Alosa spp.	3,341	282	2,591	4,193	4,331	3,543	1,276	10,650	1,905	1,725	2,895	18,007	6,547	82	7,681	2,688	2,562	2,356	4,262	1,688	3,500
American shad	1,717	2,166	776	1,483	3,646	1,323	1,291	3,406	961	2,095	831	2,964	1,105	310	1,407	808	1,369	598	433	400	294
Atlantic sturgeon	96	184	149	117	63	6	10	11	7	15	15	8	40	30	18	5	23	37	39	22	12
Atlantic tomcod	5,083	10,046	7,908	8,210	14,060	1,105	4,914	7,299	3,664	1,679	3,649	4,632	10,645	1,928	1,798	6,528	5,910	581	1,456	4,802	2,536
Blueback herring	41,919	6,525	18,596	37,957	22,112	15,982	55,299	38,090	22,442	18,790	14,006	20,863	13,999	566	20,315	6,412	13,731	6,205	10,727	3,223	15,677
Hickory shad	.	3	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	1
Rainbow smelt	126	389	429	576	34	216	256	2,549	757	363	136	.	.	1	.	.	.	.	.	.	.
Sea lamprey	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Striped bass	888	2,348	11,633	18,679	8,472	3,624	4,672	3,773	8,333	8,719	10,327	6,293	4,461	1,367	8,989	3,683	3,654	2,516	8,553	1,893	5,107
Catadromous																					
American eel	1,872	2,906	2,254	2,076	1,444	342	984	1,392	1,406	1,647	1,627	1,434	722	763	738	792	566	244	310	360	376
Estuarine																					
Atlantic silverside	.	2	.	3	1	2	18	2	29	25	33	42	19	20	19	82	13	33	10	62	22
Banded killifish	78	12	3	3	3	.	2	.	6	21	24	.	.	1	1	.	1	2	.	.	3
Fat sleeper	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50	.	.	.	.	.	.
Fourspine stickleback	1	9	.	1	1	.	.	.	2	.	1	1	.	1	.	.	.	.	2	1	.
Hogchoker	89,948	108,036	89,042	74,672	73,613	22,760	42,916	62,358	43,064	15,581	23,823	18,422	4,861	3,964	5,696	7,452	7,243	11,320	19,446	20,370	16,413
Inland silverside	.	.	.	1	.	2	.	.	2	.	4	.	.	.	1	.	.	.	.	.	.
Lined sea horse	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.	1	.	.	.	.
Mummichog	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Northern pipefish	40	13	22	25	12	4	16	14	65	15	24	3	27	10	9	9	12	15	3	17	17
Shortnose sturgeon	16	8	11	20	12	2	18	76	82	50	36	48	26	30	52	50	47	27	29	29	30
White catfish	721	677	775	806	740	352	547	172	939	1,363	1,077	967	235	840	494	337	371	155	228	147	522
White mullet	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
White perch	19,721	31,771	27,008	25,760	20,106	5,381	11,019	13,832	8,341	9,007	10,272	8,569	3,655	3,474	8,955	6,225	5,775	4,715	11,131	5,426	8,631
Freshwater																					
Black bullhead	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Black crappie	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.
Bluegill	.	.	1	.	1	.	1	3	2	.	1	1	2	.	.	.	.	1	1	.	.
Brook trout	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Brown bullhead	37	127	109	171	172	17	125	177	92	278	211	251	97	167	524	549	460	501	600	476	611
Carp	4	13	5	4	10	1	6	7	7	3	6	2	5	.	11	2	6	5	2	1	6
Central mudminnow	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Centrarchidae	1	4	1	5	3	.	.	.	.	4	.	.	4	2	1	1	.	8	7	2	2
Channel catfish	.	5	10	9	12	1	4	7	38	187	95	127	66	149	331	378	507	674	1,497	995	2,974
Cyprinidae	48	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.
Emerald shiner	.	.	.	.	1	.	.	.	.	.	.	.	.	11	2	1	.	.	.	.	.
Fall fish	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.
Fathead minnow	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Freshwater drum	.	.	.	.	3	.	.	1	2	1	3	1	.	2	1	5	3	4	25	.	37

Table C-2 (Continued)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Freshwater (cont.)																					
Gizzard shad	4	6	8	2	8	1	.	.	3	1	5	.	15	3	25	4	35	33	4	26	11
Golden shiner	.	1	.	.	.	.	.	29	.	.	.	2	3	.	.	4	.	5	1	1	.
Goldfish	.	.	.	.	1	.	.	1	.	1	.	.	.	.	1	1	3	2	.	1	11
Largemouth bass	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	1	.	1
Logperch	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	18	.	.
Margined madtom	.	.	1	.	.	.	1	.	.	1	.	.	.	.	.	.	.	.	.	.	.
Pumpkinseed	57	2	13	5	1	6	12	2	16	12	49	20	9	1	10	2	1	5	4	7	6
Redbreast sunfish	1	.	.	1	2	.	.	.	.	1	3	.	.	.	.	43	.	.	.	.	.
Rock bass	.	1	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.
Satinfin shiner	.	.	.	.	.	1	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.
Silvery minnow	.	1	.	.	.	.	.	.	.	.	.	56	.	.	.	.	.	.	.	.	.
Smallmouth bass	.	.	.	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Spottail shiner	244	685	333	369	102	43	404	259	351	248	204	382	83	105	175	110	114	48	85	382	156
Tesselated darter	89	747	197	370	120	10	187	225	306	684	228	148	100	96	131	25	26	20	153	81	41
Trout perch	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Walleye	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.
White sucker	1	8	4	2	1	.	.	.	.	1	.	1	2	1	6	1	.	4	1	9	2
Yellow bullhead	.	.	.	.	30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Yellow perch	.	.	1	1	.	.	.	.	.	1	.	.	.	.	.	.	.	8	2	.	6
Marine																					
Atlantic croaker	1	4	7	.	1	4	.	4	18	97	336	10	183	5,028	4,015	2,280	3,894	1,479	20	8,838	8,697
Atlantic cutlassfish	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
Atlantic herring	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.
Atlantic menhaden	51	139	67	9	38	129	478	122	13	78	26	260	19	101	12,685	2,535	337	746	445	566	139
Atlantic needlefish	.	.	.	1	.	1	1	.	.	.	3	.	1	3	2	.	.	.	1	.	3
Bay anchovy	27,902	20,988	39,348	59,244	41,475	16,465	44,815	37,264	53,437	54,615	93,826	26,168	71,630	51,368	58,298	15,533	27,794	47,096	37,511	43,166	38,534
Black sea bass	1	.	.	1	.	.	.	.	.	2	.	.	9	.	.	.	.	.	.	.	.
Bluefish	60	51	107	116	62	82	58	82	53	37	42	39	55	27	165	53	60	56	30	31	18
Butterfish	61	106	48	110	81	43	35	141	121	109	21	18	90	177	74	9	25	26	16	106	66
Cobia	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2
Conger eel	.	.	.	14	.	.	.	.	.	.	2	2	.	1	1	1	.	.	.	.	.
Crevalle jack	2	1	1	10	8	7	3	1	10	1	4	1	.	9	.	.	2	.	1	1	1
Cunner	.	.	.	.	.	1	.	1	.	.	.	.	.	1	.	.	.	.	.	.	1
Feather blenny	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.
Fourspot flounder	2	2	.	1	.	1	.	.	.	25	.	.	4	.	.	.	1	.	.	.	.
Gobiidae	.	.	.	4	.	.	.	38	.	2	.	.	3	4	12	2	2	8	4	3	1
Goosefish	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
Gray snapper	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.
Grubby	.	.	.	2	.	.	.	.	1	.	.	.	.	.	.	.	1	.	.	.	.
Inshore lizardfish	1	.	.	1	4	.	1	4	8	1	.	.	.	.	.	71	1	.	.	.	.
Longhorn sculpin	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.
Lookdown	1	.	1	1	1	.	.	.	.	1	.	.	1	1	3	2	.	.	1	.	1
Moonfish	.	1	2	.	5	.	.	1	.	.	.	.	.	4	1	3	9	5	3	9	.
Naked goby	3	6	47	9	21	1	7	30	3	1	26	.	8	4	7	7	33	5	46	8	26
Northern kingfish	9	6	.	20	3	3	10	2	4	16	7	.	2	.	3	.	.	.	.	1	1
Northern puffer	9	1	5	3	2	.	36	3	1	.	3	.	.	1	.	.	.	3	.	2	2
Northern searobin	.	2	7	21	3	16	7	12	53	305	6	5	16	.	.	.	6	.	.	1	24

Table C-2 (Continued)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Northern stargazer	1	.	.	20	.	4	3	10	2	7	.	.	6	.	2	1	3	5	1	1	2
Marine (cont.)																					
Oyster toadfish	.	.	.	.	.	.	.	1	.	.	.	4	.	2	3	2	1	1	1	11	13
Red hake	1	.	.	.	.	1	.	.	.	.	.	.	2	.	.	1	.	.	.	.	38
Rock gunnel	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
Rough silverside	1	.	3	1	.	.	.	3	2	.	4	.	4	1	1	2	.	.	.	.	1
Scup	1	.	.	.	.	.	3	.	.	.	8	.	.	.	.	2	5	1	8	2	2
Seaboard goby	.	.	.	12	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Searobin	.	.	.	.	.	.	.	.	.	.	.	.	339	.	69	8	2	.	12	7	.
Silver hake	.	3	.	.	.	1	1	.	.	.	.	.	5	.	1	3	.	1	.	1	1
Silver perch	.	.	.	13	.	.	1	.	7	11	36	1	1	.	.	.	.	.	.	.	1
Smallmouth flounder	.	.	.	8	.	.	.	1	1	9	3	.	.	1	1	.	.	2	.	.	.
Spanish mackerel	.	.	.	.	.	1	17	.	7	.	.	.	.	.	.	.	.	.	.	1	.
Spot	5	14	1	1,257	.	.	2	1.	4	.	.	30	.	.	.	1	1	.	.	.	.
Spotfin butterflyfish	1	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
Spotted hake	2	1	.	.	.	.	3	32	7	3	3	224	54	9	7	15	106	12	34	20	9
Striped anchovy	.	.	.	.	.	.	.	1	.	.	2	.	.	.	.	.	.	1	1	.	.
Striped burrfish	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Striped cuskeel	3	.	.	1	.	.	1	1	.	.	.	.	.	1	.	1	.	.	.	.	12
Striped searobin	321	148	10	101	25	26	310	54	96	648	15	.	416	294	1,498	8	123	189	236	121	37
Summer flounder	232	447	58	7	42	35	102	56	39	32	108	41	4	2	23	4	6	2	3	9	8
Tautog	.	.	.	2	.	3	.	1	.	.	.	.	1	.	.	.	.	.	.	.	.
Tetraodontidae	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Weakfish	2,214	1,482	749	3,777	2,842	770	5,878	756	2,332	2,416	3,773	2,202	2,713	2,039	7,412	7,147	3,567	3,806	1,952	686	4,083
Windowpane	1	1	5	17	.	5	9	32	1	5	19	2	12	5	46	4	7	3	4	1	2
Winter flounder	226	196	92	39	23	13	28	36	51	21	62	32	56	12	10	8	3	2	4	3	20
Unidentified																					
Atherinidae	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Morone unidentified	1	.	.	.	3	2	.	.	.	.	.	.	2	3	.	1	.	.	35	.	.
Unidentifiable	.	.	.	.	.	.	.	.	6	.	18	1	68	.	1	.	.	.	.	.	.

Table C-2 (Continued)

	2006	2007	2008	2009	2010	2011
Anadromous						
Alewife	236	587	1,031	144	1,719	316
Alosa spp.	755	3,030	1,529	220	266	1,847
American shad	77	44	69	70	85	122
Atlantic sturgeon	14	35	24	30	19	22
Atlantic tomcod	1,007	1,121	1,290	2,495	430	577
Blueback herring	943	5,682	11,803	437	14,025	5,614
Hickory shad	.	.	1	.	.	2
Rainbow smelt	.	.	.	.	.	.
Sea lamprey	.	.	.	.	.	.
Striped bass	1,795	2,001	1,456	1,068	3,272	1,623
Catadromous						
American eel	448	163	241	350	716	168
Estuarine						
Atlantic silverside	29	50	14	3	41	13
Banded killifish	12	1	1	.	2	3
Fat sleeper	.	.	.	.	.	.
Fourspine stickleback	.	.	.	1	1	.
Hogchoker	15,079	12,945	36,104	42,149	40,758	31,022
Inland silverside	.	.	.	.	.	.
Lined sea horse	.	.	.	.	.	.
Mummichog	.	.	.	.	2	.
Northern pipefish	16	19	17	59	19	5
Shortnose sturgeon	28	20	17	12	30	14
White catfish	412	198	170	174	175	84
White mullet	5	.	.	.	.	.
White perch	7,151	3,904	8,551	9,631	15,039	7,409
Freshwater						
Black bullhead	.	.	.	.	.	.
Black crappie	.	.	.	.	.	.
Bluegill	1	.	2	.	4	3
Brook trout	.	.	.	.	.	.
Brown bullhead	505	191	278	742	835	769
Carp	2	2	3	6	7	10
Central mudminnow	.	.	.	.	.	.
Centrarchidae	.	.	2	2	.	17
Channel catfish	2,279	979	1,868	1,550	2,072	1,673
Cyprinidae	.	.	.	.	.	1
Emerald shiner	.	.	1	.	.	.
Fall fish	.	.	1	.	.	.
Fathead minnow	18	.	.	.	.	.
Freshwater drum	37	2	.	3	2	25
Gizzard shad	3	5	24	1	74	24
Golden shiner	2	.	.	.	1	15

Table C-2 (Continued)

	2006	2007	2008	2009	2010	2011
Freshwater (cont.)						
Goldfish	.	1	.	3	.	.
Grass carp	.	.	.	1	.	.
Largemouth bass	1	.	1	.	.	.
Logperch	.	187	.	.	.	.
Longear sunfish	.	1	.	.	.	.
Margined madtom	.	.		.	.	.
Northern hog sucker	.	.	1	.	.	.
Pumpkinseed	5	.	21	1	12	2
Redbreast sunfish	.	1	.	.	.	.
Rock bass	.	.	6	1	.	.
Satinfin shiner	.	.	.	.	.	.
Silvery minnow	.	.	.	.	.	.
Smallmouth bass	.	.	.	.	.	.
Spottail shiner	212	14	157	310	330	233
Tesselated darter	41	18	137	105	82	31
Trout perch	.	.	.	.	.	1
Walleye	.	.	.	.	.	.
White sucker	2	1	4	6	7	7
Yellow bullhead	.	.	.	.	.	.
Yellow perch	.	.	1	2	5	1
Marine						
Atlantic croaker	5,127	256	372	1,029	1,642	92
Atlantic cutlassfish	2	.	.	.	.	.
Atlantic herring	.	.	.	.	.	.
Atlantic menhaden	1,288	363	39	113	19	38
Atlantic needlefish	.	5	.	.	1	2
Bay anchovy	28,864	61,499	42,665	15,740	39,410	13,231
Black sea bass	.	.	.	.	.	.
Bluefish	30	13	32	18	27	12
Butterfish	58	12	157	31	39	48
Cobia	.	.	.	.	.	.
Conger eel	.	.	.	.	2	.
Crevalle jack	3	4	8	2	4	.
Cunner	.	.	.	.	.	.
Feather blenny	.	.	.	.	.	.
Fourspot flounder	.	.	2	2	.	.
Gobiidae	10	56	.	1	.	10
Goosefish	.	.	.	.	.	.
Gray snapper	.	.	.	.	.	.
Grubby	.	.	.	.	1	.
Inshore lizardfish	.	.	.	.	.	.
Longhorn sculpin	.	.	.	.	.	.
Lookdown	1	.	1	.	.	.
Moonfish	6	21	71	10	22	.
Naked goby	13	.	10	11	19	41
Northern kingfish	2	7	11	2	25	.
Northern puffer	.	1	.	.	2	.

Table C-2 (Continued)

	2006	2007	2008	2009	2010	2011
Marine (cont.)						
Northern searobin	.	.	.	.	.	.
Northern stargazer	.	.	.	3	.	.
Oyster toadfish	4	.	4	13	41	16
Red hake	1	.	3	25	1	.
Rock gunnel	.	.	.	.	.	.
Rough silverside	.	1	20	2	45	4
Scup	.	2	.	.	.	.
Seaboard goby	1	.	.	.	.	.
Searobin	.	12	1	.	.	.
Sciaenidae	.	4	.	.	.	.
Silver hake	3	1	20	12	56	9
Silver perch	.	.	.	17	1	1
Smallmouth flounder	.	.	.	.	.	.
Spanish mackerel	.	.	.	.	.	.
Spot	.	.	1	.	.	.
Spotfin butterflyfish	.	.	.	1	.	.
Spotted hake	71	15	228	127	110	92
Striped anchovy	.	2	.	.	.	.
Striped burrfish	.	.	.	.	.	.
Striped cuskeel	1	.	1	.	5	.
Striped searobin	78	225	111	108	29	2
Summer flounder	13	9	20	55	54	8
Tautog	.	.	.	.	.	.
Tetraodontidae	.	.	.	.	.	.
Weakfish	452	1,410	1,126	371	98	259
Windowpane	2	4	1	2	1	.
Winter flounder	4	4	25	3	22	6
Unidentified						
Atherinidae	.	.	.	.	.	1
Morone unidentified	37	1	.	.	.	
Unidentifiable	.	.	.	.	.	

Table C-2 (Continued)

Sampling Statistics for Fall Juvenile Survey, 1985-2011

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Start Date	22-Jul	21-Jul	13-Jul	18-Jul	17-Jul	9-Jul	15-Jul	13-Jul	19-Jul	18-Jul	10-Jul	10-Jul
End Date	14-Nov	2-Dec	5-Nov	28-Oct	26-Oct	17-Oct	25-Oct	23-Oct	29-Oct	27-Oct	20-Oct	17-Oct
Volume Sampled (m3)	1,886,745	2,298,278	2,035,357	1,826,628	1,590,047	1,252,910	1,707,237	1,865,365	2,010,162	2,018,414	1,782,105	1,824,729
Sample Size	1,802	2,098	1,958	1,680	1,679	1,680	1,678	1,680	1,680	1,681	1,680	1,669

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Start Date	7-Jul	6-Jul	6-Jul	5-Jul	10-Jul	8-Jul	7-Jul	6-Jul	5-Jul	5-Jul	1-Jul	7-Jul
End Date	23-Nov	4-Dec	3-Dec	30-Nov	30-Nov	6-Dec	5-Dec	3-Dec	2-Dec	1-Dec	30-Nov	5-Dec
Volume Sampled (m3)	1,995,403	2,214,609	2,159,879	2,174,794	2,097,800	2,105,181	1,891,049	2,106,764	2,063,565	2,014,940	1,968,928	2,073,021
Sample Size	2,015	2,130	2,085	2,113	2,084	2,128	2,131	2,128	2,128	2,129	2,130	2,130

	2009	2010	2011
Start Date	6-Jul	6-Jul	5-Jul
End Date	4-Dec	3-Dec	2-Dec
Volume Sampled (m3)	1,928,891	2,027,924	1,878,662
Sample Size	2,130	2,130	2,086

Table C-3 Total Number of Fish Collected in the Beach Seine Survey, 1985-2011

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Anadromous																					
Alewife	1,272	818	515	675	439	925	2,323	870	638	1,738	1,051	437	1,664	423	3,636	574	1,868	379	2,129	1,087	4,143
Alosa spp.	8,272	2,529	5,685	21,022	8,346	10,853	38,966	3,490	5,237	14,468	10,653	47,511	7,889	1,773	35,377	3,993	14,296	2,141	13,250	4,151	13,707
American shad	9,171	14,716	7,641	10,780	13,026	12,261	15,771	15,366	5,122	13,007	4,049	21,339	8,618	5,931	13,755	5,968	18,402	4,252	6,231	3,028	4,287
Atlantic sturgeon	1	.	.	.	3	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.
Atlantic tomcod	243	148	209	230	81	115	46	328	13	9	22	51	27	163	15	54	12	7	65	78	5
Blueback herring	25,362	12,522	31,373	36,245	19,037	43,555	40,731	29,105	29,722	46,040	21,506	28,591	59,867	1,337	28,384	9,272	21,907	6,018	48,011	23,285	34,233
Hickory shad	.	.	.	.	.	.	.	.	.	.	.	1	3	.	.	.	.	.	.	.	.
Rainbow smelt	.	1	.	.	.	2	5	.	5	.	.	.	.	.	.	.	.	.	.	.	.
Striped bass	1,413	1,854	11,987	6,151	5,585	6,906	10,813	6,156	10,765	7,273	6,463	2,847	10,438	8,225	16,897	3,693	11,709	5,783	16,077	4,987	16,012
Catadromous																					
American eel	315	163	125	151	107	81	208	127	97	86	121	90	136	137	131	84	114	130	257	205	167
Estuarine																					
Atlantic silverside	1,197	4,406	1,459	6,760	686	8,383	17,291	6,668	14,493	21,101	28,061	9,014	11,757	17,160	25,690	9,587	8,064	11,994	4,382	17,936	17,217
Banded killifish	5,959	3,514	4,369	4,917	1,948	1,513	3,232	1,243	2,708	6,402	8,659	1,544	4,080	1,541	3,269	1,223	902	4,503	7,374	2,354	2,717
Fat sleeper	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourspine stickleback	359	525	296	194	12	11	24	15	32	29	20	13	7	16	13	4	16	10	288	77	153
Hogchoker	1,033	276	312	305	261	150	652	329	143	230	392	54	53	29	20	20	115	391	322	183	62
Inland silverside	464	653	146	406	234	190	160	1,129	9	4	12	1	6	4	3	4	.	22	59	20	9
Mummichog	455	38	496	414	68	109	183	128	208	448	613	86	294	85	235	80	31	379	589	124	335
Northern pipefish	844	166	348	297	156	86	689	51	124	16	248	9	335	79	123	12	244	243	86	126	508
Shortnose sturgeon	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	1	.	.	.	.	.
Threespine stickleback	2	17	10	3	4	2	4	1	.	.	.	1	.	.	1	.	.	1	.	.	1
White catfish	52	83	86	101	66	23	25	18	16	7	10	28	10	15	4	8	3	19	31	8	21
White mullet	4	3	.	.	3	1	2	.	1	.	.	.	1	.	.	.	.	1	1	.	.
White perch	9,938	12,082	12,303	14,607	11,407	8,485	10,033	9,497	11,771	8,789	6,368	3,501	5,292	4,368	10,931	5,652	7,928	11,124	16,737	8,492	8,588
Freshwater																					
Black crappie	.	47	52	10	10	8	12	20	4	14	19	19	5	11	26	16	16	11	13	19	43
Blacknose dace	2	.	1	1	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	1	.
Bluegill	64	57	76	355	159	89	69	61	94	89	201	61	73	260	119	122	117	349	299	86	245
Bluntnose minnow	.	.	.	.	.	.	.	.	.	3	.	2	.	4	1	3	.	.	3	5	.
Bridle shiner	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.
Brook silverside	.	.	.	.	.	.	.	.	.	44	6	2	1	8	34	9	.	4	266	1	3
Brook stickleback	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Brown bullhead	6	41	12	53	28	10	42	40	252	117	23	21	24	37	146	37	37	89	1,870	181	155
Brown trout	.	.	.	.	.	.	.	.	.	1	1	.	.	.	.	.	.	.	.	.	.
Carp	50	102	78	133	86	57	111	90	62	41	64	51	72	72	69	74	32	64	213	75	92
Catostomidae	.	.	.	.	.	.	.	.	.	.	.	3	3	.	.	.	.	.	.	.	.
Centrarchidae	673	327	388	351	100	106	64	29	42	216	89	79	91	98	138	69	109	176	4,120	379	235
Chain pickerel	.	.	.	.	4	.	.	1	.	.	1	.	.	1	.	2	.	.	.	1	1
Channel catfish	.	.	.	.	.	3	.	.	.	.	.	.	2	3	.	7	2	9	13	18	37
Comely shiner	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.

Table C-3 (Continued)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Freshwater (cont.)																					
Common shiner	.	.	.	1	.	.	.	1	1	.	.	.	.	.	.	.	2	.	.	.	.
Creek chub	1	.	.	.	.	.	4	.	1	.	2	.	1	.	2	.	.	.	1	.	.
Cyprinidae	1	6	6	.	.	.	134	.	5	2	18	.	1	1	5	.	1	.	4	.	.
Emerald shiner	4	4	5	22	.	11	8	4	2	1	.	76	18	1,271	209	296	73	32	6	9	6
Fall fish	.	2	.	.	.	.	9	3	2	11	2	3	1	6	1	.	.	.	18	1	1
Fathead minnow	1	10	.	.	1	.	.	.	.	2	.	7	.	.	3	3	.	.	.	1	.
Freshwater drum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	5	5	5
Gizzard shad	3	13	100	10	7	28	22	158	38	49	61	50	139	67	140	75	45	99	51	231	108
Golden shiner	460	1,223	647	676	640	817	672	787	659	760	404	460	193	472	278	296	425	489	1,031	428	349
Goldfish	14	25	16	97	1	3	33	1	29	3	16	3	1	1	4	.	3	4	9	4	2
Grass carp	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Grass pickerel	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Green sunfish	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.
Largemouth bass	44	71	44	57	51	34	85	55	55	74	169	29	53	120	221	46	39	67	270	78	162
Logperch	.	.	.	.	.	.	.	1	1	.	.	1	.	1	4	.	4	4	11	1	9
Longear sunfish	.	.	.	.	.	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Longnose dace	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mimic shiner	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.
Northern hog sucker	.	.	1	3	.	1	4	2	.	.	.	1	.	.	.	1	.	.	2	3	9
Northern pike	.	2	4	2	4	2	2	.	3	2	.	2	.	.	1	2	.	.	28	12	.
Pugnose shiner	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Pumpkinseed	740	496	609	1,070	633	724	1,195	602	774	1,535	1,648	284	619	555	771	281	647	1,084	2,039	1,271	1,576
Rainbow trout	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
Redbreast sunfish	115	158	185	160	111	76	200	259	251	382	454	116	141	188	323	137	64	189	408	336	292
Redfin pickerel	.	.	.	2	.	.	1	.	.	.	.	3	.	2	1	1	.	.	4	2	.
Rock bass	6	8	1	12	3	.	22	1	1	.	10	2	2	7	8	8	1	7	18	15	6
Rudd	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.
Satinfin shiner	1	2	.	1	.	2	.	.	1	.	6	5	12	10	10	.	1	40	36	4	1
Silvery minnow	3	13	23	119	2	9	387	68	568	1,027	8	2,131	31	40	428	18	48	6	145	64	31
Smallmouth bass	7	25	8	28	25	21	25	28	30	73	81	50	26	86	176	80	45	78	157	107	121
Spotfin shiner	5	8	17	5	.	.	.	.	12	8	8	49	4	27	127	15	34	4	49	40	46
Spottail shiner	5,316	5,177	4,452	5,407	5,129	5,500	12,385	7,727	7,169	12,452	7,529	3,887	7,189	4,996	16,512	3,927	11,969	9,313	19,830	9,296	10.147
Swallowtail shiner	.	.	.	.	.	.	.	3	.	.	.	.	.	2	1	.	2	.	10	.	.
Tesselated darter	1,198	1,372	820	1,697	415	479	2,385	929	1,251	1,669	700	663	1,767	1,359	3,858	760	2,140	948	4,657	2,969	1,087
Tiger muskellunge	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.
Trout perch	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.
Walleye	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	2	.	.	.	3	.
White crappie	.	4	1	3	.	1	2	1	.	.	.	.	.	1	.	.	.	.	.	.	.
White sucker	7	16	17	32	9	15	12	21	11	12	14	24	11	48	16	18	47	19	32	43	45
Yellow bullhead	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Yellow perch	22	67	44	49	34	12	27	23	22	29	16	53	20	49	65	60	78	40	160	194	115
Marine																					
Atlantic croaker	.	1	.	.	.	26	.	1	.	.	7	.	.	35	5	19	3	21	.	7	1
Atlantic herring	.	.	.	.	.	.	.	.	.	.	.	.	1	.	4	.	.	.	.	.	.
Atlantic menhaden	118	834	30	99	159	1,063	678	415	16	1,637	56	1,526	117	331	50,419	16,025	130	2,481	3,586	8,465	1,128
Atlantic needlefish	92	77	54	48	41	96	476	9	11	12	22	28	50	21	181	12	6	8	28	33	28
Bay anchovy	4,081	4,155	3,746	3,989	9,507	4,134	4,669	8,729	8,106	10,447	17,615	3,544	16,980	11,333	6,662	2,617	3,275	13,862	6,431	2,330	4,830

Table C-3 (Continued)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Marine (cont.)																					
Black drum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Bluefish	567	400	533	280	224	348	314	375	223	80	252	98	320	141	2,180	218	474	815	336	246	308
Butterfish	.	.	.	4	.	1	.	1	9	.	.	.	.	2	.	.	.	.	.	.	.
Crevalle jack	71	10	3	22	40	32	58	53	30	2	2	1	.	45	3	24	4	9	10	.	3
Cunner	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourbeard rockling	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.
Goosefish	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Gray snapper	7	1	3	.	.	.	2	.	.	.	.	.	.	.	.	.	1	.	.	.	1
Grubby	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
Inshore lizardfish	.	.	.	1	1	.	14	8	11	5	1	.	3	4	7	.	.	3	.	.	.
Lookdown	18	1	.	.	10	1	.	.	.	.	.	.	2	.	.	2	.	.	.	.	.
Moonfish	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Naked goby	20	9	11	4	4	7	14	22	2	.	9	.	8	5	15	2	12	20	13	24	12
Northern kingfish	20	8	.	9	1	4	42	2	17	13	8	1	15	31	21	1	13	35	.	45	6
Northern puffer	2	1	.	1	.	.	10	.	4	.	2	.	2	.	6	.	.	4	.	.	4
Northern searobin	.	2	.	.	.	.	8	.	.	1	.	.	.	.	.	.	2	.	.	.	3
Northern stargazer	1	.	.	.	.	.	1	.	1	1	1	1	8	.	1	.	1	9	.	1	2
Orangespotted filefish	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Oyster toadfish	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Permit	.	.	.	.	.	.	.	1	2	.	.	.	.	2	.	7	5	.	.	.	.
Pigfish	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Red hake	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	26	.	.
Rough silverside	35	4	23	258	9	4	.	2	.	1	1	.	36	.	.	.	.	.	.	.	.
Seaboard goby	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.
Searobin	.	.	.	.	.	.	5	.	.	.	.	.	1	.	.	.	3	.	3	.	.
Silver hake	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Silver perch	13	1	.	19	.	.	29	8	61	25	5	5	25	4	1	1	.	.	.	60	.
Smallmouth flounder	1	.	.	.	.	.	.	.	.	.	1	.	12	.	.	.	.	.	.	.	.
Spanish mackerel	.	.	.	.	.	.	12	.	4	1	.	.	.	.	.	.	.	.	.	.	.
Spot	35	106	4	32	.	1	8	2	39	24	.	59	.	3	6	15	.	11	1	.	2
Spotfin mojarra	.	.	.	.	.	.	.	.	.	2	.	.	.	1	.	.	.	.	.	.	.
Spotted goatfish	.	.	.	.	.	.	.	.	17	.	.	.	.	.	.	.	.	.	.	.	.
Spotted hake	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Striped anchovy	1	.	.	.	.	.	.	.	1	15	25	6	4	.	.	1	.	57	8	2	.
Striped mullet	2	6	1	1	.	.	5	.	.	.	2	.	.	.	.	1	.	1	.	.	.
Striped searobin	5	16	.	3	.	.	34	1	11	.	.	.	35	21	8	1	4	7	1	14	1
Summer flounder	48	45	4	1	2	2	46	26	20	18	10	2	.	7	4	5	5	11	5	10	5
Tautog	2	5	2	20	.	6	31	1	.	1	.	.	22	1	.	.	5	2	.	1	2
Weakfish	72	5	.	2	.	27	111	1	4	4	1	25	27	4	30	18	2	33	8	5	3
Windowpane	.	.	3	.	.	.	1	.	.	.	.	1	.	.	.	.	.	.	.	.	1
Winter flounder	282	80	29	41	9	23	154	35	74	45	110	6	124	28	46	68	44	55	52	105	41
Unidentified																					
Morone unidentified	.	.	1	.	.	.	.	.	.	.	1	.	.	.	1	.	.	.		1	.
Unidentifiable	.	.	.	.	.	.	.	.	.	.	150	.	.	.	.	.	.	.		.	.

Table C-3 (Continued)

	2006	2007	2008	2009	2010	2011
Anadromous						
Alewife	601	3,579	4,127	1,315	8,090	2,351
Alosa spp.	1,297	24,989	33,233	11,793	20,174	49,432
American shad	697	2,681	781	2,135	1,869	1,911
Atlantic sturgeon	.	.	.	.	.	.
Atlantic tomcod	27	2	3	38	.	2
Blueback herring	3,911	55,828	29,603	2,529	28,057	30,454
Hickory shad	.	.	.	.	.	.
Rainbow smelt	.	.	.	.	.	.
Striped bass	4,348	12,882	5,459	4,052	11,324	4,763
Catadromous						
American eel	154	75	349	300	246	230
Estuarine						
Atlantic silverside	2,116	16,989	6,545	5,602	17,390	5,219
Banded killifish	1,283	2,252	5,021	3,757	4,885	1,800
Fat sleeper	.	.	.	.	.	.
Fourspine stickleback	27	3	9	276	499	16
Hogchoker	130	464	240	31	209	236
Inland silverside	5	3	26	70	98	3
Mummichog	25	93	278	95	334	85
Northern pipefish	56	452	426	154	728	104
Shortnose sturgeon	.	.	.	.	.	.
Threespine stickleback	.	1	.	42	3	.
White catfish	16	6	6	6	8	45
White mullet	.	2	2	.	.	.
White perch	7,707	4,596	7,400	6,446	9,025	6,165
Freshwater						
Black crappie	21	3	25	27	19	23
Blacknose dace	.	.	.	1	.	.
Bluegill	224	39	384	466	125	197
Bluntnose minnow	.	2	.	3	.	2
Bridle shiner	.	.	.	.	.	.
Brook silverside	4	1	16	.	5	51
Brook stickleback	.	.	.	.	.	.
Brown bullhead	141	35	276	206	89	217
Brown trout	.	.	.	.	.	.
Carp	69	34	56	86	62	80
Catostomidae	.	.	.	.	.	.
Centrarchidae	213	31	1,163	556	509	539
Chain pickerel	.	.	1	1	1	.
Channel catfish	100	15	32	70	47	576
Comely shiner	.	.	.	.	.	.
Common shiner	.	.	.	1	1	.

Table C-3 (Continued)

	2006	2007	2008	2009	2010	2011
Freshwater (cont.)						
Creek chub	.	.	.	.	.	.
Cutlips minnow	.	.	1	.	.	.
Cyprinidae	.	.	4	125	3	1
Emerald shiner	52	9	8	21	5	5
Fall fish	2	.	9	1	1	4
Fathead minnow	1	.	.	1	1	1
Freshwater drum	14	7	9	5	10	20
Gizzard shad	58	116	230	113	142	597
Golden shiner	231	91	488	703	294	316
Goldfish	2	7	3	2	7	9
Grass carp	.	.	.	.	.	.
Grass pickerel	.	.	.	.	.	.
Green sunfish	.	.	.	.	.	.
Largemouth bass	48	75	168	248	134	50
Logperch	3	7	3	4	3	2
Longear sunfish	.	.	.	.	.	.
Longnose dace	.	.	.	.	.	.
Mimic shiner	.	.	.	.	.	1
Northern hog sucker	.	1	1	.	.	.
Northern pike	9	1	7	.	.	4
Pugnose shiner	.	.	.	.	.	.
Pumpkinseed	569	439	3,113	1,274	1,897	782
Rainbow trout	.		.	1	.	.
Redbreast sunfish	87	55	337	171	130	79
Redfin pickerel	.	.	5	2	1	.
Rock bass	1	.	11	3	5	19
Rudd	.	.	7	4	10	.
Satinfin shiner	3	164	46	23	11	19
Shield darter	.	.	1	.	.	.
Silvery minnow	13	66	66	8	.	10
Smallmouth bass	81	97	57	52	107	104
Spotfin shiner	2	96	33	80	81	41
Spottail shiner	4,417	13,284	15,442	9,829	14,817	14,061
Swallowtail shiner	.	.	.	.	.	.
Tesselated darter	1,229	1,045	2,614	3,283	2,657	2,729
Tiger muskellunge	.	.	.	.	.	.
Trout perch	.	.	23	.	.	25
Walleye	.	.	.	.	.	.
White crappie	.	.	.	.	.	.
White sucker	36	81	43	27	34	49
Yellow bullhead	.	.	.	.	.	1
Yellow perch	107	142	131	49	68	76
Marine						
Atlantic croaker	292	.	.	.	1	1
Atlantic herring	.	.	.	.	.	.
Atlantic menhaden	4,885	6,105	1,418	4,077	91	1,093
Atlantic needlefish	58	96	67	48	28	86

Table C-3 (Continued)

	2006	2007	2008	2009	2010	2011
Marine (cont.)						
Bay anchovy	5,376	1,314	24,902	23,457	49,286	13,720
Black drum	.	.	.	.	.	1
Bluefish	169	719	414	244	434	253
Butterfish	.	.	.	.	.	.
Crevalle jack	21	.	6	6	2	1
Cunner	.	.	.	.	.	.
Fourbeard rockling	.	.	.	.	.	.
Fourspot flounder	.	.	2	.	.	.
Goosefish	.	.	.	.	.	.
Gray snapper	.	1	.	.	.	.
Grubby	.	.	.	.	.	.
Inshore lizardfish	1	.	6	.	8	.
Lookdown	.	.	.	2	.	.
Moonfish	.	.	1	.	.	.
Naked goby	5	19	34	15	25	71
Northern kingfish	6	59	32	8	5	7
Northern puffer	.	1	1	.	.	.
Northern searobin	.	.	.	.	.	.
Northern stargazer	.	2	1	.	.	.
Orangespotted filefish	.	.	.	.	.	.
Oyster toadfish	.	.	.	.	.	1
Permit	.	1	.	.	.	.
Pigfish	.	.	.	.	.	1
Red hake	.	.	.	.	.	.
Rough silverside	9	.	19	.	.	.
Seaboard goby	.	.	.	1	.	.
Searobin	.	.	2	.	.	.
Silver hake	.	.	.	.	.	.
Silver perch	.	2	.	2	.	86
Smallmouth flounder	.	.	.	.	.	.
Spanish mackerel	.	.	.	.	.	1
Spot	22	.	.	1	.	.
Spotfin mojarra	.	.	.	.	.	.
Spotted goatfish	.	.	.	.	.	.
Spotted hake	2	.	.	.	.	.
Striped anchovy	4	1	3	.	4	1
Striped mullet	24	.	7	11	27	.
Striped searobin	1	12	11	.	.	.
Summer flounder	12	3	11	21	14	8
Tautog	.	11	.	.	.	.
Weakfish	.	9	2	2	1	7
Windowpane	.	.	.	.	.	.
Winter flounder	28	85	51	22	17	2

Table C-3 (Continued)

	2006	2007	2008	2009	2010	2011
Unidentified						
Morone unidentified	.	2	.	5	.	.
Unidentifiable	.	.	.	.	.	.

Table C-3 (Continued)

Sampling Statistics for Beach Seine Survey, 1985-2011

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Start Date	16-Jul	15-Jul	24-Jun	14-Jun	13-Jun	18-Jun	24-Jun	23-Jun	1-Jul	27-Jun	19-Jun	18-Jun
End Date	21-Nov	21-Nov	13-Nov	3-Nov	2-Nov	24-Oct	1-Nov	28-Oct	4-Nov	2-Nov	26-Oct	23-Oct
Sample Size	1,000	1,000	1,101	1,100	1,100	1,000	1,000	1,000	1,000	1,000	1,000	1,000

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Start Date	16-Jun	15-Jun	14-Jun	13-Jun	19-Jun	18-Jun	17-Jun	15-Jun	14-Jun	12-Jun	11-Jun	17-Jun
End Date	23-Oct	21-Oct	22-Oct	18-Oct	25-Oct	23-Oct	22-Oct	21-Oct	20-Oct	19-Oct	18-Oct	24-Oct
Sample Size	1,000	1,000	994	1,000	952	1,000	1,000	1,000	1,000	1,000	1,000	1,000

	2009	2010	2011
Start Date	15-Jun	15-Jun	14-Jun
End Date	22-Oct	22-Oct	20-Oct
Sample Size	1,000	1,000	1,000

Appendix D

Density and Standing Crop Estimates

APPENDIX D

LIST OF TABLES

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LIST OF TABLES (CONTINUED)

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LIST OF TABLES (CONTINUED)

APPENDIX D

LIST OF TABLES (CONTINUED)

TABLE D-1 REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	41.53	3.60	157.08	193.33	49.40	1.19	1.26	108.40	42.75
05MAY	SE	0.00	0.00	0.00	0.00	0.00	35.79	3.17	51.11	86.14	48.21	0.88	0.77	108.40	159.37
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	28.67	2181.32	240.15	155.55	12.93	8.07	0.39	0.00	2.42	202.27
12MAY	SE	0.00	0.00	0.00	0.00	22.99	1553.33	119.35	65.60	6.26	3.18	0.39	0.00	1.18	1559.47
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.13	0.00	8.93	79.73	113.65	562.38	2607.38	2824.65	8.49	15.83	12.60	11.32	480.39
19MAY	SE	0.00	0.13	0.00	5.45	35.45	48.85	238.23	1014.69	1366.75	5.68	13.24	10.06	10.83	1720.01
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	5.95	68.03	20.49	13.19	24.65	177.73	566.63	8068.31	12059.38	36.94	8.15	1619.19
26MAY	SE	0.00	0.00	1.65	44.25	10.10	7.07	10.36	69.88	122.59	6871.82	6854.14	26.18	4.08	9706.91
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	37.61	2.73	0.00	91.52	26.51	107.72	346.43	150.56	1939.97	7.89	1.30	2.18	16.94	210.10
02JUN	SE	37.61	2.73	0.00	35.86	6.34	44.82	133.28	88.77	1500.80	3.12	0.83	1.41	16.94	1511.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-1 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	6.68	28.46	19.89	11.66	6.57	9.17	28.96	9.51	213.64	25.73
09JUN	SE	0.00	0.00	0.00	0.00	4.75	13.26	8.78	5.03	4.68	3.54	6.34	5.35	210.05	211.01
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	2.68	3.12	4.81	5.49	0.33	0.00	2.38	38.15	4.38
17JUN	SE	0.00	0.00	0.00	0.00	0.00	1.28	2.12	3.65	3.48	0.33	0.00	1.90	20.27	21.12
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.27	0.17	0.45	0.95	0.00	0.34	2.88	0.00	0.39
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.15	0.17	0.45	0.95	0.00	0.34	1.56	0.00	1.93
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-2 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST.CROP	0	0	0	0	0	8616	503	46830	31992	6989	210	202	7712	103054
05MAY	SE	0	0	0	0	0	7425	444	15238	14254	6821	155	124	7712	24428
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST.CROP	0	0	0	0	5974	452527	33570	46376	2139	1142	68	0	172	541967
12MAY	SE	0	0	0	0	4789	322246	16684	19559	1035	450	68	0	84	323308
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST.CROP	0	30	0	1320	16611	23578	78615	777348	467436	1201	2791	2025	806	1371761
19MAY	SE	0	30	0	805	7386	10135	33302	302514	226175	804	2334	1616	771	379403
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST.CROP	0	0	1916	10051	4269	2735	3446	52988	93768	1141422	2126017	5937	580	3443129
26MAY	SE	0	0	530	6537	2104	1467	1449	20832	20287	972156	1208356	4208	290	1551169
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST.CROP	7862	627	0	13521	5522	22348	48428	44888	321035	1116	230	350	1205	467130
02JUN	SE	7862	627	0	5299	1322	9298	18632	26466	248360	441	146	226	1205	250819
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-2 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST.CROP	0	0	0	0	1392	5904	2781	3476	1087	1297	5105	1529	15200	37771
09JUN	SE	0	0	0	0	989	2750	1227	1498	774	501	1118	859	14945	15443
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST.CROP	0	0	0	0	0	556	436	1433	909	47	0	383	2715	6478
17JUN	SE	0	0	0	0	0	266	296	1088	577	47	0	305	1442	1962
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST.CROP	0	0	0	0	0	56	23	135	158	0	60	463	0	895
23JUN	SE	0	0	0	0	0	32	23	135	158	0	60	251	0	334
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST.CROP	0	0	0	0	0	49	0	0	0	0	0	0	0	49
30JUN	SE	0	0	0	0	0	49	0	0	0	0	0	0	0	49
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-3 REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.03
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.41
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	1.05	6.39	27.13	55.45	24.58	3.80	3.51	0.00	0.00	0.00	1.60	0.00	9.50
12MAY	SE	0.00	0.96	3.29	5.68	21.70	16.40	1.05	2.89	0.00	0.00	0.00	1.60	0.00	28.21
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	1.06	3.63	240.05	506.62	35.39	172.35	1084.81	485.88	8.43	0.00	0.00	0.00	195.25
19MAY	SE	0.00	0.62	2.57	86.84	157.05	11.75	44.70	457.12	220.13	4.23	0.00	0.00	0.00	540.17
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	11.61	88.90	998.84	171.52	108.86	167.49	61.77	94.10	111.83	36.13	1.30	0.00	0.00	142.49
26MAY	SE	3.97	42.02	349.19	54.36	29.40	108.07	28.79	29.88	36.87	17.80	0.83	0.00	0.00	377.63
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.13	39.52	3213.53	357.47	544.01	379.41	1016.09	109.59	2.88	0.99	0.80	0.00	435.72
02JUN	SE	0.00	0.13	36.60	2010.95	116.56	100.84	119.33	386.82	62.95	1.88	0.45	0.80	0.00	2058.36
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-3 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	3.75	1.42	402.29	278.95	235.86	602.86	108.23	38.56	64.62	0.58	0.00	133.63
09JUN	SE	0.00	0.00	2.58	0.94	131.81	119.06	60.68	281.50	44.38	11.36	23.51	0.58	0.00	342.25
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	2.12	1.06	27.46	13.12	11.65	17.79	20.93	15.17	16.69	1.50	9.81
17JUN	SE	0.00	0.00	0.00	1.87	0.87	17.48	4.89	6.30	6.24	15.45	5.61	8.23	1.50	27.43
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.27	7.87	15.69	17.11	8.15	16.14	8.20	5.40	6.06
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.16	3.22	4.28	9.04	5.43	10.13	5.42	3.17	16.79
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.85	3.35	0.00	0.00	0.00	0.00	0.00	0.00	0.32
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.62	0.83	0.00	0.00	0.00	0.00	0.00	0.00	1.03
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	NS	NS	NS	NS	NS	0.01
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00						0.06
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-4 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	72	0	0	72
05MAY	SE	0	0	0	0	0	0	0	0	0	0	72	0	0	72
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	242	2056	4008	11553	5099	531	1047	0	0	0	257	0	24792
12MAY	SE	0	221	1059	839	4521	3403	146	862	0	0	0	257	0	5893
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	244	1169	35464	105548	7343	24093	323417	80405	1192	0	0	0	578876
19MAY	SE	0	142	826	12829	32719	2438	6249	136283	36427	598	0	0	0	145537
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	2426	20395	321440	25340	22679	34747	8635	28056	18505	5111	230	0	0	487565
26MAY	SE	829	9640	112372	8030	6125	22419	4024	8908	6101	2518	147	0	0	116038
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	31	12717	474756	74474	112858	53038	302930	18135	407	175	129	0	1049651
02JUN	SE	0	31	11780	297091	24284	20919	16681	115324	10418	265	80	129	0	321116
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-4 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	1208	210	83812	57870	32971	179734	17910	5456	11392	94	0	390656
09JUN	SE	0	0	831	139	27461	24700	8482	83925	7345	1607	4144	94	0	92487
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	313	220	5697	1833	3473	2944	2961	2675	2683	107	22906
17JUN	SE	0	0	0	277	182	3626	683	1878	1032	2186	989	1322	107	5083
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	56	1100	4677	2831	1153	2845	1319	385	14365
23JUN	SE	0	0	0	0	0	33	450	1276	1496	768	1786	872	226	2943
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	176	469	0	0	0	0	0	0	645
30JUN	SE	0	0	0	0	0	128	116	0	0	0	0	0	0	173
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	14	0	NS	NS	NS	NS	NS	14
13JUL	SE	0	0	0	0	0	0	8	0						8
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-5 REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.57	11.30	14.50	2.83	0.16	0.00	1.62	0.00	0.00	0.00	0.00	2.38
19MAY	SE	0.00	0.00	0.30	2.76	5.08	1.85	0.16	0.00	1.62	0.00	0.00	0.00	0.00	6.29
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	16.38	1174.14	390.66	109.43	60.72	1.04	3.63	0.00	0.55	0.00	0.00	0.00	0.00	135.12
26MAY	SE	6.86	993.25	119.63	41.31	15.01	0.67	1.55	0.00	0.55	0.00	0.00	0.00	0.00	1001.42
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	1.03	123.64	2931.34	799.56	2341.39	1189.14	445.67	23.33	0.00	0.00	0.00	0.00	604.24
02JUN	SE	0.00	0.34	99.36	878.64	166.04	1276.70	345.40	183.64	10.52	0.00	0.00	0.00	0.00	1610.15
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-5 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.78	13.94	263.87	637.10	3095.82	983.99	906.74	999.08	241.88	776.66	8.83	0.00	0.00	609.90
09JUN	SE	0.78	5.17	112.77	189.90	959.92	301.89	200.47	377.02	103.61	386.82	6.55	0.00	0.00	1184.96
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	1.89	206.37	864.93	1029.00	922.54	1027.15	840.34	362.19	704.17	253.79	8.34	0.53	478.56
17JUN	SE	0.00	1.35	111.25	418.88	380.97	349.65	166.20	170.11	73.95	283.03	68.58	4.80	0.53	775.95
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	1.90	32.76	94.14	204.36	269.92	63.35	191.80	76.48	57.49	142.50	21.45	65.08	7.66	94.53
23JUN	SE	1.04	10.28	26.13	49.17	101.83	46.89	45.37	23.04	18.45	43.13	7.30	58.11	4.34	154.97
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.13	1.10	7.65	58.33	118.95	96.57	34.50	12.40	33.37	20.54	3.43	0.00	29.77
30JUN	SE	0.00	0.13	0.56	2.66	28.03	46.76	18.61	17.57	3.33	12.42	9.59	0.87	0.00	62.39
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	1.53	14.94	31.66	16.19	73.64	6.42	NS	NS	NS	NS	NS	18.05
13JUL	SE	0.00	0.00	1.53	4.57	7.56	14.65	33.88	1.64						38.02
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.24	0.99	4.96	0.32	NS	NS	NS	NS	NS	0.81
27JUL	SE	0.00	0.00	0.00	0.00	0.24	0.79	1.41	0.32						1.66
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-6 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	182	1670	3021	587	22	0	269	0	0	0	0	5750
19MAY	SE	0	0	96	408	1058	383	22	0	269	0	0	0	0	1230
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	3423	269372	125719	16166	12649	216	507	0	90	0	0	0	0	428141
26MAY	SE	1434	227873	38497	6103	3128	138	216	0	90	0	0	0	0	231208
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	236	39787	433067	166576	485734	166232	132869	3861	0	0	0	0	1428363
02JUN	SE	0	77	31975	129808	34593	264859	48284	54750	1740	0	0	0	0	307493
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-6 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	162	3198	84915	94122	644972	204134	126754	297859	40028	109874	1558	0	0	1607576
09JUN	SE	162	1186	36292	28055	199987	62630	28024	112402	17145	54723	1154	0	0	250464
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	434	66413	127782	214378	191386	143587	250533	59937	99619	44742	1341	37	1200188
17JUN	SE	0	309	35803	61884	79370	72537	23234	50717	12238	40040	12090	772	37	147257
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	397	7515	30294	30192	56234	13142	26811	22801	9514	20159	3782	10460	545	231846
23JUN	SE	218	2358	8410	7265	21214	9728	6343	6870	3054	6102	1287	9340	309	29946
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	30	355	1130	12152	24676	13500	10287	2053	4721	3621	551	0	73076
30JUN	SE	0	30	180	394	5839	9702	2601	5239	551	1757	1690	140	0	12996
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	493	2207	6597	3358	10294	1915	NS	NS	NS	NS	NS	24864
13JUL	SE	0	0	493	676	1575	3039	4736	490						5923
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	49	205	693	95	NS	NS	NS	NS	NS	1042
27JUL	SE	0	0	0	0	49	163	197	95						277
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-7 REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-7 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.64	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26
23JUN	SE	0.00	0.00	0.64	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.75
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.19	1.40	1.05	1.12	8.28	3.64	0.17	0.00	3.98	0.54	0.47	1.60
30JUN	SE	0.00	0.00	0.19	1.08	1.01	0.79	4.56	3.64	0.17	0.00	3.06	0.54	0.47	6.84
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	2.55	4.43	4.09	1.07	12.90	1.87	NS	NS	NS	NS	NS	3.36
13JUL	SE	0.00	0.00	2.55	2.20	1.86	0.71	5.97	1.07						7.22
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	1.33	0.20	0.36	9.71	3.22	NS	NS	NS	NS	NS	1.86
27JUL	SE	0.00	0.00	0.00	0.88	0.15	0.24	1.38	2.60						3.08
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	2.26	1.80	0.87	0.25	0.21	1.38	NS	NS	NS	NS	NS	0.85
10AUG	SE	0.00	0.00	1.42	1.04	0.65	0.14	0.12	0.90						2.09
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	3.33	1.92	3.17	5.26	2.19	0.00	NS	NS	NS	NS	NS	1.98
24AUG	SE	0.00	0.00	1.99	1.92	1.70	2.07	0.64	0.00						3.90
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	7.69	1.12	1.26	0.04	0.00	0.06	0.00	NS	NS	NS	NS	NS	1.27
08SEP	SE	0.00	5.00	0.37	0.36	0.04	0.00	0.06	0.00						5.02
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.05
21SEP	SE	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00						0.42
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	8.73	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	1.09
05OCT	SE	0.00	5.06	0.00	0.00	0.00	0.00	0.00	0.00						5.06
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-8 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-8 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	207	396	0	0	0	0	0	0	0	0	0	602
23JUN	SE	0	0	207	396	0	0	0	0	0	0	0	0	0	446
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	61	206	219	232	1158	1086	27	0	701	86	34	3811
30JUN	SE	0	0	61	160	210	164	638	1086	27	0	539	86	34	1409
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	821	655	851	222	1803	557	NS	NS	NS	NS	NS	4909
13JUL	SE	0	0	821	325	388	147	835	318						1323
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	197	43	76	1358	961	NS	NS	NS	NS	NS	2635
27JUL	SE	0	0	0	130	31	49	193	774						811
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	727	265	181	51	29	412	NS	NS	NS	NS	NS	1666
10AUG	SE	0	0	457	153	136	30	17	267						568
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	1072	283	661	1091	305	0	NS	NS	NS	NS	NS	3413
24AUG	SE	0	0	639	283	354	430	89	0						899
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	1765	361	186	9	0	8	0	NS	NS	NS	NS	NS	2330
08SEP	SE	0	1146	120	53	9	0	8	0						1154
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	97	0	0	0	0	0	0	NS	NS	NS	NS	NS	97
21SEP	SE	0	97	0	0	0	0	0	0						97
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	2004	0	0	0	0	0	0	NS	NS	NS	NS	NS	2004
05OCT	SE	0	1161	0	0	0	0	0	0						1161
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-9 REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.46	0.44	0.04	4.31	1.04	1.61	3.38	0.86	0.08	0.59	0.00	0.98
09JUL	SE	0.00	0.00	0.46	0.44	0.03	1.25	0.29	1.32	1.10	0.42	0.08	0.48	0.00	2.33
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.03	0.66	4.29	5.79	4.71	1.25	0.23	1.60	0.51	0.00	0.00	1.47
21JUL	SE	0.00	0.00	0.03	0.63	1.55	1.74	1.81	0.60	0.17	0.65	0.19	0.00	0.00	3.15
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.04	0.06	0.03	1.74	0.85	0.50	0.58	2.16	2.18	0.00	0.00	0.63
04AUG	SE	0.00	0.00	0.04	0.04	0.02	0.85	0.18	0.23	0.40	0.83	0.51	0.00	0.00	1.39
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.03	0.13	0.20	0.64	0.64	0.07	0.04	1.57	0.17	0.00	0.10	0.28
18AUG	SE	0.00	0.00	0.03	0.08	0.08	0.16	0.14	0.03	0.04	1.23	0.17	0.00	0.10	1.27
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	7.12	3.68	2.49	3.02	0.88	0.81	0.40	0.03	NS	NS	NS	NS	NS	2.30
01SEP	SE	1.51	0.69	0.45	0.80	0.62	0.47	0.31	0.02						2.07
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.55	2.03	0.61	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.07	0.00	0.00	0.26
15SEP	SE	0.33	0.97	0.36	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.07	0.00	0.00	1.09
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.15	0.00	0.29	0.17	0.06	0.00	0.00	0.21	0.00	0.35	0.00	0.00	0.00	0.09
29SEP	SE	0.10	0.00	0.14	0.14	0.03	0.00	0.00	0.21	0.00	0.35	0.00	0.00	0.00	0.47
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.03	0.11	0.03	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.02
13OCT	SE	0.00	0.03	0.07	0.03	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
27OCT	SE	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
11NOV	SE	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.21	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
02DEC	SE	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-10 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	147	65	8	895	145	480	559	122	13	95	0	2528
09JUL	SE	0	0	147	65	7	260	41	394	183	60	13	77	0	542
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	8	98	893	1200	659	372	39	226	90	0	0	3586
21JUL	SE	0	0	8	93	323	360	254	178	28	92	33	0	0	591
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	12	8	6	362	119	150	96	305	384	0	0	1443
04AUG	SE	0	0	12	5	4	177	25	68	67	117	89	0	0	251
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	9	19	42	132	90	22	7	222	30	0	7	579
18AUG	SE	0	0	9	12	17	33	19	10	7	174	30	0	7	182
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	1488	845	801	447	182	168	57	10	NS	NS	NS	NS	NS	3997
01SEP	SE	315	159	145	119	130	97	44	7						433
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	115	466	197	0	0	0	9	0	0	0	13	0	0	800
15SEP	SE	70	223	116	0	0	0	6	0	0	0	13	0	0	261
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	31	0	92	25	12	0	0	62	0	50	0	0	0	273
29SEP	SE	20	0	44	21	6	0	0	62	0	50	0	0	0	96
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	6	37	5	0	0	6	0	0	0	0	0	0	53
13OCT	SE	0	6	22	5	0	0	6	0	0	0	0	0	0	24
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	4	4	7	0	0	0	0	0	0	0	0	0	0	15
27OCT	SE	4	4	7	0	0	0	0	0	0	0	0	0	0	9
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	7	0	0	0	0	0	0	0	0	0	0	0	7
11NOV	SE	0	7	0	0	0	0	0	0	0	0	0	0	0	7
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	43	5	0	0	0	0	0	0	0	0	0	0	0	48
02DEC	SE	17	5	0	0	0	0	0	0	0	0	0	0	0	18
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-11 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF STRIPED BASS YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.25	3.38	0.80	0.05	0.08	0.39
16JUN	SE	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.25	2.53	0.33	0.05	0.08	2.56
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	8.00	4.73	1.57	20.67	7.33	2.67	5.00	0.75	42.38	13.60	0.95	1.17	9.07
30JUN	SE	1.53	2.06	1.25	15.24	7.33	0.88	2.62	0.41	34.27	4.40	0.34	0.56	38.68
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	6.00	4.09	1.71	8.00	121.00	5.67	3.25	1.50	23.13	7.07	2.32	1.00	15.39
14JUL	SE	5.51	1.23	0.84	2.65	37.03	1.33	2.01	0.42	13.94	3.18	1.04	0.39	40.28
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	12.60	8.04	7.79	5.00	20.00	2.83	0.40	2.20	1.40	20.33	3.10	3.00	7.22
28JUL	SE	3.80	1.93	2.74	2.49	12.34	2.46	0.24	1.74	0.98	6.28	1.38	1.94	15.47
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	15.40	9.63	18.50	4.60	26.80	3.50	0.20	2.60	1.40	5.78	1.20	1.29	7.57
11AUG	SE	3.23	2.08	7.28	2.86	12.08	1.09	0.20	1.66	0.98	1.98	0.47	0.75	15.22
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	4.80	5.92	6.00	8.20	2.20	2.67	1.00	2.60	4.80	7.67	1.30	0.29	3.95
25AUG	SE	2.35	1.31	2.21	2.96	0.58	0.99	0.77	1.78	3.09	3.47	0.62	0.18	6.92
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	23.60	5.63	3.00	1.20	2.00	1.67	0.20	0.00	0.20	0.33	0.20	0.00	3.17
09SEP	SE	8.63	1.43	0.75	0.37	0.89	0.42	0.20	0.00	0.20	0.24	0.13	0.00	8.86
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	5.60	1.25	2.00	0.20	0.40	0.00	0.00	0.20	0.00	0.33	0.00	0.00	0.83
22SEP	SE	2.82	0.53	1.22	0.20	0.24	0.00	0.00	0.20	0.00	0.24	0.00	0.00	3.15
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	8.80	4.38	7.71	0.20	0.20	0.33	1.80	0.40	0.00	0.11	0.10	0.00	2.00
06OCT	SE	2.46	0.89	1.84	0.20	0.20	0.33	1.80	0.40	0.00	0.11	0.10	0.00	3.72
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	6.40	2.04	2.14	0.20	0.00	0.00	0.60	0.00	0.20	0.11	0.00	0.00	0.97
20OCT	SE	2.18	0.45	0.44	0.20	0.00	0.00	0.60	0.00	0.20	0.11	0.00	0.00	2.37
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-12 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	4	0	0	0	0	0	< 0.5	29	14	1	1	50
16JUN	SE	0	4	0	0	0	0	0	< 0.5	22	6	1	1	23
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	60	215	42	190	19	28	35	1	365	239	19	16	1230
30JUN	SE	12	94	34	140	19	9	19	1	295	77	7	8	352
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	45	186	46	74	319	60	23	2	199	124	46	14	1137
14JUL	SE	41	56	23	24	98	14	14	1	120	56	20	5	184
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	95	365	209	46	53	30	3	3	12	357	61	41	1275
28JUL	SE	29	88	74	23	33	26	2	2	8	110	27	26	173
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	116	437	497	42	71	37	1	3	12	101	24	17	1360
11AUG	SE	24	94	196	26	32	12	1	2	8	35	9	10	226
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	36	269	161	76	6	28	7	3	41	135	26	4	792
25AUG	SE	18	60	59	27	2	11	5	2	27	61	12	3	113
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	178	256	81	11	5	18	1	0	2	6	4	0	561
09SEP	SE	65	65	20	3	2	4	1	0	2	4	3	0	95
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	42	57	54	2	1	0	0	< 0.5	0	6	0	0	162
22SEP	SE	21	24	33	2	1	0	0	< 0.5	0	4	0	0	46
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	66	199	207	2	1	4	13	< 0.5	0	2	2	0	496
06OCT	SE	19	40	50	2	1	4	13	< 0.5	0	2	2	0	68
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	48	93	58	2	0	0	4	0	2	2	0	0	208
20OCT	SE	16	21	12	2	0	0	4	0	2	2	0	0	29
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-13 REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.99	6.24	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	1.03
23MAR	SE	0.56	1.80	0.00	0.00	0.00	0.00	0.00							1.89
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	2.04	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.29
30MAR	SE	0.00	1.27	0.00	0.00	0.00	0.00	0.00							1.27
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.34	1.14	2.44	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
08APR	SE	0.00	0.34	1.14	0.92	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.33	0.48	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
22APR	SE	0.33	0.48	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
28APR	SE	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
12MAY	SE	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.38	1.14	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
19MAY	SE	0.00	0.00	0.28	1.14	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.06
02JUN	SE	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.63
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-13 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.07
09JUN	SE	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.73
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	1.36	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
17JUN	SE	0.00	0.00	0.00	0.97	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.99
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.06
23JUN	SE	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.46
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
30JUN	SE	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.05
13JUL	SE	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00						0.41
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.09
24AUG	SE	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00						0.72
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	1.23	0.20	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.18
08SEP	SE	0.00	0.00	0.69	0.20	0.00	0.00	0.00	0.00						0.72
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-14 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	206	1433	0	0	0	0	0	NS	NS	NS	NS	NS	NS	1639
23MAR	SE	117	413	0	0	0	0	0							430
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	468	0	0	0	0	0	NS	NS	NS	NS	NS	NS	468
30MAR	SE	0	291	0	0	0	0	0							291
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	79	367	360	166	0	0	0	0	0	0	0	0	973
08APR	SE	0	79	367	135	138	0	0	0	0	0	0	0	0	422
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	70	110	61	0	0	0	0	0	0	0	0	0	0	241
22APR	SE	70	110	61	0	0	0	0	0	0	0	0	0	0	144
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	52	0	0	0	0	0	0	0	0	0	0	52
28APR	SE	0	0	52	0	0	0	0	0	0	0	0	0	0	52
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	40	0	0	0	0	0	0	0	0	0	40
12MAY	SE	0	0	0	40	0	0	0	0	0	0	0	0	0	40
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	124	169	82	0	0	0	0	0	0	0	0	375
19MAY	SE	0	0	89	169	82	0	0	0	0	0	0	0	0	208
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	66	0	0	0	0	0	0	0	0	95	0	161
02JUN	SE	0	0	66	0	0	0	0	0	0	0	0	95	0	116
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-14 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	46	0	0	0	0	0	0	0	0	0	51	96
09JUN	SE	0	0	46	0	0	0	0	0	0	0	0	0	51	68
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	201	39	0	0	0	0	0	0	0	0	240
17JUN	SE	0	0	0	144	39	0	0	0	0	0	0	0	0	149
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	147	0	0	0	0	0	0	43	0	0	0	190
23JUN	SE	0	0	112	0	0	0	0	0	0	43	0	0	0	120
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	75	0	0	0	0	0	0	0	0	0	0	0	75
30JUN	SE	0	75	0	0	0	0	0	0	0	0	0	0	0	75
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	60	0	0	0	0	NS	NS	NS	NS	NS	60
13JUL	SE	0	0	0	60	0	0	0	0						60
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	230	0	0	0	0	0	NS	NS	NS	NS	NS	230
24AUG	SE	0	0	230	0	0	0	0	0						230
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	395	30	0	0	0	0	NS	NS	NS	NS	NS	425
08SEP	SE	0	0	222	30	0	0	0	0						224
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-15 REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.07	0.23	0.00	< 0.005	0.00	0.00	0.00	0.00	0.00	0.10	0.03
09JUL	SE	0.00	0.00	0.00	0.07	0.23	0.00	< 0.005	0.00	0.00	0.00	0.00	0.00	0.10	0.26
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.01
21JUL	SE	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.09
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.30	0.01	0.02	0.00	0.00	0.07	1.03	0.00	0.00	0.11
04AUG	SE	0.00	0.00	0.00	0.00	0.28	0.01	0.02	0.00	0.00	0.07	0.96	0.00	0.00	1.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.02	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
18AUG	SE	0.00	0.00	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.03	0.03	0.00	0.10	0.00	0.00	0.01	0.00	NS	NS	NS	NS	NS	0.02
01SEP	SE	0.03	0.03	0.00	0.10	0.00	0.00	0.01	0.00						0.11
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.06	0.03	0.10	0.03	0.64	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.07
15SEP	SE	0.06	0.03	0.10	0.03	0.64	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.65
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
29SEP	SE	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
13OCT	SE	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.02	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
27OCT	SE	0.00	0.02	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
02DEC	SE	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-16 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	10	48	0	1	0	0	0	0	0	7	65
09JUL	SE	0	0	0	10	48	0	1	0	0	0	0	0	7	49
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	7	0	0	0	0	0	25	0	0	32
21JUL	SE	0	0	0	0	5	0	0	0	0	0	14	0	0	15
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	62	2	2	0	0	9	181	0	0	257
04AUG	SE	0	0	0	0	59	2	2	0	0	9	169	0	0	179
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	8	10	0	0	0	0	0	0	0	0	0	17
18AUG	SE	0	0	8	6	0	0	0	0	0	0	0	0	0	10
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	7	6	0	15	0	0	1	0	NS	NS	NS	NS	NS	29
01SEP	SE	7	6	0	15	0	0	1	0						17
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	12	7	32	5	133	0	0	5	0	0	0	0	0	194
15SEP	SE	12	7	32	5	133	0	0	5	0	0	0	0	0	137
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	3	0	0	0	0	0	0	0	0	3
29SEP	SE	0	0	0	0	3	0	0	0	0	0	0	0	0	3
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	8	0	0	0	0	0	0	0	0	0	0	8
13OCT	SE	0	0	8	0	0	0	0	0	0	0	0	0	0	8
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	4	22	0	0	0	0	0	0	0	0	0	0	26
27OCT	SE	0	4	22	0	0	0	0	0	0	0	0	0	0	23
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	11	0	0	0	0	0	0	0	0	0	0	0	0	11
02DEC	SE	7	0	0	0	0	0	0	0	0	0	0	0	0	7
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-17 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF STRIPED BASS YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.33	0.00	0.00	0.00	3.33	0.00	0.25	0.00	0.13	0.00	0.53	0.50	0.42
16JUN	SE	0.33	0.00	0.00	0.00	2.85	0.00	0.16	0.00	0.13	0.00	0.43	0.36	2.93
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.18	0.14	0.00	0.67	0.00	0.00	0.13	0.13	0.13	0.63	0.92	0.24
30JUN	SE	0.00	0.12	0.14	0.00	0.33	0.00	0.00	0.13	0.13	0.09	0.28	0.53	0.74
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.47	0.05	0.08	0.07
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.47	0.05	0.08	0.54
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.40	0.08	0.14	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.10	0.71	0.14
28JUL	SE	0.24	0.06	0.14	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.10	0.71	0.80
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
11AUG	SE	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.20	0.13	0.29	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
25AUG	SE	0.20	0.09	0.22	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.20	1.00	1.57	0.20	0.00	0.00	0.20	0.00	0.00	0.22	0.50	0.29	0.35
09SEP	SE	0.20	0.36	0.51	0.20	0.00	0.00	0.20	0.00	0.00	0.22	0.22	0.18	0.80
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
22SEP	SE	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.13	0.14	0.00	0.00	0.17	1.00	0.00	0.00	0.00	0.10	0.00	0.13
06OCT	SE	0.00	0.07	0.10	0.00	0.00	0.17	1.00	0.00	0.00	0.00	0.10	0.00	1.03
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.20	0.13	0.00	0.00	0.00	0.00	0.60	0.40	0.00	0.11	0.00	0.14	0.13
20OCT	SE	0.20	0.07	0.00	0.00	0.00	0.00	0.60	0.40	0.00	0.11	0.00	0.14	0.77
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-18 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	3	0	0	0	9	0	2	0	1	0	10	7	31
16JUN	SE	3	0	0	0	8	0	1	0	1	0	8	5	13
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	8	4	0	2	0	0	< 0.5	1	2	12	12	42
30JUN	SE	0	6	4	0	1	0	0	< 0.5	1	2	5	7	11
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	2	0	0	8	1	1	12
14JUL	SE	0	0	0	0	0	0	2	0	0	8	1	1	9
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	3	4	4	0	0	0	0	< 0.5	0	0	2	10	23
28JUL	SE	2	3	4	0	0	0	0	< 0.5	0	0	2	10	11
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	6	0	0	0	0	0	0	0	0	0	0	6
11AUG	SE	0	3	0	0	0	0	0	0	0	0	0	0	3
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	2	6	8	4	0	0	0	0	0	0	0	0	19
25AUG	SE	2	4	6	4	0	0	0	0	0	0	0	0	8
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	2	45	42	2	0	0	1	0	0	4	10	4	110
09SEP	SE	2	16	14	2	0	0	1	0	0	4	4	3	22
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	6	0	0	0	0	0	0	0	0	0	0	6
22SEP	SE	0	4	0	0	0	0	0	0	0	0	0	0	4
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	6	4	0	0	2	7	0	0	0	2	0	20
06OCT	SE	0	3	3	0	0	2	7	0	0	0	2	0	9
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	2	6	0	0	0	0	4	< 0.5	0	2	0	2	16
20OCT	SE	2	3	0	0	0	0	4	< 0.5	0	2	0	2	6
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-19 REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.33	0.55	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.12
23MAR	SE	0.33	0.27	0.00	0.00	0.00	0.00	0.00							0.43
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.64	0.36	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.14
30MAR	SE	0.39	0.36	0.00	0.00	0.00	0.00	0.00							0.53
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.41	0.21	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.05
08APR	SE	0.41	0.21	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.47
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
15APR	SE	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.03
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.24
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-19 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.37	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
17JUN	SE	0.00	0.00	0.37	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.01
05OCT	SE	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00						0.04
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-20 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	68	126	0	0	0	0	0	NS	NS	NS	NS	NS	NS	194
23MAR	SE	68	63	0	0	0	0	0							93
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	135	82	0	0	0	0	0	NS	NS	NS	NS	NS	NS	216
30MAR	SE	83	82	0	0	0	0	0							116
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	86	49	0	0	0	0	6	0	0	0	0	0	0	141
08APR	SE	86	49	0	0	0	0	6	0	0	0	0	0	0	99
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	157	0	0	0	0	0	0	0	0	0	0	157
15APR	SE	0	0	97	0	0	0	0	0	0	0	0	0	0	97
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	36	0	0	26	0	0	0	0	62
05MAY	SE	0	0	0	0	0	36	0	0	26	0	0	0	0	45
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-20 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	120	39	0	0	0	0	0	0	0	0	0	159
17JUN	SE	0	0	120	39	0	0	0	0	0	0	0	0	0	126
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	8	0	0	0	NS	NS	NS	NS	NS	8
05OCT	SE	0	0	0	0	8	0	0	0						8
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-21 REGIONAL DENSITY (NO./1,000m3) OF STRIPED BASS OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	NS	NS	NS	NS	NS	< 0.005
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02						0.02
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
15SEP	SE	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	< 0.005
29SEP	SE	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.04
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
27OCT	SE	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
11NOV	SE	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.11	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
02DEC	SE	0.06	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-22 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	2	2	0	0	0	0	0	0	4
21JUL	SE	0	0	0	0	0	2	2	0	0	0	0	0	0	3
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	40	0	0	0	0	0	0	0	40
04AUG	SE	0	0	0	0	0	40	0	0	0	0	0	0	0	40
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	0	1	5	NS	NS	NS	NS	NS	6
01SEP	SE	0	0	0	0	0	0	1	5						5
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	77	0	0	0	0	0	0	0	0	0	0	0	77
15SEP	SE	0	77	0	0	0	0	0	0	0	0	0	0	0	77
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	11	0	0	0	0	5	0	0	0	0	0	15
29SEP	SE	0	0	11	0	0	0	0	5	0	0	0	0	0	12
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	4	0	0	0	0	0	0	0	0	0	0	0	4
27OCT	SE	0	4	0	0	0	0	0	0	0	0	0	0	0	4
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	19	0	0	0	0	0	0	0	0	0	0	19
11NOV	SE	0	0	19	0	0	0	0	0	0	0	0	0	0	19
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	22	33	0	0	0	0	0	0	0	0	0	0	0	56
02DEC	SE	12	17	0	0	0	0	0	0	0	0	0	0	0	21
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-23 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF STRIPED BASS OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.01
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.07
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
14JUL	SE	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.40	0.04	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.10
09SEP	SE	0.24	0.04	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.43
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
22SEP	SE	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.08	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.02
06OCT	SE	0.00	0.06	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.21
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-24 REGIONAL STANDING CROP (IN THOUSANDS) OF STRIPED BASS OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	1	0	0	1
16JUN	SE	0	0	0	0	0	0	0	0	0	1	0	0	1
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	4	0	0	0	0	0	0	0	0	0	0	4
14JUL	SE	0	4	0	0	0	0	0	0	0	0	0	0	4
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	3	2	0	2	1	0	0	0	0	0	6	0	13
09SEP	SE	2	2	0	2	1	0	0	0	0	0	4	0	5
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	4	0	0	0	0	0	0	0	0	4
22SEP	SE	0	0	0	4	0	0	0	0	0	0	0	0	4
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	4	0	0	0	0	1	0	0	0	0	0	5
06OCT	SE	0	3	0	0	0	0	1	0	0	0	0	0	3
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-25 REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73	15.64	0.40	284.19	541.88	1752.06	199.68
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.53	3.07	0.40	110.21	99.55	389.30	416.68
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.66	0.35	0.00	0.00	0.12	6.26	2.65	41.80	7.70	396.20	397.00	572.41	841.04	174.32
12MAY	SE	0.66	0.27	0.00	0.00	0.12	6.26	2.37	23.21	4.85	351.38	297.07	87.51	433.36	638.59
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.64	0.86	1.10	37.92	319.14	102.38	211.54	769.21	110.98
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.39	0.78	1.10	25.64	223.61	45.04	23.47	313.15	388.98
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.40	0.00	0.00	0.00	4.31	3.16	114.24	10.52	53.01	536.70	1890.30	5954.65	659.02
26MAY	SE	0.00	0.40	0.00	0.00	0.00	4.17	1.43	53.56	5.46	22.75	244.46	791.96	2495.19	2629.90
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.50	0.21	0.25	1.11	12.68	3.44	0.00	155.28	31.79	777.93	1782.29	212.73
02JUN	SE	0.00	0.00	0.50	0.21	0.21	0.89	12.65	2.56	0.00	114.90	8.90	648.33	437.74	790.82
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-25 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.20	0.43	0.59	9.05	31.57	221.14	82.97	85.21	28.69	35.37
09JUN	SE	0.00	0.00	0.00	0.00	0.20	0.43	0.23	5.26	18.50	112.95	56.69	27.39	15.24	131.62
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.78	0.00	13.12	45.58	4.81
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.11	0.00	3.66	28.66	29.06
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	2.13	0.00	0.00	0.00	2.07	1.34	2.15	0.59
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	2.13	0.00	0.00	0.00	1.63	0.67	2.15	3.50
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29	0.00	0.00	0.00	0.00	0.10
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29	0.00	0.00	0.00	0.00	1.29
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-26 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST.CROP	0	0	0	0	0	0	0	514	2588	56	50102	87097	124658	265015
05MAY	SE	0	0	0	0	0	0	0	456	507	56	19429	16001	27698	37432
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST.CROP	137	81	0	0	26	1298	370	12462	1274	56050	69990	92005	59839	293530
12MAY	SE	137	61	0	0	26	1298	331	6920	803	49710	52373	14066	30833	80081
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST.CROP	0	0	0	0	0	133	120	327	6276	45149	18050	34001	54728	158784
19MAY	SE	0	0	0	0	0	80	109	327	4243	31634	7940	3772	22281	39907
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST.CROP	0	93	0	0	0	893	441	34059	1741	7499	94617	303831	423668	866841
26MAY	SE	0	93	0	0	0	865	200	15969	903	3219	43098	127293	177531	223260
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST.CROP	0	0	161	31	52	231	1773	1025	0	21968	5604	125039	126808	282691
02JUN	SE	0	0	161	31	43	185	1768	762	0	16255	1569	104208	31145	109999
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-26 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST.CROP	0	0	0	0	41	89	83	2698	5225	31285	14628	13696	2041	69785
09JUN	SE	0	0	0	0	41	89	32	1569	3061	15979	9995	4402	1084	19688
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST.CROP	0	0	0	0	0	0	0	0	0	534	0	2109	3243	5886
17JUN	SE	0	0	0	0	0	0	0	0	0	440	0	589	2039	2168
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST.CROP	0	0	0	0	0	0	298	0	0	0	366	215	153	1032
23JUN	SE	0	0	0	0	0	0	298	0	0	0	287	108	153	454
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST.CROP	0	0	0	0	0	0	0	0	213	0	0	0	0	213
30JUN	SE	0	0	0	0	0	0	0	0	213	0	0	0	0	213
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-27 REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.04
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.48
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.73	0.00	0.21	0.00	0.58	1.71	1.26	5.10	3.67	2.49	0.37	1.24
05MAY	SE	0.00	0.00	0.73	0.00	0.21	0.00	0.44	0.79	0.63	1.71	1.31	1.45	0.37	2.95
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.47	0.00	1.04	1.28	1.46	4.92	22.85	23.15	20.32	29.44	127.64	200.68	33.82	35.93
12MAY	SE	0.47	0.00	1.04	0.89	1.20	1.26	6.12	4.74	4.21	5.65	27.13	34.84	5.21	45.73
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.24	0.00	0.72	3.25	4.29	15.73	84.72	232.27	619.49	899.17	765.15	745.39	681.47	311.68
19MAY	SE	0.24	0.00	0.41	1.64	1.45	5.07	20.65	84.64	222.37	342.91	78.59	174.02	145.38	481.93
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.47	15.60	27.36	23.46	61.95	84.67	312.59	399.71	226.78	404.44	252.69	555.35	181.93
26MAY	SE	0.00	0.36	6.50	8.61	18.25	11.79	42.90	67.70	97.06	150.00	59.85	54.57	151.67	261.72
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.39	13.31	7.37	21.54	24.67	87.99	28.66	62.98	70.77	861.66	758.34	149.05
02JUN	SE	0.00	0.00	0.39	4.00	2.52	8.66	7.78	41.93	9.95	22.09	17.79	201.39	277.85	347.24
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-27 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.61	0.00	0.00	0.86	9.48	7.34	6.95	40.70	8.95	126.91	109.39	417.74	640.39	105.33
09JUN	SE	0.61	0.00	0.00	0.43	4.74	4.07	1.86	19.80	3.05	51.71	16.00	174.75	486.55	520.24
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	6.04	5.22	4.16	11.98	19.77	21.24	207.46	79.72	27.35
17JUN	SE	0.00	0.00	0.00	0.00	0.00	3.79	2.90	2.74	2.90	9.76	8.14	141.51	35.10	146.48
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.71	0.75	1.89	2.20	5.53	51.09	16.35	14.24	7.14
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.59	0.43	1.69	1.32	5.53	27.36	6.09	8.64	29.93
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.34	0.68	3.13	0.00	0.36
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.34	0.68	2.25	0.00	2.43
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-28 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	144	0	0	0	0	0	144
28APR	SE	0	0	0	0	0	0	0	144	0	0	0	0	0	144
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	234	0	44	0	82	510	209	722	646	401	26	2874
05MAY	SE	0	0	234	0	44	0	61	236	105	242	230	233	26	542
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	97	0	334	190	303	1020	3194	6903	3363	4165	22503	32255	2407	76734
12MAY	SE	97	0	334	132	250	262	856	1412	696	799	4782	5600	371	7647
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	50	0	231	480	894	3264	11844	69248	102516	127205	134892	119808	48486	618918
19MAY	SE	50	0	132	242	302	1052	2887	25234	36799	48511	13855	27971	10344	73724
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	108	5019	4043	4888	12852	11837	93192	66146	32083	71302	40615	39513	381597
26MAY	SE	0	82	2091	1272	3802	2447	5996	20182	16062	21221	10552	8771	10791	38507
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	126	1966	1536	4469	3448	26232	4742	8910	12477	138496	53955	256357
02JUN	SE	0	0	126	591	526	1796	1087	12501	1647	3125	3136	32370	19769	40277
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-28 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	128	0	0	127	1975	1522	972	12135	1481	17954	19285	67144	45563	168287
09JUN	SE	128	0	0	64	988	845	261	5904	504	7315	2820	28088	34618	45669
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	1253	730	1240	1983	2797	3745	33346	5672	50766
17JUN	SE	0	0	0	0	0	787	406	816	480	1381	1435	22745	2497	23005
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	148	105	565	364	783	9007	2628	1013	14611
23JUN	SE	0	0	0	0	0	123	60	504	218	783	4823	979	615	5053
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	109	0	0	0	49	120	502	0	780
30JUN	SE	0	0	0	0	0	109	0	0	0	49	120	362	0	399
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-29 REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.72	1.63	2.29	11.78	0.55	1.79	0.00	0.16	0.00	0.00	0.54	0.25	1.52
12MAY	SE	0.00	0.53	1.12	0.66	3.50	0.30	0.96	0.00	0.16	0.00	0.00	0.54	0.25	3.95
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.31	15.75	26.44	40.11	29.77	183.60	210.47	190.89	8.92	0.00	0.00	54.33
19MAY	SE	0.00	0.00	0.31	3.86	4.81	3.79	5.14	84.46	56.78	21.30	5.10	0.00	0.00	104.48
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	8.66	74.72	346.61	1037.41	594.37	782.94	997.47	1447.96	692.70	18.57	4.04	3.42	0.66	462.27
26MAY	SE	3.27	21.20	90.59	162.63	196.54	145.36	327.96	651.03	341.09	13.78	2.03	2.12	0.66	861.87
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.15	32.01	510.52	304.14	277.57	406.96	1129.03	714.19	1293.66	1003.63	65.01	0.00	441.30
02JUN	SE	0.00	0.15	19.83	75.41	61.46	122.79	82.00	254.72	136.60	454.75	222.88	62.69	0.00	612.87
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-29 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.51	4.33	20.14	304.14	289.74	415.81	1284.34	783.48	3247.42	1469.78	344.14	18.49	629.41
09JUN	SE	0.00	0.51	1.61	5.60	77.22	50.50	41.75	313.28	307.29	1042.86	592.35	230.96	18.49	1301.91
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	2.81	18.87	45.06	120.13	256.64	630.03	1016.81	1706.50	1274.69	864.68	3.62	456.91
17JUN	SE	0.00	0.00	2.34	6.33	26.42	37.14	63.22	81.63	149.49	615.77	176.32	324.29	1.38	741.99
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	2.09	22.68	66.57	11.71	140.97	98.00	126.82	334.97	409.42	1726.88	218.88	243.00
23JUN	SE	0.00	0.00	1.79	9.89	11.81	4.22	59.79	27.97	38.77	85.62	78.87	1063.44	110.44	1078.32
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.57	0.00	0.00	6.85	17.01	32.61	75.75	164.24	134.21	111.20	5.20	0.00	42.13
30JUN	SE	0.00	0.57	0.00	0.00	4.48	6.19	8.68	5.98	44.12	27.39	25.17	4.30	0.00	59.32
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.23	9.39	7.57	30.55	4.03	NS	NS	NS	NS	NS	6.47
13JUL	SE	0.00	0.00	0.00	0.23	1.84	2.79	19.43	1.44						19.77
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.78	0.47	2.89	3.62	NS	NS	NS	NS	NS	0.97
27JUL	SE	0.00	0.00	0.00	0.00	0.62	0.19	1.32	1.73						2.27
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-30 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	164	523	338	2455	113	250	0	27	0	0	87	18	3976
12MAY	SE	0	122	359	97	730	63	134	0	27	0	0	87	18	847
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	99	2327	5507	8321	4162	54738	34830	27006	1572	0	0	138561
19MAY	SE	0	0	99	570	1001	786	719	25179	9397	3013	898	0	0	27105
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	1809	17143	111544	153264	123828	162426	139437	431685	114631	2626	712	549	47	1259702
26MAY	SE	684	4863	29154	24027	40947	30157	45846	194095	56445	1949	358	341	47	216800
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	34	10301	75423	63364	57584	56890	336600	118188	183014	176936	10449	0	1088782
02JUN	SE	0	34	6382	11141	12804	25474	11463	75942	22605	64334	39292	10076	0	114767
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-30 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	116	1392	2976	63363	60109	58127	382903	129654	459412	259117	55314	1316	1473799
09JUN	SE	0	116	518	827	16087	10477	5836	93399	50851	147533	104428	37123	1316	213925
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	906	2788	9388	24922	35876	187834	168267	241419	224722	138982	257	1035361
17JUN	SE	0	0	754	935	5504	7706	8837	24337	24738	87113	31084	52124	98	112451
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	673	3350	13868	2429	19706	29217	20986	47388	72178	277565	15573	502933
23JUN	SE	0	0	577	1462	2460	876	8358	8339	6415	12112	13904	170929	7858	172651
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	131	0	0	1427	3528	4559	22583	27179	18986	19604	835	0	98833
30JUN	SE	0	131	0	0	933	1285	1214	1783	7301	3874	4438	691	0	9782
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	34	1956	1571	4271	1201	NS	NS	NS	NS	NS	9034
13JUL	SE	0	0	0	34	384	579	2716	430						2836
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	162	97	403	1079	NS	NS	NS	NS	NS	1742
27JUL	SE	0	0	0	0	129	39	185	516						565
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-31 REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-31 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	NS	NS	NS	NS	NS	0.05
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00						0.37
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	1.36	1.78	NS	NS	NS	NS	NS	0.39
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	1.22	1.33						1.80
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.64	NS	NS	NS	NS	NS	1.45
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.40						9.40
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.11	2.59	NS	NS	NS	NS	NS	0.34
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.91						0.92
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	3.53	3.85	0.52	2.61	3.32	3.54	NS	NS	NS	NS	NS	2.17
08SEP	SE	0.00	0.00	0.78	1.27	0.29	0.84	1.53	2.74						3.58
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	1.15	0.83	0.80	0.24	0.97	3.03	NS	NS	NS	NS	NS	0.88
21SEP	SE	0.00	0.00	1.15	0.83	0.48	0.14	0.53	1.94						2.51
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	1.86	1.51	0.04	0.00	0.38	0.90	NS	NS	NS	NS	NS	0.59
05OCT	SE	0.00	0.00	1.32	0.70	0.04	0.00	0.34	0.53						1.62
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-32 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-32 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	59	0	NS	NS	NS	NS	NS	59
13JUL	SE	0	0	0	0	0	0	52	0						52
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	190	531	NS	NS	NS	NS	NS	721
27JUL	SE	0	0	0	0	0	0	170	397						432
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	3470	NS	NS	NS	NS	NS	3470
10AUG	SE	0	0	0	0	0	0	0	2803						2803
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	15	773	NS	NS	NS	NS	NS	788
24AUG	SE	0	0	0	0	0	0	15	271						272
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	1136	569	109	542	464	1055	NS	NS	NS	NS	NS	3874
08SEP	SE	0	0	250	188	60	173	213	816						918
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	372	122	166	49	136	904	NS	NS	NS	NS	NS	1749
21SEP	SE	0	0	372	122	101	28	74	579						710
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	599	223	9	0	54	270	NS	NS	NS	NS	NS	1154
05OCT	SE	0	0	424	103	9	0	47	159						467
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-33 REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.89	0.65	0.00	0.00	0.00	0.12
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.48	0.65	0.00	0.00	0.00	0.81
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	4.12	0.75	0.78	1.01	0.60	0.00	0.00	0.11	0.57
21JUL	SE	0.00	0.00	0.00	0.00	0.00	2.51	0.42	0.42	0.60	0.43	0.00	0.00	0.11	2.69
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.03	1.84	3.22	0.07	0.21	0.00	0.00	0.41
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.63	0.85	0.07	0.14	0.00	0.00	1.07
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.06	0.47	0.17	1.74	1.47	0.07	0.00	0.00	0.00	0.31
18AUG	SE	0.00	0.00	0.00	0.00	0.06	0.42	0.11	0.82	0.91	0.07	0.00	0.00	0.00	1.30
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.32	1.07	1.30	2.31	4.42	2.25	NS	NS	NS	NS	NS	1.46
01SEP	SE	0.00	0.00	0.18	0.41	0.63	0.59	1.18	0.72						1.70
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.36	0.19	0.31	1.04	0.47	0.15	3.73	0.23	0.83	0.00	0.00	0.00	0.56
15SEP	SE	0.00	0.34	0.09	0.22	0.62	0.21	0.06	1.17	0.15	0.70	0.00	0.00	0.00	1.58
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.42	0.09	0.79	0.74	0.27	0.69	2.75	0.13	0.00	0.45
29SEP	SE	0.00	0.00	0.00	0.00	0.30	0.03	0.63	0.24	0.10	0.26	2.68	0.13	0.00	2.80
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.03	0.00	1.09	0.07	1.07	1.02	0.11	0.64	1.96	0.00	0.00	0.46
13OCT	SE	0.00	0.00	0.03	0.00	0.68	0.03	0.71	0.34	0.05	0.41	1.96	0.00	0.00	2.26
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.02	0.02	0.06	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01
27OCT	SE	0.00	0.02	0.02	0.04	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.06
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
11NOV	SE	0.00	0.00	0.00	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.09	0.53	0.56	0.69	0.12	0.02	1.20	0.46	0.10	0.05	0.00	0.00	0.00	0.29
02DEC	SE	0.05	0.19	0.15	0.29	0.06	0.01	0.21	0.16	0.10	0.05	0.00	0.00	0.00	0.48
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-34 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	6	0	147	92	0	0	0	245
09JUL	SE	0	0	0	0	0	0	5	0	79	92	0	0	0	121
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	855	104	232	167	85	0	0	8	1453
21JUL	SE	0	0	0	0	0	521	59	125	100	61	0	0	8	552
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	5	550	532	9	38	0	0	1134
04AUG	SE	0	0	0	0	0	0	5	189	141	9	24	0	0	237
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	12	98	24	519	243	11	0	0	0	906
18AUG	SE	0	0	0	0	12	88	16	243	150	11	0	0	0	300
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	102	158	271	480	618	671	NS	NS	NS	NS	NS	2300
01SEP	SE	0	0	59	60	132	123	166	214						336
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	84	60	45	218	97	21	1112	38	117	0	0	0	1792
15SEP	SE	0	77	30	33	130	43	8	348	25	99	0	0	0	398
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	88	20	111	219	44	97	485	21	0	1086
29SEP	SE	0	0	0	0	63	7	88	71	16	37	473	21	0	493
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	9	0	228	15	149	304	19	91	346	0	0	1161
13OCT	SE	0	0	9	0	141	7	99	102	8	59	346	0	0	404
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	5	7	10	0	0	5	0	0	0	0	0	0	26
27OCT	SE	0	5	7	6	0	0	5	0	0	0	0	0	0	12
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	9	2	0	0	0	0	0	0	0	0	11
11NOV	SE	0	0	0	9	2	0	0	0	0	0	0	0	0	10
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	19	122	179	103	25	4	168	137	16	7	0	0	0	780
02DEC	SE	11	43	50	43	12	3	30	47	16	7	0	0	0	99
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-35 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF WHITE PERCH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.14	1.67	0.00	0.67	0.00	0.13	0.63	0.87	0.89	0.25	0.44
30JUN	SE	0.00	0.00	0.14	1.67	0.00	0.67	0.00	0.13	0.42	0.27	0.43	0.18	1.93
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	1.71	4.00	0.00	0.00	0.25	0.38	4.38	0.73	0.63	0.58	1.06
14JUL	SE	0.00	0.00	1.13	4.00	0.00	0.00	0.25	0.18	3.06	0.42	0.63	0.42	5.24
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.25	0.64	3.60	0.00	2.00	4.60	1.20	6.00	17.89	11.60	0.00	3.98
28JUL	SE	0.00	0.15	0.57	3.60	0.00	0.93	2.60	0.58	3.02	8.76	6.16	0.00	12.04
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	1.46	0.93	0.00	1.20	5.17	0.00	2.80	0.40	21.00	8.90	0.00	3.49
11AUG	SE	0.00	0.64	0.51	0.00	0.97	2.07	0.00	1.59	0.24	8.98	5.72	0.00	11.04
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	2.21	0.93	3.60	0.60	1.50	3.80	6.20	0.00	31.33	18.30	0.29	5.73
25AUG	SE	0.00	0.99	0.85	2.87	0.60	1.12	2.85	2.08	0.00	14.04	8.68	0.29	17.22
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	2.20	1.63	2.93	2.80	4.00	1.67	0.20	0.00	2.00	7.33	4.60	1.14	2.54
09SEP	SE	0.97	0.53	0.77	1.36	1.67	0.61	0.20	0.00	1.76	2.40	2.82	0.46	4.89
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	1.60	0.50	1.07	3.20	1.00	1.33	0.40	0.20	1.00	0.33	0.40	0.00	0.92
22SEP	SE	0.87	0.19	0.77	1.07	0.77	0.49	0.24	0.20	1.00	0.24	0.31	0.00	2.15
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	11.20	3.13	2.86	2.60	2.00	1.67	0.80	1.00	12.40	2.44	1.50	1.14	3.56
06OCT	SE	6.48	1.15	1.06	1.03	0.84	0.67	0.37	0.63	7.00	1.03	0.78	0.63	9.91
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	3.00	1.71	1.36	4.00	1.40	2.00	1.00	1.80	1.20	0.33	0.60	0.43	1.57
20OCT	SE	2.00	0.48	0.67	1.41	0.75	1.61	0.45	0.97	0.58	0.17	0.27	0.30	3.39
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-36 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	1	1
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	1	1
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	4	15	0	7	0	< 0.5	5	15	18	3	68
30JUN	SE	0	0	4	15	0	7	0	< 0.5	4	5	8	2	20
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	46	37	0	0	2	< 0.5	38	13	12	8	156
14JUL	SE	0	0	30	37	0	0	2	< 0.5	26	7	12	6	57
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	11	17	33	0	21	33	1	52	314	228	0	711
28JUL	SE	0	7	15	33	0	10	18	1	26	154	121	0	202
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	66	25	0	3	55	0	3	3	369	175	0	700
11AUG	SE	0	29	14	0	3	22	0	2	2	158	113	0	198
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	100	25	33	2	16	27	8	0	550	360	4	1125
25AUG	SE	0	45	23	26	2	12	20	3	0	247	171	4	306
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	17	74	79	26	11	18	1	0	17	129	91	16	477
09SEP	SE	7	24	21	13	4	7	1	0	15	42	56	6	80
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	12	23	29	29	3	14	3	< 0.5	9	6	8	0	135
22SEP	SE	7	9	21	10	2	5	2	< 0.5	9	4	6	0	28
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	84	142	77	24	5	18	6	1	107	43	30	16	552
06OCT	SE	49	52	29	9	2	7	3	1	60	18	15	9	102
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	23	78	36	37	4	21	7	2	10	6	12	6	242
20OCT	SE	15	22	18	13	2	17	3	1	5	3	5	4	40
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-37 REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	9.39	18.96	2.42	0.15	0.00	0.00	NS	NS	NS	NS	NS	NS	4.42
23MAR	SE	0.00	2.84	9.71	1.74	0.10	0.00	0.00							10.27
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	2.45	9.07	2.97	75.96	2.52	0.00	NS	NS	NS	NS	NS	NS	13.28
30MAR	SE	0.00	1.16	1.05	1.80	36.50	1.24	0.00							36.60
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.21	0.21	2.95	6.61	18.87	20.56	0.28	0.59	0.00	0.00	0.00	0.00	3.87
08APR	SE	0.00	0.21	0.21	1.00	3.13	8.80	8.95	0.28	0.59	0.00	0.00	0.00	0.00	12.99
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.25	0.17	0.00	2.82	2.39	0.00	8.53	0.53	1.59	2.48	0.00	0.00	1.44
15APR	SE	0.00	0.25	0.17	0.00	1.33	1.45	0.00	7.46	0.26	0.94	0.95	0.00	0.00	7.83
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.26	0.00	0.00	1.03	0.00	1.99	2.17	4.04	1.36	8.18	10.40	1.79	1.74	2.54
22APR	SE	0.26	0.00	0.00	0.62	0.00	1.09	2.17	2.09	1.36	0.89	4.63	1.79	1.74	6.41
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.35	1.32	0.87	1.04	1.13	0.51	3.83	0.00	1.01	0.66	2.64	1.03
28APR	SE	0.00	0.00	0.25	0.23	0.87	0.74	1.13	0.51	2.93	0.00	1.01	0.66	2.05	4.15
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.24	0.70	1.28	0.19	0.00	0.68	0.18	1.87	2.78	0.00	0.00	0.00	0.61
05MAY	SE	0.00	0.24	0.28	0.56	0.19	0.00	0.64	0.18	0.64	1.01	0.00	0.00	0.00	1.53
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	1.88	3.42	0.00	0.00	0.00	0.00	2.77	0.81	0.00	0.00	0.68
12MAY	SE	0.00	0.00	0.00	0.83	1.85	0.00	0.00	0.00	0.00	2.77	0.81	0.00	0.00	3.52
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.45	2.31	0.49	0.50	0.26	2.33	0.90	0.69	0.00	0.00	0.00	0.61
19MAY	SE	0.00	0.00	0.29	0.84	0.43	0.21	0.26	0.82	0.65	0.69	0.00	0.00	0.00	1.64
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.21	0.33	0.00	0.00	0.00	0.06
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.21	0.33	0.00	0.00	0.00	0.46
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.94	0.00	0.58	0.00	0.85	0.16	0.40	1.52	1.26	0.59	0.00	0.48
02JUN	SE	0.00	0.00	0.56	0.00	0.43	0.00	0.47	0.16	0.23	0.75	0.56	0.59	0.00	1.42
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-37 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.67	0.52	0.20	0.00	0.00	0.23	0.00	0.33	0.34	0.00	0.00	0.18
09JUN	SE	0.00	0.00	0.42	0.52	0.16	0.00	0.00	0.23	0.00	0.33	0.34	0.00	0.00	0.87
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.59	0.74	1.02	0.47	0.00	0.00	1.27	0.95	0.00	0.00	0.39
17JUN	SE	0.00	0.00	0.00	0.30	0.33	0.63	0.38	0.00	0.00	0.95	0.95	0.00	0.00	1.59
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.27	2.23	2.40	0.00	0.39	0.86	0.47	5.83	0.33	0.00	0.00	0.98
23JUN	SE	0.00	0.00	0.27	2.23	1.53	0.00	0.22	0.61	0.31	2.23	0.33	0.00	0.00	3.61
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	1.07	0.23	1.92	0.00	0.61	2.38	1.42	1.02	0.00	0.67
30JUN	SE	0.00	0.00	0.00	0.00	0.55	0.23	0.92	0.00	0.45	1.46	1.12	1.02	0.00	2.41
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	1.02	0.00	0.00	0.05	0.00	NS	NS	NS	NS	NS	0.13
13JUL	SE	0.00	0.00	0.00	1.02	0.00	0.00	0.05	0.00						1.02
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.56	0.00	0.00	0.12	0.98	0.00	NS	NS	NS	NS	NS	0.21
27JUL	SE	0.00	0.00	0.56	0.00	0.00	0.12	0.53	0.00						0.78
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.70	0.00	0.57	0.52	NS	NS	NS	NS	NS	0.22
10AUG	SE	0.00	0.00	0.00	0.00	0.70	0.00	0.57	0.52						1.04
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.47	0.00	0.30	0.55	NS	NS	NS	NS	NS	0.17
24AUG	SE	0.00	0.00	0.00	0.00	0.47	0.00	0.30	0.55						0.79
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	1.11	0.91	0.59	0.00	0.00	2.28	NS	NS	NS	NS	NS	0.61
08SEP	SE	0.00	0.00	0.49	0.53	0.48	0.00	0.00	1.14						1.44
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	2.44	0.00	0.65	1.34	0.65	4.66	NS	NS	NS	NS	NS	1.22
21SEP	SE	0.00	0.00	1.28	0.00	0.35	1.34	0.61	2.57						3.25
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	1.20	1.73	1.23	0.34	0.00	0.75	0.00	NS	NS	NS	NS	NS	0.65
05OCT	SE	0.00	0.77	1.00	0.66	0.24	0.00	0.75	0.00						1.63
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-38 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	2154	6100	358	32	0	0	NS	NS	NS	NS	NS	NS	8645
23MAR	SE	0	651	3125	257	21	0	0							3202
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	561	2920	439	15826	523	0	NS	NS	NS	NS	NS	NS	20270
30MAR	SE	0	265	337	266	7604	258	0							7625
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	49	69	436	1376	3914	2874	84	97	0	0	0	0	8899
08APR	SE	0	49	69	147	652	1825	1251	84	97	0	0	0	0	2317
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	58	53	0	588	496	0	2542	87	225	436	0	0	4484
15APR	SE	0	58	53	0	276	302	0	2223	44	133	167	0	0	2272
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	55	0	0	152	0	413	303	1203	225	1157	1833	288	124	5753
22APR	SE	55	0	0	92	0	226	303	624	225	126	817	288	124	1172
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	114	195	180	216	158	153	633	0	178	106	188	2120
28APR	SE	0	0	81	34	180	154	158	153	484	0	178	106	146	641
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	55	226	189	40	0	95	52	309	394	0	0	0	1361
05MAY	SE	0	55	90	83	40	0	89	52	106	143	0	0	0	249
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	278	712	0	0	0	0	391	144	0	0	1525
12MAY	SE	0	0	0	123	384	0	0	0	0	391	144	0	0	580
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	145	341	101	103	36	694	149	98	0	0	0	1666
19MAY	SE	0	0	92	124	90	43	36	246	108	98	0	0	0	342
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	34	0	34	46	0	0	0	114
26MAY	SE	0	0	0	0	0	0	34	0	34	46	0	0	0	67
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	303	0	120	0	118	47	67	215	222	95	0	1188
02JUN	SE	0	0	180	0	89	0	65	47	39	106	99	95	0	279
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-38 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	216	77	41	0	0	69	0	47	60	0	0	511
09JUN	SE	0	0	136	77	33	0	0	69	0	47	60	0	0	190
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	87	155	212	66	0	0	179	167	0	0	866
17JUN	SE	0	0	0	44	69	130	54	0	0	134	167	0	0	269
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	87	329	499	0	54	257	78	825	59	0	0	2188
23JUN	SE	0	0	87	329	320	0	31	181	52	316	59	0	0	598
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	223	49	269	0	101	337	250	164	0	1393
30JUN	SE	0	0	0	0	114	49	129	0	75	206	197	164	0	381
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	150	0	0	8	0	NS	NS	NS	NS	NS	158
13JUL	SE	0	0	0	150	0	0	8	0						150
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	179	0	0	24	137	0	NS	NS	NS	NS	NS	340
27JUL	SE	0	0	179	0	0	24	74	0						195
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	146	0	79	155	NS	NS	NS	NS	NS	380
10AUG	SE	0	0	0	0	146	0	79	155						227
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	98	0	42	165	NS	NS	NS	NS	NS	306
24AUG	SE	0	0	0	0	98	0	42	165						197
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	356	134	124	0	0	680	NS	NS	NS	NS	NS	1293
08SEP	SE	0	0	159	78	100	0	0	341						397
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	785	0	135	277	91	1389	NS	NS	NS	NS	NS	2677
21SEP	SE	0	0	412	0	73	277	85	768						921
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	274	555	181	70	0	105	0	NS	NS	NS	NS	NS	1187
05OCT	SE	0	177	321	97	50	0	105	0						397
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-39 REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.23	0.28	0.01	0.22	0.07	0.06	0.06	0.15	0.08	0.00	0.62	0.14
09JUL	SE	0.00	0.00	0.08	0.16	0.01	0.21	0.04	0.03	0.04	0.15	0.08	0.00	0.21	0.39
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.44	0.34	0.00	0.14	0.33	0.09	0.08	0.60	0.00	0.53	0.20
21JUL	SE	0.00	0.00	0.00	0.20	0.11	0.00	0.07	0.22	0.06	0.08	0.51	0.00	0.31	0.69
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.21	0.24	0.02	0.08	0.23	0.28	0.25	0.14	0.00	0.00	0.21	0.13
04AUG	SE	0.00	0.00	0.13	0.09	0.02	0.04	0.09	0.11	0.06	0.14	0.00	0.00	0.21	0.34
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.09	0.08	0.25	0.02	0.91	0.08	0.39	0.07	0.00	0.25	0.00	0.16
18AUG	SE	0.00	0.00	0.06	0.08	0.08	0.02	0.58	0.05	0.12	0.07	0.00	0.25	0.00	0.66
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.03	0.59	0.23	1.35	0.63	1.19	NS	NS	NS	NS	NS	0.50
01SEP	SE	0.00	0.00	0.03	0.25	0.19	0.45	0.34	0.45						0.79
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	1.04	0.58	0.21	0.28	0.13	0.15	0.29	1.61	0.31	0.07	5.67	0.00	0.00	0.80
15SEP	SE	0.50	0.32	0.11	0.25	0.08	0.04	0.11	0.52	0.20	0.07	5.38	0.00	0.00	5.45
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.49	0.15	0.18	0.26	0.60	0.88	0.83	1.75	0.97	0.00	0.10	0.48
29SEP	SE	0.00	0.00	0.29	0.12	0.06	0.22	0.35	0.45	0.76	1.07	0.90	0.00	0.10	1.73
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.13	1.04	0.23	0.06	0.40	0.37	0.12	0.23	1.77	1.04	0.00	0.00	0.41
13OCT	SE	0.00	0.07	0.99	0.23	0.04	0.40	0.35	0.04	0.09	1.10	0.86	0.00	0.00	1.81
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.07	0.00	0.09	0.06	0.01	0.02	0.17	0.09	0.46	0.26	0.25	0.04	0.00	0.12
27OCT	SE	0.07	0.00	0.07	0.06	0.01	0.01	0.08	0.04	0.33	0.22	0.11	0.04	0.00	0.44
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.84	0.32	0.66	0.17	0.02	0.30	0.22	0.40	0.29	0.35	0.00	0.00	0.27
11NOV	SE	0.00	0.51	0.23	0.34	0.13	0.02	0.12	0.12	0.15	0.15	0.14	0.00	0.00	0.74
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.92	4.11	2.29	2.05	1.01	0.05	2.45	0.83	2.02	3.32	0.74	0.20	0.12	1.55
02DEC	SE	0.30	0.73	0.84	0.88	0.35	0.04	0.39	0.12	0.31	0.60	0.12	0.11	0.12	1.70
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-40 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	75	41	3	46	10	18	10	21	13	0	44	282
09JUL	SE	0	0	26	23	3	44	5	8	7	21	13	0	15	64
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	65	71	0	19	99	15	12	105	0	37	423
21JUL	SE	0	0	0	30	23	0	9	65	11	12	90	0	22	120
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	69	36	3	16	32	82	41	20	0	0	15	314
04AUG	SE	0	0	43	14	3	8	13	31	11	20	0	0	15	64
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	27	11	52	4	128	23	65	10	0	41	0	361
18AUG	SE	0	0	20	11	17	4	81	16	19	10	0	41	0	99
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	9	87	47	280	88	356	NS	NS	NS	NS	NS	868
01SEP	SE	0	0	9	36	41	94	48	133						178
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	218	132	67	42	26	32	41	480	52	10	1000	0	0	2101
15SEP	SE	105	73	35	38	16	7	15	154	33	10	949	0	0	972
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	157	23	37	54	84	263	137	248	171	0	7	1183
29SEP	SE	0	0	95	17	12	45	48	133	125	151	158	0	7	308
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	30	335	34	12	82	52	35	38	250	183	0	0	1051
13OCT	SE	0	16	319	34	8	82	48	11	15	156	151	0	0	400
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	14	0	29	8	3	5	23	27	76	36	44	6	0	271
27OCT	SE	14	0	22	8	3	3	11	12	54	31	20	6	0	73
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	192	103	97	35	5	42	67	66	40	62	0	0	709
11NOV	SE	0	117	75	51	26	3	17	35	24	22	24	0	0	161
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	192	944	737	303	211	11	343	247	335	469	131	33	9	3964
02DEC	SE	62	168	269	130	73	8	54	36	51	85	21	18	9	376
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-41 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF WHITE PERCH YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.82	0.43	5.00	14.00	2.33	0.50	0.88	4.13	5.13	3.84	3.25	3.36
16JUN	SE	0.00	0.55	0.30	5.00	6.08	1.45	0.33	0.88	2.82	1.70	2.01	2.29	9.25
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	8.18	9.71	14.33	0.33	1.00	1.38	1.75	3.00	14.20	5.11	4.17	5.26
30JUN	SE	0.00	5.44	5.89	8.09	0.33	1.00	0.60	0.98	1.57	2.94	1.60	1.66	12.19
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.73	3.43	4.33	2.67	2.67	1.38	1.13	4.38	5.20	2.00	3.50	2.62
14JUL	SE	0.00	0.45	2.09	3.38	2.19	0.33	0.82	0.64	2.56	1.49	0.77	1.14	5.72
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.40	2.08	4.21	1.40	1.40	3.67	0.80	0.40	1.00	5.22	9.20	2.14	2.66
28JUL	SE	0.24	0.60	2.52	0.60	0.87	2.79	0.80	0.40	0.77	1.09	6.12	1.08	7.54
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	1.25	2.93	0.80	0.00	1.83	0.00	0.40	0.60	6.89	0.70	0.57	1.33
11AUG	SE	0.00	0.32	1.07	0.58	0.00	1.33	0.00	0.40	0.60	3.65	0.40	0.57	4.21
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.08	0.93	0.20	0.20	1.50	0.60	0.00	0.40	3.33	0.90	0.29	0.70
25AUG	SE	0.00	0.06	0.59	0.20	0.20	0.96	0.60	0.00	0.40	2.26	0.60	0.29	2.72
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	1.60	1.04	1.36	0.00	1.00	1.33	0.00	0.00	6.60	9.44	5.90	25.00	4.44
09SEP	SE	0.81	0.49	0.57	0.00	1.00	0.80	0.00	0.00	6.60	4.12	3.07	17.22	19.21
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.60	0.17	0.07	1.00	0.60	1.67	0.40	1.00	0.40	1.67	0.30	0.00	0.66
22SEP	SE	0.60	0.13	0.07	0.55	0.40	0.84	0.24	0.55	0.24	0.67	0.15	0.00	1.56
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.40	0.54	0.36	0.20	0.40	0.50	0.40	0.60	0.40	1.56	1.60	0.00	0.58
06OCT	SE	0.40	0.17	0.13	0.20	0.24	0.34	0.24	0.40	0.40	0.53	0.67	0.00	1.24
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.75	0.36	1.40	0.20	1.17	0.80	1.00	1.40	1.44	1.80	2.43	1.06
20OCT	SE	0.00	0.19	0.17	0.24	0.20	0.98	0.49	0.00	0.60	0.87	0.85	1.74	2.50
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-42 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	37	12	46	37	25	4	1	36	90	76	44	407
16JUN	SE	0	25	8	46	16	15	2	1	24	30	39	31	86
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	372	261	132	1	11	10	2	26	249	100	57	1221
30JUN	SE	0	247	158	75	1	11	4	1	14	52	31	22	310
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	33	92	40	7	28	10	1	38	91	39	48	428
14JUL	SE	0	20	56	31	6	4	6	1	22	26	15	16	79
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	3	95	113	13	4	39	6	< 0.5	9	92	181	29	583
28JUL	SE	2	27	68	6	2	30	6	< 0.5	7	19	120	15	146
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	57	79	7	0	20	0	< 0.5	5	121	14	8	311
11AUG	SE	0	15	29	5	0	14	0	< 0.5	5	64	8	8	74
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	4	25	2	1	16	4	0	3	59	18	4	135
25AUG	SE	0	3	16	2	1	10	4	0	3	40	12	4	46
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	12	47	36	0	3	14	0	0	57	166	116	340	791
09SEP	SE	6	22	15	0	3	9	0	0	57	72	60	234	260
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	5	8	2	9	2	18	3	1	3	29	6	0	85
22SEP	SE	5	6	2	5	1	9	2	1	2	12	3	0	18
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	3	25	10	2	1	5	3	1	3	27	31	0	111
06OCT	SE	3	8	4	2	1	4	2	< 0.5	3	9	13	0	19
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	34	10	13	1	12	6	1	12	25	35	33	182
20OCT	SE	0	9	5	2	1	10	3	0	5	15	17	24	36
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-43 REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	3.11	14.79	13.57	1.73	0.10	0.10	0.88	NS	NS	NS	NS	NS	NS	4.90
23MAR	SE	0.82	2.63	6.89	0.42	0.06	0.10	0.67							7.47
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	6.53	10.54	1.32	29.12	2.12	0.53	NS	NS	NS	NS	NS	NS	7.16
30MAR	SE	0.00	3.38	1.19	0.71	12.03	1.15	0.53							12.64
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.51	5.09	17.51	12.83	3.30	6.37	0.88	3.00	0.00	1.09	1.18	10.41	4.78
08APR	SE	0.00	0.51	2.13	6.84	6.40	1.73	2.91	0.52	2.12	0.00	1.09	1.18	1.10	10.61
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	1.90	1.51	8.57	0.30	0.39	0.00	0.56	0.78	2.68	5.00	0.00	0.00	1.67
15APR	SE	0.00	1.90	0.60	4.79	0.17	0.39	0.00	0.28	0.45	2.27	2.84	0.00	0.00	6.37
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.26	0.96	3.52	1.83	0.00	1.27	1.45	0.29	0.00	1.67	2.77	0.00	0.00	1.08
22APR	SE	0.26	0.96	1.57	1.06	0.00	0.82	1.45	0.29	0.00	1.67	1.25	0.00	0.00	3.43
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.51	1.26	0.00	0.21	0.00	0.00	0.58	0.00	0.00	0.00	0.45	0.23
28APR	SE	0.00	0.00	0.51	0.76	0.00	0.21	0.00	0.00	0.36	0.00	0.00	0.00	0.45	1.10
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.91	1.26	1.51	1.02	0.93	0.35	3.31	9.65	0.00	0.00	0.00	1.46
05MAY	SE	0.00	0.00	0.56	0.55	0.73	1.02	0.60	0.21	1.56	1.06	0.00	0.00	0.00	2.48
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.49	0.54	0.71	0.53	0.20	3.20	0.00	0.16	8.85	3.66	0.00	0.00	1.41
12MAY	SE	0.00	0.49	0.35	0.36	0.53	0.20	1.06	0.00	0.16	4.59	3.66	0.00	0.00	6.04
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.24	0.00	0.20	0.35	0.00	0.00	0.30	3.59	2.13	4.57	0.27	0.00	0.00	0.90
19MAY	SE	0.24	0.00	0.20	0.35	0.00	0.00	0.26	1.12	0.94	2.90	0.27	0.00	0.00	3.31
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.43	0.00	0.11	1.71	2.21	0.63	2.62	0.53	0.57	0.00	0.68
26MAY	SE	0.00	0.00	0.00	0.43	0.00	0.11	0.85	2.07	0.63	2.62	0.32	0.57	0.00	3.59
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.67	0.64	0.55	0.00	1.20	0.00	1.00	6.36	0.72	4.77	1.99	1.38
02JUN	SE	0.00	0.00	0.34	0.35	0.39	0.00	0.52	0.00	0.21	1.87	0.72	2.38	1.17	3.43
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-43 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	2.36	0.50	0.00	0.97	0.00	3.69	2.71	3.75	1.13	0.00	1.16
09JUN	SE	0.00	0.00	0.00	1.96	0.45	0.00	0.49	0.00	2.15	0.96	1.95	0.80	0.00	3.78
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.55	5.88	0.42	0.00	0.05	0.21	0.74	0.53	0.59	0.60	0.00	0.74
17JUN	SE	0.00	0.00	0.41	1.82	0.25	0.00	0.05	0.21	0.34	0.53	0.34	0.60	0.00	2.11
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.13	0.00	0.35	0.00	0.33	1.31	1.44	3.79	0.33	0.60	1.43	0.75
23JUN	SE	0.00	0.00	0.13	0.00	0.35	0.00	0.33	0.76	1.00	1.47	0.33	0.60	1.43	2.55
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.24	0.12	1.89	0.00	1.07	5.07	1.38	0.51	0.00	0.79
30JUN	SE	0.00	0.00	0.00	0.00	0.24	0.12	1.02	0.00	0.66	4.42	0.96	0.51	0.00	4.72
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.51	0.97	0.00	0.00	0.11	1.88	NS	NS	NS	NS	NS	0.43
13JUL	SE	0.00	0.00	0.51	0.80	0.00	0.00	0.11	0.94						1.34
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	1.67	0.00	0.00	0.00	1.85	3.54	NS	NS	NS	NS	NS	0.88
27JUL	SE	0.00	0.00	1.67	0.00	0.00	0.00	1.26	1.34						2.48
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.28	0.87	0.10	0.27	NS	NS	NS	NS	NS	0.19
10AUG	SE	0.00	0.00	0.00	0.00	0.28	0.51	0.10	0.27						0.65
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.98	0.00	0.36	0.16	0.49	NS	NS	NS	NS	NS	0.25
24AUG	SE	0.00	0.00	0.00	0.98	0.00	0.36	0.16	0.49						1.16
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	2.84	3.44	14.77	0.00	0.62	3.87	0.29	NS	NS	NS	NS	NS	3.23
08SEP	SE	0.00	2.84	1.54	3.14	0.00	0.62	1.34	0.29						4.75
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	1.65	6.62	0.92	0.67	0.36	1.84	NS	NS	NS	NS	NS	1.51
21SEP	SE	0.00	0.00	1.18	4.76	0.37	0.67	0.31	1.84						5.30
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	3.66	0.00	5.10	0.67	0.00	1.72	2.70	NS	NS	NS	NS	NS	1.73
05OCT	SE	0.00	2.99	0.00	2.16	0.48	0.00	0.92	1.53						4.13
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-44 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	651	3394	4367	256	21	20	123	NS	NS	NS	NS	NS	NS	8834
23MAR	SE	171	604	2218	62	12	20	94							2308
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	1498	3391	195	6066	439	74	NS	NS	NS	NS	NS	NS	11662
30MAR	SE	0	775	382	106	2507	238	74							2665
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	117	1639	2587	2673	684	891	263	496	0	193	190	741	10474
08APR	SE	0	117	686	1011	1333	359	406	154	351	0	193	190	78	1951
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	435	486	1266	62	80	0	167	130	380	882	0	0	3887
15APR	SE	0	435	193	708	36	80	0	83	74	322	501	0	0	1050
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	55	220	1131	270	0	264	202	87	0	237	489	0	0	2955
22APR	SE	55	220	505	157	0	170	202	87	0	237	221	0	0	717
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	163	186	0	43	0	0	96	0	0	0	32	520
28APR	SE	0	0	163	113	0	43	0	0	59	0	0	0	32	214
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	292	186	315	211	130	103	548	1366	0	0	0	3151
05MAY	SE	0	0	179	81	152	211	84	63	258	150	0	0	0	455
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	112	172	106	110	41	447	0	26	1252	646	0	0	2912
12MAY	SE	0	112	111	53	110	41	148	0	26	650	646	0	0	951
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	50	0	65	51	0	0	42	1072	352	647	48	0	0	2328
19MAY	SE	50	0	65	51	0	0	36	335	156	411	48	0	0	564
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	64	0	22	239	658	104	371	93	91	0	1642
26MAY	SE	0	0	0	64	0	22	119	616	104	371	57	91	0	747
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	216	95	114	0	167	0	166	899	127	766	142	2693
02JUN	SE	0	0	110	51	81	0	72	0	34	264	127	383	83	517
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-44 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	349	103	0	136	0	611	383	660	182	0	2425
09JUN	SE	0	0	0	290	94	0	68	0	356	136	344	129	0	615
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	178	868	87	0	7	62	122	75	103	97	0	1600
17JUN	SE	0	0	133	268	52	0	7	62	56	75	60	97	0	343
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	43	0	72	0	47	391	239	536	59	96	102	1584
23JUN	SE	0	0	43	0	72	0	47	226	165	207	59	96	102	392
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	50	24	264	0	177	717	244	82	0	1559
30JUN	SE	0	0	0	0	50	24	142	0	109	625	170	82	0	679
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	164	144	0	0	15	561	NS	NS	NS	NS	NS	884
13JUL	SE	0	0	164	118	0	0	15	281						346
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	537	0	0	0	259	1056	NS	NS	NS	NS	NS	1852
27JUL	SE	0	0	537	0	0	0	177	399						692
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	59	180	15	79	NS	NS	NS	NS	NS	333
10AUG	SE	0	0	0	0	59	106	15	79						146
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	145	0	74	22	146	NS	NS	NS	NS	NS	387
24AUG	SE	0	0	0	145	0	74	22	146						219
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	653	1108	2183	0	129	541	86	NS	NS	NS	NS	NS	4700
08SEP	SE	0	653	496	464	0	129	187	86						972
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	530	978	192	138	50	549	NS	NS	NS	NS	NS	2437
21SEP	SE	0	0	379	703	78	138	43	549						983
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	840	0	754	140	0	240	804	NS	NS	NS	NS	NS	2778
05OCT	SE	0	687	0	318	100	0	129	457						899
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-45 REGIONAL DENSITY (NO./1,000m3) OF WHITE PERCH OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.05	0.16	1.59	0.19	0.03	0.72	1.30	1.42	2.42	1.55	0.64	2.27	0.95
09JUL	SE	0.00	0.04	0.05	0.69	0.07	0.02	0.30	0.36	0.55	1.04	0.90	0.26	0.70	1.86
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.05	2.40	2.62	1.31	0.12	0.78	1.95	1.20	2.45	2.46	0.59	3.84	1.52
21JUL	SE	0.00	0.03	1.10	1.01	0.35	0.03	0.17	0.70	0.44	0.82	1.59	0.39	1.14	2.78
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.13	0.03	0.10	0.55	1.62	1.81	0.82	1.48	2.98	1.58	3.77	1.14
04AUG	SE	0.00	0.00	0.09	0.03	0.07	0.20	0.45	0.72	0.41	0.60	1.97	0.60	0.53	2.41
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.03	0.06	0.06	0.46	0.98	0.28	1.04	1.01	2.41	1.43	0.69	6.74	1.17
18AUG	SE	0.00	0.03	0.04	0.06	0.15	0.64	0.14	0.19	0.22	0.43	0.43	0.51	4.16	4.30
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.39	0.32	0.72	1.44	1.05	0.41	1.68	2.36	NS	NS	NS	NS	NS	1.05
01SEP	SE	0.09	0.13	0.42	0.34	0.64	0.24	0.72	0.60						1.29
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	1.82	3.62	0.95	1.07	0.99	0.69	0.79	2.32	1.38	1.74	0.64	1.03	0.12	1.32
15SEP	SE	0.62	0.54	0.29	0.27	0.69	0.42	0.17	0.58	0.51	0.51	0.31	1.03	0.12	1.88
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.08	2.00	3.00	0.43	0.29	0.04	0.93	0.56	0.27	2.25	3.56	0.13	0.44	1.08
29SEP	SE	0.05	0.80	1.58	0.19	0.06	0.02	0.47	0.24	0.14	0.81	0.12	0.13	0.35	2.07
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.50	0.54	5.39	3.48	0.50	0.25	2.19	0.95	1.55	1.61	1.09	0.14	0.32	1.42
13OCT	SE	0.26	0.30	1.64	1.60	0.34	0.21	0.87	0.25	0.53	0.52	0.85	0.14	0.20	2.78
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.12	2.18	1.83	0.66	0.31	0.05	0.42	0.09	1.65	4.25	0.78	0.49	0.70	1.04
27OCT	SE	0.06	0.50	0.33	0.30	0.15	0.02	0.12	0.03	0.49	1.22	0.20	0.21	0.18	1.53
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.13	1.75	0.70	0.53	0.11	0.01	0.10	0.19	0.44	1.82	0.25	0.00	0.00	0.46
11NOV	SE	0.07	0.48	0.62	0.25	0.07	0.01	0.07	0.09	0.14	0.61	0.11	0.00	0.00	1.05
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.93	5.08	3.05	1.49	0.13	0.06	1.32	0.26	0.49	0.26	0.03	0.05	0.09	1.02
02DEC	SE	0.23	0.60	1.00	1.13	0.04	0.04	0.33	0.07	0.30	0.13	0.03	0.05	0.09	1.71
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-46 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	12	50	235	39	6	101	389	235	342	273	103	161	1946
09JUL	SE	0	8	17	102	15	4	43	109	91	147	159	42	50	290
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	13	771	387	273	26	109	581	199	346	434	94	273	3505
21JUL	SE	0	7	354	149	73	7	24	210	72	116	281	62	81	553
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	42	5	20	114	227	539	136	210	526	254	268	2341
04AUG	SE	0	0	28	5	14	42	63	214	68	84	346	96	38	442
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	6	18	8	97	204	39	309	167	341	253	110	480	2032
18AUG	SE	0	6	13	8	30	133	20	56	37	61	77	82	296	357
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	81	73	231	213	219	85	235	704	NS	NS	NS	NS	NS	1840
01SEP	SE	19	29	136	50	134	49	100	178						290
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	380	831	305	158	206	143	110	691	228	246	113	165	8	3584
15SEP	SE	130	124	92	40	144	87	23	173	84	72	55	165	8	379
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	17	460	964	64	61	8	131	166	44	318	627	21	32	2912
29SEP	SE	11	184	508	28	13	5	66	70	24	115	21	21	25	564
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	104	123	1734	514	104	51	306	282	257	228	193	23	23	3943
13OCT	SE	55	69	528	237	71	43	122	75	88	74	149	23	14	638
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	24	500	590	97	64	10	59	27	273	601	138	79	50	2513
27OCT	SE	13	115	106	45	32	5	16	9	82	173	35	34	13	259
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	26	401	225	79	22	1	13	55	73	258	45	0	0	1199
11NOV	SE	14	110	198	38	14	1	9	27	24	87	19	0	0	250
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	194	1165	980	221	28	13	185	78	82	36	5	7	6	3002
02DEC	SE	47	139	321	167	7	9	46	20	49	18	5	7	6	397
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-47 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF WHITE PERCH OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.33	0.33	1.67	0.50	0.25	0.63	1.80	0.47	4.75	0.89
16JUN	SE	0.00	0.00	0.00	0.33	0.33	1.67	0.27	0.16	0.38	0.83	0.37	2.92	3.55
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	1.67	6.45	0.43	1.33	0.67	0.33	0.38	0.50	0.25	1.67	0.74	1.58	1.33
30JUN	SE	1.20	4.67	0.20	1.33	0.67	0.33	0.26	0.27	0.25	0.57	0.44	0.84	5.21
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	1.33	4.00	1.14	0.00	0.33	0.67	0.50	0.00	1.50	0.67	0.74	1.58	1.04
14JUL	SE	0.33	1.61	0.77	0.00	0.33	0.67	0.27	0.00	1.36	0.30	0.35	0.63	2.53
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	2.80	1.71	1.07	0.40	0.00	0.50	0.00	0.00	1.00	0.22	0.10	3.57	0.95
28JUL	SE	1.16	0.68	0.47	0.24	0.00	0.34	0.00	0.00	1.00	0.15	0.10	3.57	4.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.40	0.88	1.07	0.20	0.40	0.17	0.00	0.00	0.80	0.11	0.70	0.29	0.42
11AUG	SE	0.24	0.31	0.41	0.20	0.24	0.17	0.00	0.00	0.49	0.11	0.52	0.29	1.03
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	1.80	3.25	2.21	0.20	1.40	0.67	0.00	0.00	0.20	2.22	1.10	0.14	1.10
25AUG	SE	1.20	1.46	0.74	0.20	0.68	0.67	0.00	0.00	0.20	0.85	0.71	0.14	2.52
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	2.20	0.71	1.00	0.60	18.00	11.33	0.60	1.80	4.60	8.00	3.50	31.14	6.96
09SEP	SE	1.20	0.29	0.71	0.40	8.15	5.18	0.60	0.20	2.20	4.76	3.50	15.10	19.07
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.40	0.21	0.00	0.20	0.20	0.50	0.40	0.20	0.00	1.00	0.30	0.00	0.28
22SEP	SE	0.40	0.12	0.00	0.20	0.20	0.34	0.24	0.20	0.00	0.44	0.30	0.00	0.87
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	3.80	0.83	0.64	1.00	0.00	1.17	0.20	0.80	0.40	1.67	2.20	0.00	1.06
06OCT	SE	2.35	0.26	0.37	0.45	0.00	0.65	0.20	0.37	0.40	0.44	1.01	0.00	2.82
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	1.00	0.63	0.14	1.40	0.20	0.67	0.00	0.20	0.00	0.33	1.20	0.86	0.55
20OCT	SE	0.45	0.38	0.14	0.93	0.20	0.49	0.00	0.20	0.00	0.17	0.55	0.59	1.49
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-48 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE PERCH OLDER-THAN-YEARLING IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	3	1	18	4	< 0.5	5	32	9	65	136
16JUN	SE	0	0	0	3	1	18	2	< 0.5	3	15	7	40	47
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	13	293	12	12	2	4	3	1	2	29	14	22	406
30JUN	SE	9	212	5	12	2	4	2	< 0.5	2	10	9	11	214
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	10	182	31	0	1	7	4	0	13	12	14	22	295
14JUL	SE	3	73	21	0	1	7	2	0	12	5	7	9	78
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	21	78	29	4	0	5	0	0	9	4	2	49	200
28JUL	SE	9	31	13	2	0	4	0	0	9	3	2	49	60
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	3	40	29	2	1	2	0	0	7	2	14	4	103
11AUG	SE	2	14	11	2	1	2	0	0	4	2	10	4	22
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	14	148	60	2	4	7	0	0	2	39	22	2	298
25AUG	SE	9	67	20	2	2	7	0	0	2	15	14	2	73
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	17	32	27	6	47	121	4	2	40	140	69	423	928
09SEP	SE	9	13	19	4	21	55	4	< 0.5	19	84	69	205	241
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	3	9	0	2	1	5	3	< 0.5	0	18	6	0	47
22SEP	SE	3	5	0	2	1	4	2	< 0.5	0	8	6	0	12
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	29	38	17	9	0	12	1	1	3	29	43	0	184
06OCT	SE	18	12	10	4	0	7	1	< 0.5	3	8	20	0	33
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	8	28	4	13	1	7	0	< 0.5	0	6	24	12	102
20OCT	SE	3	17	4	9	1	5	0	< 0.5	0	3	11	8	25
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-49 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-49 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-50 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-50 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-51 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	14.56	1.89	2.43	3.64	1.18	0.70	0.59	NS	NS	NS	NS	NS	NS	3.57
16MAR	SE	2.82	0.52	1.57	0.70	1.02	0.62	0.59							3.60
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	2.43	0.19	1.35	2.45	1.80	0.00	0.00	NS	NS	NS	NS	NS	NS	1.18
23MAR	SE	0.73	0.19	0.85	0.61	0.85	0.00	0.00							1.55
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.75	0.28	0.00	0.18	0.00	NS	NS	NS	NS	NS	NS	0.17
30MAR	SE	0.00	0.00	0.43	0.28	0.00	0.18	0.00							0.54
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-51 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-52 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	3044	435	781	538	246	146	83	NS	NS	NS	NS	NS	NS	5274
16MAR	SE	590	119	506	103	212	128	83							835
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	507	44	435	363	375	0	0	NS	NS	NS	NS	NS	NS	1724
23MAR	SE	153	44	273	91	177	0	0							374
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	242	41	0	38	0	NS	NS	NS	NS	NS	NS	321
30MAR	SE	0	0	137	41	0	38	0							148
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-52 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-53 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	78.76	240.36	2.05	2.25	1.93	5.15	0.00	NS	NS	NS	NS	NS	NS	47.21
16MAR	SE	24.62	142.80	0.95	1.31	0.23	2.62	0.00							144.94
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	171.48	313.48	2.05	0.74	3.08	0.00	0.60	NS	NS	NS	NS	NS	NS	70.20
23MAR	SE	63.38	155.59	0.86	0.55	1.49	0.00	0.60							168.02
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	31.37	130.20	1.55	37.25	0.87	0.00	0.00	NS	NS	NS	NS	NS	NS	28.75
30MAR	SE	23.54	92.81	0.38	18.60	0.87	0.00	0.00							97.55
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	2.49	487.14	52.89	183.27	91.09	4.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.15
08APR	SE	1.10	339.85	13.21	69.52	21.60	2.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	347.82
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	6.88	112.74	18.21	143.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.65
15APR	SE	5.65	69.56	8.23	87.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.40
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	605.74	22.08	25.08	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.24
22APR	SE	503.34	8.84	21.30	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	503.87
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	16.78	3.43	5.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.98
28APR	SE	8.35	2.95	4.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.85
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	15.65	155.52	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.18
05MAY	SE	8.91	107.15	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	107.52
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	4.47	9.48	0.00	3.77	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.49
12MAY	SE	2.26	8.96	0.00	3.77	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.04
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	1.06	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
19MAY	SE	0.00	1.06	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-53 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-54 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	16462	55144	660	332	402	1068	0	NS	NS	NS	NS	NS	NS	74067
16MAR	SE	5145	32760	306	193	48	543	0							33168
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	35841	71919	660	109	641	0	84	NS	NS	NS	NS	NS	NS	109253
23MAR	SE	13248	35696	277	81	310	0	84							38078
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	6556	29871	498	5503	182	0	0	NS	NS	NS	NS	NS	NS	42610
30MAR	SE	4920	21293	124	2748	182	0	0							22027
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	521	111759	17021	27075	18978	835	0	0	0	0	0	0	0	176188
08APR	SE	230	77969	4251	10270	4500	521	0	0	0	0	0	0	0	78888
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	1438	25864	5860	21211	0	0	0	0	0	0	0	0	0	54372
15APR	SE	1182	15959	2647	12960	0	0	0	0	0	0	0	0	0	20761
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	126608	5067	8072	30	0	0	0	0	0	0	0	0	0	139777
22APR	SE	105204	2029	6854	30	0	0	0	0	0	0	0	0	0	105446
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	3507	787	1790	0	0	0	0	0	0	0	0	0	0	6085
28APR	SE	1745	677	1389	0	0	0	0	0	0	0	0	0	0	2331
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	3270	35680	61	0	0	0	0	0	0	0	0	0	0	39010
05MAY	SE	1862	24584	61	0	0	0	0	0	0	0	0	0	0	24654
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	934	2174	0	557	346	0	0	0	0	0	0	0	0	4010
12MAY	SE	473	2057	0	557	217	0	0	0	0	0	0	0	0	2193
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	244	0	51	0	0	0	0	0	0	0	0	0	295
19MAY	SE	0	244	0	51	0	0	0	0	0	0	0	0	0	249
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-54 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-55 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	6.88	20.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.13
05MAY	SE	2.78	8.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.95
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	29.10	43.26	4.97	111.41	348.50	3.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.58
12MAY	SE	12.28	22.85	2.60	76.87	75.36	3.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	110.80
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	52.89	66.66	12.71	34.34	24.71	8.14	1.53	16.23	4.58	0.32	0.00	0.00	0.00	17.08
19MAY	SE	23.79	11.58	3.87	7.15	4.19	5.01	1.23	10.33	2.76	0.32	0.00	0.00	0.00	30.40
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	26.76	1.19	0.67	0.62	4.97	0.14	7.12	1.33	0.63	0.00	0.00	0.00	0.00	3.34
26MAY	SE	16.29	1.19	0.49	0.62	3.58	0.14	3.57	1.16	0.40	0.00	0.00	0.00	0.00	17.16
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	7.07	32.87	65.87	23.22	12.48	3.52	1.77	7.77	1.21	1.56	0.00	0.00	0.00	12.10
02JUN	SE	3.65	10.05	13.38	5.21	3.46	1.81	0.85	1.59	0.77	0.92	0.00	0.00	0.00	18.45
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-55 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	48.94	36.40	3.08	7.39	4.88	1.33	5.48	1.59	0.16	0.69	0.00	0.00	0.00	8.46
09JUN	SE	10.69	8.59	1.31	2.78	1.55	0.71	1.83	0.57	0.16	0.40	0.00	0.00	0.00	14.30
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	2.76	29.95	2.03	0.83	22.79	1.47	0.83	0.60	0.17	0.33	0.00	0.00	0.00	4.75
17JUN	SE	2.27	29.14	0.87	0.83	10.07	0.61	0.38	0.38	0.17	0.33	0.00	0.00	0.00	30.95
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	13.12	3.81	3.66	12.64	1.00	1.53	3.32	0.65	1.10	0.00	0.00	0.00	0.00	3.14
23JUN	SE	5.23	3.64	2.68	3.55	0.36	0.79	1.88	0.41	0.68	0.00	0.00	0.00	0.00	8.08
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	2.92	10.56	4.92	9.14	7.13	0.58	1.12	0.19	0.17	0.00	0.00	0.00	0.00	2.83
30JUN	SE	1.79	5.67	4.34	4.43	3.94	0.22	0.81	0.19	0.17	0.00	0.00	0.00	0.00	9.49
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	24.61	1.78	3.23	0.00	0.12	0.00	1.56	NS	NS	NS	NS	NS	3.91
13JUL	SE	0.00	6.29	1.78	1.84	0.00	0.12	0.00	1.11						6.88
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	3.16	0.00	0.00	2.21	0.93	0.30	0.00	NS	NS	NS	NS	NS	0.83
27JUL	SE	0.00	1.59	0.00	0.00	1.78	0.82	0.30	0.00						2.55
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	3.09	1.50	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.57
10AUG	SE	3.09	1.50	0.00	0.00	0.00	0.00	0.00	0.00						3.43
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.09
24AUG	SE	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00						0.72
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.03
08SEP	SE	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00						0.20
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-56 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	1439	4781	0	0	0	0	0	0	0	0	0	0	0	6220
05MAY	SE	581	1953	0	0	0	0	0	0	0	0	0	0	0	2037
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	6081	9925	1601	16459	72606	697	0	0	0	0	0	0	0	107369
12MAY	SE	2567	5243	836	11356	15700	637	0	0	0	0	0	0	0	20264
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	11055	15292	4090	5074	5147	1688	214	4838	758	45	0	0	0	48202
19MAY	SE	4971	2656	1244	1057	873	1039	172	3080	457	45	0	0	0	6782
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	5592	272	217	92	1036	29	995	398	103	0	0	0	0	8734
26MAY	SE	3405	272	158	92	747	29	499	347	66	0	0	0	0	3555
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	1477	7541	21199	3431	2601	730	247	2317	200	221	0	0	0	39965
02JUN	SE	762	2307	4305	770	721	376	118	475	128	130	0	0	0	5095
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-56 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	10229	8351	990	1092	1016	276	766	475	27	97	0	0	0	23319
09JUN	SE	2235	1971	423	411	323	147	255	170	27	56	0	0	0	3074
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	577	6871	653	123	4749	306	116	180	28	47	0	0	0	13650
17JUN	SE	475	6686	281	123	2097	126	53	112	28	47	0	0	0	7032
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	2743	875	1179	1868	208	317	464	193	182	0	0	0	0	8030
23JUN	SE	1094	836	862	525	75	164	262	123	113	0	0	0	0	1744
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	611	2423	1585	1350	1486	121	157	57	27	0	0	0	0	7818
30JUN	SE	374	1301	1396	654	822	47	114	57	27	0	0	0	0	2214
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	5645	572	477	0	24	0	465	NS	NS	NS	NS	NS	7183
13JUL	SE	0	1443	572	272	0	24	0	332						1611
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	725	0	0	460	193	42	0	NS	NS	NS	NS	NS	1421
27JUL	SE	0	366	0	0	371	170	42	0						550
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	646	344	0	0	0	0	0	0	NS	NS	NS	NS	NS	989
10AUG	SE	646	344	0	0	0	0	0	0						731
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	230	0	0	0	0	0	NS	NS	NS	NS	NS	230
24AUG	SE	0	0	230	0	0	0	0	0						230
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	30	0	0	0	0	NS	NS	NS	NS	NS	30
08SEP	SE	0	0	0	30	0	0	0	0						30
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-57 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.84	2.29	0.54	0.14	0.90	1.29	0.33	0.17	0.16	0.00	0.00	0.00	0.00	0.51
09JUL	SE	0.24	0.67	0.25	0.14	0.36	0.36	0.17	0.05	0.08	0.00	0.00	0.00	0.00	0.94
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.31	0.50	0.83	0.67	0.17	0.15	0.17	0.16	0.00	0.00	0.00	0.00	0.00	0.23
21JUL	SE	0.22	0.27	0.27	0.26	0.06	0.07	0.12	0.07	0.00	0.00	0.00	0.00	0.00	0.54
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.48	0.00	0.00	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04
04AUG	SE	0.00	0.28	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.28
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.50	0.11	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
18AUG	SE	0.27	0.08	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.10	0.00	0.03	0.03	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.02
01SEP	SE	0.05	0.00	0.03	0.03	0.00	0.00	0.00	0.00						0.06
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.10	0.03	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15SEP	SE	0.05	0.03	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.04	0.00	0.02	0.00	0.04	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01
29SEP	SE	0.04	0.00	0.02	0.00	0.03	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.06
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.05	0.03	0.00	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
13OCT	SE	0.00	0.03	0.03	0.00	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.06	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01
27OCT	SE	0.00	0.00	0.00	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.06
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
02DEC	SE	0.00	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-58 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	176	525	173	21	187	267	47	50	27	0	0	0	0	1472
09JUL	SE	50	154	80	21	74	76	23	14	13	0	0	0	0	212
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	65	114	267	99	36	31	24	49	0	0	0	0	0	684
21JUL	SE	46	62	88	38	13	15	17	22	0	0	0	0	0	128
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	109	0	0	0	2	5	0	0	0	0	0	0	116
04AUG	SE	0	64	0	0	0	2	4	0	0	0	0	0	0	65
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	105	25	53	5	0	0	0	0	0	0	0	0	0	187
18AUG	SE	56	19	33	5	0	0	0	0	0	0	0	0	0	68
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	21	0	9	4	0	0	0	0	NS	NS	NS	NS	NS	35
01SEP	SE	10	0	9	4	0	0	0	0						15
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	21	7	9	0	0	2	0	0	0	0	0	0	0	39
15SEP	SE	10	7	9	0	0	2	0	0	0	0	0	0	0	16
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	9	0	7	0	8	2	0	5	0	0	0	0	0	31
29SEP	SE	9	0	7	0	5	2	0	5	0	0	0	0	0	14
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	12	9	0	11	4	0	0	0	0	0	0	0	36
13OCT	SE	0	8	9	0	7	4	0	0	0	0	0	0	0	15
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	9	2	2	0	0	0	0	0	6	0	19
27OCT	SE	0	0	0	6	2	2	0	0	0	0	0	6	0	9
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	5	15	0	0	0	0	0	0	0	0	0	0	20
02DEC	SE	0	5	10	0	0	0	0	0	0	0	0	0	0	11
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-59 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF ATLANTIC TOMCOD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
16JUN	SE	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
30JUN	SE	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-60 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	4	0	0	0	0	0	0	0	0	0	0	4
16JUN	SE	0	4	0	0	0	0	0	0	0	0	0	0	4
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	4	0	0	0	0	0	0	0	0	0	0	4
30JUN	SE	0	4	0	0	0	0	0	0	0	0	0	0	4
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-61 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-61 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-62 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-62 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-63 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC TOMCOD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
18AUG	SE	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15SEP	SE	0.00	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
29SEP	SE	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.05	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
13OCT	SE	0.00	0.05	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	< 0.005
27OCT	SE	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.04
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.08	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
11NOV	SE	0.00	0.04	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.06	0.06	0.46	0.26	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
02DEC	SE	0.04	0.06	0.25	0.20	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-64 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	7	0	0	0	0	0	0	0	0	0	0	0	0	7
18AUG	SE	7	0	0	0	0	0	0	0	0	0	0	0	0	7
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
01SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	16	10	0	0	0	0	0	0	0	0	0	0	25
15SEP	SE	0	10	10	0	0	0	0	0	0	0	0	0	0	14
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	22	0	0	0	0	0	0	0	0	0	0	22
29SEP	SE	0	0	15	0	0	0	0	0	0	0	0	0	0	15
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	12	39	5	0	0	0	0	0	0	0	0	0	55
13OCT	SE	0	12	23	5	0	0	0	0	0	0	0	0	0	27
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	2	0	0	11	0	0	0	0	0	13
27OCT	SE	0	0	0	0	2	0	0	11	0	0	0	0	0	11
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	17	0	0	5	1	0	0	0	0	0	0	0	23
11NOV	SE	0	10	0	0	3	1	0	0	0	0	0	0	0	10
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	12	13	149	38	3	0	0	0	0	0	0	0	0	215
02DEC	SE	8	13	82	29	3	0	0	0	0	0	0	0	0	88
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-65 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF ATLANTIC TOMCOD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-66 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC TOMCOD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-67 REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	18.47	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.56
19MAY	SE	7.85	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.04
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	674.63	0.33	0.25	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51.97
26MAY	SE	183.47	0.33	0.25	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	183.47
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	67048.70	25586.44	21.48	0.00	0.00	0.88	0.00	1.02	0.00	0.00	0.00	0.00	0.00	7127.58
02JUN	SE	31472.52	11535.93	13.24	0.00	0.00	0.88	0.00	0.71	0.00	0.00	0.00	0.00	0.00	33520.10
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-67 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	41855.81	75632.41	168.61	0.68	0.52	0.00	0.55	0.45	0.54	2.03	0.00	3.52	0.00	9051.16
09JUN	SE	11729.52	37444.04	163.03	0.50	0.36	0.00	0.35	0.45	0.54	2.03	0.00	2.61	0.00	39238.55
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	38319.41	44869.00	2966.53	0.27	0.96	0.53	0.05	0.00	0.49	0.00	0.32	2.96	0.00	6627.73
17JUN	SE	10958.13	10768.15	1859.69	0.27	0.96	0.53	0.05	0.00	0.49	0.00	0.32	2.96	0.00	15475.53
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	23415.11	37217.09	17212.88	0.24	0.00	0.58	0.00	3.73	0.00	0.31	0.00	0.00	2.51	5988.65
23JUN	SE	8827.71	31103.53	9679.51	0.24	0.00	0.58	0.00	2.74	0.00	0.31	0.00	0.00	2.51	33749.83
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	28617.76	11441.14	2730.24	240.03	105.37	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3318.06
30JUN	SE	7607.00	3811.72	1390.20	139.94	60.58	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8622.73
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	60184.05	69822.79	5433.39	4.14	0.20	0.00	0.00	0.00	NS	NS	NS	NS	NS	16930.57
13JUL	SE	13404.17	34095.07	3331.71	1.53	0.16	0.00	0.00	0.00						36786.49
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	44430.78	105678.3	31175.65	128.42	1981.41	65.09	1.06	2.62	NS	NS	NS	NS	NS	22932.91
27JUL	SE	14068.60	43318.94	26339.89	46.64	1054.44	58.51	0.81	2.62						52624.74
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	7964.09	5464.72	129.97	13.78	410.94	0.26	0.00	0.26	NS	NS	NS	NS	NS	1748.00
10AUG	SE	5983.27	2686.67	73.88	6.38	168.96	0.15	0.00	0.26						6561.38
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	15.51	11.16	0.00	0.00	0.00	0.00	0.05	0.00	NS	NS	NS	NS	NS	3.34
24AUG	SE	7.51	5.91	0.00	0.00	0.00	0.00	0.05	0.00						9.56
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-68 REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST.CROP	3861	407	0	0	0	0	0	0	0	0	0	0	0	4268
19MAY	SE	1640	407	0	0	0	0	0	0	0	0	0	0	0	1689
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST.CROP	141007	75	79	0	93	0	0	0	0	0	0	0	0	141253
26MAY	SE	38348	75	79	0	93	0	0	0	0	0	0	0	0	38348
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST.CROP	14014040	5870050	6912	0	0	182	0	303	0	0	0	0	0	19891487
02JUN	SE	6578163	2646575	4260	0	0	182	0	212	0	0	0	0	0	7090600
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-68 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST.CROP	8748396	17351610	54261	101	109	0	77	135	89	287	0	565	0	26155631
09JUN	SE	2451621	8590421	52465	73	76	0	48	135	89	287	0	419	0	8933562
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST.CROP	8009244	10293859	954663	39	200	109	7	0	81	0	56	475	0	19258733
17JUN	SE	2290390	2470431	598469	39	200	109	7	0	81	0	56	475	0	3421561
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST.CROP	4894056	8538355	5539301	35	0	120	0	1111	0	43	0	0	179	18973200
23JUN	SE	1845104	7135781	3114978	35	0	120	0	817	0	43	0	0	179	8001679
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST.CROP	5981479	2624830	878622	35461	21953	49	0	0	0	0	0	0	0	9542393
30JUN	SE	1589960	874486	447382	20675	12622	28	0	0	0	0	0	0	0	1869074
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST.CROP	12579235	16018764	1748528	611	41	0	0	0	NS	NS	NS	NS	NS	30347179
13JUL	SE	2801644	7822100	1072183	225	34	0	0	0						8377591
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST.CROP	9286602	24244740	10032681	18973	412800	13504	148	783	NS	NS	NS	NS	NS	44010230
27JUL	SE	2940517	9938245	8476478	6891	219678	12138	114	783						13390835
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST.CROP	1664597	1253718	41825	2036	85613	54	0	77	NS	NS	NS	NS	NS	3047921
10AUG	SE	1250580	616378	23776	943	35200	32	0	77						1394875
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST.CROP	3241	2561	0	0	0	0	7	0	NS	NS	NS	NS	NS	5809
24AUG	SE	1570	1357	0	0	0	0	7	0						2075
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-69 REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-69 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
23JUN	SE	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	39.50	0.00	10.66	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.89
30JUN	SE	39.50	0.00	8.11	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.32
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	5.82	1.68	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.94
13JUL	SE	0.00	5.82	1.68	0.00	0.00	0.00	0.00	0.00						6.06
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	14.66	6.43	3.41	5.68	3.56	0.00	0.00	0.00	NS	NS	NS	NS	NS	4.22
27JUL	SE	11.79	6.43	2.31	4.08	3.56	0.00	0.00	0.00						14.66
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-70 REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-70 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	287	0	0	0	0	0	0	0	0	0	0	0	0	287
23JUN	SE	287	0	0	0	0	0	0	0	0	0	0	0	0	287
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	8255	0	3429	65	0	0	0	0	0	0	0	0	0	11749
30JUN	SE	8255	0	2611	65	0	0	0	0	0	0	0	0	0	8658
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	1336	541	0	0	0	0	0	NS	NS	NS	NS	NS	1877
13JUL	SE	0	1336	541	0	0	0	0	0						1441
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	3063	1476	1098	840	742	0	0	0	NS	NS	NS	NS	NS	7219
27JUL	SE	2463	1476	743	603	742	0	0	0						3117
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-71 REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	1.79	19.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62
02JUN	SE	1.79	13.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.18
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-71 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	36.09	26.66	12.57	35.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.50
09JUN	SE	16.47	12.86	3.80	21.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.96
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	2383.22	1009.52	606.66	184.73	77.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	327.80
17JUN	SE	1014.36	243.46	244.94	41.05	59.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1073.97
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	723.43	1256.94	1327.99	850.20	163.73	1.62	0.00	0.00	0.00	0.00	1.95	0.00	0.00	332.76
23JUN	SE	238.97	244.77	214.27	267.93	60.08	1.06	0.00	0.00	0.00	0.00	1.95	0.00	0.00	488.19
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	9425.49	3768.02	1200.42	983.73	606.25	64.90	0.33	0.00	0.00	0.00	0.00	0.00	0.00	1234.55
30JUN	SE	2256.64	1292.90	216.27	268.88	172.56	35.48	0.33	0.00	0.00	0.00	0.00	0.00	0.00	2629.48
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	1989.07	2737.09	2150.99	2709.09	1721.04	50.32	35.50	2.10	NS	NS	NS	NS	NS	1424.40
13JUL	SE	357.79	991.82	590.29	473.50	840.51	20.14	23.08	0.95						1546.53
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	1740.50	3230.88	1636.98	3854.31	1388.38	537.73	747.65	14.18	NS	NS	NS	NS	NS	1643.83
27JUL	SE	605.06	1101.55	231.08	601.73	131.13	116.24	172.76	10.23						1433.76
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	2003.53	1766.75	2126.04	669.57	967.77	442.41	496.31	290.48	NS	NS	NS	NS	NS	1095.36
10AUG	SE	919.81	176.04	371.83	91.39	424.80	124.22	104.62	80.19						1112.17
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	1053.85	506.63	349.38	644.20	291.30	233.64	308.59	22.53	NS	NS	NS	NS	NS	426.26
24AUG	SE	301.47	168.07	43.47	135.70	71.99	92.63	167.20	15.13						425.89
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	401.84	358.63	59.54	7.27	0.75	1.17	0.20	0.00	NS	NS	NS	NS	NS	103.67
08SEP	SE	173.73	59.29	12.34	3.58	0.62	0.83	0.12	0.00						184.02
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	99.47	53.21	39.24	9.33	1.79	2.04	1.04	0.92	NS	NS	NS	NS	NS	25.88
21SEP	SE	24.67	13.11	13.47	3.83	0.98	0.87	0.06	0.92						31.29
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	232.41	28.70	4.20	0.34	0.65	0.74	0.43	0.00	NS	NS	NS	NS	NS	33.43
05OCT	SE	81.95	6.86	3.07	0.34	0.35	0.74	0.38	0.00						82.30
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-72 REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	27	0	0	0	0	0	0	0	27
19MAY	SE	0	0	0	0	0	27	0	0	0	0	0	0	0	27
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	375	4426	0	0	0	0	0	0	0	0	0	0	0	4801
02JUN	SE	375	2995	0	0	0	0	0	0	0	0	0	0	0	3018
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-72 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	7543	6116	4046	5206	0	0	0	0	0	0	0	0	0	22911
09JUN	SE	3443	2951	1222	3121	0	0	0	0	0	0	0	0	0	5639
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	498124	231604	195229	27291	16105	0	0	0	0	0	0	0	0	968354
17JUN	SE	212014	55855	78823	6065	12409	0	0	0	0	0	0	0	0	233395
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	151206	288368	427364	125606	34110	337	0	0	0	0	343	0	0	1027333
23JUN	SE	49948	56155	68956	39583	12517	220	0	0	0	0	343	0	0	110121
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	1970048	864460	386308	145333	126304	13464	45	0	0	0	0	0	0	3505961
30JUN	SE	471668	296618	69599	39723	35951	7360	45	0	0	0	0	0	0	564111
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	415741	627944	692212	400233	358554	10439	4963	626	NS	NS	NS	NS	NS	2510711
13JUL	SE	74782	227544	189963	69953	175108	4179	3227	282						359220
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	363787	741229	526798	569423	289250	111556	104514	4226	NS	NS	NS	NS	NS	2710783
27JUL	SE	126466	252719	74363	88898	27319	24115	24151	3050						308567
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	418763	405329	684184	98920	201622	91781	69380	86602	NS	NS	NS	NS	NS	2056582
10AUG	SE	192252	40388	119660	13502	88501	25770	14625	23908						249749
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	220268	116230	112435	95172	60688	48470	43138	6717	NS	NS	NS	NS	NS	703119
24AUG	SE	63012	38559	13991	20047	14998	19216	23373	4511						84946
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	83991	82276	19162	1074	155	242	28	0	NS	NS	NS	NS	NS	186928
08SEP	SE	36311	13602	3971	529	129	173	16	0						38982
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	20790	12208	12629	1379	373	423	145	275	NS	NS	NS	NS	NS	48222
21SEP	SE	5157	3008	4336	566	204	180	8	275						7410
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	48577	6584	1353	50	134	154	60	0	NS	NS	NS	NS	NS	56913
05OCT	SE	17128	1574	987	50	73	154	53	0						17230
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-73 REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-73 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	2.27	3.23	0.00	0.00	0.75	0.00	NS	NS	NS	NS	NS	0.78
13JUL	SE	0.00	0.00	2.27	2.85	0.00	0.00	0.75	0.00						3.73
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	30.96	139.08	660.40	51.47	17.31	339.94	0.00	NS	NS	NS	NS	NS	154.90
27JUL	SE	0.00	30.96	46.57	172.45	6.78	6.91	118.52	0.00						216.81
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	14.88	354.15	508.13	247.56	46.57	20.76	85.67	190.70	NS	NS	NS	NS	NS	183.55
10AUG	SE	8.04	50.51	187.53	133.00	18.90	4.88	32.99	135.56						274.45
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	52.00	319.91	180.85	100.62	72.01	85.50	83.22	26.76	NS	NS	NS	NS	NS	115.11
24AUG	SE	40.35	85.08	24.30	15.62	29.06	16.37	22.31	21.32						108.47
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	59.44	126.62	68.65	8.37	0.70	2.06	8.54	0.91	NS	NS	NS	NS	NS	34.41
08SEP	SE	8.51	15.03	19.69	2.78	0.31	1.06	2.47	0.91						26.49
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	44.62	57.63	20.63	6.41	0.38	1.69	0.36	0.79	NS	NS	NS	NS	NS	16.56
21SEP	SE	13.32	22.12	5.26	4.06	0.30	0.78	0.31	0.79						26.69
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	173.12	9.10	2.66	0.53	0.04	0.44	0.85	0.00	NS	NS	NS	NS	NS	23.34
05OCT	SE	38.50	8.69	1.98	0.39	0.04	0.28	0.76	0.00						39.52
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-74 REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-74 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	732	477	0	0	105	0	NS	NS	NS	NS	NS	1314
13JUL	SE	0	0	732	422	0	0	105	0						851
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	7102	44758	97566	10724	3592	47520	0	NS	NS	NS	NS	NS	211262
27JUL	SE	0	7102	14985	25478	1413	1433	16568	0						34679
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	3111	81249	163521	36574	9702	4307	11977	56855	NS	NS	NS	NS	NS	367296
10AUG	SE	1681	11589	60350	19649	3937	1013	4612	40416						76398
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	10869	73394	58200	14865	15003	17738	11633	7978	NS	NS	NS	NS	NS	209680
24AUG	SE	8433	19519	7822	2307	6053	3397	3119	6357						24838
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	12424	29050	22092	1237	147	427	1194	272	NS	NS	NS	NS	NS	66842
08SEP	SE	1778	3448	6337	410	64	220	345	272						7458
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	9327	13222	6639	947	79	351	50	237	NS	NS	NS	NS	NS	30852
21SEP	SE	2784	5074	1693	600	63	163	44	237						6067
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	36184	2088	856	79	9	92	119	0	NS	NS	NS	NS	NS	39426
05OCT	SE	8046	1993	636	57	9	59	106	0						8315
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-75 REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.28	8.44	2.51	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95
09JUL	SE	0.00	0.00	0.28	7.84	2.17	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.17
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	14.18	93.20	177.73	264.45	35.73	20.49	2.15	0.00	0.00	0.00	0.00	0.00	46.76
21JUL	SE	0.00	11.99	48.16	47.90	81.93	7.57	6.63	1.93	0.00	0.00	0.00	0.00	0.00	107.59
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	78.13	49.46	94.05	40.53	33.04	82.56	142.98	80.07	0.00	0.00	0.00	4.28	0.00	46.55
04AUG	SE	33.64	19.17	27.28	8.49	9.58	20.26	21.06	58.69	0.00	0.00	0.00	3.54	0.00	81.96
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	183.66	121.27	35.14	25.74	26.19	153.29	64.82	8.82	5.57	29.62	44.33	44.44	0.00	57.15
18AUG	SE	45.65	35.44	15.92	5.87	6.06	33.92	24.82	4.28	3.68	9.45	44.33	36.61	0.00	94.11
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	26.53	51.30	39.06	76.55	33.29	3.81	0.10	0.00	NS	NS	NS	NS	NS	28.83
01SEP	SE	6.28	21.95	7.89	27.56	18.08	1.05	0.07	0.00						40.88
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	12.89	20.27	3.41	3.54	9.36	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	3.81
15SEP	SE	1.38	9.53	1.11	1.17	4.71	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	10.84
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	16.44	17.70	9.86	4.40	2.92	0.62	0.42	1.41	1.17	0.00	0.00	0.00	0.00	4.23
29SEP	SE	8.99	5.56	3.38	1.55	1.37	0.62	0.32	0.54	0.79	0.00	0.00	0.00	0.00	11.35
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	23.81	9.93	20.53	2.44	0.63	0.43	0.82	1.39	0.00	0.00	0.00	0.00	0.00	4.61
13OCT	SE	15.95	5.29	20.02	1.01	0.63	0.29	0.46	0.73	0.00	0.00	0.00	0.00	0.00	26.18
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.77	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
02DEC	SE	0.25	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-76 REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	89	1247	523	230	0	0	0	0	0	0	0	2088
09JUL	SE	0	0	89	1158	452	148	0	0	0	0	0	0	0	1255
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	3254	29993	26258	55094	7413	2864	640	0	0	0	0	0	125515
21JUL	SE	0	2751	15498	7076	17069	1571	926	576	0	0	0	0	0	24348
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	16331	11348	30266	5987	6883	17128	19988	23870	0	0	0	687	0	132489
04AUG	SE	7032	4397	8778	1255	1996	4203	2944	17497	0	0	0	570	0	22005
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	38386	27821	11307	3802	5457	31800	9062	2630	922	4191	7816	7143	0	150338
18AUG	SE	9541	8131	5123	867	1263	7036	3469	1277	609	1337	7816	5884	0	18622
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	5545	11768	12570	11310	6936	790	14	0	NS	NS	NS	NS	NS	48933
01SEP	SE	1312	5036	2538	4072	3766	217	9	0						8021
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	2693	4651	1098	522	1950	0	8	0	0	0	0	0	0	10923
15SEP	SE	287	2186	357	173	982	0	8	0	0	0	0	0	0	2446
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	3436	4060	3173	649	609	129	59	421	194	0	0	0	0	12730
29SEP	SE	1879	1276	1087	229	285	129	45	161	130	0	0	0	0	2556
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	4976	2279	6607	361	131	88	115	414	0	0	0	0	0	14971
13OCT	SE	3334	1214	6443	150	131	60	64	219	0	0	0	0	0	7362
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	160	67	0	0	0	0	0	0	0	0	0	0	0	228
02DEC	SE	53	36	0	0	0	0	0	0	0	0	0	0	0	64
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-77 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF BAY ANCHOVY YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	2.33	2.36	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47
30JUN	SE	2.33	2.27	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.40
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	2.33	11.82	8.86	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.11	0.00	2.00
14JUL	SE	2.33	6.54	8.37	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.07	0.00	10.89
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	7.80	146.21	41.79	16.80	22.20	5.67	0.00	0.00	0.40	0.00	0.00	0.14	20.08
28JUL	SE	7.80	130.73	41.71	11.01	14.01	4.42	0.00	0.00	0.40	0.00	0.00	0.14	138.66
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	3.00	77.58	0.14	29.20	34.80	0.67	0.00	0.00	0.00	0.00	0.00	0.00	12.12
11AUG	SE	3.00	57.19	0.14	19.95	34.80	0.67	0.00	0.00	0.00	0.00	0.00	0.00	69.92
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	86.21	21.57	15.80	6.80	0.00	2.00	0.00	0.00	0.00	0.10	0.00	11.04
25AUG	SE	0.00	31.39	17.10	10.34	6.80	0.00	2.00	0.00	0.00	0.00	0.10	0.00	37.88
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	174.60	58.88	26.50	1.60	104.80	10.17	2.80	0.00	0.00	1.00	0.20	0.00	31.71
09SEP	SE	105.92	27.02	14.84	1.12	77.46	4.59	1.59	0.00	0.00	0.50	0.13	0.00	134.89
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	6.20	8.04	5.50	9.00	3.80	3.50	4.40	3.00	0.00	2.11	0.10	0.14	3.82
22SEP	SE	2.67	2.48	1.96	3.16	1.20	1.48	2.62	1.30	0.00	0.95	0.10	0.14	6.34
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	7.60	8.08	9.29	1.20	1.60	1.00	1.00	3.20	0.40	0.11	0.10	0.14	2.81
06OCT	SE	4.72	1.84	2.03	0.58	0.93	0.82	1.00	1.93	0.40	0.11	0.10	0.14	6.05
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	9.20	0.79	1.86	1.80	0.00	0.00	0.00	0.80	0.00	0.00	0.10	0.00	1.21
20OCT	SE	5.21	0.41	0.58	1.36	0.00	0.00	0.00	0.49	0.00	0.00	0.10	0.00	5.45
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-78 REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	18	107	0	0	3	0	0	0	0	0	0	0	128
30JUN	SE	18	103	0	0	3	0	0	0	0	0	0	0	104
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	18	537	238	0	0	0	0	0	8	0	2	0	802
14JUL	SE	18	297	225	0	0	0	0	0	6	0	1	0	373
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	59	6643	1124	155	59	60	0	0	3	0	0	2	8105
28JUL	SE	59	5940	1122	101	37	47	0	0	3	0	0	2	6046
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	23	3525	4	269	92	7	0	0	0	0	0	0	3919
11AUG	SE	23	2598	4	184	92	7	0	0	0	0	0	0	2606
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	3917	580	146	18	0	14	0	0	0	2	0	4677
25AUG	SE	0	1426	460	95	18	0	14	0	0	0	2	0	1502
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	1315	2675	713	15	276	108	20	0	0	18	4	0	5143
09SEP	SE	798	1228	399	10	204	49	11	0	0	9	3	0	1532
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	47	365	148	83	10	37	31	4	0	37	2	2	766
22SEP	SE	20	112	53	29	3	16	19	2	0	17	2	2	133
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	57	367	250	11	4	11	7	4	3	2	2	2	721
06OCT	SE	36	84	55	5	2	9	7	2	3	2	2	2	107
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	69	36	50	17	0	0	0	1	0	0	2	0	175
20OCT	SE	39	19	16	13	0	0	0	1	0	0	2	0	48
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-79 REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	5.06	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49
05MAY	SE	3.94	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.05
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	5.97	30.89	13.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.90
12MAY	SE	0.56	8.46	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.68
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.85	3.21	25.15	15.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.42
19MAY	SE	0.54	1.50	10.04	5.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.36
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	17.12	18.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71
26MAY	SE	8.90	10.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.65
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	64.09	79.69	7.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.64
02JUN	SE	30.06	22.62	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.75
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-79 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	106.51	112.07	16.88	2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.32
09JUN	SE	39.44	54.11	4.73	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.13
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	25.54	38.05	30.91	26.49	5.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.76
17JUN	SE	11.76	12.28	11.43	7.87	4.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.39
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	9.90	109.70	18.51	2.73	4.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.20
23JUN	SE	2.17	51.88	6.91	1.33	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.57
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	3.97	52.93	38.64	8.45	5.80	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.49
30JUN	SE	1.26	23.81	17.01	4.06	1.80	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.63
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	80.90	109.11	31.19	11.56	5.81	0.73	0.00	0.00	NS	NS	NS	NS	NS	29.91
13JUL	SE	24.28	33.32	13.70	3.79	4.31	0.73	0.00	0.00						43.83
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	62.49	92.59	23.16	17.52	3.06	0.00	2.25	0.00	NS	NS	NS	NS	NS	25.13
27JUL	SE	24.51	34.17	3.38	5.86	1.95	0.00	1.00	0.00						42.65
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	31.28	16.71	14.83	4.90	13.47	3.14	0.90	0.00	NS	NS	NS	NS	NS	10.65
10AUG	SE	8.81	7.32	4.82	2.45	12.30	1.28	0.54	0.00						17.70
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	34.73	6.11	8.58	3.66	5.91	5.42	2.30	0.00	NS	NS	NS	NS	NS	8.34
24AUG	SE	20.09	2.89	2.83	1.95	5.14	2.36	1.06	0.00						21.37
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	6.43	0.29	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.84
08SEP	SE	0.00	3.50	0.29	0.00	0.00	0.00	0.00	0.00						3.51
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	4.80	2.14	1.88	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	1.10
21SEP	SE	2.86	1.29	1.88	0.00	0.00	0.00	0.00	0.00						3.66
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	17.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	2.21
05OCT	SE	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						13.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-80 REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	1058	296	0	0	0	0	0	0	0	0	0	0	0	1354
05MAY	SE	824	218	0	0	0	0	0	0	0	0	0	0	0	852
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	1248	7087	4446	0	0	0	0	0	0	0	0	0	0	12781
12MAY	SE	118	1941	2091	0	0	0	0	0	0	0	0	0	0	2855
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	178	737	8095	2250	0	0	0	0	0	0	0	0	0	11260
19MAY	SE	113	343	3232	748	0	0	0	0	0	0	0	0	0	3337
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	3578	4169	0	0	0	0	0	0	0	0	0	0	0	7747
26MAY	SE	1861	2375	0	0	0	0	0	0	0	0	0	0	0	3017
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	13396	18283	2405	0	0	0	0	0	0	0	0	0	0	34084
02JUN	SE	6283	5189	1031	0	0	0	0	0	0	0	0	0	0	8213
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-80 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	22263	25711	5431	397	0	0	0	0	0	0	0	0	0	53802
09JUN	SE	8242	12414	1522	178	0	0	0	0	0	0	0	0	0	14980
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	5339	8729	9946	3913	1239	0	0	0	0	0	0	0	0	29167
17JUN	SE	2459	2817	3678	1163	924	0	0	0	0	0	0	0	0	5451
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	2070	25167	5958	403	985	0	0	0	0	0	0	0	0	34582
23JUN	SE	455	11902	2225	197	885	0	0	0	0	0	0	0	0	12151
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	829	12143	12434	1248	1208	110	0	0	0	0	0	0	0	27972
30JUN	SE	263	5462	5474	599	376	110	0	0	0	0	0	0	0	7770
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	16909	25033	10036	1707	1211	152	0	0	NS	NS	NS	NS	NS	55049
13JUL	SE	5075	7644	4409	560	898	152	0	0						10235
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	13061	21243	7452	2589	637	0	315	0	NS	NS	NS	NS	NS	45296
27JUL	SE	5123	7840	1088	865	406	0	140	0						9478
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	6537	3834	4774	724	2807	650	125	0	NS	NS	NS	NS	NS	19452
10AUG	SE	1840	1678	1550	362	2562	265	75	0						3922
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	7259	1403	2760	541	1232	1124	321	0	NS	NS	NS	NS	NS	14639
24AUG	SE	4199	662	911	289	1070	489	149	0						4515
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	1474	94	0	0	0	0	0	NS	NS	NS	NS	NS	1568
08SEP	SE	0	803	94	0	0	0	0	0						809
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	1003	490	606	0	0	0	0	0	NS	NS	NS	NS	NS	2100
21SEP	SE	599	295	606	0	0	0	0	0						902
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	3701	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	3701
05OCT	SE	2717	0	0	0	0	0	0	0						2717
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-81 REGIONAL DENSITY (NO./1,000m3) OF BAY ANCHOVY YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	31.90	43.86	4.57	2.45	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.42
09JUL	SE	14.15	20.30	2.54	1.19	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.91
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	12.45	14.45	11.96	0.79	0.78	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	3.11
21JUL	SE	8.58	8.00	3.92	0.44	0.43	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	12.38
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	13.32	24.52	0.94	1.36	4.97	1.18	0.10	0.79	0.00	0.00	0.00	0.00	0.00	3.63
04AUG	SE	9.42	8.32	0.65	0.46	2.62	0.69	0.07	0.79	0.00	0.00	0.00	0.00	0.00	12.91
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	3.53	1.09	0.00	0.38	2.07	5.92	1.64	0.01	0.00	0.00	0.00	0.00	0.00	1.13
18AUG	SE	3.19	0.55	0.00	0.38	1.10	5.26	1.64	0.01	0.00	0.00	0.00	0.00	0.00	6.50
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	1.60	0.03	0.14	2.86	0.34	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.62
01SEP	SE	1.21	0.03	0.14	1.88	0.34	0.00	0.00	0.00						2.27
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	6.57	4.63	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88
15SEP	SE	2.01	1.70	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.64
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	1.91	5.05	5.58	1.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05
29SEP	SE	0.99	3.31	1.57	0.60	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.84
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.32	0.53	0.86	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
13OCT	SE	0.32	0.53	0.86	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.06
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.05	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
02DEC	SE	0.05	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-82 REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	6667	10062	1471	362	143	0	0	0	0	0	0	0	0	18706
09JUL	SE	2958	4657	817	176	143	0	0	0	0	0	0	0	0	5582
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	2601	3316	3850	116	163	0	2	0	0	0	0	0	0	10049
21JUL	SE	1794	1835	1261	65	89	0	2	0	0	0	0	0	0	2861
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	2785	5626	303	201	1035	245	14	236	0	0	0	0	0	10445
04AUG	SE	1969	1909	208	68	547	142	10	236	0	0	0	0	0	2819
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	737	250	0	56	431	1229	230	4	0	0	0	0	0	2937
18AUG	SE	667	127	0	56	228	1092	230	4	0	0	0	0	0	1327
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	334	7	45	423	70	0	0	0	NS	NS	NS	NS	NS	879
01SEP	SE	253	7	45	278	70	0	0	0						385
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	1374	1062	64	0	0	0	0	0	0	0	0	0	0	2500
15SEP	SE	420	391	43	0	0	0	0	0	0	0	0	0	0	575
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	399	1159	1797	156	10	0	0	0	0	0	0	0	0	3520
29SEP	SE	206	759	504	89	10	0	0	0	0	0	0	0	0	938
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	66	121	277	329	0	0	0	0	0	0	0	0	0	793
13OCT	SE	66	121	277	261	0	0	0	0	0	0	0	0	0	405
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	10	30	0	0	0	0	0	0	0	0	0	0	0	40
02DEC	SE	10	17	0	0	0	0	0	0	0	0	0	0	0	20
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-83 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF BAY ANCHOVY YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	6.33	9.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35
16JUN	SE	5.36	8.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.16
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	2.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
30JUN	SE	2.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	1.33	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
14JUL	SE	0.88	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.80	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
28JUL	SE	0.80	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.99
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
11AUG	SE	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
25AUG	SE	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
09SEP	SE	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
22SEP	SE	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.04	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
06OCT	SE	0.00	0.04	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
20OCT	SE	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-84 REGIONAL STANDING CROP (IN THOUSANDS) OF BAY ANCHOVY YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	48	450	0	0	0	0	0	0	0	0	0	0	498
16JUN	SE	40	392	0	0	0	0	0	0	0	0	0	0	394
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	15	12	0	0	0	0	0	0	0	0	0	0	27
30JUN	SE	15	6	0	0	0	0	0	0	0	0	0	0	16
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	10	33	0	0	0	0	0	0	0	0	0	0	43
14JUL	SE	7	15	0	0	0	0	0	0	0	0	0	0	17
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	6	34	0	0	0	0	0	0	0	0	0	0	40
28JUL	SE	6	27	0	0	0	0	0	0	0	0	0	0	27
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	2	0	0	0	0	0	0	0	0	0	0	0	2
11AUG	SE	2	0	0	0	0	0	0	0	0	0	0	0	2
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	8	0	0	0	0	0	0	0	0	0	0	8
25AUG	SE	0	5	0	0	0	0	0	0	0	0	0	0	5
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	1	0	0	0	0	0	0	0	1
09SEP	SE	0	0	0	0	1	0	0	0	0	0	0	0	1
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	2	0	0	0	0	0	0	0	0	0	2
22SEP	SE	0	0	2	0	0	0	0	0	0	0	0	0	2
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	2	2	0	0	0	0	0	0	0	0	0	4
06OCT	SE	0	2	2	0	0	0	0	0	0	0	0	0	3
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	2	0	0	0	0	0	0	0	0	0	2
20OCT	SE	0	0	2	0	0	0	0	0	0	0	0	0	2
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-85 REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.19	2.82	0.31
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.19	0.80	1.44
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.09
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.78	95.51	2353.37	188.46
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.78	35.63	594.28	595.35
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.67	221.78	17.50
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.56	43.13	43.37
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	2.01	70.69	5.61
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	1.01	55.86	55.87
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	3.55	40.08	840.17	68.01
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	2.53	12.61	448.76	448.94
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.83	2.14
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.55	10.55
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-85 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	4.41	2.92	0.00	0.87
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	4.41	2.92	0.00	6.63
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	5.19	0.43
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	2.03	2.06
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	1.03	0.00	0.00	0.09
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	1.03	0.00	0.00	1.04
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-86 REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	192	200	392
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	192	57	200
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	82	82
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	43	43
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST.CROP	0	0	0	0	0	0	44	0	0	0	137	15352	167440	182973
05MAY	SE	0	0	0	0	0	0	44	0	0	0	137	5728	42282	42669
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	912	15780	16691
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	732	3069	3155
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	44	322	5029	5396
19MAY	SE	0	0	0	0	0	0	0	0	0	0	44	163	3974	3978
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	48	625	6441	59778	66893
26MAY	SE	0	0	0	0	0	0	0	0	0	48	446	2028	31929	31996
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	1980	1980
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	750	750
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-86 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST.CROP	0	0	0	0	0	0	0	0	0	566	777	470	0	1813
09JUN	SE	0	0	0	0	0	0	0	0	0	566	777	470	0	1070
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST.CROP	0	0	0	0	0	0	0	0	0	0	62	0	370	432
17JUN	SE	0	0	0	0	0	0	0	0	0	0	62	0	144	157
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST.CROP	0	0	0	0	0	0	0	0	26	0	181	0	0	207
23JUN	SE	0	0	0	0	0	0	0	0	26	0	181	0	0	183
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-87 REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.17	0.00	0.17
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.17	0.00	2.17
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27	0.00	15.35	6.67	1.79
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27	0.00	12.79	4.80	13.72
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.73	0.00	10.62	1.26
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.73	0.00	10.62	12.07
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-87 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.86	1.76
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.86	22.86
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.01	0.31
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.14	3.14
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-88 REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	348	0	348
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	348	0	348
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	180	0	2468	475	3122
26MAY	SE	0	0	0	0	0	0	0	0	0	180	0	2056	342	2092
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	1010	0	755	1766
02JUN	SE	0	0	0	0	0	0	0	0	0	0	1010	0	755	1261
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-88 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	1626	1626
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	1626	1626
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	285	285
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	223	223
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-89 REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50	0.52	1.03	9.46	0.00	0.64	1.17
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50	0.52	1.03	5.04	0.00	0.64	6.27
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-89 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.65	0.00	0.00	0.00	0.20
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.65	0.00	0.00	0.00	2.65
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.65	4.24	8.98	33.86	9.18	4.45
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27	4.24	8.65	18.83	8.40	22.79
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	3.69	6.56	15.31	10.83	2.84
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	3.69	4.72	9.33	7.02	13.13
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.79	0.00	1.71	1.68	0.55
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.79	0.00	0.93	1.21	4.08
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-90 REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	1044	86	146	1668	0	45	2989
02JUN	SE	0	0	0	0	0	0	0	1044	86	146	888	0	45	1382
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-90 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	375	0	0	0	375
09JUN	SE	0	0	0	0	0	0	0	0	0	375	0	0	0	375
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	273	599	1583	5442	653	8550
17JUN	SE	0	0	0	0	0	0	0	0	210	599	1524	3026	598	3499
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	109	0	0	0	522	1156	2461	771	5018
23JUN	SE	0	0	0	0	0	109	0	0	0	522	832	1499	500	1864
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	536	0	274	120	930
30JUN	SE	0	0	0	0	0	0	0	0	0	536	0	150	86	563
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-91 REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-91 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
09JUN	SE	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	1.06	0.00	2.67	1.64	0.00	0.44
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.65	0.00	2.67	1.64	0.00	3.22
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.53	0.17	1.56	0.14	6.47	12.39	6.39	0.00	2.13
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.53	0.17	1.56	0.14	2.76	3.60	3.19	0.00	5.79
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.42	0.00	0.00	0.16	0.00	NS	NS	NS	NS	NS	0.07
13JUL	SE	0.00	0.00	0.00	0.27	0.00	0.00	0.16	0.00						0.31
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	NS	NS	NS	NS	NS	0.10
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83						0.83
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	1.08	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.14
10AUG	SE	0.00	0.00	1.08	0.00	0.00	0.00	0.00	0.00						1.08
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.72	0.00	0.00	0.00	0.58	0.00	NS	NS	NS	NS	NS	0.16
24AUG	SE	0.00	0.00	0.72	0.00	0.00	0.00	0.58	0.00						0.92
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.29	0.90	0.15	0.45	0.06	0.00	NS	NS	NS	NS	NS	0.23
08SEP	SE	0.00	0.00	0.29	0.53	0.15	0.30	0.06	0.00						0.69
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.15	0.11	0.70	0.00	NS	NS	NS	NS	NS	0.12
21SEP	SE	0.00	0.00	0.00	0.00	0.15	0.11	0.65	0.00						0.67
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.41	0.00	0.41	0.15	0.15	0.00	0.00	NS	NS	NS	NS	NS	0.14
05OCT	SE	0.00	0.41	0.00	0.24	0.15	0.15	0.00	0.00						0.51
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-92 REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-92 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	98	0	0	0	0	0	0	0	0	0	0	0	98
09JUN	SE	0	98	0	0	0	0	0	0	0	0	0	0	0	98
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	50	0	176	0	470	264	0	960
23JUN	SE	0	0	0	0	0	0	50	0	108	0	470	264	0	552
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	110	23	465	24	915	2185	1026	0	4749
30JUN	SE	0	0	0	0	0	110	23	465	24	390	634	513	0	1024
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	62	0	0	23	0	NS	NS	NS	NS	NS	85
13JUL	SE	0	0	0	39	0	0	23	0						46
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	248	NS	NS	NS	NS	NS	248
27JUL	SE	0	0	0	0	0	0	0	248						248
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	349	0	0	0	0	0	NS	NS	NS	NS	NS	349
10AUG	SE	0	0	349	0	0	0	0	0						349
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	230	0	0	0	81	0	NS	NS	NS	NS	NS	311
24AUG	SE	0	0	230	0	0	0	81	0						244
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	94	134	32	94	8	0	NS	NS	NS	NS	NS	362
08SEP	SE	0	0	94	78	32	61	8	0						140
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	31	23	98	0	NS	NS	NS	NS	NS	152
21SEP	SE	0	0	0	0	31	23	91	0						98
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	93	0	61	30	31	0	0	NS	NS	NS	NS	NS	214
05OCT	SE	0	93	0	35	30	31	0	0						108
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-93 REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.05	0.67	0.08	0.01	0.02	1.07	5.43	6.84	1.01	1.17
09JUL	SE	0.00	0.00	0.00	0.00	0.02	0.47	0.05	0.01	0.02	0.43	0.85	2.01	0.46	2.32
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.21	0.49	0.11	0.49	0.03	0.41	0.00	1.01	0.14	0.00	0.57	0.27
21JUL	SE	0.00	0.00	0.21	0.39	0.03	0.33	0.02	0.41	0.00	0.94	0.08	0.00	0.41	1.24
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.03	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.07	0.22	0.00	0.00	0.04
04AUG	SE	0.03	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.07	0.07	0.00	0.00	0.22
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.34	0.06
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.34	0.53
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.10	0.00	0.03	0.54	0.00	0.22	NS	NS	NS	NS	NS	0.11
01SEP	SE	0.00	0.00	0.10	0.00	0.03	0.28	0.00	0.21						0.37
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.04	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15SEP	SE	0.00	0.00	0.00	0.04	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.07	0.13	0.10	0.02
29SEP	SE	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.07	0.13	0.10	0.18
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-94 REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	10	138	11	4	3	152	957	1099	72	2447
09JUL	SE	0	0	0	0	5	97	7	4	3	61	150	323	33	376
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	69	72	23	102	5	121	0	143	25	0	40	600
21JUL	SE	0	0	69	58	7	69	3	121	0	133	14	0	29	215
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	6	0	0	0	0	41	0	0	0	9	38	0	0	94
04AUG	SE	6	0	0	0	0	41	0	0	0	9	13	0	0	44
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	126	0	0	0	0	24	150
18AUG	SE	0	0	0	0	0	0	0	121	0	0	0	0	24	123
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	33	0	7	112	0	67	NS	NS	NS	NS	NS	220
01SEP	SE	0	0	33	0	5	58	0	62						92
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	6	5	2	0	0	0	0	0	0	0	13
15SEP	SE	0	0	0	6	5	2	0	0	0	0	0	0	0	8
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	3	0	0	0	0	0	13	20	7	44
29SEP	SE	0	0	0	0	3	0	0	0	0	0	13	20	7	25
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02DEC	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-95 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF AMERICAN SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.09	0.00	0.00	0.00	0.00	0.63	0.50	0.38	0.47	0.95	1.75	0.40
16JUN	SE	0.00	0.09	0.00	0.00	0.00	0.00	0.42	0.27	0.26	0.32	0.49	0.99	1.29
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	29.33	11.33	7.63	5.88	1.63	1.53	5.11	8.17	5.88
30JUN	SE	0.00	0.00	0.00	0.00	28.83	6.39	1.79	1.80	0.71	1.33	1.79	5.02	30.15
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	2.64	2.86	3.00	1.67	36.00	3.50	12.88	4.00	0.20	2.63	2.83	6.02
14JUL	SE	0.00	1.70	1.67	2.52	0.88	8.39	1.41	6.28	1.70	0.11	0.96	1.49	11.43
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	1.38	6.71	3.20	2.40	4.50	0.60	0.60	4.40	1.33	5.00	5.00	2.93
28JUL	SE	0.00	0.52	2.14	2.06	1.21	2.49	0.60	0.40	2.58	0.60	2.62	2.55	6.14
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.21	3.29	2.40	1.20	2.17	1.80	2.40	1.20	0.22	3.20	1.86	1.66
11AUG	SE	0.00	0.17	2.01	1.47	0.73	0.75	1.80	1.12	0.73	0.15	1.15	1.86	4.15
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.13	2.14	2.00	1.80	0.83	0.20	0.60	1.80	1.00	4.40	2.14	1.42
25AUG	SE	0.00	0.09	1.09	2.00	0.92	0.48	0.20	0.40	0.97	0.88	1.57	1.67	3.67
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	1.38	0.21	0.00	0.00	0.00	0.00	0.80	0.20	0.67	3.00	1.00	0.60
09SEP	SE	0.00	1.20	0.15	0.00	0.00	0.00	0.00	0.80	0.20	0.44	1.50	0.49	2.20
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.40	0.58	1.43	0.20	0.00	0.33	0.00	0.20	0.00	0.11	0.80	0.14	0.35
22SEP	SE	0.24	0.28	0.58	0.20	0.00	0.21	0.00	0.20	0.00	0.11	0.70	0.14	1.06
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.75	1.50	0.00	0.60	0.17	3.20	0.00	0.40	1.11	1.60	2.00	0.94
06OCT	SE	0.00	0.24	0.39	0.00	0.40	0.17	3.20	0.00	0.24	0.51	0.81	0.85	3.51
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.40	0.79	4.50	0.40	0.00	0.17	1.20	1.00	0.20	0.78	0.50	1.57	0.96
20OCT	SE	0.40	0.21	0.93	0.24	0.00	0.17	0.80	0.63	0.20	0.32	0.40	0.78	1.76
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-96 REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	4	0	0	0	0	4	1	3	8	19	24	63
16JUN	SE	0	4	0	0	0	0	3	< 0.5	2	6	10	13	18
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	77	121	54	7	14	27	100	111	512
30JUN	SE	0	0	0	0	76	68	13	2	6	23	35	68	131
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	120	77	28	4	383	25	16	34	4	52	38	781
14JUL	SE	0	77	45	23	2	89	10	8	15	2	19	20	133
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	62	181	29	6	48	4	1	38	23	98	68	559
28JUL	SE	0	24	58	19	3	26	4	< 0.5	22	11	52	35	97
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	9	88	22	3	23	13	3	10	4	63	25	264
11AUG	SE	0	8	54	14	2	8	13	1	6	3	23	25	68
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	6	58	18	5	9	1	1	15	18	87	29	246
25AUG	SE	0	4	29	18	2	5	1	< 0.5	8	15	31	23	55
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	62	6	0	0	0	0	1	2	12	59	14	155
09SEP	SE	0	55	4	0	0	0	0	1	2	8	29	7	63
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	3	27	38	2	0	4	0	< 0.5	0	2	16	2	93
22SEP	SE	2	13	16	2	0	2	0	< 0.5	0	2	14	2	25
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	34	40	0	2	2	23	0	3	20	31	27	182
06OCT	SE	0	11	10	0	1	2	23	0	2	9	16	11	35
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	3	36	121	4	0	2	9	1	2	14	10	21	222
20OCT	SE	3	9	25	2	0	2	6	1	2	6	8	11	31
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-97 REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
08APR	SE	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.22	0.20	0.12	0.43	0.00	0.00	1.64	0.00	0.00	0.68	0.25
02JUN	SE	0.00	0.00	0.00	0.22	0.20	0.12	0.43	0.00	0.00	0.99	0.00	0.00	0.68	1.32
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-97 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.32	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
17JUN	SE	0.00	0.00	0.32	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
30JUN	SE	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.30	0.00	0.00	0.16	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.06
13JUL	SE	0.00	0.30	0.00	0.00	0.16	0.00	0.00	0.00						0.34
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-98 REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	69	0	0	0	0	0	0	0	0	0	0	69
08APR	SE	0	0	69	0	0	0	0	0	0	0	0	0	0	69
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	33	42	24	60	0	0	232	0	0	48	439
02JUN	SE	0	0	0	33	42	24	60	0	0	141	0	0	48	171
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-98 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	104	62	0	0	0	0	0	0	0	0	0	165
17JUN	SE	0	0	104	62	0	0	0	0	0	0	0	0	0	120
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	125	0	0	0	0	0	0	0	0	0	0	125
30JUN	SE	0	0	77	0	0	0	0	0	0	0	0	0	0	77
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	69	0	0	33	0	0	0	NS	NS	NS	NS	NS	102
13JUL	SE	0	69	0	0	33	0	0	0						76
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-99 REGIONAL DENSITY (NO./1,000m3) OF AMERICAN SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-100 REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
01SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02DEC	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-101 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF AMERICAN SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.05
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.40
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
14JUL	SE	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-102 REGIONAL STANDING CROP (IN THOUSANDS) OF AMERICAN SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	11	0	11
16JUN	SE	0	0	0	0	0	0	0	0	0	0	8	0	8
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	4	0	0	0	0	0	0	0	0	0	0	4
14JUL	SE	0	4	0	0	0	0	0	0	0	0	0	0	4
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-103 REGIONAL DENSITY (NO./1,000m3) OF ALOSA SPP. EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.40	104.26	311.79	34.34
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.70	54.66	120.64	135.73
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.00	2.27	10.38	115.69	9.94
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.00	1.03	8.59	41.92	42.81
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	52.09	551.98	8195.25	676.88
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	9.29	160.83	1434.88	1443.90
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	8.29	129.88	393.74	40.94
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	7.13	36.94	162.61	166.91
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.74	467.33	1890.47	182.92
19MAY	SE	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.63	356.99	1357.64	1403.83
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.53	0.98	0.00	0.00	0.00	0.83	0.00	0.00	0.00	2.04	139.34	2074.64	14991.90	1323.87
26MAY	SE	0.53	0.98	0.00	0.00	0.00	0.83	0.00	0.00	0.00	2.04	65.55	845.26	4928.13	5000.52
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	12.99	1640.89	127.28
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	11.02	616.59	616.69
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-103 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ALOSA SPP. EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	1.10	2.99	30.71	2.68
09JUN	SE	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	1.10	1.58	19.64	19.73
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.23	1.09
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.07	7.07
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-104 REGIONAL STANDING CROP (IN THOUSANDS) OF ALOSA SPP. EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	5359	16758	22183	44300
22APR	SE	0	0	0	0	0	0	0	0	0	0	5235	8786	8583	13352
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST.CROP	0	0	0	0	0	0	0	262	0	0	400	1669	8231	10562
28APR	SE	0	0	0	0	0	0	0	262	0	0	182	1380	2982	3302
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST.CROP	0	0	0	0	0	0	0	52	0	0	9184	88721	583085	681042
05MAY	SE	0	0	0	0	0	0	0	52	0	0	1638	25851	102091	105325
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST.CROP	0	0	0	0	0	0	0	0	46	0	1461	20875	28014	50396
12MAY	SE	0	0	0	0	0	0	0	0	28	0	1257	5937	11570	13065
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST.CROP	100	0	0	0	0	0	0	0	0	0	3480	75115	134505	213200
19MAY	SE	100	0	0	0	0	0	0	0	0	0	1698	57380	96595	112365
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST.CROP	110	224	0	0	0	173	0	0	0	288	24566	333461	1066660	1425482
26MAY	SE	110	224	0	0	0	173	0	0	0	288	11556	135860	350632	376211
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	136	2087	116748	118971
02JUN	SE	0	0	0	0	0	0	0	0	0	0	91	1771	43870	43906
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-104 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ALOSA SPP. EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST.CROP	0	0	0	0	10	0	0	0	0	0	194	480	2185	2870
09JUN	SE	0	0	0	0	10	0	0	0	0	0	194	254	1397	1433
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	1013	1013
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	503	503
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-105 REGIONAL DENSITY (NO./1,000m3) OF ALOSA SPP. YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.10	0.00	0.00	0.00	0.00	0.42	0.00	0.43	0.00	0.00	0.00	0.00	0.07
28APR	SE	0.00	0.10	0.00	0.00	0.00	0.00	0.39	0.00	0.43	0.00	0.00	0.00	0.00	0.59
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.78	0.28	4.74	5.84	11.98	3.55	21.00	17.81	9.55	9.77	30.47	4.02	1.97	9.37
05MAY	SE	0.78	0.28	1.99	2.41	7.79	1.85	8.71	4.90	3.59	5.26	12.65	1.47	1.14	19.45
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.72	0.00	0.20	0.37	0.00	6.53	23.11	39.79	30.52	32.73	28.66	46.94	22.21	17.83
12MAY	SE	0.72	0.00	0.20	0.37	0.00	3.52	9.83	5.89	6.22	9.07	4.79	15.73	4.31	23.55
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	2.04	22.69	4.17	8.74	17.09	18.14	42.89	311.20	1725.39	3969.10	470.88
19MAY	SE	0.00	0.00	0.00	0.72	20.70	1.94	1.99	6.30	9.22	14.38	37.74	626.56	1374.24	1511.06
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.25	0.23	7.50	43.92	7.39	413.20	2176.62	2435.35	3639.74	1045.25	1060.34	833.06
26MAY	SE	0.00	0.00	0.25	0.23	6.66	41.23	3.30	296.15	712.37	511.95	619.76	162.89	156.34	1137.58
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	58.20	0.00	0.22	0.00	0.00	1.38	0.99	10.90	2.07	8.38	1646.73	3986.32	439.63
02JUN	SE	0.00	35.89	0.00	0.22	0.00	0.00	1.38	0.99	8.30	2.07	8.38	464.21	1198.81	1286.11
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-105 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ALOSA SPP. YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	3.77	0.49	0.00	0.00	0.10	0.00	0.17	0.00	1.35	2.72	19.23	139.57	305.78	36.40
09JUN	SE	2.77	0.49	0.00	0.00	0.10	0.00	0.17	0.00	1.35	1.57	17.32	37.70	130.61	137.08
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	13.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.26	114.11	10.36
17JUN	SE	9.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.43	39.63	41.20
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.67	3.12	0.37
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97	2.69	2.86
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-106 REGIONAL STANDING CROP (IN THOUSANDS) OF ALOSA SPP. YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	23	0	0	0	0	59	0	71	0	0	0	0	153
28APR	SE	0	23	0	0	0	0	54	0	71	0	0	0	0	92
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	162	63	1527	863	2496	737	2936	5311	1581	1382	5371	647	140	23216
05MAY	SE	162	63	641	356	1622	384	1217	1461	594	744	2229	236	81	3592
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	151	0	63	55	0	1354	3230	11863	5051	4630	5053	7545	1580	40576
12MAY	SE	151	0	63	55	0	731	1375	1757	1029	1283	844	2529	307	3931
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	301	4726	864	1221	5094	3002	6067	54864	277324	282398	635861
19MAY	SE	0	0	0	106	4313	403	278	1877	1525	2035	6654	100708	97776	140625
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	79	33	1562	9112	1034	123188	360197	344528	641670	168005	75442	1724852
26MAY	SE	0	0	79	33	1387	8554	462	88291	117886	72426	109261	26181	11124	199400
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	13351	0	33	0	0	193	296	1804	292	1477	264683	283623	565752
02JUN	SE	0	8235	0	33	0	0	193	296	1374	292	1477	74613	85294	113641
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-106 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ALOSA SPP. YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	787	114	0	0	20	0	23	0	224	384	3390	22434	21756	49133
09JUN	SE	579	114	0	0	20	0	23	0	224	222	3053	6060	9293	11526
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	2771	0	0	0	0	0	0	0	0	0	0	1166	8119	12057
17JUN	SE	2059	0	0	0	0	0	0	0	0	0	0	873	2820	3599
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	268	222	490
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	156	192	247
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-107 REGIONAL DENSITY (NO./1,000m3) OF ALOSA SPP. POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
08APR	SE	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
28APR	SE	0.00	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.40	1.08	1.68	2.04	3.44	8.85	14.95	5.70	5.08	5.43	8.07	1.57	0.38	4.51
05MAY	SE	0.40	0.57	1.00	0.76	1.42	3.96	2.32	3.96	3.36	2.86	4.54	1.57	0.38	9.13
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	14.10	6.97	24.41	11.76	39.07	11.56	44.37	28.71	39.29	25.04	8.88	10.98	0.75	20.45
12MAY	SE	10.57	2.87	6.70	3.32	14.65	6.19	14.36	8.93	11.92	11.48	6.41	5.46	0.75	32.56
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	1.01	0.48	11.27	11.79	77.14	61.85	68.19	75.05	160.86	233.82	121.57	4.45	2.02	63.81
19MAY	SE	0.58	0.24	3.36	4.83	56.57	27.57	18.85	17.34	70.48	126.37	31.49	4.45	2.02	163.11
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	17.50	16.44	16.30	112.71	194.39	138.57	1037.74	1068.69	2319.78	2229.89	586.28	167.21	12.55	609.08
26MAY	SE	7.10	6.20	5.01	40.62	101.37	36.89	668.73	300.53	801.85	739.76	140.47	85.79	12.55	1329.80
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	319.25	333.21	9.13	135.26	395.58	378.89	628.46	1316.98	2062.06	1536.40	3866.79	1282.58	111.20	951.98
02JUN	SE	126.42	127.69	1.72	23.60	168.93	79.45	134.40	207.85	509.47	632.08	907.23	394.59	84.76	1331.92
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-107 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ALOSA SPP. POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	136.29	17.18	12.15	17.49	466.86	398.58	247.95	1125.80	1356.93	5486.20	3530.43	3917.37	2163.46	1452.05
09JUN	SE	93.48	7.45	3.70	2.18	306.25	87.80	76.20	159.72	365.79	577.06	1257.16	572.83	805.85	1779.44
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	220.28	94.43	8.06	5.46	32.24	176.61	629.90	893.70	2493.75	3394.65	3280.33	2601.01	414.81	1095.79
17JUN	SE	97.22	59.68	4.03	1.70	15.10	71.15	146.61	191.47	657.41	281.94	1335.61	1025.85	122.40	1854.55
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	2.91	8.54	3.25	4.64	16.35	64.89	459.18	437.95	490.69	1403.96	846.95	3222.57	293.88	558.14
23JUN	SE	2.04	7.52	2.42	1.87	8.90	16.74	155.17	188.49	163.35	362.45	171.41	1222.12	130.57	1325.93
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	1.74	0.00	1.21	0.00	0.04	33.37	326.55	492.93	214.96	685.37	250.47	140.70	13.79	166.24
30JUN	SE	1.74	0.00	1.21	0.00	0.04	15.44	156.66	109.12	119.55	196.76	46.16	48.85	2.61	306.96
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	2.10	0.00	0.81	2.13	41.11	27.23	NS	NS	NS	NS	NS	9.17
13JUL	SE	0.00	0.00	2.10	0.00	0.67	1.34	34.19	7.98						35.20
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	NS	NS	NS	NS	NS	0.04
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32						0.32
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	83.28	0.00	0.00	0.00	0.00	0.00	0.26	NS	NS	NS	NS	NS	10.44
10AUG	SE	0.00	83.28	0.00	0.00	0.00	0.00	0.00	0.26						83.28
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.06
24AUG	SE	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00						0.47
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	2.92	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.37
05OCT	SE	0.00	2.92	0.00	0.00	0.00	0.00	0.00	0.00						2.92
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-108 REGIONAL STANDING CROP (IN THOUSANDS) OF ALOSA SPP. POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	62	0	0	0	0	0	0	0	0	0	0	62
08APR	SE	0	0	62	0	0	0	0	0	0	0	0	0	0	62
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	226	0	0	0	0	0	0	0	226
28APR	SE	0	0	0	0	0	226	0	0	0	0	0	0	0	226
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	83	248	540	301	717	1837	2090	1700	841	768	1422	252	27	10826
05MAY	SE	83	132	321	112	296	823	324	1180	555	404	800	252	27	1891
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	2947	1599	7856	1738	8140	2398	6202	8560	6502	3542	1566	1765	53	52867
12MAY	SE	2209	659	2156	490	3051	1285	2007	2662	1972	1624	1130	878	53	6392
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	211	110	3628	1742	16071	12832	9532	22374	26619	33078	21433	715	144	148489
19MAY	SE	122	56	1080	714	11786	5719	2636	5171	11663	17878	5552	715	144	26344
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	3658	3772	5245	16652	40498	28748	145067	318613	383888	315463	103359	26876	893	1392730
26MAY	SE	1484	1423	1612	6001	21119	7653	93482	89597	132694	104653	24764	13789	893	216051
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	66728	76445	2938	19983	82413	78603	87853	392635	341239	217354	681698	206151	7912	2261954
02JUN	SE	26424	29295	555	3486	35195	16482	18788	61967	84309	89421	159941	63424	6030	228070
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-108 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ALOSA SPP. POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	28486	3941	3911	2585	97263	82688	34662	335639	224551	776132	622399	629646	153928	2995831
09JUN	SE	19539	1709	1191	322	63803	18214	10652	47618	60532	81636	221632	92072	57335	279971
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	46041	21665	2594	807	6717	36638	88055	266441	412677	480241	578308	418065	29514	2387761
17JUN	SE	20319	13692	1296	251	3146	14760	20494	57084	108791	39886	235463	164886	8709	317240
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	609	1959	1045	685	3406	13463	64189	130567	81201	198619	149314	517969	20909	1183935
23JUN	SE	426	1724	778	277	1854	3474	21691	56197	27032	51276	30219	196434	9290	215855
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	363	0	390	0	8	6922	45649	146959	35572	96959	44157	22615	981	400575
30JUN	SE	363	0	390	0	8	3202	21900	32532	19784	27836	8138	7851	186	53317
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	675	0	169	441	5747	8119	NS	NS	NS	NS	NS	15152
13JUL	SE	0	0	675	0	139	278	4779	2379						5390
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	95	NS	NS	NS	NS	NS	95
27JUL	SE	0	0	0	0	0	0	0	95						95
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	19106	0	0	0	0	0	77	NS	NS	NS	NS	NS	19183
10AUG	SE	0	19106	0	0	0	0	0	77						19106
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	98	0	0	0	NS	NS	NS	NS	NS	98
24AUG	SE	0	0	0	0	98	0	0	0						98
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	670	0	0	0	0	0	0	NS	NS	NS	NS	NS	670
05OCT	SE	0	670	0	0	0	0	0	0						670
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-109 REGIONAL DENSITY (NO./1,000m3) OF ALOSA SPP. YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-109 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ALOSA SPP. YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-110 REGIONAL STANDING CROP (IN THOUSANDS) OF ALOSA SPP. YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-110 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ALOSA SPP. YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-111 REGIONAL DENSITY (NO./1,000m3) OF ALOSA SPP. YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	4.21	53.22	7.49	70.96	22.18	96.01	16.93	6.70	2.89	21.58
09JUL	SE	0.00	0.00	0.00	0.00	2.98	13.70	5.07	23.01	12.31	34.43	12.72	3.42	1.18	47.57
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	24.02	2.68	3.05	5.79	16.17	2.38	9.09	12.84	5.85
21JUL	SE	0.00	0.00	0.00	0.00	0.00	9.35	1.00	1.01	3.53	5.46	1.00	2.82	6.08	13.33
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-112 REGIONAL STANDING CROP (IN THOUSANDS) OF ALOSA SPP. YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	876	11041	1048	21156	3671	13582	2984	1076	206	55640
09JUL	SE	0	0	0	0	620	2842	708	6860	2037	4870	2242	549	84	9446
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	4983	375	909	958	2287	420	1461	914	12308
21JUL	SE	0	0	0	0	0	1939	140	301	585	772	176	453	432	2287
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
01SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02DEC	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-113 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF ALOSA SPP. YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	6.00	0.67	26.88	53.00	15.25	15.73	11.37	5.58	11.21
16JUN	SE	0.00	0.00	0.00	0.00	6.00	0.67	24.06	30.34	8.44	7.98	4.65	3.41	41.27
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.09	0.14	21.00	105.33	394.00	1084.38	1507.25	748.00	697.33	54.05	28.67	386.69
30JUN	SE	0.00	0.09	0.14	10.00	105.33	298.99	730.47	568.88	298.94	270.25	14.93	14.01	1058.59
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	2.00	22.33	9.00	8.25	39.63	71.25	30.73	16.68	48.00	20.66
14JUL	SE	0.00	0.00	0.00	1.15	2.91	1.15	3.79	22.83	43.98	16.77	10.21	23.70	58.55
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	24.33	39.20	162.20	740.80	75.11	3.60	6.43	87.64
28JUL	SE	0.00	0.00	0.00	0.00	0.00	24.33	38.70	127.44	737.06	60.02	1.87	6.43	751.82
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-114 REGIONAL STANDING CROP (IN THOUSANDS) OF ALOSA SPP. YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	16	7	191	66	131	276	224	76	986
16JUN	SE	0	0	0	0	16	7	171	38	73	140	92	46	257
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	4	4	194	278	4197	7694	1869	6439	12242	1064	389	34373
30JUN	SE	0	4	4	92	278	3185	5183	705	2573	4744	294	190	8176
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	18	59	96	59	49	613	540	328	652	2414
14JUL	SE	0	0	0	11	8	12	27	28	379	294	201	322	613
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	259	278	201	6377	1319	71	87	8593
28JUL	SE	0	0	0	0	0	259	275	158	6345	1054	37	87	6446
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-115 REGIONAL DENSITY (NO./1,000m3) OF ALEWIFE YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-115 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ALEWIFE YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	2.11	0.00	0.00	0.00	0.00	0.00	0.00	1.42	0.27
17JUN	SE	0.00	0.00	0.00	0.00	0.00	2.11	0.00	0.00	0.00	0.00	0.00	0.00	1.42	2.54
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.06
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.80
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.88	0.77	5.52	33.78	8.35	45.38	16.44	12.43	0.70	9.56
30JUN	SE	0.00	0.00	0.00	0.00	0.78	0.58	3.30	12.39	6.80	25.33	6.30	4.16	0.70	30.17
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.21	4.47	3.17	27.17	48.03	NS	NS	NS	NS	NS	10.38
13JUL	SE	0.00	0.00	0.00	0.21	4.17	1.59	8.39	26.20						27.86
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	5.36	3.07	NS	NS	NS	NS	NS	1.05
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	2.51	2.12						3.28
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	6.87	0.00	NS	NS	NS	NS	NS	0.86
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	6.81	0.00						6.81
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.11	1.07	0.00	NS	NS	NS	NS	NS	0.15
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.11	1.01	0.00						1.01
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	7.08	2.69	0.45	0.13	1.10	0.23	NS	NS	NS	NS	NS	1.46
08SEP	SE	0.00	0.00	2.27	0.92	0.20	0.13	0.78	0.23						2.59
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.70	6.24	1.42	0.67	0.00	1.43	NS	NS	NS	NS	NS	1.31
21SEP	SE	0.00	0.00	0.70	3.37	0.79	0.67	0.00	1.05						3.75
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	2.89	0.97	0.20	0.49	0.00	0.05	0.00	NS	NS	NS	NS	NS	0.57
05OCT	SE	0.00	2.89	0.97	0.20	0.30	0.00	0.05	0.00						3.07
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-116 REGIONAL STANDING CROP (IN THOUSANDS) OF ALEWIFE YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-116 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ALEWIFE YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	437	0	0	0	0	0	0	101	538
17JUN	SE	0	0	0	0	0	437	0	0	0	0	0	0	101	449
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	238	0	0	0	0	0	238
23JUN	SE	0	0	0	0	0	0	0	238	0	0	0	0	0	238
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	184	159	771	10072	1382	6419	2898	1998	50	23932
30JUN	SE	0	0	0	0	162	120	462	3694	1125	3583	1110	668	50	5448
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	31	932	657	3799	14319	NS	NS	NS	NS	NS	19739
13JUL	SE	0	0	0	31	868	329	1172	7810						7952
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	750	915	NS	NS	NS	NS	NS	1665
27JUL	SE	0	0	0	0	0	0	351	632						723
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	960	0	NS	NS	NS	NS	NS	960
10AUG	SE	0	0	0	0	0	0	953	0						953
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	22	150	0	NS	NS	NS	NS	NS	173
24AUG	SE	0	0	0	0	0	22	141	0						142
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	2278	397	93	27	153	70	NS	NS	NS	NS	NS	3017
08SEP	SE	0	0	730	137	42	27	109	70						755
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	227	922	296	138	0	426	NS	NS	NS	NS	NS	2009
21SEP	SE	0	0	227	499	165	138	0	314						667
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	663	311	30	103	0	6	0	NS	NS	NS	NS	NS	1114
05OCT	SE	0	663	311	30	62	0	6	0						736
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-117 REGIONAL DENSITY (NO./1,000m3) OF ALEWIFE YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.01	3.50	0.12	0.45	0.00	2.77	0.15	0.00	0.00	0.54
09JUL	SE	0.00	0.00	0.00	0.00	0.01	1.29	0.05	0.45	0.00	1.45	0.08	0.00	0.00	1.99
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.02	0.00	0.00	2.90	2.21	0.85	0.39	0.83	0.15	0.51	0.00	0.60
21JUL	SE	0.00	0.00	0.02	0.00	0.00	1.26	0.81	0.44	0.39	0.59	0.09	0.51	0.00	1.79
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.03	0.00	0.00	0.00	0.00	0.61	0.36	2.15	0.78	0.00	0.43	0.81	0.00	0.40
04AUG	SE	0.03	0.00	0.00	0.00	0.00	0.61	0.33	1.30	0.78	0.00	0.08	0.81	0.00	1.86
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.44	0.00	0.30	1.03	0.00	0.00	0.14
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.40	0.00	0.30	0.95	0.00	0.00	1.07
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.36	0.03	1.17	0.71	1.49	0.41	0.69	0.24	NS	NS	NS	NS	NS	0.64
01SEP	SE	0.36	0.03	0.49	0.50	0.98	0.27	0.65	0.21						1.46
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.69	0.00	0.20	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
15SEP	SE	0.00	0.40	0.00	0.20	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.15	0.26	0.44	0.40	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.10
29SEP	SE	0.00	0.15	0.26	0.28	0.34	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.53
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.24	0.00	0.33	0.00	0.39	0.00	0.00	0.31	0.00	0.00	0.00	0.10
13OCT	SE	0.00	0.00	0.22	0.00	0.33	0.00	0.35	0.00	0.00	0.31	0.00	0.00	0.00	0.61
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
27OCT	SE	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.05	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
02DEC	SE	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-118 REGIONAL STANDING CROP (IN THOUSANDS) OF ALEWIFE YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	1	726	17	135	0	392	26	0	0	1297
09JUL	SE	0	0	0	0	1	268	7	135	0	205	15	0	0	363
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	7	0	0	602	309	252	64	118	26	82	0	1461
21JUL	SE	0	0	7	0	0	261	113	132	64	84	15	82	0	341
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	6	0	0	0	0	126	51	640	129	0	76	130	0	1159
04AUG	SE	6	0	0	0	0	126	47	389	129	0	15	130	0	450
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	2	6	130	0	43	181	0	0	362
18AUG	SE	0	0	0	0	0	2	5	120	0	43	167	0	0	210
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	76	7	375	105	311	85	96	72	NS	NS	NS	NS	NS	1126
01SEP	SE	76	7	158	74	205	56	91	62						306
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	159	0	29	74	0	0	0	0	0	0	0	0	262
15SEP	SE	0	91	0	29	71	0	0	0	0	0	0	0	0	119
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	34	83	65	84	0	2	0	0	0	0	0	0	267
29SEP	SE	0	34	83	41	71	0	2	0	0	0	0	0	0	121
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	78	0	69	0	55	0	0	44	0	0	0	246
13OCT	SE	0	0	70	0	69	0	48	0	0	44	0	0	0	118
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	7	0	0	0	0	0	0	0	0	0	0	7
27OCT	SE	0	0	7	0	0	0	0	0	0	0	0	0	0	7
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	10	6	8	0	0	0	0	0	0	0	0	0	0	24
02DEC	SE	7	6	8	0	0	0	0	0	0	0	0	0	0	12
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-119 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF ALEWIFE YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63	2.50	0.26
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	2.24	2.29
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.00	0.13	0.37	0.00	0.17
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.63	0.09	0.23	0.00	0.77
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.45	0.00	1.00	0.33	3.33	1.00	1.63	1.38	1.13	0.53	0.42	0.93
14JUL	SE	0.00	0.45	0.00	1.00	0.33	2.85	0.42	0.68	0.46	0.58	0.33	0.26	3.29
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	4.04	5.29	0.80	0.00	1.17	0.60	7.20	0.60	12.00	20.50	0.00	4.35
28JUL	SE	0.00	1.69	2.05	0.80	0.00	0.79	0.40	6.70	0.40	3.76	11.94	0.00	14.50
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.96	2.43	0.00	1.40	4.17	2.40	1.40	0.40	5.11	13.50	1.14	2.74
11AUG	SE	0.00	0.52	1.81	0.00	0.87	2.93	2.40	1.40	0.40	2.34	5.65	0.86	7.68
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	1.92	7.21	0.00	0.00	0.17	12.60	0.40	0.40	4.56	2.60	0.00	2.49
25AUG	SE	0.00	0.76	6.76	0.00	0.00	0.17	7.32	0.40	0.40	2.31	1.41	0.00	10.37
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	6.08	7.14	0.40	3.40	11.00	0.20	0.20	0.00	0.56	0.20	0.00	2.43
09SEP	SE	0.00	1.76	2.16	0.24	0.75	5.07	0.20	0.20	0.00	0.24	0.13	0.00	5.85
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	5.33	3.43	1.80	1.80	1.33	2.20	0.80	0.20	0.00	0.00	0.00	1.41
22SEP	SE	0.00	2.92	1.48	0.58	0.58	0.61	0.86	0.37	0.20	0.00	0.00	0.00	3.57
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.20	2.25	5.00	2.60	0.20	1.17	0.00	0.00	0.00	0.00	0.00	0.29	0.98
06OCT	SE	0.20	1.03	2.05	0.68	0.20	0.31	0.00	0.00	0.00	0.00	0.00	0.29	2.45
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.20	0.92	2.14	0.60	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.14	0.40
20OCT	SE	0.20	0.41	0.86	0.40	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.14	1.25
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-120 REGIONAL STANDING CROP (IN THOUSANDS) OF ALEWIFE YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	12	34	46
16JUN	SE	0	0	0	0	0	0	0	0	0	0	9	30	32
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	1	9	2	7	0	19
30JUN	SE	0	0	0	0	0	0	0	< 0.5	5	2	5	0	7
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	21	0	9	1	36	7	2	12	20	10	6	123
14JUL	SE	0	21	0	9	1	30	3	1	4	10	6	4	40
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	184	142	7	0	12	4	9	5	211	403	0	978
28JUL	SE	0	77	55	7	0	8	3	8	3	66	235	0	262
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	44	65	0	4	44	17	2	3	90	266	16	550
11AUG	SE	0	24	49	0	2	31	17	2	3	41	111	12	136
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	87	194	0	0	2	89	< 0.5	3	80	51	0	507
25AUG	SE	0	35	182	0	0	2	52	< 0.5	3	41	28	0	198
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	276	192	4	9	117	1	< 0.5	0	10	4	0	614
09SEP	SE	0	80	58	2	2	54	1	< 0.5	0	4	3	0	113
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	242	92	17	5	14	16	1	2	0	0	0	388
22SEP	SE	0	133	40	5	2	7	6	< 0.5	2	0	0	0	139
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	2	102	134	24	1	12	0	0	0	0	0	4	279
06OCT	SE	2	47	55	6	1	3	0	0	0	0	0	4	73
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	2	42	58	6	0	9	0	0	0	0	0	2	117
20OCT	SE	2	19	23	4	0	7	0	0	0	0	0	2	31
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-121 REGIONAL DENSITY (NO./1,000m3) OF ALEWIFE YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.94	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.13
23MAR	SE	0.58	0.00	0.00	0.00	0.00	0.00	0.00							0.58
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.28	0.00	0.25	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.08
30MAR	SE	0.28	0.00	0.25	0.00	0.00	0.00	0.00							0.37
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
08APR	SE	0.00	0.00	0.00	0.22	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
15APR	SE	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.29	0.10	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.07
28APR	SE	0.29	0.10	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.61
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.10	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
12MAY	SE	0.00	0.10	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.07
19MAY	SE	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.71
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.02
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.21
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.20	0.26	0.00	0.00	0.16	0.00	0.32	0.00	0.00	0.00	0.07
02JUN	SE	0.00	0.00	0.00	0.20	0.26	0.00	0.00	0.16	0.00	0.32	0.00	0.00	0.00	0.48
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-121 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ALEWIFE YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	53.23	0.00	0.00	0.00	0.00	0.16	0.00	0.17	0.33	1.10	1.15	0.00	4.32
09JUN	SE	0.00	25.21	0.00	0.00	0.00	0.00	0.16	0.00	0.17	0.33	1.10	1.15	0.00	25.26
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.26	0.00	0.60	0.00	0.07
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.26	0.00	0.60	0.00	0.66
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.10	0.32	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
23JUN	SE	0.00	0.10	0.32	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.28	0.04	0.11	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.09
30JUN	SE	0.00	0.00	0.00	0.28	0.04	0.11	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.51
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	NS	NS	NS	NS	NS	0.01
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00						0.05
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-122 REGIONAL STANDING CROP (IN THOUSANDS) OF ALEWIFE YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	196	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	196
23MAR	SE	121	0	0	0	0	0	0							121
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	58	0	81	0	0	0	0	NS	NS	NS	NS	NS	NS	139
30MAR	SE	58	0	81	0	0	0	0							99
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	33	13	0	0	0	0	0	0	0	0	46
08APR	SE	0	0	0	33	13	0	0	0	0	0	0	0	0	35
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	81	0	0	0	0	0	0	0	0	0	0	0	0	81
15APR	SE	81	0	0	0	0	0	0	0	0	0	0	0	0	81
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	61	23	0	0	0	0	0	157	0	0	0	0	0	241
28APR	SE	61	23	0	0	0	0	0	157	0	0	0	0	0	170
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	22	248	0	0	0	0	0	0	0	0	0	0	270
12MAY	SE	0	22	185	0	0	0	0	0	0	0	0	0	0	186
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	33	0	0	0	0	0	0	0	0	48	81
19MAY	SE	0	0	0	33	0	0	0	0	0	0	0	0	48	58
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	35	0	0	0	0	35
26MAY	SE	0	0	0	0	0	0	0	0	35	0	0	0	0	35
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	30	54	0	0	47	0	45	0	0	0	176
02JUN	SE	0	0	0	30	54	0	0	47	0	45	0	0	0	90
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-122 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ALEWIFE YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	12211	0	0	0	0	22	0	28	47	194	186	0	12689
09JUN	SE	0	5783	0	0	0	0	22	0	28	47	194	186	0	5789
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	13	0	0	37	0	96	0	147
17JUN	SE	0	0	0	0	0	0	13	0	0	37	0	96	0	104
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	23	103	0	24	0	0	0	0	0	0	0	0	150
23JUN	SE	0	23	103	0	24	0	0	0	0	0	0	0	0	109
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	41	9	24	0	0	0	0	124	0	0	197
30JUN	SE	0	0	0	41	9	24	0	0	0	0	72	0	0	86
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	6	0	NS	NS	NS	NS	NS	6
27JUL	SE	0	0	0	0	0	0	6	0						6
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-123 REGIONAL DENSITY (NO./1,000m3) OF ALEWIFE YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.23	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.07	0.12	0.00	0.04
09JUL	SE	0.00	0.00	0.23	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.07	0.12	0.00	0.27
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
04AUG	SE	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.03	0.00	0.58	0.00	0.00	0.02	NS	NS	NS	NS	NS	0.08
01SEP	SE	0.00	0.00	0.03	0.00	0.37	0.00	0.00	0.02						0.37
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.08	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
15SEP	SE	0.00	0.08	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
29SEP	SE	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-124 REGIONAL STANDING CROP (IN THOUSANDS) OF ALEWIFE YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	74	0	2	4	0	4	0	0	12	20	0	115
09JUL	SE	0	0	74	0	2	3	0	4	0	0	12	20	0	77
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	0	2	0	0	0	0	0	0	2
21JUL	SE	0	0	0	0	0	0	2	0	0	0	0	0	0	2
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	70	0	0	0	0	0	0	0	0	0	0	0	70
04AUG	SE	0	70	0	0	0	0	0	0	0	0	0	0	0	70
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	10	0	120	0	0	5	NS	NS	NS	NS	NS	135
01SEP	SE	0	0	10	0	78	0	0	5						78
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	19	0	0	62	0	0	0	0	0	0	0	0	81
15SEP	SE	0	19	0	0	62	0	0	0	0	0	0	0	0	65
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	3	0	0	0	0	0	0	0	0	3
29SEP	SE	0	0	0	0	3	0	0	0	0	0	0	0	0	3
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02DEC	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-125 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF ALEWIFE YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.36	0.00	0.00	0.00	0.00	0.38	0.25	0.00	0.00	0.00	0.00	0.08
16JUN	SE	0.00	0.36	0.00	0.00	0.00	0.00	0.38	0.25	0.00	0.00	0.00	0.00	0.58
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	6.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.52
30JUN	SE	0.00	0.00	5.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	5.98
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.36	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
14JUL	SE	0.00	0.36	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.96	16.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47
28JUL	SE	0.00	0.96	16.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.21
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
25AUG	SE	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.01
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-126 REGIONAL STANDING CROP (IN THOUSANDS) OF ALEWIFE YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	17	0	0	0	0	3	< 0.5	0	0	0	0	19
16JUN	SE	0	17	0	0	0	0	3	< 0.5	0	0	0	0	17
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	165	0	0	0	0	0	0	0	1	0	166
30JUN	SE	0	0	161	0	0	0	0	0	0	0	1	0	161
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	17	12	0	0	0	0	0	0	0	0	0	28
14JUL	SE	0	17	12	0	0	0	0	0	0	0	0	0	20
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	44	448	0	0	0	0	0	0	0	0	0	491
28JUL	SE	0	44	435	0	0	0	0	0	0	0	0	0	437
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	4	0	0	0	0	0	0	0	0	0	0	4
25AUG	SE	0	3	0	0	0	0	0	0	0	0	0	0	3
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	2	2
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	2	2
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-127 REGIONAL DENSITY (NO./1,000m3) OF BLUEBACK HERRING YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-127 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF BLUEBACK HERRING YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.04
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.49
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.17	0.00	0.00	0.00	0.00	0.04
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.17	0.00	0.00	0.00	0.00	0.31
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	1.31	21.11	144.39	0.00	NS	NS	NS	NS	NS	20.85
13JUL	SE	0.00	0.00	0.00	0.00	0.76	13.57	77.40	0.00						78.59
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	1.21	0.00	22.33	185.61	NS	NS	NS	NS	NS	26.14
27JUL	SE	0.00	0.00	0.00	0.00	1.12	0.00	6.28	109.71						109.89
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.80	2.55	1.62	0.42	4.81	14.29	NS	NS	NS	NS	NS	3.06
10AUG	SE	0.00	0.00	0.80	1.58	1.53	0.42	3.95	8.57						9.73
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	1.67	0.96	0.00	1.55	5.32	37.64	NS	NS	NS	NS	NS	5.89
24AUG	SE	0.00	0.00	0.99	0.96	0.00	0.97	3.09	20.35						20.66
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	31.51	54.85	44.57	62.00	110.89	15.89	NS	NS	NS	NS	NS	39.96
08SEP	SE	0.00	0.00	7.67	7.47	9.39	13.38	45.84	6.46						50.25
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.45	20.88	53.81	58.00	41.52	51.05	39.48	NS	NS	NS	NS	NS	33.15
21SEP	SE	0.00	0.45	5.11	15.95	17.46	3.12	3.86	9.49						26.46
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	11.67	41.49	8.49	14.22	12.46	8.66	21.15	17.03	NS	NS	NS	NS	NS	16.90
05OCT	SE	5.50	16.61	2.92	2.89	7.94	4.34	4.02	5.80						21.32
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-128 REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEBACK HERRING YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-128 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEBACK HERRING YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	82	0	0	0	0	82
23JUN	SE	0	0	0	0	0	0	0	0	82	0	0	0	0	82
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	51	0	27	0	0	0	0	79
30JUN	SE	0	0	0	0	0	0	37	0	27	0	0	0	0	46
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	272	4379	20185	0	NS	NS	NS	NS	NS	24836
13JUL	SE	0	0	0	0	158	2816	10820	0						11182
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	251	0	3122	55335	NS	NS	NS	NS	NS	58709
27JUL	SE	0	0	0	0	234	0	877	32708						32721
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	258	376	338	87	672	4259	NS	NS	NS	NS	NS	5991
10AUG	SE	0	0	258	234	319	87	552	2555						2658
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	536	142	0	321	743	11220	NS	NS	NS	NS	NS	12963
24AUG	SE	0	0	320	142	0	201	433	6068						6097
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	10139	8104	9285	12861	15501	4736	NS	NS	NS	NS	NS	60626
08SEP	SE	0	0	2469	1103	1955	2777	6408	1926						7976
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	103	6720	7949	12083	8613	7137	11770	NS	NS	NS	NS	NS	54376
21SEP	SE	0	103	1646	2357	3638	648	540	2829						5497
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	2438	9518	2732	2101	2596	1797	2956	5077	NS	NS	NS	NS	NS	29217
05OCT	SE	1149	3810	939	426	1655	901	562	1730						4874
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-129 REGIONAL DENSITY (NO./1,000m3) OF BLUEBACK HERRING YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.94	1.45	0.03	0.48	0.00	0.07	0.98	0.00	0.00	0.30
09JUL	SE	0.00	0.00	0.00	0.00	0.64	0.63	0.03	0.32	0.00	0.07	0.85	0.00	0.00	1.28
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.11	0.85	52.48	0.75	16.18	6.28	11.79	5.06	28.42	12.88	10.37
21JUL	SE	0.00	0.00	0.00	0.07	0.63	18.23	0.28	7.11	4.32	4.41	1.65	5.16	6.78	22.29
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.80	3.24	40.38	14.52	16.78	30.23	43.98	39.02	14.53
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.59	1.82	18.66	10.84	4.86	2.40	11.47	25.64	35.89
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.30	0.72	0.08	5.20	95.16	9.95	6.50	24.63	19.08	12.43
18AUG	SE	0.00	0.00	0.00	0.00	0.30	0.64	0.04	2.50	59.39	4.10	3.21	12.57	8.95	61.63
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.03	0.00	4.86	7.40	47.49	14.49	16.17	11.43	NS	NS	NS	NS	NS	12.73
01SEP	SE	0.03	0.00	1.84	2.83	15.88	3.37	3.37	4.27						17.45
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.33	0.50	0.87	7.43	27.15	3.54	20.35	19.68	0.16	0.28	1.79	0.00	0.00	6.31
15SEP	SE	0.33	0.38	0.45	4.13	8.96	1.65	5.45	6.16	0.09	0.11	1.79	0.00	0.00	13.08
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.04	0.65	6.80	4.91	12.45	4.71	13.01	12.07	2.90	3.62	29.72	16.59	4.26	8.59
29SEP	SE	0.04	0.40	3.16	1.64	3.67	2.81	5.25	3.30	1.02	1.45	11.49	5.57	2.11	15.60
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.46	0.00	0.65	0.95	5.33	11.73	16.79	16.70	3.42	2.92	30.91	6.18	2.82	7.60
13OCT	SE	0.46	0.00	0.65	0.92	1.35	4.54	7.19	4.68	2.62	1.79	5.73	2.01	1.78	12.15
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
02DEC	SE	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-130 REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEBACK HERRING YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	197	301	5	142	0	10	172	0	0	826
09JUL	SE	0	0	0	0	133	131	5	95	0	10	150	0	0	258
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	16	177	10888	105	4823	1039	1668	892	4567	917	25092
21JUL	SE	0	0	0	11	132	3781	39	2121	714	624	291	829	482	4552
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	166	452	12039	2402	2374	5329	7069	2776	32609
04AUG	SE	0	0	0	0	0	122	254	5563	1794	688	424	1844	1824	6452
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	63	150	11	1551	15747	1407	1145	3958	1357	25391
18AUG	SE	0	0	0	0	62	132	6	745	9828	579	566	2020	637	10114
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	7	0	1565	1093	9893	3006	2260	3407	NS	NS	NS	NS	NS	21230
01SEP	SE	7	0	591	418	3309	700	471	1273						3715
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	69	116	282	1098	5656	734	2845	5867	27	39	316	0	0	17049
15SEP	SE	69	86	146	610	1866	342	761	1835	15	15	316	0	0	2837
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	8	149	2189	726	2595	977	1818	3599	480	512	5239	2666	303	21261
29SEP	SE	8	92	1016	243	765	582	734	984	169	205	2025	896	150	2920
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	97	0	208	141	1111	2433	2347	4979	566	413	5449	993	201	18937
13OCT	SE	97	0	208	136	281	942	1005	1395	433	254	1010	323	126	2321
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	2	0	0	0	0	0	0	2
27OCT	SE	0	0	0	0	0	0	2	0	0	0	0	0	0	2
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	6	0	0	0	0	0	0	0	0	0	0	0	6
02DEC	SE	0	6	0	0	0	0	0	0	0	0	0	0	0	6
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-131 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF BLUEBACK HERRING YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.05	0.00	0.03
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.05	0.00	0.26
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	1.29	3.33	2.33	3.33	3.75	2.75	0.63	0.67	0.74	0.25	1.59
14JUL	SE	0.00	0.00	1.13	2.03	0.88	0.33	2.88	2.08	0.50	0.54	0.54	0.13	4.44
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	4.63	28.57	13.60	49.60	24.17	1.40	199.20	6.00	41.22	108.50	44.29	43.43
28JUL	SE	0.00	3.82	15.70	7.26	39.53	19.27	1.40	196.95	5.28	9.68	46.57	36.37	211.31
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.14	1.00	496.00	100.67	590.80	24.80	74.00	38.00	47.90	3.00	114.69
11AUG	SE	0.00	0.00	0.14	1.00	184.24	64.98	590.80	18.98	40.71	9.93	19.83	1.96	624.28
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.67	4.21	3.60	5.60	7.33	2.40	12.80	4.00	78.00	82.20	20.43	18.44
25AUG	SE	0.00	0.51	2.89	2.40	4.37	2.53	2.16	12.80	2.53	45.31	43.13	18.35	66.81
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	31.60	31.96	11.43	12.80	184.00	348.17	8.00	8.80	36.80	154.56	6.60	4.00	69.89
09SEP	SE	23.66	12.74	3.91	8.69	47.74	165.75	4.12	8.31	32.84	61.07	3.88	2.87	188.37
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	3.60	19.54	43.07	18.60	80.80	101.83	43.40	3.60	20.40	148.33	40.00	1.86	43.75
22SEP	SE	1.86	4.33	16.63	8.64	13.40	56.74	29.97	1.50	12.87	80.31	14.19	1.03	107.20
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	2.20	25.42	50.79	13.40	30.80	88.33	16.20	6.20	2.00	99.33	147.30	81.57	46.96
06OCT	SE	1.02	9.49	25.73	4.68	15.05	43.12	6.25	3.22	0.77	51.20	59.02	32.96	100.50
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	70.60	12.67	38.71	39.00	8.80	23.17	2.60	20.40	6.00	3.00	6.20	14.14	20.44
20OCT	SE	56.93	7.54	15.81	23.08	2.40	12.80	2.14	10.17	3.03	0.91	2.27	5.93	66.39
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-132 REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEBACK HERRING YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	< 0.5	0	0	1	0	1
30JUN	SE	0	0	0	0	0	0	0	< 0.5	0	0	1	0	1
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	35	31	6	36	27	3	5	12	14	3	172
14JUL	SE	0	0	30	19	2	4	20	3	4	9	11	2	44
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	210	768	125	131	257	10	247	52	724	2135	602	5261
28JUL	SE	0	174	422	67	104	205	10	244	45	170	916	494	1200
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	4	9	1307	1072	4192	31	637	667	942	41	8903
11AUG	SE	0	0	4	9	486	692	4192	24	351	174	390	27	4312
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	30	113	33	15	78	17	16	34	1369	1617	278	3601
25AUG	SE	0	23	78	22	12	27	15	16	22	795	849	249	1193
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	238	1452	307	118	485	3708	57	11	317	2713	130	54	9591
09SEP	SE	178	579	105	80	126	1765	29	10	283	1072	76	39	2180
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	27	888	1158	171	213	1085	308	4	176	2604	787	25	7447
22SEP	SE	14	197	447	80	35	604	213	2	111	1410	279	14	1654
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	17	1155	1366	123	81	941	115	8	17	1744	2898	1108	9573
06OCT	SE	8	431	692	43	40	459	44	4	7	899	1161	448	1799
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	532	576	1041	359	23	247	18	25	52	53	122	192	3240
20OCT	SE	429	343	425	213	6	136	15	13	26	16	45	81	745
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-133 REGIONAL DENSITY (NO./1,000m3) OF BLUEBACK HERRING YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
19MAY	SE	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-133 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF BLUEBACK HERRING YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
09JUN	SE	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-134 REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEBACK HERRING YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	50	0	0	0	0	0	0	0	0	0	50
19MAY	SE	0	0	0	50	0	0	0	0	0	0	0	0	0	50
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-134 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEBACK HERRING YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	128	0	0	0	0	0	0	0	0	0	0	0	0	128
09JUN	SE	128	0	0	0	0	0	0	0	0	0	0	0	0	128
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-135 REGIONAL DENSITY (NO./1,000m3) OF BLUEBACK HERRING YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-136 REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEBACK HERRING YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
01SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02DEC	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-137 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF BLUEBACK HERRING YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
16JUN	SE	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-138 REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEBACK HERRING YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	15	0	0	0	0	0	0	0	0	0	15
16JUN	SE	0	0	15	0	0	0	0	0	0	0	0	0	15
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-139 REGIONAL DENSITY (NO./1,000m3) OF GIZZARD SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-139 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF GIZZARD SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.02
05OCT	SE	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00						0.20
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-140 REGIONAL STANDING CROP (IN THOUSANDS) OF GIZZARD SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-140 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF GIZZARD SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	29	0	0	0	0	NS	NS	NS	NS	NS	29
05OCT	SE	0	0	0	29	0	0	0	0						29
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-141 REGIONAL DENSITY (NO./1,000m3) OF GIZZARD SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.01
01SEP	SE	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00						0.09
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15SEP	SE	0.00	0.00	0.00	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00	< 0.005
02DEC	SE	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.03
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-142 REGIONAL STANDING CROP (IN THOUSANDS) OF GIZZARD SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	14	0	0	0	0	NS	NS	NS	NS	NS	14
01SEP	SE	0	0	0	14	0	0	0	0						14
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	15	2	0	0	0	0	0	0	0	0	16
15SEP	SE	0	0	0	15	2	0	0	0	0	0	0	0	0	15
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	41	0	0	0	0	0	0	0	41
13OCT	SE	0	0	0	0	0	41	0	0	0	0	0	0	0	41
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	7	0	0	2	0	0	3	0	0	0	0	12
02DEC	SE	0	0	7	0	0	2	0	0	3	0	0	0	0	8
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-143 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF GIZZARD SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.54	0.14	0.20	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	0.66
25AUG	SE	0.00	0.34	0.14	0.20	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	7.01
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.20	3.33	3.79	1.20	1.00	2.33	2.40	0.00	0.60	0.00	0.80	0.43	1.34
09SEP	SE	0.20	1.40	0.74	0.73	0.55	1.28	1.94	0.00	0.40	0.00	0.51	0.30	3.05
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	1.92	1.86	0.80	0.20	0.00	0.00	0.80	0.00	0.11	0.00	0.00	0.47
22SEP	SE	0.00	0.87	0.40	0.37	0.20	0.00	0.00	0.49	0.00	0.11	0.00	0.00	1.16
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	1.00	0.83	0.64	2.00	1.00	0.00	0.00	0.00	0.00	0.11	0.00	0.43	0.50
06OCT	SE	0.77	0.22	0.29	0.95	0.63	0.00	0.00	0.00	0.00	0.11	0.00	0.20	1.44
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.50	0.21	0.80	0.20	0.17	0.00	0.40	0.00	0.00	0.00	0.29	0.21
20OCT	SE	0.00	0.15	0.15	0.80	0.20	0.17	0.00	0.24	0.00	0.00	0.00	0.18	0.92
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-144 REGIONAL STANDING CROP (IN THOUSANDS) OF GIZZARD SHAD YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	25	4	2	0	0	50	0	0	0	0	0	80
25AUG	SE	0	15	4	2	0	0	50	0	0	0	0	0	52
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	2	151	102	11	3	25	17	0	5	0	16	6	337
09SEP	SE	2	64	20	7	1	14	14	0	3	0	10	4	71
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	87	50	7	1	0	0	1	0	2	0	0	148
22SEP	SE	0	40	11	3	1	0	0	1	0	2	0	0	41
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	8	38	17	18	3	0	0	0	0	2	0	6	92
06OCT	SE	6	10	8	9	2	0	0	0	0	2	0	3	17
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	23	6	7	1	2	0	< 0.5	0	0	0	4	43
20OCT	SE	0	7	4	7	1	2	0	< 0.5	0	0	0	3	11
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-145 REGIONAL DENSITY (NO./1,000m3) OF GIZZARD SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-145 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF GIZZARD SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-146 REGIONAL STANDING CROP (IN THOUSANDS) OF GIZZARD SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-146 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF GIZZARD SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-147 REGIONAL DENSITY (NO./1,000m3) OF GIZZARD SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.34	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
15SEP	SE	0.34	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.00	0.07
29SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.00	0.87
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
13OCT	SE	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
11NOV	SE	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.01	0.08	0.06	0.00	0.00	0.00	0.00	0.00	0.01
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.06
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-148 REGIONAL STANDING CROP (IN THOUSANDS) OF GIZZARD SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
01SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	70	0	0	15	0	0	0	0	0	0	0	0	0	85
15SEP	SE	70	0	0	15	0	0	0	0	0	0	0	0	0	72
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	123	0	0	0	123
29SEP	SE	0	0	0	0	0	0	0	0	0	123	0	0	0	123
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	1	0	0	0	0	0	0	0	0	1
13OCT	SE	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	8	0	0	0	0	0	0	0	0	8
11NOV	SE	0	0	0	0	5	0	0	0	0	0	0	0	0	5
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	2	11	18	0	0	0	0	0	31
02DEC	SE	0	0	0	0	0	2	6	12	0	0	0	0	0	14
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-149 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF GIZZARD SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
16JUN	SE	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.17	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.14	0.08
28JUL	SE	0.00	0.13	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.14	0.69
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.04
11AUG	SE	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.26
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.17	2.64	1.00	0.00	0.83	2.00	0.00	0.00	0.00	0.10	0.00	0.56
25AUG	SE	0.00	0.13	1.64	1.00	0.00	0.83	2.00	0.00	0.00	0.00	0.10	0.00	2.90
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.71	2.43	0.20	0.60	0.17	0.00	0.40	0.00	0.00	0.10	0.00	0.38
09SEP	SE	0.00	0.32	0.87	0.20	0.40	0.17	0.00	0.40	0.00	0.00	0.10	0.00	1.12
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.60	0.42	0.36	0.00	0.40	0.33	0.80	1.20	0.40	0.11	0.00	0.00	0.38
22SEP	SE	0.40	0.25	0.17	0.00	0.40	0.21	0.58	0.73	0.24	0.11	0.00	0.00	1.19
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.17	0.29	0.40	0.40	0.00	0.00	0.00	0.00	0.22	0.00	0.14	0.13
06OCT	SE	0.00	0.08	0.16	0.24	0.40	0.00	0.00	0.00	0.00	0.22	0.00	0.14	0.57
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.20	0.33	0.14	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.07
20OCT	SE	0.20	0.14	0.10	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.33
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-150 REGIONAL STANDING CROP (IN THOUSANDS) OF GIZZARD SHAD YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	1	0	0	0	0	0	0	0	1
16JUN	SE	0	0	0	0	1	0	0	0	0	0	0	0	1
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	8	0	0	0	7	0	0	0	0	0	2	17
28JUL	SE	0	6	0	0	0	7	0	0	0	0	0	2	9
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	11	0	0	0	0	0	0	0	0	4	0	15
11AUG	SE	0	8	0	0	0	0	0	0	0	0	4	0	9
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	8	71	9	0	9	14	0	0	0	2	0	113
25AUG	SE	0	6	44	9	0	9	14	0	0	0	2	0	48
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	32	65	2	2	2	0	< 0.5	0	0	2	0	105
09SEP	SE	0	14	23	2	1	2	0	< 0.5	0	0	2	0	28
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	5	19	10	0	1	4	6	1	3	2	0	0	50
22SEP	SE	3	12	5	0	1	2	4	1	2	2	0	0	14
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	8	8	4	1	0	0	0	0	4	0	2	26
06OCT	SE	0	4	4	2	1	0	0	0	0	4	0	2	8
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	2	15	4	0	0	0	0	0	2	0	0	0	22
20OCT	SE	2	7	3	0	0	0	0	0	2	0	0	0	7
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-151 REGIONAL DENSITY (NO./1,000m3) OF RAINBOW SMELT YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-151 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF RAINBOW SMELT YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-152 REGIONAL STANDING CROP (IN THOUSANDS) OF RAINBOW SMELT YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-152 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF RAINBOW SMELT YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-153 REGIONAL DENSITY (NO./1,000m3) OF RAINBOW SMELT YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-154 REGIONAL STANDING CROP (IN THOUSANDS) OF RAINBOW SMELT YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
01SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02DEC	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-155 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF RAINBOW SMELT YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-156 REGIONAL STANDING CROP (IN THOUSANDS) OF RAINBOW SMELT YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-157 REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-157 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	55.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	4.33
09JUN	SE	34.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	34.23
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	4926.02	14339.97	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	1482.00
17JUN	SE	1146.11	9379.55	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	9449.31
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	20167.41	1294.57	2.43	0.27	0.00	0.00	0.00	0.87	0.00	0.00	0.00	0.00	0.00	1651.20
23JUN	SE	16168.82	757.60	1.88	0.27	0.00	0.00	0.00	0.87	0.00	0.00	0.00	0.00	0.00	16186.56
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	4562.52	37635.71	107.13	6.75	0.70	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	3254.84
30JUN	SE	1306.83	23287.93	68.17	5.33	0.46	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	23324.66
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	3988.71	21608.34	26.08	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	3202.89
13JUL	SE	972.48	5165.13	17.55	0.00	0.00	0.00	0.00	0.00						5255.92
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	11768.27	27809.41	12.01	195.04	0.00	0.00	0.85	NS	NS	NS	NS	NS	4973.20
27JUL	SE	0.00	9532.04	21746.31	12.01	166.84	0.00	0.00	0.85						23744.26
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	577.79	1365.58	27.91	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	246.41
10AUG	SE	52.75	461.56	19.54	0.00	0.00	0.00	0.00	0.00						464.98
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	1.74	5.55	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.91
24AUG	SE	1.74	3.32	0.00	0.00	0.00	0.00	0.00	0.00						3.75
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-158 REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST.CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST.CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-158 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER EGGS IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST.CROP	11636	0	0	0	0	0	0	0	0	0	0	97	0	11733
09JUN	SE	7153	0	0	0	0	0	0	0	0	0	0	97	0	7154
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST.CROP	1029601	3289881	0	0	0	0	7	0	0	0	0	0	0	4319489
17JUN	SE	239551	2151859	0	0	0	0	7	0	0	0	0	0	0	2165152
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST.CROP	4215249	297000	782	40	0	0	0	258	0	0	0	0	0	4513330
23JUN	SE	3379492	173808	604	40	0	0	0	258	0	0	0	0	0	3383959
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST.CROP	953624	8634395	34476	997	146	0	0	0	26	0	0	0	0	9623664
30JUN	SE	273143	5342723	21937	788	96	0	0	0	26	0	0	0	0	5349745
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST.CROP	833691	4957392	8394	0	0	0	0	0	NS	NS	NS	NS	NS	5799477
13JUL	SE	203261	1184987	5647	0	0	0	0	0						1202306
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST.CROP	0	2699879	8949386	1775	40634	0	0	253	NS	NS	NS	NS	NS	11691926
27JUL	SE	0	2186843	6998213	1775	34760	0	0	253						7332018
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST.CROP	120765	313291	8982	0	0	0	0	0	NS	NS	NS	NS	NS	443039
10AUG	SE	11025	105892	6290	0	0	0	0	0						106649
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST.CROP	364	1274	0	0	0	0	0	0	NS	NS	NS	NS	NS	1637
24AUG	SE	364	762	0	0	0	0	0	0						844
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST.CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-159 REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-159 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
23JUN	SE	0.00	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	103.20	15.13	2.51	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.37
30JUN	SE	0.00	79.51	5.59	1.13	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	79.71
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	5.93	0.84	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.85
13JUL	SE	0.00	5.15	0.84	0.00	0.00	0.00	0.00	0.00						5.22
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	6.58	25.74	13.52	0.00	0.00	0.00	NS	NS	NS	NS	NS	5.73
27JUL	SE	0.00	0.00	5.01	8.67	6.18	0.00	0.00	0.00						11.76
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	6.22	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.78
10AUG	SE	0.00	6.22	0.00	0.00	0.00	0.00	0.00	0.00						6.22
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-160 REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-160 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	454	0	0	0	0	0	0	0	0	0	0	0	454
23JUN	SE	0	382	0	0	0	0	0	0	0	0	0	0	0	382
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	23676	4869	370	202	0	0	0	0	0	0	0	0	29117
30JUN	SE	0	18240	1800	166	124	0	0	0	0	0	0	0	0	18330
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	1360	270	0	0	0	0	0	NS	NS	NS	NS	NS	1630
13JUL	SE	0	1181	270	0	0	0	0	0						1212
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	2117	3803	2817	0	0	0	NS	NS	NS	NS	NS	8737
27JUL	SE	0	0	1613	1280	1287	0	0	0						2428
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	1428	0	0	0	0	0	0	NS	NS	NS	NS	NS	1428
10AUG	SE	0	1428	0	0	0	0	0	0						1428
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-161 REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-161 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
23JUN	SE	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.57	16.93	5.98	4.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12
30JUN	SE	0.00	0.57	7.40	3.06	2.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.50
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	3.95	0.00	0.16	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.51
13JUL	SE	0.00	0.00	2.33	0.00	0.16	0.00	0.00	0.00						2.34
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	10.39	49.40	77.05	21.23	0.37	0.00	NS	NS	NS	NS	NS	19.81
27JUL	SE	0.00	0.00	6.71	13.60	33.89	11.09	0.37	0.00						38.75
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	2.73	1.66	9.50	38.34	0.00	NS	NS	NS	NS	NS	6.53
10AUG	SE	0.00	0.00	0.00	2.73	0.99	5.17	37.46	0.00						37.93
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	1.22	0.98	0.64	0.12	0.00	0.00	NS	NS	NS	NS	NS	0.37
24AUG	SE	0.00	0.00	1.22	0.98	0.64	0.12	0.00	0.00						1.70
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-162 REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-162 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	109	0	0	0	0	0	0	0	0	0	0	109
23JUN	SE	0	0	109	0	0	0	0	0	0	0	0	0	0	109
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	131	5447	883	848	0	0	0	0	0	0	0	0	7309
30JUN	SE	0	131	2381	451	586	0	0	0	0	0	0	0	0	2496
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	1273	0	33	0	0	0	NS	NS	NS	NS	NS	1305
13JUL	SE	0	0	751	0	33	0	0	0						752
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	3343	7298	16053	4405	52	0	NS	NS	NS	NS	NS	31151
27JUL	SE	0	0	2159	2009	7060	2302	52	0						7990
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	404	346	1971	5359	0	NS	NS	NS	NS	NS	8079
10AUG	SE	0	0	0	404	207	1073	5237	0						5365
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	393	145	133	25	0	0	NS	NS	NS	NS	NS	696
24AUG	SE	0	0	393	145	133	25	0	0						440
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-163 REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-163 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.05
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.66
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.02
13JUL	SE	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00						0.16
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	NS	NS	NS	NS	NS	0.03
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24						0.24
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	14.38	0.00	NS	NS	NS	NS	NS	1.80
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	14.38	0.00						14.38
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.28	2.74	2.73	1.24	NS	NS	NS	NS	NS	0.87
24AUG	SE	0.00	0.00	0.00	0.00	0.28	2.01	1.25	0.88						2.54
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	1.01	3.01	2.10	1.75	1.01	2.30	NS	NS	NS	NS	NS	1.40
08SEP	SE	0.00	0.00	0.42	1.46	0.74	1.36	0.43	1.36						2.60
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	2.48	3.27	0.90	3.08	1.44	NS	NS	NS	NS	NS	1.40
21SEP	SE	0.00	0.00	0.00	1.85	0.83	0.68	1.67	0.72						2.81
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	1.68	0.00	2.48	0.69	0.63	1.26	0.53	NS	NS	NS	NS	NS	0.91
05OCT	SE	0.00	1.68	0.00	0.93	0.65	0.36	0.62	0.28						2.16
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-164 REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-164 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	106	0	106
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	106	0	106
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	33	0	0	0	NS	NS	NS	NS	NS	33
13JUL	SE	0	0	0	0	33	0	0	0						33
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	73	NS	NS	NS	NS	NS	73
27JUL	SE	0	0	0	0	0	0	0	73						73
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	2011	0	NS	NS	NS	NS	NS	2011
10AUG	SE	0	0	0	0	0	0	2011	0						2011
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	58	569	382	369	NS	NS	NS	NS	NS	1377
24AUG	SE	0	0	0	0	58	417	174	261						525
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	325	444	438	363	141	686	NS	NS	NS	NS	NS	2397
08SEP	SE	0	0	134	216	153	282	60	405						579
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	366	680	186	431	430	NS	NS	NS	NS	NS	2093
21SEP	SE	0	0	0	273	173	141	234	216						475
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	385	0	366	144	130	177	158	NS	NS	NS	NS	NS	1359
05OCT	SE	0	385	0	137	136	75	86	82						453
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-165 REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
21JUL	SE	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.02	0.16	0.33	0.02	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.06
04AUG	SE	0.00	0.02	0.11	0.27	0.02	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.38
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.06	0.00	0.00	0.00	2.46	0.00	0.20
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.06	0.00	0.00	0.00	2.46	0.00	2.46
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.10	0.00	0.21	0.41	0.35	0.38	0.01	0.00	NS	NS	NS	NS	NS	0.18
01SEP	SE	0.10	0.00	0.21	0.27	0.29	0.26	0.01	0.00						0.53
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
15SEP	SE	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	1.85	0.95	1.21	0.08	0.29	0.20	0.00	0.00	0.00	0.35
29SEP	SE	0.00	0.00	0.00	0.00	1.16	0.39	0.50	0.05	0.29	0.12	0.00	0.00	0.00	1.36
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.10	0.42	0.96	0.62	0.32	3.45	0.50	0.00	0.00	0.49
13OCT	SE	0.00	0.00	0.00	0.00	0.09	0.27	0.79	0.35	0.16	2.02	0.50	0.00	0.00	2.27
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.06	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01
27OCT	SE	0.00	0.00	0.00	0.00	0.06	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.07
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.78	10.92	1.60	0.11	2.62	0.07	0.69	0.27	0.00	0.00	0.00	1.31
02DEC	SE	0.00	0.00	0.42	3.24	0.54	0.09	0.60	0.07	0.22	0.27	0.00	0.00	0.00	3.39
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-166 REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	3	0	0	0	0	0	0	0	0	3
21JUL	SE	0	0	0	0	3	0	0	0	0	0	0	0	0	3
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	6	52	49	3	0	0	0	42	0	0	0	0	151
04AUG	SE	0	6	36	39	3	0	0	0	42	0	0	0	0	68
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	6	1	17	0	0	0	396	0	419
18AUG	SE	0	0	0	0	0	6	1	17	0	0	0	396	0	396
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	21	0	67	61	72	79	2	0	NS	NS	NS	NS	NS	302
01SEP	SE	21	0	67	41	60	53	2	0						114
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	0	86	0	0	0	0	0	0	0	86
15SEP	SE	0	0	0	0	0	58	0	0	0	0	0	0	0	58
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	385	197	169	22	48	28	0	0	0	849
29SEP	SE	0	0	0	0	243	81	69	15	48	18	0	0	0	270
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	21	87	134	186	53	489	88	0	0	1058
13OCT	SE	0	0	0	0	18	57	110	104	26	285	88	0	0	341
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	13	8	3	0	0	0	0	0	0	23
27OCT	SE	0	0	0	0	13	6	3	0	0	0	0	0	0	14
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	251	1613	334	22	367	22	114	38	0	0	0	2761
02DEC	SE	0	0	134	479	113	19	84	22	36	38	0	0	0	520
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-167 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF HOGCHOKER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.42	0.07	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
11AUG	SE	0.00	0.30	0.07	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.17	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.06
25AUG	SE	0.00	0.10	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.36
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.80	0.40	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.14
09SEP	SE	0.00	0.00	0.00	0.49	0.24	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.59
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.25	0.21	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
22SEP	SE	0.00	0.25	0.11	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.04	0.07	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
06OCT	SE	0.00	0.04	0.07	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.20	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.03
20OCT	SE	0.00	0.00	0.00	0.20	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.26
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-168 REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	19	2	2	0	0	0	0	0	0	0	0	23
11AUG	SE	0	14	2	2	0	0	0	0	0	0	0	0	14
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	8	0	0	0	5	0	0	0	0	0	0	13
25AUG	SE	0	4	0	0	0	4	0	0	0	0	0	0	6
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	7	1	5	0	0	0	0	0	0	14
09SEP	SE	0	0	0	5	1	2	0	0	0	0	0	0	5
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	11	6	0	1	0	0	0	0	0	0	0	18
22SEP	SE	0	11	3	0	1	0	0	0	0	0	0	0	12
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	2	2	6	0	0	0	0	0	0	0	0	9
06OCT	SE	0	2	2	4	0	0	0	0	0	0	0	0	5
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	2	0	2	0	0	0	0	0	0	4
20OCT	SE	0	0	0	2	0	2	0	0	0	0	0	0	3
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-169 REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.28	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.04
16MAR	SE	0.00	0.00	0.00	0.28	0.00	0.00	0.00							0.28
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.59	0.00	0.25	0.26	NS	NS	NS	NS	NS	NS	0.16
30MAR	SE	0.00	0.00	0.00	0.59	0.00	0.25	0.26							0.69
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.89	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
08APR	SE	0.00	0.00	0.00	0.52	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	3.18	0.00	0.00	0.00	0.79	0.64	0.00	0.00	0.00	0.35
15APR	SE	0.00	0.00	0.00	0.00	1.97	0.00	0.00	0.00	0.46	0.37	0.00	0.00	0.00	2.06
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	1.14	0.40	0.00	2.50	0.00	0.00	0.54	1.34	0.00	0.00	0.00	0.46
22APR	SE	0.00	0.00	0.40	0.28	0.00	0.99	0.00	0.00	0.54	0.95	0.00	0.00	0.00	1.55
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.56	0.00	1.34	7.36	4.17	0.63	0.00	0.00	1.21	0.00	0.00	0.00	0.00	1.17
28APR	SE	0.28	0.00	0.55	6.88	4.11	0.36	0.00	0.00	0.61	0.00	0.00	0.00	0.00	8.07
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	1.89	0.55	6.66	22.57	6.47	17.46	3.44	3.64	7.18	0.00	0.00	0.00	5.38
05MAY	SE	0.00	1.01	0.18	2.11	5.23	2.96	4.89	1.40	1.18	1.96	0.00	0.00	0.00	8.53
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.34	5.64	3.28	44.18	21.74	17.94	6.05	0.19	0.00	2.39	1.63	0.00	0.00	7.95
12MAY	SE	0.34	2.94	1.56	13.84	14.71	12.78	1.84	0.19	0.00	1.37	1.63	0.00	0.00	24.30
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	1.83	8.50	10.99	0.99	2.62	1.13	0.51	0.80	3.02	0.23	0.00	0.00	2.35
19MAY	SE	0.00	1.83	4.13	4.58	0.48	2.45	0.43	0.51	0.34	1.78	0.23	0.00	0.00	7.17
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.38	0.15	0.00	1.28	2.25	0.11	2.23	0.72	0.41	3.34	0.00	0.00	0.00	0.84
26MAY	SE	0.38	0.15	0.00	0.74	1.64	0.11	2.23	0.57	0.24	1.93	0.00	0.00	0.00	3.54
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	2.35	29.39	9.38	6.97	1.44	0.20	0.86	0.44	8.14	2.08	10.55	0.00	5.52
02JUN	SE	0.00	2.35	11.38	2.11	4.06	0.51	0.09	0.69	0.44	4.52	2.08	5.63	0.00	14.61
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-169 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	2.46	14.51	1.18	4.37	1.81	0.76	1.02	0.00	0.00	0.67	0.67	1.75	0.69	2.30
09JUN	SE	2.46	7.39	0.61	1.43	0.73	0.65	0.64	0.00	0.00	0.39	0.39	1.31	0.69	8.18
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	1.94	1.59	4.98	0.33	0.12	0.00	0.00	0.15	0.00	0.00	1.82	0.00	0.84
17JUN	SE	0.00	0.92	1.21	0.76	0.23	0.12	0.00	0.00	0.15	0.00	0.00	1.05	0.00	2.02
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	1.24	0.45	0.61	5.39	3.00	0.89	0.90	0.00	0.00	0.64	0.00	0.00	0.00	1.01
23JUN	SE	0.89	0.45	0.28	2.90	1.15	0.41	0.49	0.00	0.00	0.37	0.00	0.00	0.00	3.37
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	6.04	4.44	1.11	2.97	0.00	0.65	0.90	0.00	0.34	1.06	0.00	1.38	1.45
30JUN	SE	0.00	2.48	1.86	1.11	1.50	0.00	0.39	0.90	0.00	0.34	1.06	0.00	0.69	3.97
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	8.40	6.14	4.21	2.23	0.00	0.00	0.00	NS	NS	NS	NS	NS	2.62
13JUL	SE	0.00	5.05	2.47	1.71	1.84	0.00	0.00	0.00						6.16
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	5.75	9.94	1.71	2.09	0.00	0.00	0.00	NS	NS	NS	NS	NS	2.44
27JUL	SE	0.00	5.75	0.44	1.15	1.09	0.00	0.00	0.00						5.98
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	2.15	5.32	0.00	1.07	1.64	0.00	0.00	NS	NS	NS	NS	NS	1.27
10AUG	SE	0.00	1.72	3.82	0.00	0.67	0.72	0.00	0.00						4.31
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.46	6.04	4.83	1.18	0.48	2.96	0.24	NS	NS	NS	NS	NS	2.02
24AUG	SE	0.00	0.46	3.32	2.67	1.18	0.34	0.87	0.24						4.55
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	1.81	15.26	29.57	3.59	1.58	4.05	4.93	NS	NS	NS	NS	NS	7.60
08SEP	SE	0.00	1.26	6.12	8.30	3.38	0.73	2.41	4.93						12.24
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	1.74	12.54	27.34	2.14	2.64	9.36	NS	NS	NS	NS	NS	6.97
21SEP	SE	0.00	0.00	1.23	6.36	9.57	1.37	2.43	5.97						13.31
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	11.30	59.00	14.85	18.96	23.60	10.33	NS	NS	NS	NS	NS	17.26
05OCT	SE	0.00	0.00	4.37	7.87	7.87	8.32	8.00	2.34						16.78
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-170 REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	41	0	0	0	NS	NS	NS	NS	NS	NS	41
16MAR	SE	0	0	0	41	0	0	0							41
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	87	0	51	37	NS	NS	NS	NS	NS	NS	175
30MAR	SE	0	0	0	87	0	51	37							107
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	132	133	0	0	0	0	0	0	0	0	266
08APR	SE	0	0	0	76	77	0	0	0	0	0	0	0	0	108
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	662	0	0	0	131	91	0	0	0	884
15APR	SE	0	0	0	0	411	0	0	0	77	53	0	0	0	421
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	367	59	0	518	0	0	90	190	0	0	0	1224
22APR	SE	0	0	130	42	0	205	0	0	90	134	0	0	0	294
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	117	0	430	1088	869	131	0	0	200	0	0	0	0	2835
28APR	SE	59	0	177	1016	857	74	0	0	100	0	0	0	0	1348
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	435	177	984	4703	1343	2440	1027	603	1015	0	0	0	12728
05MAY	SE	0	233	59	312	1091	614	683	416	196	277	0	0	0	1574
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	70	1293	1054	6526	4530	3723	846	56	0	339	287	0	0	18724
12MAY	SE	70	675	501	2045	3065	2652	258	56	0	194	287	0	0	4638
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	421	2734	1624	205	543	157	151	133	427	40	0	0	6435
19MAY	SE	0	421	1330	677	99	507	60	151	56	252	40	0	0	1663
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	79	34	0	188	469	22	312	215	69	472	0	0	0	1860
26MAY	SE	79	34	0	109	342	22	312	170	40	273	0	0	0	582
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	539	9457	1386	1453	299	28	258	72	1151	366	1696	0	16705
02JUN	SE	0	539	3663	311	845	106	13	206	72	640	366	905	0	3992
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-17O (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	514	3329	378	645	376	158	143	0	0	95	119	282	49	6087
09JUN	SE	514	1695	198	211	152	134	89	0	0	55	69	210	49	1823
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	445	511	735	69	25	0	0	25	0	0	292	0	2103
17JUN	SE	0	210	390	113	47	25	0	0	25	0	0	168	0	491
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	260	104	196	797	625	185	126	0	0	90	0	0	0	2385
23JUN	SE	187	104	89	428	240	86	68	0	0	52	0	0	0	556
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	1386	1429	164	620	0	91	268	0	49	186	0	98	4292
30JUN	SE	0	569	598	164	312	0	54	268	0	49	186	0	49	959
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	1928	1974	622	465	0	0	0	NS	NS	NS	NS	NS	4989
13JUL	SE	0	1159	794	253	384	0	0	0						1478
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	1318	3200	253	435	0	0	0	NS	NS	NS	NS	NS	5206
27JUL	SE	0	1318	141	169	228	0	0	0						1356
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	493	1711	0	224	339	0	0	NS	NS	NS	NS	NS	2767
10AUG	SE	0	394	1230	0	139	150	0	0						1308
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	106	1944	713	246	99	414	73	NS	NS	NS	NS	NS	3595
24AUG	SE	0	106	1068	395	246	70	122	73						1181
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	415	4909	4369	749	328	566	1469	NS	NS	NS	NS	NS	12805
08SEP	SE	0	289	1969	1226	704	151	336	1469						2873
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	559	1853	5696	445	369	2790	NS	NS	NS	NS	NS	11711
21SEP	SE	0	0	396	940	1994	284	340	1781						2896
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	3638	8717	3094	3934	3299	3080	NS	NS	NS	NS	NS	25762
05OCT	SE	0	0	1408	1163	1640	1726	1118	699						3277
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-171 REGIONAL DENSITY (NO./1,000m3) OF HOGCHOKER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.52	18.31	3.79	0.42	2.41	1.55	1.46	0.10	0.21	3.01	0.14	0.00	0.96	2.53
09JUL	SE	0.25	10.37	1.89	0.24	0.93	0.56	0.45	0.06	0.09	0.77	0.08	0.00	0.38	10.64
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	2.12	15.89	5.46	5.91	6.24	1.15	2.33	0.47	0.02	4.46	3.44	0.00	1.45	3.76
21JUL	SE	1.29	7.21	1.85	2.40	1.62	0.47	0.76	0.21	0.02	1.11	2.13	0.00	0.90	8.53
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.12	14.64	4.11	4.13	1.14	1.65	4.40	0.72	0.38	2.23	1.64	0.53	2.93	2.97
04AUG	SE	0.06	9.73	1.21	1.71	0.33	0.60	1.54	0.20	0.18	0.61	1.02	0.53	1.47	10.29
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.73	1.75	8.15	7.61	4.50	3.62	1.43	0.99	0.54	2.72	1.32	0.00	7.44	3.14
18AUG	SE	0.52	0.51	2.36	1.88	1.05	1.89	0.43	0.40	0.19	0.37	0.78	0.00	0.68	3.98
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.99	4.75	11.16	12.78	5.32	3.34	4.88	2.26	NS	NS	NS	NS	NS	5.68
01SEP	SE	0.38	1.38	2.84	2.83	1.81	1.59	1.47	0.80						5.17
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.29	1.96	5.71	10.00	8.01	7.35	16.47	4.15	2.50	5.33	1.21	0.55	0.68	4.94
15SEP	SE	0.13	0.91	1.32	2.36	2.32	2.44	7.36	0.96	0.69	2.09	0.79	0.55	0.55	8.98
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.04	7.76	3.86	4.48	14.01	11.96	15.77	4.55	6.37	10.97	2.61	0.00	1.41	6.45
29SEP	SE	0.04	3.00	1.32	1.77	6.27	2.42	5.10	0.79	1.77	5.14	1.47	0.00	0.73	10.86
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.05	1.49	5.31	5.75	16.84	9.12	16.23	6.59	7.65	23.87	9.03	0.00	0.95	7.91
13OCT	SE	0.05	0.69	1.55	2.46	5.86	1.85	2.26	1.79	1.30	12.17	2.56	0.00	0.95	14.57
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.27	2.18	3.98	8.10	7.85	10.11	15.70	6.12	6.04	8.42	1.67	0.24	0.15	5.45
27OCT	SE	0.25	0.83	2.03	3.14	1.95	2.01	2.67	1.23	0.80	3.05	0.57	0.13	0.15	6.44
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.02	3.12	1.41	5.92	13.11	4.79	2.87	2.03	1.47	0.00	0.00	0.00	0.00	2.67
11NOV	SE	0.02	1.12	0.56	2.16	3.75	1.34	0.93	1.03	0.69	0.00	0.00	0.00	0.00	4.95
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	2.01	17.08	40.27	15.36	9.05	9.71	3.09	5.35	0.17	0.33	0.00	0.00	7.88
02DEC	SE	0.00	0.85	4.05	17.02	2.57	2.11	2.68	1.23	0.85	0.11	0.19	0.00	0.00	18.09
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-172 REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	108	4200	1220	62	502	321	204	30	34	426	25	0	69	7199
09JUL	SE	53	2378	608	35	194	117	63	18	15	109	14	0	27	2469
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	443	3645	1756	874	1299	239	325	140	3	631	606	0	103	10064
21JUL	SE	269	1653	594	354	337	97	106	62	3	157	376	0	64	1895
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	25	3360	1324	610	238	342	615	216	63	315	289	85	209	7690
04AUG	SE	13	2233	388	253	70	124	215	61	30	87	180	85	104	2308
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	153	401	2621	1124	938	751	199	296	89	384	233	0	529	7719
18AUG	SE	108	118	758	278	219	391	60	120	31	53	138	0	48	960
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	207	1090	3592	1888	1107	693	683	673	NS	NS	NS	NS	NS	9933
01SEP	SE	80	317	913	418	378	330	205	238						1210
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	61	450	1836	1478	1668	1524	2302	1236	414	754	213	88	49	12072
15SEP	SE	27	208	426	348	483	506	1029	286	115	295	140	88	39	1451
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	8	1781	1241	662	2920	2481	2204	1357	1054	1552	460	0	101	15821
29SEP	SE	8	689	425	262	1306	503	713	236	294	727	259	0	52	1983
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	11	342	1710	850	3509	1892	2268	1963	1265	3376	1591	0	68	18845
13OCT	SE	11	158	499	363	1220	384	316	533	215	1722	452	0	68	2376
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	57	499	1280	1197	1635	2097	2194	1823	999	1191	294	38	11	13316
27OCT	SE	52	191	654	463	406	417	373	366	132	432	101	21	11	1228
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	4	717	452	875	2731	994	402	606	243	0	0	0	0	7024
11NOV	SE	4	256	181	320	781	278	129	307	114	0	0	0	0	1006
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	460	5495	5950	3201	1877	1358	922	885	24	58	0	0	20229
02DEC	SE	0	195	1304	2514	536	438	375	366	141	16	34	0	0	2972
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-173 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF HOGCHOKER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	10.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.90
16JUN	SE	0.00	0.00	0.00	10.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	10.67
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.91	0.57	2.33	0.00	0.00	0.38	0.00	0.00	0.27	0.05	0.17	0.39
30JUN	SE	0.00	0.91	0.57	1.45	0.00	0.00	0.26	0.00	0.00	0.12	0.05	0.11	1.83
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	1.33	0.18	0.43	0.33	1.33	0.00	0.00	0.00	0.25	0.13	0.11	0.17	0.36
14JUL	SE	0.88	0.12	0.43	0.33	0.88	0.00	0.00	0.00	0.16	0.13	0.07	0.11	1.39
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.20	0.00	0.43	1.80	0.40	0.00	0.20	0.40	0.40	0.00	0.20	0.00	0.34
28JUL	SE	0.20	0.00	0.43	1.80	0.24	0.00	0.20	0.40	0.24	0.00	0.13	0.00	1.95
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.04	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.05
11AUG	SE	0.00	0.04	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.42
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.60	0.29	0.00	0.20	0.00	0.67	0.00	0.20	0.00	0.44	0.00	0.00	0.20
25AUG	SE	0.60	0.14	0.00	0.20	0.00	0.42	0.00	0.20	0.00	0.34	0.00	0.00	0.87
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	3.80	0.04	0.29	0.40	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.41
09SEP	SE	2.33	0.04	0.16	0.40	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.00	2.39
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.13	0.14	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
22SEP	SE	0.00	0.09	0.10	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.20	0.08	0.00	0.60	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
06OCT	SE	0.20	0.06	0.00	0.60	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.08	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.02
20OCT	SE	0.00	0.06	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.18
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-174 REGIONAL STANDING CROP (IN THOUSANDS) OF HOGCHOKER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	98	0	0	0	0	0	0	0	2	101
16JUN	SE	0	0	0	98	0	0	0	0	0	0	0	2	98
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	41	15	22	0	0	3	0	0	5	1	2	89
30JUN	SE	0	41	15	13	0	0	2	0	0	2	1	2	46
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	10	8	12	3	4	0	0	0	2	2	2	2	45
14JUL	SE	7	6	12	3	2	0	0	0	1	2	1	2	15
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	2	0	12	17	1	0	1	< 0.5	3	0	4	0	40
28JUL	SE	2	0	12	17	1	0	1	< 0.5	2	0	3	0	21
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	2	0	0	1	0	0	0	0	2	0	0	5
11AUG	SE	0	2	0	0	1	0	0	0	0	2	0	0	3
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	5	13	0	2	0	7	0	< 0.5	0	8	0	0	35
25AUG	SE	5	6	0	2	0	4	0	< 0.5	0	6	0	0	11
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	29	2	8	4	1	0	1	0	0	0	0	0	44
09SEP	SE	18	2	4	4	1	0	1	0	0	0	0	0	19
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	6	4	18	0	0	0	0	0	0	0	0	28
22SEP	SE	0	4	3	12	0	0	0	0	0	0	0	0	13
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	2	4	0	6	2	0	0	0	0	0	0	0	12
06OCT	SE	2	3	0	6	2	0	0	0	0	0	0	0	6
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	4	0	0	0	2	0	0	0	0	0	0	6
20OCT	SE	0	3	0	0	0	2	0	0	0	0	0	0	3
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-175 REGIONAL DENSITY (NO./1,000m3) OF SPOTTAIL SHINER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-175 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF SPOTTAIL SHINER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	NS	NS	NS	NS	NS	0.02
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00						0.16
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.00	NS	NS	NS	NS	NS	0.08
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00						0.32
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	NS	NS	NS	NS	NS	0.01
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00						0.06
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-176 REGIONAL STANDING CROP (IN THOUSANDS) OF SPOTTAIL SHINER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-176 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF SPOTTAIL SHINER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	22	0	NS	NS	NS	NS	NS	22
08SEP	SE	0	0	0	0	0	0	22	0						22
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	89	0	NS	NS	NS	NS	NS	89
21SEP	SE	0	0	0	0	0	0	44	0						44
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	8	0	NS	NS	NS	NS	NS	8
05OCT	SE	0	0	0	0	0	0	8	0						8
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-177 REGIONAL DENSITY (NO./1,000m3) OF SPOTTAIL SHINER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.01
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.12
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.01
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.15
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	NS	NS	NS	NS	NS	< 0.005
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02						0.02
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.07	0.00	0.00	0.01
15SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.07	0.00	0.00	0.08
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.02	0.09	0.07	0.00	0.00	0.00	0.02
29SEP	SE	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.02	0.07	0.07	0.00	0.00	0.00	0.11
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.15	0.00	0.00	0.00	0.02
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.09	0.00	0.00	0.00	0.09
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.10	0.00	0.00	0.01
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.07	0.00	0.00	0.07
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-178 REGIONAL STANDING CROP (IN THOUSANDS) OF SPOTTAIL SHINER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	20	0	20
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	20	0	20
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	27	0	0	27
21JUL	SE	0	0	0	0	0	0	0	0	0	0	27	0	0	27
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	2	2	5	NS	NS	NS	NS	NS	8
01SEP	SE	0	0	0	0	0	2	2	5						6
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	0	0	0	20	0	0	13	0	0	33
15SEP	SE	0	0	0	0	0	0	0	11	0	0	13	0	0	17
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	0	8	7	5	15	10	0	0	0	44
29SEP	SE	0	0	0	0	0	5	5	5	11	10	0	0	0	17
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	3	0	4	21	0	0	0	28
13OCT	SE	0	0	0	0	0	0	2	0	4	12	0	0	0	13
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	0	0	6	3	0	18	0	0	27
02DEC	SE	0	0	0	0	0	0	0	6	3	0	12	0	0	14
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-179 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF SPOTTAIL SHINER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.67	0.09	0.86	0.00	0.33	0.67	0.88	3.25	0.00	1.33	0.05	0.00	0.68
16JUN	SE	0.67	0.09	0.86	0.00	0.33	0.67	0.35	1.70	0.00	0.61	0.05	0.00	2.26
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.33	0.64	0.00	1.33	0.33	15.00	3.88	10.25	15.00	28.53	13.26	20.33	9.07
30JUN	SE	0.33	0.24	0.00	0.88	0.33	7.55	2.77	3.93	8.71	10.86	4.64	7.21	18.67
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.09	0.29	1.67	6.33	0.00	8.00	9.25	63.00	12.60	11.79	116.83	19.15
14JUL	SE	0.00	0.09	0.29	1.67	2.33	0.00	5.06	3.07	31.97	4.06	8.82	108.97	114.17
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.75	0.50	0.80	1.00	36.00	46.40	3.40	102.40	65.89	122.70	1.71	31.80
28JUL	SE	0.00	0.67	0.37	0.80	0.77	22.89	20.54	2.14	46.13	25.88	65.77	1.71	89.88
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.08	0.00	0.00	0.20	3.67	17.20	17.00	20.20	58.00	38.30	13.14	13.98
11AUG	SE	0.00	0.08	0.00	0.00	0.20	3.27	16.22	13.18	8.73	26.24	30.37	13.14	48.04
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	1.20	0.40	1.83	45.80	43.80	6.40	71.44	28.10	2.57	16.80
25AUG	SE	0.00	0.00	0.00	1.20	0.24	1.22	31.78	36.19	4.72	36.09	15.74	2.57	62.46
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.21	2.00	7.00	4.17	7.80	10.40	10.60	34.00	9.00	27.86	9.42
09SEP	SE	0.00	0.00	0.11	1.30	1.79	0.75	4.39	4.01	4.80	9.65	3.88	14.18	19.32
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.21	0.29	8.00	4.60	4.33	4.60	2.40	3.60	2.11	3.80	0.29	2.85
22SEP	SE	0.00	0.13	0.22	6.79	1.60	2.08	1.33	1.29	1.44	0.75	1.97	0.18	7.94
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.63	0.86	3.20	6.40	3.33	3.00	9.60	22.40	11.00	3.80	3.00	5.60
06OCT	SE	0.00	0.18	0.36	1.83	3.76	1.89	1.30	1.63	4.39	2.16	1.57	1.02	7.28
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.08	0.21	1.00	4.60	2.00	3.40	6.80	11.20	5.56	8.00	7.00	4.15
20OCT	SE	0.00	0.06	0.11	0.55	1.47	0.45	1.17	2.27	4.84	1.03	2.88	2.93	7.11
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-180 REGIONAL STANDING CROP (IN THOUSANDS) OF SPOTTAIL SHINER YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	5	4	23	0	1	7	6	4	0	23	1	0	75
16JUN	SE	5	4	23	0	1	7	2	2	0	11	1	0	27
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	3	29	0	12	1	160	27	13	129	501	261	276	1412
30JUN	SE	3	11	0	8	1	80	20	5	75	191	91	98	259
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	4	8	15	17	0	57	11	542	221	232	1587	2695
14JUL	SE	0	4	8	15	6	0	36	4	275	71	173	1481	1518
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	34	13	7	3	383	329	4	882	1157	2414	23	5250
28JUL	SE	0	30	10	7	2	244	146	3	397	454	1294	23	1456
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	4	0	0	1	39	122	21	174	1018	754	179	2311
11AUG	SE	0	4	0	0	1	35	115	16	75	461	598	179	788
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	11	1	20	325	54	55	1254	553	35	2308
25AUG	SE	0	0	0	11	1	13	226	45	41	634	310	35	744
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	6	18	18	44	55	13	91	597	177	378	1399
09SEP	SE	0	0	3	12	5	8	31	5	41	169	76	193	273
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	9	8	74	12	46	33	3	31	37	75	4	331
22SEP	SE	0	6	6	63	4	22	9	2	12	13	39	3	80
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	28	23	29	17	36	21	12	193	193	75	41	668
06OCT	SE	0	8	10	17	10	20	9	2	38	38	31	14	71
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	4	6	9	12	21	24	8	96	98	157	95	531
20OCT	SE	0	3	3	5	4	5	8	3	42	18	57	40	84
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-181 REGIONAL DENSITY (NO./1,000m3) OF SPOTTAIL SHINER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.05	0.00	0.00	NS	NS	NS	NS	NS	NS	0.01
16MAR	SE	0.00	0.00	0.00	0.00	0.05	0.00	0.00							0.05
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.02
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.30
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.02
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.27
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.04
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.32
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.03
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.29
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.40	0.58	0.76	0.80	0.00	0.21
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.23	0.58	0.31	0.80	0.00	1.07
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-181 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF SPOTTAIL SHINER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.68	0.67	0.00	0.77	0.18
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.39	0.67	0.00	0.77	1.11
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.02
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.27
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.05
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.61
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.03
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.34
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.14	0.26	0.29	NS	NS	NS	NS	NS	0.09
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.14	0.20	0.29						0.38
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	NS	NS	NS	NS	NS	0.04
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00						0.30
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.05	0.15	0.60	0.00	NS	NS	NS	NS	NS	0.10
05OCT	SE	0.00	0.00	0.00	0.00	0.05	0.15	0.44	0.00						0.47
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-182 REGIONAL STANDING CROP (IN THOUSANDS) OF SPOTTAIL SHINER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	11	0	0	NS	NS	NS	NS	NS	NS	11
16MAR	SE	0	0	0	0	11	0	0							11
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	43	0	0	0	43
15APR	SE	0	0	0	0	0	0	0	0	0	43	0	0	0	43
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	45	0	0	0	0	45
22APR	SE	0	0	0	0	0	0	0	0	45	0	0	0	0	45
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	80	0	0	0	0	80
05MAY	SE	0	0	0	0	0	0	0	0	53	0	0	0	0	53
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	24	0	0	0	0	47	0	0	71
26MAY	SE	0	0	0	0	0	24	0	0	0	0	47	0	0	53
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	25	0	0	67	83	134	129	0	437
02JUN	SE	0	0	0	0	0	25	0	0	39	83	55	129	0	169
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-182 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF SPOTTAIL SHINER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	24	0	0	96	118	0	55	293
09JUN	SE	0	0	0	0	0	0	24	0	0	56	118	0	55	143
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	48	0	0	48
17JUN	SE	0	0	0	0	0	0	0	0	0	0	48	0	0	48
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	87	0	0	0	87
23JUN	SE	0	0	0	0	0	0	0	0	0	87	0	0	0	87
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	47	0	0	0	47
30JUN	SE	0	0	0	0	0	0	0	0	0	47	0	0	0	47
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	30	36	86	NS	NS	NS	NS	NS	152
08SEP	SE	0	0	0	0	0	30	27	86						95
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	42	0	NS	NS	NS	NS	NS	42
21SEP	SE	0	0	0	0	0	0	42	0						42
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	10	32	84	0	NS	NS	NS	NS	NS	125
05OCT	SE	0	0	0	0	10	32	61	0						70
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-183 REGIONAL DENSITY (NO./1,000m3) OF SPOTTAIL SHINER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.25	0.00	0.02
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.13	0.00	0.13
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.11	0.03
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.11	0.25
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.07	0.00	0.00	0.42	0.04
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.07	0.00	0.00	0.17	0.18
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.02	0.12	0.04	NS	NS	NS	NS	NS	0.02
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.03						0.07
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.03	0.38	0.42	0.13	0.07	0.22	0.00	0.80	0.16
15SEP	SE	0.00	0.00	0.00	0.00	0.00	0.01	0.16	0.21	0.06	0.07	0.14	0.00	0.35	0.47
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.02	0.05	0.22	0.07	0.14	0.07	0.00	0.22	0.06
29SEP	SE	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.20	0.05	0.14	0.07	0.00	0.13	0.29
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.01	0.00	0.18	0.00	0.07	0.00	0.29	0.00	0.77	0.10
13OCT	SE	0.00	0.00	0.00	0.00	0.01	0.00	0.09	0.00	0.05	0.00	0.19	0.00	0.32	0.38
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.01	0.09	0.00	0.00	0.12	0.19	0.00	0.00	0.03
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.00	0.00	0.09	0.16	0.00	0.00	0.19
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.03	0.00	0.00	0.00	< 0.005
11NOV	SE	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.03
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.02	0.04	0.31	0.05	0.06	0.27	0.13	0.10	0.25	0.09
02DEC	SE	0.00	0.00	0.00	0.00	0.02	0.03	0.08	0.05	0.04	0.13	0.07	0.10	0.16	0.27
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-184 REGIONAL STANDING CROP (IN THOUSANDS) OF SPOTTAIL SHINER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	2	0	0	0	0	40	0	42
09JUL	SE	0	0	0	0	0	0	1	0	0	0	0	20	0	20
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	0	0	88	0	0	0	0	8	96
21JUL	SE	0	0	0	0	0	0	0	66	0	0	0	0	8	66
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	9	0	10	0	0	30	49
04AUG	SE	0	0	0	0	0	0	0	6	0	10	0	0	12	17
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	3	17	11	NS	NS	NS	NS	NS	31
01SEP	SE	0	0	0	0	0	2	9	8						12
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	0	6	53	124	21	10	39	0	57	310
15SEP	SE	0	0	0	0	0	3	22	64	10	10	25	0	25	78
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	0	4	7	65	11	20	12	0	15	134
29SEP	SE	0	0	0	0	0	3	5	60	8	20	12	0	9	66
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	3	0	25	0	12	0	52	0	55	147
13OCT	SE	0	0	0	0	3	0	12	0	8	0	33	0	23	42
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	2	12	0	0	17	33	0	0	65
27OCT	SE	0	0	0	0	0	2	6	0	0	13	27	0	0	31
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	2	2	0	0	0	4	0	0	0	8
11NOV	SE	0	0	0	0	2	2	0	0	0	4	0	0	0	5
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	3	9	44	15	10	38	23	16	18	175
02DEC	SE	0	0	0	0	3	6	11	15	7	19	13	16	12	37
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-185 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF SPOTTAIL SHINER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	3.00	0.33	0.00	2.25	4.38	8.00	3.63	0.25	1.82
16JUN	SE	0.00	0.00	0.00	0.00	2.08	0.33	0.00	1.11	3.06	4.69	1.31	0.25	6.23
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	3.00	0.00	0.00	1.63	1.50	1.00	10.13	6.42	4.08	2.31
30JUN	SE	0.00	0.00	0.00	3.00	0.00	0.00	0.80	1.13	0.63	6.33	2.07	2.07	7.74
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	2.67	2.67	3.25	4.75	2.25	8.67	0.95	14.67	3.32
14JUL	SE	0.00	0.00	0.00	0.00	1.33	1.33	1.93	2.56	1.58	3.82	0.65	6.83	8.83
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.40	0.60	2.00	5.60	0.60	0.00	8.33	4.50	0.29	1.86
28JUL	SE	0.00	0.00	0.00	0.40	0.60	1.26	3.11	0.40	0.00	3.19	2.92	0.29	5.54
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	2.00	6.20	0.80	0.00	3.56	2.50	0.43	1.29
11AUG	SE	0.00	0.00	0.00	0.00	0.00	1.81	6.20	0.37	0.00	1.31	2.07	0.30	6.92
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.04	0.00	0.00	0.00	0.17	19.20	0.60	0.00	1.78	5.00	0.86	2.30
25AUG	SE	0.00	0.04	0.00	0.00	0.00	0.17	18.45	0.60	0.00	1.78	4.01	0.86	19.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.29	0.21	3.80	7.60	9.33	6.80	6.20	9.80	31.78	5.80	25.29	8.91
09SEP	SE	0.00	0.15	0.15	1.53	4.27	7.78	2.60	2.87	4.94	14.26	2.49	8.66	20.13
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.21	0.21	2.60	2.20	1.83	2.00	0.60	3.20	0.67	1.10	0.14	1.23
22SEP	SE	0.00	0.17	0.11	1.44	1.46	0.75	0.84	0.40	2.22	0.44	0.99	0.14	3.44
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.88	2.71	1.20	4.60	3.83	2.80	3.80	13.80	5.67	5.60	0.71	3.80
06OCT	SE	0.00	0.41	1.08	0.49	1.81	2.30	1.46	1.36	3.26	1.22	2.60	0.47	5.76
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.75	0.50	1.20	5.20	4.67	4.80	6.20	3.60	3.33	4.60	6.00	3.40
20OCT	SE	0.00	0.27	0.25	1.20	0.92	1.38	1.88	3.25	1.12	1.09	2.05	3.11	5.89
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-186 REGIONAL STANDING CROP (IN THOUSANDS) OF SPOTTAIL SHINER YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	8	4	0	3	38	140	71	3	267
16JUN	SE	0	0	0	0	5	4	0	1	26	82	26	3	90
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	28	0	0	12	2	9	178	126	55	409
30JUN	SE	0	0	0	28	0	0	6	1	5	111	41	28	125
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	7	28	23	6	19	152	19	199	454
14JUL	SE	0	0	0	0	4	14	14	3	14	67	13	93	118
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	4	2	21	40	1	0	146	89	4	306
28JUL	SE	0	0	0	4	2	13	22	< 0.5	0	56	57	4	84
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	21	44	1	0	62	49	6	184
11AUG	SE	0	0	0	0	0	19	44	< 0.5	0	23	41	4	67
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	2	0	0	0	2	136	1	0	31	98	12	282
25AUG	SE	0	2	0	0	0	2	131	1	0	31	79	12	157
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	13	6	35	20	99	48	8	84	558	114	344	1329
09SEP	SE	0	7	4	14	11	83	18	4	43	250	49	118	297
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	9	6	24	6	20	14	1	28	12	22	2	142
22SEP	SE	0	8	3	13	4	8	6	< 0.5	19	8	20	2	34
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	40	73	11	12	41	20	5	119	99	110	10	540
06OCT	SE	0	18	29	5	5	25	10	2	28	22	51	6	76
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	34	13	11	14	50	34	8	31	59	91	82	425
20OCT	SE	0	12	7	11	2	15	13	4	10	19	40	42	68
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-187 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC STURGEON YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-187 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC STURGEON YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.01
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.16
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-188 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC STURGEON YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-188 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC STURGEON YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	27	0	0	0	0	27
09JUN	SE	0	0	0	0	0	0	0	0	27	0	0	0	0	27
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-189 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC STURGEON POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-189 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC STURGEON POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-190 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC STURGEON POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-19O (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC STURGEON POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-191 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC STURGEON YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-191 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC STURGEON YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.01
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.17
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.02
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.32
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-192 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC STURGEON YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-192 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC STURGEON YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	23	0	0	0	0	0	0	23
17JUN	SE	0	0	0	0	0	0	23	0	0	0	0	0	0	23
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	44	0	0	0	0	0	0	44
23JUN	SE	0	0	0	0	0	0	44	0	0	0	0	0	0	44
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-193 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-193 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-194 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-194 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-195 REGIONAL DENSITY (NO./1,000m3) OF ATLANTIC STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.03	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01
09JUL	SE	0.00	0.00	0.00	0.03	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
21JUL	SE	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
04AUG	SE	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.06	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15SEP	SE	0.00	0.00	0.00	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
29SEP	SE	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
27OCT	SE	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
11NOV	SE	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
02DEC	SE	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-196 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	4	0	6	5	0	0	0	0	0	0	15
09JUL	SE	0	0	0	4	0	3	5	0	0	0	0	0	0	7
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	6	0	0	0	0	0	0	0	0	6
21JUL	SE	0	0	0	0	6	0	0	0	0	0	0	0	0	6
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	3	2	0	0	0	0	0	0	0	5
04AUG	SE	0	0	0	0	3	2	0	0	0	0	0	0	0	4
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	2	5	0	0	0	0	0	0	7
18AUG	SE	0	0	0	0	0	2	5	0	0	0	0	0	0	5
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
01SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	10	15	0	0	0	0	0	0	0	0	25
15SEP	SE	0	0	0	10	8	0	0	0	0	0	0	0	0	13
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	4	0	2	0	0	0	0	0	0	0	6
29SEP	SE	0	0	0	4	0	2	0	0	0	0	0	0	0	4
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	4	0	0	0	0	0	0	0	0	4
27OCT	SE	0	0	0	0	3	0	0	0	0	0	0	0	0	3
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	5	0	0	0	0	0	0	0	0	0	5
11NOV	SE	0	0	0	5	0	0	0	0	0	0	0	0	0	5
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	3	0	0	0	0	0	0	0	0	3
02DEC	SE	0	0	0	0	3	0	0	0	0	0	0	0	0	3
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-197 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF ATLANTIC STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-198 REGIONAL STANDING CROP (IN THOUSANDS) OF ATLANTIC STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-199 REGIONAL DENSITY (NO./1,000m3) OF SHORTNOSE STURGEON YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-199 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF SHORTNOSE STURGEON YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-200 REGIONAL STANDING CROP (IN THOUSANDS) OF SHORTNOSE STURGEON YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-200 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF SHORTNOSE STURGEON YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-201 REGIONAL DENSITY (NO./1,000m3) OF SHORTNOSE STURGEON POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	2.15	0.30
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81	1.29	1.52
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.05
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.59
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-201 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF SHORTNOSE STURGEON POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.05
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.66
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-202 REGIONAL STANDING CROP (IN THOUSANDS) OF SHORTNOSE STURGEON POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	277	153	430
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	130	92	159
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	95	0	95
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	95	0	95
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-202 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF SHORTNOSE STURGEON POST YOLK-SAC LARVAE IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	105	0	105
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	105	0	105
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-203 REGIONAL DENSITY (NO./1,000m3) OF SHORTNOSE STURGEON YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-203 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF SHORTNOSE STURGEON YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-204 REGIONAL STANDING CROP (IN THOUSANDS) OF SHORTNOSE STURGEON YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-204 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF SHORTNOSE STURGEON YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-205 REGIONAL DENSITY (NO./1,000m3) OF SHORTNOSE STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-205 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF SHORTNOSE STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-206 REGIONAL STANDING CROP (IN THOUSANDS) OF SHORTNOSE STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-206 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF SHORTNOSE STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-207 REGIONAL DENSITY (NO./1,000m3) OF SHORTNOSE STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.05	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
21JUL	SE	0.00	0.00	0.05	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
18AUG	SE	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	NS	NS	NS	NS	NS	< 0.005
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00						0.01
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.02	0.06	0.00	0.00	0.00	0.01
29SEP	SE	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.02	0.06	0.00	0.00	0.00	0.07
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.01
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.08
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	< 0.005
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	< 0.005
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	< 0.005
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-208 REGIONAL STANDING CROP (IN THOUSANDS) OF SHORTNOSE STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	15	0	3	0	0	0	0	0	0	0	0	18
21JUL	SE	0	0	15	0	3	0	0	0	0	0	0	0	0	15
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	5	0	0	0	0	0	0	0	0	0	5
18AUG	SE	0	0	0	5	0	0	0	0	0	0	0	0	0	5
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	2	0	0	NS	NS	NS	NS	NS	2
01SEP	SE	0	0	0	0	0	2	0	0						2
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	7	0	0	0	3	9	0	0	0	19
29SEP	SE	0	0	0	0	7	0	0	0	3	9	0	0	0	12
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	20	0	0	0	20
13OCT	SE	0	0	0	0	0	0	0	0	0	11	0	0	0	11
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	3	0	0	0	0	3
27OCT	SE	0	0	0	0	0	0	0	0	3	0	0	0	0	3
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	2	0	0	0	0	2
11NOV	SE	0	0	0	0	0	0	0	0	2	0	0	0	0	2
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	0	0	0	3	0	0	0	0	3
02DEC	SE	0	0	0	0	0	0	0	0	3	0	0	0	0	3
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-209 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF SHORTNOSE STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-210 REGIONAL STANDING CROP (IN THOUSANDS) OF SHORTNOSE STURGEON YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-211 REGIONAL DENSITY (NO./1,000m3) OF WHITE CATFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-211 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF WHITE CATFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.34	0.00	0.63	0.49	0.12
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.34	0.00	0.63	0.49	0.88
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	NS	NS	NS	NS	NS	0.01
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00						0.06
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	NS	NS	NS	NS	NS	< 0.005
21SEP	SE	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00						0.04
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-212 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE CATFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-212 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE CATFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	24	0	0	0	47	0	102	35	209
30JUN	SE	0	0	0	0	0	24	0	0	0	47	0	102	35	120
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	9	0	NS	NS	NS	NS	NS	9
24AUG	SE	0	0	0	0	0	0	9	0						9
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	8	0	0	0	NS	NS	NS	NS	NS	8
21SEP	SE	0	0	0	0	8	0	0	0						8
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-213 REGIONAL DENSITY (NO./1,000m3) OF WHITE CATFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.39	0.31	0.00	0.00	0.00	0.06
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.39	0.31	0.00	0.00	0.00	0.50
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.07	0.00	0.00	0.01
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.07	0.00	0.00	0.07
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.01
01SEP	SE	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00						0.04
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.34	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.03
29SEP	SE	0.00	0.00	0.00	0.00	0.34	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.34
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
13OCT	SE	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
11NOV	SE	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
02DEC	SE	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-214 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE CATFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	2	2	0	64	44	0	0	0	112
21JUL	SE	0	0	0	0	0	2	1	0	64	44	0	0	0	78
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	5	0	0	12	0	0	17
04AUG	SE	0	0	0	0	0	0	0	5	0	0	12	0	0	13
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	17	0	0	0	0	0	NS	NS	NS	NS	NS	17
01SEP	SE	0	0	12	0	0	0	0	0						12
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	70	4	0	5	0	0	0	0	0	79
29SEP	SE	0	0	0	0	70	4	0	5	0	0	0	0	0	70
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	4	0	0	0	0	0	0	0	0	4
13OCT	SE	0	0	0	0	4	0	0	0	0	0	0	0	0	4
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	2	0	0	0	0	0	0	0	0	2
11NOV	SE	0	0	0	0	2	0	0	0	0	0	0	0	0	2
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	7	0	0	2	0	0	0	0	0	0	0	9
02DEC	SE	0	0	7	0	0	2	0	0	0	0	0	0	0	7
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-215 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF WHITE CATFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
22SEP	SE	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.08	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
06OCT	SE	0.00	0.06	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
20OCT	SE	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-216 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE CATFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	4	0	0	0	0	0	0	0	0	0	4
22SEP	SE	0	0	3	0	0	0	0	0	0	0	0	0	3
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	4	4	0	0	0	0	0	0	0	0	0	8
06OCT	SE	0	3	3	0	0	0	0	0	0	0	0	0	4
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	4	0	0	0	0	0	0	0	0	0	4
20OCT	SE	0	0	3	0	0	0	0	0	0	0	0	0	3
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-217 REGIONAL DENSITY (NO./1,000m3) OF WHITE CATFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.16	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.02
08APR	SE	0.00	0.00	0.00	0.00	0.16	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.16
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.02
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.26
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.28	0.00	0.33	0.00	0.00	0.00	0.06
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.28	0.00	0.33	0.00	0.00	0.00	0.45
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.83	0.00	0.00	0.00	0.04	0.00	0.16	0.00	0.00	0.00	0.00	0.08
28APR	SE	0.00	0.00	0.50	0.00	0.00	0.00	0.04	0.00	0.16	0.00	0.00	0.00	0.00	0.53
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.57	0.38	0.21	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
05MAY	SE	0.00	0.29	0.38	0.21	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.24	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.08
12MAY	SE	0.00	0.24	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.54
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.40	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
19MAY	SE	0.00	0.00	0.00	0.23	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.63	0.05	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
02JUN	SE	0.00	0.00	0.00	0.47	0.05	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-217 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF WHITE CATFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
09JUN	SE	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.03
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.37
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.12	0.00	0.17	0.00	0.00	0.33	0.00	0.63	0.00	0.10
23JUN	SE	0.00	0.00	0.00	0.00	0.12	0.00	0.17	0.00	0.00	0.33	0.00	0.63	0.00	0.74
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.03
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.20
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	NS	NS	NS	NS	NS	0.01
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00						0.05
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	NS	NS	NS	NS	NS	0.03
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26						0.26
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.41	0.04	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.06
08SEP	SE	0.00	0.00	0.00	0.29	0.04	0.00	0.00	0.00						0.29
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.12
21SEP	SE	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.00						0.94
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	NS	NS	NS	NS	NS	0.04
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29						0.29
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-218 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE CATFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	33	0	6	0	0	0	0	0	0	39
08APR	SE	0	0	0	0	33	0	6	0	0	0	0	0	0	33
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	43	0	0	0	0	43
15APR	SE	0	0	0	0	0	0	0	0	43	0	0	0	0	43
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	22	0	84	0	47	0	0	0	154
22APR	SE	0	0	0	0	0	22	0	84	0	47	0	0	0	99
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	268	0	0	0	5	0	26	0	0	0	0	299
28APR	SE	0	0	162	0	0	0	5	0	26	0	0	0	0	164
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	131	122	30	40	0	0	0	0	0	0	0	0	324
05MAY	SE	0	67	122	30	40	0	0	0	0	0	0	0	0	148
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	56	0	56	0	0	0	0	0	58	0	0	0	171
12MAY	SE	0	56	0	36	0	0	0	0	0	58	0	0	0	89
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	58	0	51	0	0	0	0	0	0	0	109
19MAY	SE	0	0	0	34	0	29	0	0	0	0	0	0	0	45
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	94	11	23	0	0	0	0	0	0	0	128
02JUN	SE	0	0	0	70	11	23	0	0	0	0	0	0	0	74
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-218 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE CATFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	111	0	0	0	0	0	0	0	0	0	0	111
09JUN	SE	0	0	111	0	0	0	0	0	0	0	0	0	0	111
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	51	0	0	0	0	0	0	51
17JUN	SE	0	0	0	0	0	0	51	0	0	0	0	0	0	51
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	24	0	23	0	0	47	0	101	0	195
23JUN	SE	0	0	0	0	24	0	23	0	0	47	0	101	0	117
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	49	0	0	0	0	0	0	49
30JUN	SE	0	0	0	0	0	0	28	0	0	0	0	0	0	28
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	8	0	NS	NS	NS	NS	NS	8
13JUL	SE	0	0	0	0	0	0	8	0						8
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	77	NS	NS	NS	NS	NS	77
10AUG	SE	0	0	0	0	0	0	0	77						77
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	60	9	0	0	0	NS	NS	NS	NS	NS	69
08SEP	SE	0	0	0	42	9	0	0	0						43
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	303	0	0	0	0	0	NS	NS	NS	NS	NS	303
21SEP	SE	0	0	303	0	0	0	0	0						303
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	86	NS	NS	NS	NS	NS	86
05OCT	SE	0	0	0	0	0	0	0	86						86
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-219 REGIONAL DENSITY (NO./1,000m3) OF WHITE CATFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
09JUL	SE	0.00	0.00	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.03	0.10	0.13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.23	0.04
21JUL	SE	0.00	0.00	0.03	0.05	0.08	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.23	0.25
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.03	0.03	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.03
04AUG	SE	0.00	0.00	0.03	0.03	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.36
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.03	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.01
18AUG	SE	0.00	0.00	0.03	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.12
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.03	0.02	0.00	0.01	0.00	0.00	0.02	NS	NS	NS	NS	NS	0.01
01SEP	SE	0.00	0.03	0.02	0.00	0.01	0.00	0.00	0.02						0.04
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
15SEP	SE	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.10	0.01
29SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.10	0.10
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.02
13OCT	SE	0.00	0.00	0.16	0.03	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.16
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	< 0.005
27OCT	SE	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.03
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.06	0.00	0.03	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01
11NOV	SE	0.00	0.00	0.06	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.07
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.13	0.00	0.00	0.03	0.22	0.00	0.00	0.04	0.00	0.00	0.00	0.03
02DEC	SE	0.00	0.00	0.10	0.00	0.00	0.02	0.11	0.00	0.00	0.04	0.00	0.00	0.00	0.16
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-220 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE CATFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	5	4	0	0	0	0	0	0	0	0	9
09JUL	SE	0	0	0	5	4	0	0	0	0	0	0	0	0	6
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	8	14	27	0	3	0	0	0	0	0	16	69
21JUL	SE	0	0	8	8	16	0	2	0	0	0	0	0	16	25
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	10	5	0	4	0	0	0	0	0	0	25	44
04AUG	SE	0	0	10	5	0	4	0	0	0	0	0	0	25	28
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	9	0	1	2	0	0	0	0	0	0	8	20
18AUG	SE	0	0	9	0	1	2	0	0	0	0	0	0	8	12
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	7	8	0	1	0	0	5	NS	NS	NS	NS	NS	21
01SEP	SE	0	7	8	0	1	0	0	5						12
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	3	2	0	0	0	0	0	0	0	5
15SEP	SE	0	0	0	0	3	2	0	0	0	0	0	0	0	4
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	0	0	0	4	0	0	0	0	7	12
29SEP	SE	0	0	0	0	0	0	0	4	0	0	0	0	7	9
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	68	5	0	0	0	5	0	0	0	0	0	78
13OCT	SE	0	0	51	5	0	0	0	5	0	0	0	0	0	51
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	5	0	0	0	0	0	0	0	0	5	0	0	9
27OCT	SE	0	5	0	0	0	0	0	0	0	0	5	0	0	6
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	19	0	6	0	3	0	0	0	0	0	0	28
11NOV	SE	0	0	19	0	4	0	3	0	0	0	0	0	0	20
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	40	0	0	7	31	0	0	5	0	0	0	83
02DEC	SE	0	0	33	0	0	5	15	0	0	5	0	0	0	37
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-221 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF WHITE CATFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.03
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.33
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
14JUL	SE	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
28JUL	SE	0.00	0.00	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.71
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.25	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
09SEP	SE	0.00	0.15	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.01
22SEP	SE	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.12
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
06OCT	SE	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-222 REGIONAL STANDING CROP (IN THOUSANDS) OF WHITE CATFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	4	0	0	0	0	0	0	4
16JUN	SE	0	0	0	0	0	4	0	0	0	0	0	0	4
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	4	0	0	0	0	0	0	0	0	0	4
14JUL	SE	0	0	4	0	0	0	0	0	0	0	0	0	4
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	46	0	0	0	0	0	0	0	0	0	46
28JUL	SE	0	0	46	0	0	0	0	0	0	0	0	0	46
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	11	2	0	0	0	0	0	0	0	0	0	13
09SEP	SE	0	7	2	0	0	0	0	0	0	0	0	0	7
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	2	0	0	0	0	0	0	0	2	0	0	4
22SEP	SE	0	2	0	0	0	0	0	0	0	2	0	0	3
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	4	0	0	0	0	0	0	0	0	0	0	4
06OCT	SE	0	3	0	0	0	0	0	0	0	0	0	0	3
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-223 REGIONAL DENSITY (NO./1,000m3) OF WEAKFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-223 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF WEAKFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	5.50	0.21	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.71
13JUL	SE	0.00	0.00	3.44	0.21	0.00	0.00	0.00	0.00						3.44
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	6.16	8.98	0.00	0.00	1.74	0.00	0.00	NS	NS	NS	NS	NS	2.11
27JUL	SE	0.00	3.46	4.05	0.00	0.00	1.62	0.00	0.00						5.57
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	2.00	0.00	0.00	0.97	0.75	0.00	NS	NS	NS	NS	NS	0.47
10AUG	SE	0.00	0.00	1.44	0.00	0.00	0.77	0.75	0.00						1.79
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.53	0.78	0.00	0.00	NS	NS	NS	NS	NS	0.16
24AUG	SE	0.00	0.00	0.00	0.00	0.53	0.78	0.00	0.00						0.94
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.25
08SEP	SE	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00						2.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-224 REGIONAL STANDING CROP (IN THOUSANDS) OF WEAKFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-224 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF WEAKFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	1771	32	0	0	0	0	NS	NS	NS	NS	NS	1802
13JUL	SE	0	0	1106	32	0	0	0	0						1106
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	1412	2890	0	0	362	0	0	NS	NS	NS	NS	NS	4664
27JUL	SE	0	793	1303	0	0	337	0	0						1562
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	645	0	0	202	105	0	NS	NS	NS	NS	NS	952
10AUG	SE	0	0	462	0	0	159	105	0						500
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	110	163	0	0	NS	NS	NS	NS	NS	272
24AUG	SE	0	0	0	0	110	163	0	0						196
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	460	0	0	0	0	0	0	NS	NS	NS	NS	NS	460
08SEP	SE	0	460	0	0	0	0	0	0						460
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-225 REGIONAL DENSITY (NO./1,000m3) OF WEAKFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.81	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
21JUL	SE	0.00	0.00	0.00	0.39	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.03	0.30	0.00	0.12	0.98	0.22	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.17
04AUG	SE	0.03	0.30	0.00	0.04	0.94	0.08	0.14	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.45	0.00	0.06	0.08	1.16	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.14
18AUG	SE	0.40	0.00	0.06	0.05	0.74	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.84
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.34	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
15SEP	SE	0.34	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
29SEP	SE	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
11NOV	SE	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-226 REGIONAL STANDING CROP (IN THOUSANDS) OF WEAKFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	119	148	0	0	0	0	0	0	0	0	267
21JUL	SE	0	0	0	58	96	0	0	0	0	0	0	0	0	112
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	6	68	0	17	204	45	78	0	0	0	0	0	0	418
04AUG	SE	6	68	0	5	195	17	20	0	0	0	0	0	0	208
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	94	0	19	12	241	0	0	5	0	0	0	0	0	370
18AUG	SE	84	0	19	8	154	0	0	5	0	0	0	0	0	177
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
01SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	70	78	0	0	0	0	0	0	0	0	0	0	0	148
15SEP	SE	70	70	0	0	0	0	0	0	0	0	0	0	0	100
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	82	0	0	0	0	0	0	0	0	0	0	0	82
29SEP	SE	0	82	0	0	0	0	0	0	0	0	0	0	0	82
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	4	0	0	0	0	0	0	0	0	0	0	0	0	4
11NOV	SE	4	0	0	0	0	0	0	0	0	0	0	0	0	4
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02DEC	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-227 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF WEAKFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
28JUL	SE	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
20OCT	SE	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-228 REGIONAL STANDING CROP (IN THOUSANDS) OF WEAKFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	11	0	0	0	0	0	0	0	0	0	0	11
28JUL	SE	0	8	0	0	0	0	0	0	0	0	0	0	8
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	2	0	0	0	0	0	0	0	0	0	0	2
20OCT	SE	0	2	0	0	0	0	0	0	0	0	0	0	2
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-229 REGIONAL DENSITY (NO./1,000m3) OF WEAKFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-229 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF WEAKFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
13JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
27JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.40
10AUG	SE	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00						1.60
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
24AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-230 REGIONAL STANDING CROP (IN THOUSANDS) OF WEAKFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-23O (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF WEAKFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
13JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
27JUL	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	667	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	667
10AUG	SE	334	0	0	0	0	0	0	0						334
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
24AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-231 REGIONAL DENSITY (NO./1,000m3) OF WEAKFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.03	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< 0.005
18AUG	SE	0.03	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-232 REGIONAL STANDING CROP (IN THOUSANDS) OF WEAKFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	6	0	0	0	5	0	0	0	0	0	0	0	0	11
18AUG	SE	6	0	0	0	5	0	0	0	0	0	0	0	0	8
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
01SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02DEC	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-233 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF WEAKFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30JUN	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28JUL	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-234 REGIONAL STANDING CROP (IN THOUSANDS) OF WEAKFISH YEARLING AND OLDER IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
16JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
30JUN	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
14JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUL	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
11AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
25AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-235 REGIONAL DENSITY (NO./1,000m3) OF BLUEFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
16MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
23MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	NS	0.00
30MAR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00							0.00
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28APR	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26MAY	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	DENSITY	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
02JUN	SE	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-235 (CONT.) REGIONAL DENSITY (NO./1,000m3) OF BLUEFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	DENSITY	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
09JUN	SE	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	DENSITY	0.00	0.00	0.00	0.77	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
17JUN	SE	0.00	0.00	0.00	0.57	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	DENSITY	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
23JUN	SE	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	DENSITY	0.44	0.00	0.39	0.54	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
30JUN	SE	0.44	0.00	0.39	0.38	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	DENSITY	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.03
13JUL	SE	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00						0.26
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	DENSITY	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.05
27JUL	SE	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00						0.40
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
10AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	DENSITY	0.00	1.48	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.19
24AUG	SE	0.00	1.48	0.00	0.00	0.00	0.00	0.00	0.00						1.48
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
08SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
21SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
05OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-236 REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
16MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
21MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
23MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
28MAR-	ST. CROP	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0
30MAR	SE	0	0	0	0	0	0	0							0
	NO. TOWS	10	10	11	11	10	10	12							74
04APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
11APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
18APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	7	13	15	15	12	10	11	6	7	7	7	7	9	126
25APR-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28APR	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
02MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
09MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	6	13	15	15	12	6	14	10	11	7	8	8	10	135
16MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
23MAY-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26MAY	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126
30MAY-	ST. CROP	0	0	80	0	0	0	0	0	0	0	0	0	0	80
02JUN	SE	0	0	80	0	0	0	0	0	0	0	0	0	0	80
	NO. TOWS	8	10	14	14	13	7	14	10	9	7	8	6	6	126

TABLE D-236 (CONT.) REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM LONG RIVER SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
06JUN-	ST. CROP	0	0	0	46	0	0	0	0	0	0	0	0	0	46
09JUN	SE	0	0	0	46	0	0	0	0	0	0	0	0	0	46
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
13JUN-	ST. CROP	0	0	0	113	30	0	0	0	0	0	0	0	0	143
17JUN	SE	0	0	0	84	23	0	0	0	0	0	0	0	0	87
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
20JUN-	ST. CROP	0	100	0	0	0	0	0	0	0	0	0	0	0	100
23JUN	SE	0	100	0	0	0	0	0	0	0	0	0	0	0	100
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
27JUN-	ST. CROP	93	0	127	79	19	0	0	0	0	0	0	0	0	318
30JUN	SE	93	0	127	56	19	0	0	0	0	0	0	0	0	168
	NO. TOWS	7	11	14	11	13	9	16	7	10	7	6	6	6	123
11JUL-	ST. CROP	0	0	0	38	0	0	0	0	NS	NS	NS	NS	NS	38
13JUL	SE	0	0	0	38	0	0	0	0						38
	NO. TOWS	6	11	13	14	13	8	10	6						81
25JUL-	ST. CROP	0	0	0	60	0	0	0	0	NS	NS	NS	NS	NS	60
27JUL	SE	0	0	0	60	0	0	0	0						60
	NO. TOWS	6	11	13	14	13	8	10	6						81
08AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
10AUG	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
22AUG-	ST. CROP	0	340	0	0	0	0	0	0	NS	NS	NS	NS	NS	340
24AUG	SE	0	340	0	0	0	0	0	0						340
	NO. TOWS	6	11	13	14	13	8	10	6						81
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
08SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
21SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
05OCT	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	6	11	13	14	13	8	10	6						81

TABLE D-237 REGIONAL DENSITY (NO./1,000m3) OF BLUEFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	DENSITY	0.37	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
09JUL	SE	0.37	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	DENSITY	0.00	0.00	0.20	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
21JUL	SE	0.00	0.00	0.20	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	DENSITY	0.00	0.36	0.03	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
04AUG	SE	0.00	0.36	0.03	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18AUG	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	NS	NS	NS	0.00
01SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11NOV	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	DENSITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02DEC	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-238 REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM FALL JUVENILE SURVEY, 2011

DATE		BT	YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
05JUL-	ST. CROP	78	215	0	0	0	0	0	0	0	0	0	0	0	293
09JUL	SE	78	215	0	0	0	0	0	0	0	0	0	0	0	229
	NO. TOWS	14	18	24	22	22	22	23	21	14	10	6	6	8	210
18JUL-	ST. CROP	0	0	63	0	131	0	0	0	0	0	0	0	0	194
21JUL	SE	0	0	63	0	131	0	0	0	0	0	0	0	0	145
	NO. TOWS	14	18	24	22	22	23	24	19	14	10	6	6	8	210
01AUG-	ST. CROP	0	83	10	14	0	0	0	0	0	0	0	0	0	106
04AUG	SE	0	83	10	14	0	0	0	0	0	0	0	0	0	85
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
15AUG-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18AUG	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
30AUG-	ST. CROP	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	0
01SEP	SE	0	0	0	0	0	0	0	0						0
	NO. TOWS	14	18	24	22	22	22	22	22						166
12SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
26SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
10OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	14	18	24	22	22	22	22	22	14	10	6	6	8	210
24OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	12	11	16	12	15	10	10	8	10	10	8	150
07NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11NOV	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150
28NOV-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02DEC	SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	12	16	13	11	15	12	15	10	10	8	10	10	8	150

TABLE D-239 REGIONAL CATCH-PER-UNIT-EFFORT (CPUE) OF BLUEFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	CPUE	1.33	0.09	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
16JUN	SE	0.88	0.09	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	CPUE	0.67	3.36	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59
30JUN	SE	0.67	1.85	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.98
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	CPUE	0.00	0.73	2.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
14JUL	SE	0.00	0.27	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	CPUE	0.20	0.92	4.64	0.00	0.80	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.60
28JUL	SE	0.20	0.22	2.30	0.00	0.80	0.67	0.00	0.00	0.00	0.00	0.00	0.00	2.54
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	CPUE	1.40	1.13	0.14	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26
11AUG	SE	0.60	0.31	0.10	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.74
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	CPUE	0.00	0.79	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
25AUG	SE	0.00	0.27	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22SEP	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	CPUE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20OCT	SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

TABLE D-240 REGIONAL STANDING CROP (IN THOUSANDS) OF BLUEFISH YOUNG-OF-YEAR IN HUDSON RIVER ESTUARY DETERMINED FROM BEACH SEINE SURVEY, 2011

DATE		YK	TZ	CH	IP	WP	CW	PK	HP	KG	SG	CS	AL	ALL REGIONS COMBINED
14JUN-	ST. CROP	10	4	8	0	0	0	0	0	0	0	0	0	22
16JUN	SE	7	4	5	0	0	0	0	0	0	0	0	0	9
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
28JUN-	ST. CROP	5	153	81	0	0	0	0	0	0	0	0	0	239
30JUN	SE	5	84	60	0	0	0	0	0	0	0	0	0	103
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
12JUL-	ST. CROP	0	33	77	0	0	0	0	0	0	0	0	0	110
14JUL	SE	0	12	51	0	0	0	0	0	0	0	0	0	52
	NO. TOWS	3	11	7	3	3	3	8	8	8	15	19	12	100
25JUL-	ST. CROP	2	42	125	0	2	7	0	0	0	0	0	0	177
28JUL	SE	2	10	62	0	2	7	0	0	0	0	0	0	63
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
08AUG-	ST. CROP	11	51	4	2	1	0	0	0	0	0	0	0	68
11AUG	SE	5	14	3	2	1	0	0	0	0	0	0	0	15
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
22AUG-	ST. CROP	0	36	10	0	0	0	0	0	0	0	0	0	46
25AUG	SE	0	12	8	0	0	0	0	0	0	0	0	0	14
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
06SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
09SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
19SEP-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
22SEP	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
03OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
06OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100
17OCT-	ST. CROP	0	0	0	0	0	0	0	0	0	0	0	0	0
20OCT	SE	0	0	0	0	0	0	0	0	0	0	0	0	0
	NO. TOWS	5	24	14	5	5	6	5	5	5	9	10	7	100

Appendix E

Temporal and Geographical Distribution Indices

APPENDIX E

LIST OF TABLES

APPENDIX E

LIST OF TABLES (CONTINUED)

Table E-1 Striped Bass Temporal Distribution Indices Based on Long River Survey, 1974-2011

Week	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
18	0.01522	0.01728	0.00201	0.00003	0.00022	0	0	0
19	0.08204	0.09087	0.01942	0.00966	0.00116	0	0	0
20	0.33799	0.22999	0.25800	0.22550	0.02041	0.00116	0.06257	0
21	0.36032	0.57728	0.29440	0.18898	0.28732	0.08544	0.00079	0
22	0.15009	0.07700	0.15602	0.40889	0.24606	0.28734	0	0
23	0.04540	0.00633	0.21542	0.15218	0.18299	0.32336	0.00512	0
24	0.00688	0.00109	0.04872	0.00892	0.17253	0.24144	0.12160	0
25	0.00120	0.00015	0.00523	0.00560	0.06227	0.04656	0.23869	0.13649
26	0.00085	0.00001	0.00078	0.00025	0.02704	0.01470	0.57125	0.86351

Table E-2 Striped Bass Geographical Distribution Indices Based on Long River Survey, 1974-2011

Region	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
Yonkers	0.05143	0.00011	0.00199	0.00815	0.05568	0.05648	0.01059	0
Tappan Zee	0.00166	0.00032	0.02237	0.13190	0.09775	0.06994	0.08478	0.06079
Croton-Haverstraw	0.00394	0.00417	0.01901	0.21039	0.07801	0.14165	0.09471	0.13637
Indian Point	0.01894	0.00566	0.07924	0.11620	0.17387	0.22329	0.09629	0.04971
West Point	0.12501	0.08658	0.19093	0.08720	0.23033	0.18505	0.08127	0.05253
Cornwall	0.20714	0.02813	0.16043	0.04779	0.13519	0.09604	0.15764	0.26233
Poughkeepsie	0.13664	0.16321	0.33644	0.32852	0.16566	0.14370	0.12815	0.24605
Hyde Park	0.13415	0.15400	0.13386	0.05482	0.03388	0.02329	0.01914	0.00623
Kingston	0.24130	0.19335	0.03954	0.00634	0.01567	0.04715	0.07659	0
Saugerties	0.07191	0.35787	0.01418	0.00677	0.00884	0.01080	0.08472	0.15887
Catskill	0.00641	0.00183	0.00189	0.00175	0.00492	0.00248	0.12962	0.01953
Albany	0.00147	0.00476	0.00013	0.00019	0.00021	0.00012	0.03651	0.00760

Table E-3 Striped Bass Geographical Distribution Indices Based on Beach Seine Survey, 1974-2011

Region	Young-of-Year		Yearling		Older-than-Yearling	
	1974-2010	2011	1974-2010	2011	1974-2010	2011
Yonkers	0.04054	0.16035	0.03291	0.01948	0.04074	0.13649
Tappan Zee	0.38499	0.38802	0.35153	0.40390	0.28202	0.25734
Croton-Haverstraw	0.34050	0.25036	0.26776	0.34771	0.18908	0
Indian Point	0.05685	0.04493	0.03313	0.03575	0.03329	0.25053
West Point	0.01296	0.00629	0.00756	0	0.02971	0.02388
Cornwall	0.04101	0.02473	0.04598	0.01148	0.05531	0
Poughkeepsie	0.01705	0.01059	0.04648	0.05505	0.02576	0.06430
Hyde Park	0.00102	0.00197	0.00388	0	0.00197	0
Kingston	0.01151	0.02141	0.02198	0	0.02921	0
Saugerties	0.03502	0.07375	0.06012	0.02522	0.15230	0
Catskill	0.04031	0.01566	0.06883	0.07632	0.11727	0.26745
Albany	0.01825	0.00193	0.05983	0.02510	0.04334	0

Table E-4 White Perch Temporal Distribution Indices Based on Long River Survey, 1974-2011

Week	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
18	0.10456	0.13635	0.09134	0.00183	0.00221	0	0.00429	--[1]
19	0.15380	0.15095	0.19772	0.04879	0.03024	0.00071	0.01186	--
20	0.17524	0.08169	0.25953	0.39402	0.08805	0.02474	0	--
21	0.17991	0.44599	0.17375	0.24296	0.15693	0.22462	0.00017	--
22	0.14780	0.14544	0.10818	0.16322	0.17972	0.19442	0.00027	--
23	0.12923	0.03590	0.10949	0.10706	0.18361	0.26317	0.00619	--
24	0.10033	0.00303	0.04746	0.03232	0.16673	0.18488	0.18208	--
25	0.00800	0.00053	0.01048	0.00930	0.12320	0.08981	0.31305	--
26	0.00114	0.00011	0.00206	0.00050	0.06931	0.01765	0.48209	--

[1] No young-of-year white perch were collected within the temporal limits of this index in 2011.

Table E-5 White Perch Geographical Distribution Indices Based on Long River Survey, 1974-2011

Region	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
Yonkers	0.00015	0.00009	0.00127	0.00007	0.00766	0.00314	0.00307	--[1]
Tappan Zee	0.00837	0.00008	0.01490	0.00378	0.02095	0.02240	0.00651	--
Croton-Haverstraw	0.00570	0.00002	0.01229	0.00433	0.01970	0.04294	0.01230	--
Indian Point	0.00238	0.00006	0.01790	0.00614	0.05163	0.05057	0.10840	--
West Point	0.01598	0.00136	0.03380	0.01569	0.07427	0.05704	0.11002	--
Cornwall	0.01846	0.00159	0.04279	0.02051	0.08250	0.05696	0.10017	--
Poughkeepsie	0.07235	0.02628	0.14460	0.13372	0.20070	0.25813	0.23510	--
Hyde Park	0.04102	0.00891	0.13984	0.11511	0.13880	0.10960	0.19619	--
Kingston	0.09112	0.08363	0.15571	0.12394	0.14668	0.17497	0.14642	--
Saugerties	0.23432	0.13035	0.19026	0.17444	0.14000	0.13479	0.02789	--
Catskill	0.38818	0.33854	0.18193	0.27708	0.10820	0.08639	0.04625	--
Albany	0.12196	0.40910	0.06471	0.12519	0.00891	0.00307	0.00767	--

[1] No young-of-year white perch were collected within the temporal limits of this index in 2011.

Table E-6 White Perch Geographical Distribution Indices Based on Beach Seine Survey, 1974-2011

Region	Young-of-Year		Yearling		Older-than-Yearling	
	1974-2010	2011	1974-2010	2011	1974-2010	2011
Yonkers	0.00235	0.04936	0.00092	0.01744	0.02813	0.04241
Tappan Zee	0.17686	0.14808	0.24299	0.07421	0.33247	0.15602
Croton-Haverstraw	0.27421	0.09149	0.41369	0.06502	0.35796	0.07123
Indian Point	0.07173	0.04913	0.05555	0.01149	0.04979	0.01266
West Point	0.02585	0.00875	0.01039	0.00517	0.00676	0.03548
Cornwall	0.05626	0.02870	0.03187	0.04744	0.04387	0.09997
Poughkeepsie	0.03322	0.01612	0.01366	0.00885	0.01428	0.00585
Hyde Park	0.00824	0.00401	0.00249	0.00177	0.00254	0.00238
Kingston	0.03919	0.05793	0.01886	0.05982	0.01864	0.03074
Saugerties	0.13715	0.31793	0.08502	0.25023	0.05872	0.15540
Catskill	0.14582	0.21322	0.09993	0.15250	0.06566	0.09594
Albany	0.02913	0.01527	0.02462	0.30605	0.02117	0.29192

Table E-7 Atlantic Tomcod Temporal Distribution Indices Based on Long River Survey, 1974-2011

Week	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
18	0	--[1]	0.52375	--[1]	0.77472	0.91380	0.17984	0.02139
19	0	--	0.02082	--	0.17610	0.07865	0.21868	0.45319
20	0	--	0.27516	--	0.02603	0.00755	0.18165	0.16621
21	0	--	0	--	0.01936	0	0.11484	0.01406
22	0	--	0	--	0.00158	0	0.09753	0.17221
23	0	--	0	--	0.00092	0	0.06056	0.05857
24	0	--	0.18026	--	0.00016	0	0.05328	0.05849
25	0	--	0	--	0.00078	0	0.05341	0.02366
26	1	--	0	--	0.00035	0	0.04021	0.03224

[1] No Atlantic tomcod eggs or yolk-sac larvae were collected within the temporal limits of this index in 2011.

Table E-8 Atlantic Tomcod Geographical Distribution Indices Based on Long River Survey, 1974-2011

Region	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
Yonkers	1	--[1]	0.34334	--[1]	0.50871	0.97407	0.41548	0.25204
Tappan Zee	0	--	0.18026	--	0.26722	0.00155	0.24297	0.14100
Croton-Haverstraw	0	--	0	--	0.04046	0.01554	0.05129	0.13194
Indian Point	0	--	0	--	0.09479	0.00884	0.12289	0.39754
West Point	0	--	0.47640	--	0.07203	0	0.11563	0.01863
Cornwall	0	--	0	--	0.00932	0	0.02315	0.01324
Poughkeepsie	0	--	0	--	0.00639	0	0.02012	0.03784
Hyde Park	0	--	0	--	0.00045	0	0.00451	0.00594
Kingston	0	--	0	--	0.00016	0	0.00248	0.00183
Saugerties	0	--	0	--	0.00023	0	0.00059	0
Catskill	0	--	0	--	0.00020	0	0.00069	0
Albany	0	--	0	--	0.00002	0	0.00020	0

[1] No Atlantic tomcod eggs or yolk-sac larvae were collected within the temporal limits of this index in 2011.

Table E-9 Atlantic Tomcod Geographical Distribution Indices Based on Fall Juvenile Survey, 1979-2011

Region	Young-of-Year		Yearling and Older	
	1979-2010	2011	1979-2010	2011
Yonkers	0.25496	0.23531	0.44944	0.33373
Tappan Zee	0.14062	0.57887	0.13763	0.66627
Croton-Haverstraw	0.05505	0.06714	0.03310	0
Indian Point	0.10331	0.05653	0.09842	0
West Point	0.22373	0.02800	0.18209	0
Cornwall	0.10876	0	0.06255	0
Poughkeepsie	0.07458	0.03414	0.03193	0
Hyde Park	0.01790	0	0.00110	0
Kingston	0.01263	0	0	0
Saugerties	0.00659	0	0.00301	0
Catskill	0.00165	0	0.00072	0
Albany	0.00021	0	0	0

Table E-10 Bay Anchovy Temporal Distribution Indices Based on Long River Survey, 1988-2011

Week	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1988-2010	2011	1988-2010	2011	1988-2010	2011	1988-2010	2011
18	0	0	0	0	0	0	0.00001	0
19	0.00015	0	0	0	0	0	0	0
20	0.00152	0.00002	0.00187	0	0.00001	0	0	0
21	0.02424	0.00082	0.01366	0	0.00003	0	0.00002	0
22	0.05163	0.11607	0.13783	0	0.00480	0.00035	0	0
23	0.12239	0.15262	0.13452	0	0.04029	0.00166	0.00002	0
24	0.14912	0.11238	0.30847	0	0.05366	0.07016	0.00002	0
25	0.15562	0.11071	0.17027	0.01356	0.11342	0.07443	0.00004	0
26	0.14877	0.05568	0.09751	0.55600	0.13972	0.25401	0.00315	0
27	0.10884	0.17708	0.01789	0.08881	0.10194	0.18190	0.00707	0.00142
28	0.14423	0.25680	0.01774	0.34163	0.19546	0.19640	0.01136	0.22798
29	0.01796	0.01778	0	0	0.04155	0.14900	0.03215	0.39636
30	0.03973	0.00003	0.03201	0	0.11209	0.05094	0.07337	0.22627
31	0.01180	0	0.00056	0	0.02756	0.01354	0.05317	0.07213
32	0.01758	0	0.04622	0	0.06777	0.00349	0.14277	0.03329
33	0.00368	0	0.00020	0	0.01532	0.00412	0.09407	0.04255
34	0.00264	0.00793	0.02054	0	0.04089	0.02677	0.16612	0.17394
35	0.00005	--[1]	0.00071	--	0.00845	--	0.06872	--
36	0.00004	0.00034	0	0	0.01825	0.01531	0.11714	0.33828
37	0.00001	--	0	--	0.00318	--	0.03372	--
38	0	0.00004	0	0	0.00948	0.00290	0.08700	0.09846
39	0	--	0	--	0.00199	--	0.03477	--
40	0	0	0	0	0.00412	0.00114	0.07533	0.09831

[1] No sampling during these weeks in 2011.

Table E-11 Bay Anchovy Geographical Distribution Indices Based on Long River Survey, 1988-2011

Region	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1988-2010	2011	1988-2010	2011	1988-2010	2011	1988-2010	2011
Battery	0.31100	0.38118	0.35497	0.54921	0.15255	0.30423	0.07818	0.07760
Yonkers	0.43962	0.50298	0.25271	0.13306	0.17381	0.24537	0.15823	0.22242
Tappan Zee	0.21185	0.11236	0.21665	0.23982	0.28132	0.22182	0.37356	0.32028
Croton-Haverstraw	0.02251	0.00033	0.12382	0.04279	0.17492	0.10648	0.14712	0.16375
Indian Point	0.01477	0.00304	0.04588	0.03511	0.15836	0.07877	0.05672	0.03849
West Point	0.00019	0.00008	0.00032	0	0.02343	0.02006	0.04269	0.02860
Cornwall	0.00001	0	0.00424	0	0.01705	0.01610	0.06768	0.07834
Poughkeepsie	0.00002	0.00001	0.00018	0	0.01809	0.00713	0.07573	0.07051
Hyde Park	0	0	0.00005	0	0.00016	0	0.00001	0
Kingston	0	0	0.00082	0	0.00012	0	0.00006	0
Saugerties	0.00001	0	0	0	0.00006	0.00002	0	0
Catskill	0.00002	0.00001	0	0	0.00005	0	0	0
Albany	0.00001	0	0.00035	0	0.00008	0	0	0

Table E-12 Bay Anchovy Geographical Distribution Indices Based on Beach Seine Survey, 1974-2011

Region	Young-of-Year		Yearling and Older	
	1974-2010	2011	1974-2010	2011
Yonkers	0.22099	0.12549	0.79927	0
Tappan Zee	0.54448	0.64782	0.14496	0.68422
Croton-Haverstraw	0.06610	0.14950	0.00316	0.27768
Indian Point	0.05650	0.02250	0.03649	0
West Point	0.02197	0.02727	0.00445	0.03810
Cornwall	0.04713	0.01382	0.00788	0
Poughkeepsie	0.01794	0.00640	0.00144	0
Hyde Park	0.00054	0.00068	0	0
Kingston	0.00507	0.00030	0.00020	0
Saugerties	0.00289	0.00500	0.00094	0
Catskill	0.01514	0.00087	0.00081	0
Albany	0.00123	0.00034	0.00040	0

Table E-13 American Shad Temporal Distribution Indices Based on Long River Survey, 1974-2011

Week	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
18	0.18782	0.66202	0.07721	0	0.00052	0	0	0
19	0.30994	0.06039	0.12885	0	0.01107	0	0	0
20	0.26884	0.01952	0.25753	0.04872	0.08909	0	0.00012	0
21	0.13929	0.24203	0.21768	0.43685	0.14151	0	0.00020	0
22	0.05709	0.00717	0.17033	0.24702	0.21916	0.16733	0.00005	0
23	0.03058	0.00656	0.09039	0.22754	0.15657	0.02102	0.03639	0.01687
24	0.00519	0.00156	0.05359	0.03987	0.19211	0.47866	0.12399	0
25	0.00111	0.00075	0.00354	0	0.11826	0.28094	0.30543	0.16527
26	0.00015	0	0.00089	0	0.07172	0.05206	0.53381	0.81785

Table E-14 American Shad Geographical Distribution Indices Based on Long River Survey, 1974-2011

Region	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
Yonkers	0.00051	0	0.00015	0	0.00013	0	0.00290	0.01687
Tappan Zee	0.00011	0	0.00051	0	0.00047	0	0.00428	0
Croton-Haverstraw	0.00004	0	0.00176	0	0.00172	0	0.00666	0
Indian Point	0.00032	0	0.00788	0	0.00807	0	0.01532	0
West Point	0.00106	0	0.01073	0	0.01110	0.00608	0.03532	0.01897
Cornwall	0.00092	0.00016	0.00714	0	0.01906	0	0.04241	0.01255
Poughkeepsie	0.00449	0	0.04842	0	0.05186	0.05843	0.11157	0.08013
Hyde Park	0.00354	0.00009	0.02545	0	0.05695	0.02009	0.08638	0.03434
Kingston	0.04110	0.00222	0.07272	0.02515	0.11962	0.12198	0.11685	0.15755
Saugerties	0.23021	0.00661	0.15252	0.14132	0.25811	0.24673	0.22051	0.45730
Catskill	0.29160	0.08502	0.25383	0.39401	0.37404	0.45774	0.29111	0.22228
Albany	0.42610	0.90590	0.41888	0.43952	0.09889	0.08895	0.06669	0

Table E-15 American Shad Geographical Distribution Indices Based on Beach Seine Survey, 1974-2011

Region	Young-of-Year	
	1974-2010	2011
Yonkers	0.00584	0.00445
Tappan Zee	0.06585	0.19021
Croton-Haverstraw	0.06671	0.21001
Indian Point	0.02513	0.02996
West Point	0.01469	0.00935
Cornwall	0.12371	0.02098
Poughkeepsie	0.07961	0.03565
Hyde Park	0.01140	0.00293
Kingston	0.06675	0.03053
Saugerties	0.18072	0.07493
Catskill	0.20737	0.28490
Albany	0.15222	0.10611

Table E-16 *Alosa* spp. Temporal Distribution Indices Based on Long River Survey, 1974-2011

Week	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
18	0.22469	0.27321	0.05110	0.00756	0.00339	0.00101	0	--[1]
19	0.19377	0.02022	0.11792	0.01326	0.01987	0.00467	0.00010	--
20	0.31877	0.08549	0.29649	0.20861	0.07408	0.01388	0.00008	--
21	0.10328	0.57180	0.24907	0.56588	0.14177	0.12999	0.00090	--
22	0.08006	0.04773	0.14339	0.18561	0.22834	0.20543	0.00017	--
23	0.07286	0.00115	0.11029	0.01586	0.20576	0.27769	0.00081	--
24	0.00623	0.00041	0.02602	0.00305	0.16333	0.21914	0.01894	--
25	0.00024	0	0.00505	0.00016	0.09850	0.11074	0.08945	--
26	0.00010	0	0.00068	0	0.06496	0.03745	0.88955	--

[1] No *Alosa* spp. young-of-year were collected within the temporal limits of this index in 2011.

Table E-17 *Alosa* spp. Geographical Distribution Indices Based on Long River Survey, 1974-2011

Region	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
Yonkers	0.00088	0.00009	0.00471	0.00444	0.00617	0.01027	0.00052	--[1]
Tappan Zee	0.00004	0	0.00190	0.00055	0.00727	0.00263	0.00011	--
Croton-Haverstraw	0.00003	0	0.00201	0.00042	0.00756	0.00416	0.00041	--
Indian Point	0.00009	0	0.00320	0.00289	0.01683	0.02389	0.00052	--
West Point	0.00027	0.00007	0.00908	0.00396	0.02552	0.02472	0.01645	--
Cornwall	0.00019	0	0.00918	0.00283	0.03178	0.04523	0.01510	--
Poughkeepsie	0.01033	0.00002	0.03979	0.04782	0.12565	0.15193	0.07249	--
Hyde Park	0.00644	0.00002	0.03604	0.12200	0.10048	0.14160	0.08697	--
Kingston	0.02555	0.00012	0.06840	0.11722	0.15478	0.19860	0.16365	--
Saugerties	0.13043	0.01565	0.17474	0.23353	0.22886	0.20622	0.22690	--
Catskill	0.57151	0.20890	0.34315	0.24346	0.24630	0.17070	0.34562	--
Albany	0.25423	0.77513	0.30780	0.22089	0.04881	0.02006	0.07125	--

[1] No *Alosa* spp. young-of-year were collected within the temporal limits of this index in 2011.

Table E-18 *Alosa* spp. Geographical Distribution Indices Based on Beach Seine Survey, 1974-2011

Region	Young-of-Year	
	1974-2010	2011
Yonkers	0	--[1]
Tappan Zee	0.00050	--
Croton-Haverstraw	0.00013	--
Indian Point	0.00056	--
West Point	0.00564	--
Cornwall	0.11548	--
Poughkeepsie	0.05330	--
Hyde Park	0.00752	--
Kingston	0.08822	--
Saugerties	0.18358	--
Catskill	0.36156	--
Albany	0.18350	--

[1] No *Alosa* spp. young-of-year were collected within the temporal limits of this index in 2011.

Table E-19 Alewife Geographical Distribution Indices Based on Beach Seine Survey, 1974-2011

Region	Young-of-Year	
	1974-2010	2011
Yonkers	0.00358	0.00084
Tappan Zee	0.09921	0.39592
Croton-Haverstraw	0.14799	0.34263
Indian Point	0.05550	0.02473
West Point	0.02855	0.00796
Cornwall	0.13311	0.08140
Poughkeepsie	0.07951	0.05951
Hyde Park	0.01637	0.00097
Kingston	0.07709	0.00289
Saugerties	0.18642	0.05017
Catskill	0.14066	0.03081
Albany	0.03201	0.00217

Table E-20 Blueback Herring Geographical Distribution Indices Based on Beach Seine Survey, 1974-2011

Region	Young-of-Year	
	1974-2010	2011
Yonkers	0.00155	0.00932
Tappan Zee	0.03004	0.11668
Croton-Haverstraw	0.01011	0.09747
Indian Point	0.01588	0.01476
West Point	0.02616	0.02628
Cornwall	0.08204	0.19238
Poughkeepsie	0.13326	0.01644
Hyde Park	0.03426	0.00129
Kingston	0.18616	0.01801
Saugerties	0.18555	0.27905
Catskill	0.18105	0.17981
Albany	0.11394	0.04851

Table E-21 Gizzard Shad Geographical Distribution Indices Based on Beach Seine Survey, 1974-2011

Region	Young-of-Year		Yearling and Older	
	1974-2010	2011	1974-2010	2011
Yonkers	0.00142	0.01377	0.00233	0.01536
Tappan Zee	0.03923	0.45857	0.04763	0.22530
Croton-Haverstraw	0.01266	0.26336	0.06040	0.52248
Indian Point	0.04340	0.05896	0.05100	0.05014
West Point	0.05312	0.00883	0.04509	0.01255
Cornwall	0.12038	0.03786	0.22999	0.04829
Poughkeepsie	0.31410	0.10161	0.18029	0.06755
Hyde Park	0.01051	0.00151	0.01092	0.00675
Kingston	0.09190	0.00787	0.07147	0.01171
Saugerties	0.14441	0.00594	0.14329	0.01990
Catskill	0.06566	0.02398	0.04022	0.01338
Albany	0.10321	0.01774	0.11739	0.00660

Table E-22 Rainbow Smelt Temporal Distribution Indices Based on Long River Survey, 1974-2011

Week	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
18	0.03957	--[1]	0.69391	--[1]	0.07541	--[1]	0	--[1]
19	0.95809	--	0.21790	--	0.15019	--	0.00013	--
20	0	--	0.06783	--	0.19350	--	0.00002	--
21	0.00234	--	0.00786	--	0.18431	--	0.00222	--
22	0	--	0.00243	--	0.15550	--	0.01413	--
23	0	--	0	--	0.10114	--	0.03356	--
24	0	--	0.00978	--	0.07954	--	0.11077	--
25	0	--	0.00029	--	0.04446	--	0.36929	--
26	0	--	0	--	0.01595	--	0.46988	--

[1] No rainbow smelt were collected in 2011.

Table E-23 Rainbow Smelt Geographical Distribution Indices Based on Long River Survey, 1974-2011

Region	Eggs		Yolk-sac Larvae		Post Yolk-sac Larvae		Young-of-Year	
	1974-2010	2011	1974-2010	2011	1974-2010	2011	1974-2010	2011
Yonkers	0	--[1]	0.00080	--[1]	0.04248	--[1]	0.10349	--[1]
Tappan Zee	0	--	0.00728	--	0.12609	--	0.18854	--
Croton-Haverstraw	0.00234	--	0.00631	--	0.07782	--	0.13802	--
Indian Point	0	--	0.03463	--	0.12192	--	0.14450	--
West Point	0	--	0.05207	--	0.07569	--	0.11124	--
Cornwall	0	--	0.04964	--	0.11478	--	0.13313	--
Poughkeepsie	0	--	0.26209	--	0.22658	--	0.10991	--
Hyde Park	0	--	0.19435	--	0.08111	--	0.04019	--
Kingston	0.06470	--	0.14259	--	0.07031	--	0.01542	--
Saugerties	0.74244	--	0.14049	--	0.04575	--	0.01522	--
Catskill	0.10925	--	0.09998	--	0.01629	--	0.00035	--
Albany	0.08127	--	0.00976	--	0.00118	--	0	--

[1] No rainbow smelt were collected in 2011.

Table E-24 Rainbow Smelt Geographical Distribution Indices Based on Fall Juvenile Survey, 1979-2011

Region	Young-of-Year		Yearling and Older	
	1979-2010	2011	1979-2010	2011
Yonkers	0.03811	--[1]	0	--[1]
Tappan Zee	0.02716	--	0	--
Croton-Haverstraw	0.00993	--	0.00211	--
Indian Point	0.06389	--	0.13066	--
West Point	0.36799	--	0.48710	--
Cornwall	0.36955	--	0.08808	--
Poughkeepsie	0.10437	--	0.22565	--
Hyde Park	0.01847	--	0.06600	--
Kingston	0.00014	--	0.00040	--
Saugerties	0.00025	--	0	--
Catskill	0	--	0	--
Albany	0.00014	--	0	--

[1] No rainbow smelt were collected in 2011.

Table E-25 Hogchoker Geographical Distribution Indices Based on Fall Juvenile Survey, 1979-2011

Region	Young-of-Year		Yearling and Older	
	1979-2010	2011	1979-2010	2011
Yonkers	0.02360	0	0.08364	0.08249
Tappan Zee	0.08096	0.04092	0.30367	0.20593
Croton-Haverstraw	0.05852	0.03723	0.12048	0.11418
Indian Point	0.15538	0.27982	0.14219	0.14703
West Point	0.16550	0.22524	0.06625	0.12079
Cornwall	0.14220	0.10458	0.09835	0.11943
Poughkeepsie	0.13170	0.02392	0.06945	0.07896
Hyde Park	0.07839	0.02914	0.02050	0.03449
Kingston	0.07127	0.01708	0.04059	0.05963
Saugerties	0.07625	0	0.03651	0.02008
Catskill	0.01230	0.24207	0.01135	0.00195
Albany	0.00393	0	0.00702	0.01504

Table E-26 Spottail Shiner Geographical Distribution Indices Based on Beach Seine Survey, 1974-2011

Region	Young-of-Year		Yearling and Older	
	1974-2010	2011	1974-2010	2011
Yonkers	0.00091	0	0.00749	0
Tappan Zee	0.00459	0.00804	0.02002	0.02807
Croton-Haverstraw	0.01191	0.00775	0.01745	0.03686
Indian Point	0.01259	0.02820	0.01824	0.03054
West Point	0.01472	0.01030	0.01731	0.01655
Cornwall	0.03009	0.03093	0.05604	0.07045
Poughkeepsie	0.08667	0.09227	0.09426	0.09531
Hyde Park	0.03036	0.01744	0.02268	0.00606
Kingston	0.09906	0.07865	0.06413	0.10062
Saugerties	0.23163	0.44222	0.25475	0.30540
Catskill	0.21731	0.18687	0.21869	0.15016
Albany	0.26016	0.09733	0.20894	0.15998

Table E-27 White Catfish Geographical Distribution Indices Based on Fall Juvenile Survey, 1979-2011

Region	Young-of-Year		Yearling and Older	
	1979-2010	2011	1979-2010	2011
Yonkers	0	0	0.00677	0.11498
Tappan Zee	0.00293	0.1784	0.12311	0.29149
Croton-Haverstraw	0.00101	0	0.12410	0
Indian Point	0.00345	0.73265	0.08554	0.10016
West Point	0.01981	0.03970	0.03609	0.06631
Cornwall	0.03323	0	0.05646	0
Poughkeepsie	0.12142	0.04926	0.06725	0.16167
Hyde Park	0.06364	0	0.04410	0
Kingston	0.08212	0	0.06121	0
Saugerties	0.17841	0	0.08914	0
Catskill	0.29021	0	0.20224	0
Albany	0.20377	0	0.10400	0.26540

Table E-28 Weakfish Geographical Distribution Indices Based on Fall Juvenile Survey, 1979-2011

Region	Young-of-Year		Yearling and Older	
	1979-2010	2011	1979-2010	2011
Yonkers	0.38400	0.36645	0.54469	0
Tappan Zee	0.27356	0.04368	0.21213	0
Croton-Haverstraw	0.08972	0.02671	0.03134	0
Indian Point	0.13658	0.55196	0.01827	1
West Point	0.07947	0	0.17995	0
Cornwall	0.02658	0	0.01362	0
Poughkeepsie	0.00824	0.01120	0	0
Hyde Park	0.00086	0	0	0
Kingston	0.00080	0	0	0
Saugerties	0.00006	0	0	0
Catskill	0.00013	0	0	0
Albany	0	0	0	0

Table E-29 Bluefish Geographical Distribution Indices Based on Beach Seine Survey, 1974-2011

Region	Young-of-Year	
	1974-2010	2011
Yonkers	0.09691	0
Tappan Zee	0.54205	0.78927
Croton-Haverstraw	0.29330	0.21073
Indian Point	0.04302	0
West Point	0.00895	0
Cornwall	0.01204	0
Poughkeepsie	0.00284	0
Hyde Park	0.00002	0
Kingston	0	0
Saugerties	0.00088	0
Catskill	0	0
Albany	0	0

Appendix F

Annual Abundance Indices

APPENDIX F

LIST OF TABLES

Table F-1 Striped Bass Indices of Annual Abundance Based on Long River Survey and Beach Seine Survey, 1974-2011

	Long River Survey						Beach Seine Survey	
	Egg		Yolk-Sac Larvae		Post Yolk-Sac Larvae		Juvenile	
	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.
1974	0.062	0.044	0.080	0.018	0.424	0.033	5.652	0.869
1975	0.076	0.012	0.487	0.031	0.694	0.044	4.557	0.301
1976	0.097	0.011	0.253	0.014	0.265	0.017	3.445	0.392
1977	0.195	0.022	0.566	0.029	0.605	0.036	5.919	0.411
1978	0.077	0.010	0.306	0.019	0.538	0.038	9.115	1.884
1979	0.075	0.008	0.359	0.022	0.468	0.032	3.760	0.756
1980	0.072	0.009	0.319	0.024	0.833	0.062	5.605	0.829
1981	0.137	0.015	0.486	0.055	2.482	0.116	6.611	0.912
1982	0.073	0.007	0.745	0.078	0.825	0.061	3.826	0.539
1983	0.276	0.189	0.391	0.026	0.589	0.033	6.580	1.249
1984	0.152	0.019	0.358	0.030	0.867	0.096	5.059	1.008
1985	0.050	0.005	0.202	0.017	0.405	0.033	1.069	0.237
1986	0.060	0.008	0.421	0.032	0.721	0.036	1.618	0.388
1987	0.059	0.007	1.449	0.085	1.697	0.066	12.823	2.245
1988	0.024	0.008	0.706	0.068	1.481	0.139	4.912	0.607
1989	0.588	0.269	2.941	0.277	4.540	0.344	5.665	0.897
1990	1.219	0.182	3.271	0.295	5.642	0.535	6.415	0.703
1991	0.363	0.064	2.855	0.257	8.005	0.770	5.032	1.070
1992	0.874	0.154	3.884	0.219	6.380	0.426	3.678	0.581
1993	0.633	0.122	4.812	0.969	8.247	0.727	7.496	1.626
1994	9.825	1.869	3.678	0.526	8.454	0.795	5.880	1.056
1995	6.266	1.010	1.305	0.199	3.942	0.389	6.043	0.903
1996	4.497	0.649	12.743	1.796	15.404	1.465	1.252	0.330
1997	1.029	0.185	1.795	0.296	4.887	0.745	9.185	0.829
1998	1.131	0.343	3.173	0.548	6.133	0.490	6.287	0.709
1999	0.460	0.087	4.265	0.393	14.788	1.343	7.621	1.486
2000	2.144	0.194	8.061	0.817	25.886	2.823	2.320	0.691
2001	1.030	0.235	9.057	0.748	21.999	1.364	14.215	1.551
2002	0.291	0.042	0.879	0.054	2.625	0.151	7.649	0.860

Continued

	Long River Survey						Beach Seine Survey	
	Egg		Yolk-Sac Larvae		Post Yolk-Sac Larvae		Juvenile	
	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.
2003	8.721	4.871	5.889	0.634	7.185	0.718	9.834	1.554
2004	2.018	0.402	4.534	0.372	6.254	0.352	3.752	0.822
2005	0.960	0.158	3.786	0.874	7.169	0.621	11.582	1.469
2006	0.361	0.051	0.752	0.080	1.727	0.102	4.171	0.722
2007	0.920	0.196	6.353	1.267	9.157	0.600	7.201	0.961
2008	0.580	0.106	1.268	0.169	3.995	0.476	4.203	0.548
2009	0.827	0.107	2.871	0.259	8.256	1.150	2.768	0.252
2010	2.534	0.437	4.448	0.494	6.636	0.656	5.380	0.799
2011	3.107	0.648	1.302	0.165	2.390	0.224	2.040	0.424

Table F-2 White Perch Indices of Annual Abundance Based on Long River Survey and Beach Seine Survey, 1974-2011

	Long River Survey						Beach Seine Survey			
	Egg		Yolk-Sac Larvae		Post Yolk-Sac Larvae		Juvenile		Yearling	
	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.
1974	0.122	0.049	0.040	0.010	0.464	0.037	4.091	0.556	9.57	2.24
1975	0.335	0.095	0.198	0.016	1.783	0.147	8.040	1.954	2.68	1.41
1976	0.480	0.092	0.388	0.015	2.214	0.239	9.537	1.341	3.31	0.43
1977	0.112	0.019	0.264	0.014	2.431	0.128	6.782	1.114	0.45	0.07
1978	0.687	0.083	0.261	0.021	3.438	0.195	13.934	2.838	4.92	2.37
1979	0.533	0.070	0.336	0.017	3.571	0.103	17.033	2.747	5.31	1.63
1980	0.411	0.038	0.328	0.015	2.954	0.110	10.682	2.306	3.24	0.94
1981	1.282	0.080	0.360	0.032	3.467	0.174	10.297	1.291	3.22	0.62
1982	1.374	0.158	0.986	0.050	5.757	0.221	9.995	1.139	4.31	0.80
1983	1.089	0.084	0.776	0.040	2.977	0.101	10.363	2.016	4.08	1.60
1984	2.691	0.659	0.310	0.015	2.754	0.119	4.175	0.684	4.31	1.11
1985	1.036	0.117	0.463	0.040	5.640	0.214	4.353	1.076	1.47	0.53
1986	2.306	0.338	1.375	0.080	8.106	0.378	5.597	1.129	1.71	0.43
1987	0.528	0.063	0.483	0.022	3.974	0.119	8.880	1.678	2.21	0.26
1988	0.781	0.104	0.381	0.037	2.905	0.147	7.606	1.296	1.23	0.25
1989	0.171	0.014	0.568	0.051	4.057	0.374	6.281	1.715	2.84	0.51
1990	1.633	0.350	0.460	0.034	2.919	0.261	3.844	0.416	2.25	0.59
1991	0.443	0.059	0.241	0.017	3.637	0.236	4.033	0.754	1.57	0.43
1992	0.665	0.062	1.052	0.062	4.921	0.202	3.677	0.645	1.34	0.18
1993	0.431	0.060	0.792	0.044	4.958	0.185	5.842	0.949	1.89	0.55
1994	0.378	0.035	0.812	0.043	4.106	0.173	2.837	0.581	0.65	0.19
1995	0.454	0.070	0.427	0.020	2.506	0.108	3.209	0.484	1.14	0.34
1996	1.071	0.134	0.721	0.051	6.123	0.269	0.309	0.125	0.29	0.10
1997	0.265	0.047	0.127	0.005	1.461	0.075	3.912	0.558	0.45	0.07
1998	0.370	0.056	0.192	0.014	2.300	0.142	1.930	0.486	1.39	0.29
1999	0.192	0.026	0.210	0.017	2.696	0.152	11.218	2.992	1.29	0.43
2000	0.396	0.030	0.480	0.027	4.841	0.504	1.766	0.391	0.89	0.29
2001	0.091	0.010	0.253	0.017	2.997	0.237	6.997	0.817	0.42	0.13
2002	0.397	0.037	0.677	0.027	2.125	0.147	6.766	1.038	3.33	0.87

Continued

	Long River Survey						Beach Seine Survey			
	Egg		Yolk-Sac Larvae		Post Yolk-Sac Larvae		Juvenile		Yearling	
	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.
2003	0.329	0.034	0.478	0.023	2.845	0.171	15.671	3.697	0.71	0.13
2004	0.355	0.036	0.526	0.036	2.782	0.127	4.203	0.985	3.10	1.03
2005	0.198	0.013	0.470	0.029	2.233	0.133	6.441	0.998	0.313	0.085
2006	0.465	0.040	0.249	0.014	0.335	0.074	3.162	0.521	1.545	0.201
2007	0.075	0.012	0.186	0.018	2.264	0.180	1.519	0.260	0.391	0.127
2008	0.739	0.070	0.338	0.030	1.777	0.114	6.729	1.362	0.533	0.533
2009	0.473	0.034	0.265	0.017	1.823	0.116	4.852	0.947	1.462	0.322
2010	0.329	0.050	0.367	0.025	2.837	0.149	5.280	0.686	0.561	0.103
2011	0.758	0.155	0.731	0.042	2.518	0.157	3.056	0.889	2.179	1.265

Table F-3 Atlantic Tomcod Indices of Annual Abundance Based on Long River Survey, 1974-2011

	Long River Survey	
	Post Yolk-Sac Larvae and Juvenile	
	Index	Std. Err.
1974	0.093	0.016
1975	0.035	0.009
1976	0.011	0.003
1977	0.412	0.267
1978	0.110	0.031
1979	0.026	0.006
1980	0.234	0.078
1981	0.149	0.037
1982	0.064	0.024
1983	0.035	0.012
1984	0.155	0.070
1985	0.149	0.027
1986	0.077	0.010
1987	0.319	0.049
1988	0.151	0.034
1989	0.365	0.089
1990	0.306	0.135
1991	0.193	0.029
1992	0.065	0.021
1993	0.214	0.061
1994	0.106	0.022
1995	0.148	0.024
1996	0.094	0.014
1997	0.049	0.011
1998	0.036	0.008
1999	0.030	0.007
2000	0.009	0.002
2001	0.176	0.029
2002	0.005	0.001
2003	0.042	0.006
2004	0.088	0.012
2005	0.088	0.014
2006	0.022	0.005
2007	0.011	0.001
2008	<0.001	0.010
2009	0.029	0.005
2010	0.043	0.006
2011	0.043	0.008

Table F-4 Bay Anchovy Indices of Annual Abundance Based on Fall Juvenile Survey, 1979-2011

	Fall Juvenile Survey	
	Juvenile	
	Index	Std. Err.
1979	63	10
1980	216	53
1981	149	24
1982	197	25
1983	115	32
1984	160	33
1985	153	16
1986	109	16
1987	196	42
1988	341	51
1989	289	40
1990	110	12
1991	111	8
1992	147	35
1993	161	20
1994	138	33
1995	266	44
1996	76	20
1997	148	27
1998	132	20
1999	98	25
2000	37	4
2001	63	10
2002	120	16
2003	80	7
2004	147	48
2005	68	7
2006	106	32
2007	163	19
2008	133	14
2009	78	12
2010	85	20
2011	28	12

Table F-5 American Shad Indices of Annual Abundance Based on Long River Survey and Beach Seine Survey, 1974-2011

	Long River Survey						Beach Seine Survey	
	Egg		Yolk-Sac Larvae		Post Yolk-Sac Larvae		Juvenile	
	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.
1974	0.097	0.031	0.004	0.001	0.171	0.065	11.499	0.825
1975	0.060	0.016	0.025	0.004	0.276	0.176	10.630	1.431
1976	0.037	0.009	0.017	0.002	0.155	0.049	13.325	0.869
1977	0.036	0.004	0.024	0.002	0.170	0.033	13.702	1.388
1978	0.044	0.008	0.034	0.003	0.092	0.031	23.671	2.658
1979	0.045	0.007	0.053	0.006	0.492	0.069	11.645	1.741
1980	0.046	0.009	0.111	0.012	0.479	0.216	10.747	2.464
1981	0.161	0.075	0.106	0.012	0.777	0.309	17.615	2.167
1982	0.123	0.041	0.149	0.016	0.586	0.120	16.312	1.919
1983	0.356	0.114	0.134	0.015	0.573	0.092	19.679	3.887
1984	0.472	0.112	0.240	0.019	0.376	0.168	8.686	1.839
1985	0.262	0.039	0.247	0.041	0.672	0.165	8.078	1.297
1986	0.770	0.325	0.122	0.015	1.054	0.150	19.060	3.735
1987	0.349	0.077	0.063	0.007	0.177	0.077	13.473	2.275
1988	0.259	0.051	0.093	0.030	0.729	0.344	7.717	1.010
1989	0.327	0.063	0.075	0.010	1.040	0.794	22.052	2.414
1990	0.270	0.062	0.400	0.053	1.170	0.733	18.674	1.742
1991	0.086	0.016	0.042	0.008	0.319	0.115	11.966	3.155
1992	0.075	0.021	0.082	0.011	0.622	0.213	13.923	1.051
1993	0.120	0.031	0.011	0.002	0.228	0.116	7.065	0.869
1994	0.227	0.036	0.038	0.005	0.366	0.126	17.557	3.276
1995	0.121	0.030	0.021	0.003	0.191	0.060	3.786	0.433
1996	0.262	0.042	0.012	0.003	0.260	0.061	11.773	1.928
1997	0.036	0.005	0.008	0.001	0.153	0.033	12.537	2.036
1998	0.086	0.012	0.008	0.001	0.089	0.028	2.361	0.415
1999	0.085	0.018	0.003	0.001	0.184	0.066	8.813	2.441
2000	0.119	0.015	0.013	0.002	0.090	0.026	5.925	0.930
2001	0.039	0.012	0.014	0.004	0.459	0.182	24.402	1.827
2002	0.034	0.004	0.016	0.003	0.100	0.037	4.792	0.468

Continued

	Long River Survey						Beach Seine Survey	
	Egg		Yolk-Sac Larvae		Post Yolk-Sac Larvae		Juvenile	
	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.	Index	Std. Err.
2003	0.072	0.019	0.011	0.001	0.093	0.025	8.686	1.204
2004	0.033	0.008	0.008	0.001	0.141	0.062	3.397	0.613
2005	0.042	0.005	0.004	0.001	0.032	0.015	3.208	0.601
2006	0.008	0.001	0.001	0.000	0.009	0.004	0.631	0.116
2007	0.010	0.007	0.002	0.001	0.021	0.022	1.522	0.370
2008	0.011	0.003	0.001	0.000	0.006	0.003	0.774	0.143
2009	0.007	0.002	0.003	<0.001	0.021	0.010	1.880	0.389
2010	0.005	0.001	0.001	<0.001	0.010	0.012	1.826	0.395
2011	0.040	0.005	0.003	0.001	0.016	0.011	1.056	0.229

Table F-6 Alewife Indices of Annual Abundance Based on Fall Juvenile Survey, 1979-2011, and Beach Seine Survey, 1974-2011

	Fall Juvenile Survey		Beach Seine Survey	
	Juvenile		Juvenile	
	Index	Std. Err.	Index	Std. Err.
1974			2.917	0.439
1975			2.473	0.404
1976			2.400	0.632
1977			4.182	0.605
1978			5.485	0.971
1979	0.199	0.077	1.347	0.232
1980	0.686	0.353	0.498	0.161
1981	0.634	0.214	4.148	0.936
1982	0.275	0.084	0.794	0.237
1983	0.188	0.067	1.791	0.273
1984	0.213	0.125	0.490	0.136
1985	0.930	0.407	0.741	0.173
1986	0.263	0.079	0.834	0.505
1987	0.524	0.268	0.651	0.121
1988	0.268	0.129	0.417	0.089
1989	0.226	0.068	0.163	0.040
1990	0.350	0.137	1.047	0.167
1991	0.328	0.115	3.473	0.569
1992	0.165	0.084	0.299	0.118
1993	0.234	0.083	0.544	0.159
1994	0.120	0.062	1.402	0.343
1995	0.113	0.034	1.136	0.346
1996	0.489	0.146	0.103	0.040
1997	0.319	0.101	2.262	0.439
1998	0.025	0.015	0.214	0.154
1999	0.697	0.173	4.533	1.073
2000	0.203	0.077	0.597	0.315
2001	0.871	0.720	2.733	0.783
2002	0.017	0.014	0.580	0.102
2003	0.286	0.117	3.392	0.895
2004	0.100	0.039	1.274	0.355
2005	0.338	0.092	5.289	1.232
2006	0.037	0.017	0.795	0.435
2007	1.870	1.144	6.688	2.003
2008	0.800	0.542	3.888	0.999
2009	0.038	0.031	1.371	0.467
2010	0.798	0.337	7.282	2.028
2011	0.312	0.111	1.791	0.358

Table F-7 Blueback Herring Indices of Annual Abundance Based on Fall Juvenile Survey, 1979-2011, and Beach Seine Survey, 1974-2011

	Fall Juvenile Survey		Beach Seine Survey	
	Juvenile		Juvenile	
	Index	Std. Err.	Index	Std. Err.
1974			23.509	3.394
1975			69.660	9.490
1976			155.551	23.842
1977			219.365	26.383
1978			229.189	44.491
1979	3.695	0.746	54.451	8.318
1980	2.606	0.753	100.836	53.797
1981	21.197	5.861	181.931	72.898
1982	10.331	2.061	121.724	31.431
1983	6.082	1.073	190.860	41.849
1984	20.385	3.673	22.662	5.412
1985	17.424	4.584	18.816	3.904
1986	6.482	1.383	14.102	4.410
1987	25.608	12.357	69.798	15.687
1988	26.693	4.297	47.408	14.021
1989	16.825	5.408	35.877	8.094
1990	29.688	10.639	97.854	13.970
1991	12.648	4.469	47.440	11.057
1992	15.523	3.874	31.096	6.530
1993	7.717	1.594	35.277	5.517
1994	5.765	1.899	88.839	13.782
1995	1.266	0.417	38.176	23.296
1996	50.160	15.888	36.708	17.548
1997	7.301	1.428	162.109	35.436
1998	0.032	0.029	1.282	0.314
1999	2.073	0.783	58.668	17.791
2000	2.677	1.163	25.980	14.975
2001	5.845	4.998	57.605	11.398
2002	0.797	0.546	12.630	5.767
2003	5.920	1.891	119.197	27.386
2004	1.523	0.347	49.563	11.708
2005	2.332	1.049	65.857	20.089
2006	0.525	0.146	8.278	3.437
2007	5.236	0.907	71.601	9.047
2008	5.557	1.353	39.985	8.850
2009	0.866	0.247	3.881	1.136
2010	4.001	2.107	66.642	20.062
2011	13.627	1.956	41.617	6.286

Table F-8 Rainbow Smelt Indices of Annual Abundance Based on Fall Juvenile Survey, 1979-2011, and Long River Survey, 1974-2011

	Fall Juvenile Survey		Long River Survey	
	Juvenile		Juvenile	
	Index	Std. Err.	Index	Std. Err.
1974			0.020	0.004
1975			0.001	0.000
1976			0.000	0.000
1977			0.006	0.002
1978			0.069	0.006
1979	0.226	0.092	0.020	0.003
1980	0.099	0.088	0.031	0.002
1981	0.000	0.000	0.001	0.000
1982	0.129	0.055	0.002	0.000
1983	0.000	0.000	0.000	0.000
1984	0.419	0.165	0.003	0.000
1985	0.074	0.057	0.002	0.000
1986	0.959	0.165	0.016	0.001
1987	0.122	0.065	0.006	0.001
1988	0.041	0.027	0.051	0.008
1989	0.000	0.000	0.000	0.000
1990	1.140	0.340	0.027	0.002
1991	0.000	0.000	0.010	0.003
1992	6.721	2.340	0.045	0.005
1993	1.190	0.563	0.011	0.003
1994	0.104	0.104	0.008	0.002
1995	0.000	0.000	0.010	0.002
1996	0.000	0.000	0.000	0.000
1997	0.000	0.000	0.000	0.000
1998	0.000	0.000	0.000	0.000
1999	0.000	0.000	0.000	0.000
2000	0.000	0.000	0.000	0.000
2001	0.000	0.000	0.000	0.000
2002	0.000	0.000	0.000	0.000
2003	0.000	0.000	0.000	0.000
2004	0.000	0.000	0.000	0.000
2005	0.000	0.000	0.000	0.000
2006	0.000	0.000	0.000	0.000
2007	0.000	0.000	0.000	0.000
2008	0.000	0.000	0.000	0.000
2009	0.000	0.000	0.000	0.000
2010	0.000	0.000	0.000	0.000
2011	0.000	0.000	0.000	0.000

Table F-9 Hogchoker Indices of Annual Abundance Based on Fall Juvenile Survey, 1974-2011

	Fall Juvenile Survey	
	Juvenile	
	Index	Std. Err.
1974	0.147	0.033
1975	2.748	1.910
1976	0.021	0.017
1977	2.089	1.393
1978	1.925	0.806
1979	0.786	0.172
1980	0.620	0.183
1981	2.735	0.775
1982	0.975	--
1983	6.789	4.522
1984	1.767	0.428
1985	1.396	0.257
1986	3.298	1.587
1987	2.227	0.568
1988	7.832	0.914
1989	1.318	0.406
1990	1.728	1.024
1991	6.772	4.728
1992	0.502	0.234
1993	1.189	0.308
1994	10.079	1.418
1995	0.878	0.333
1996	0.295	0.066
1997	0.026	0.026
1998	0.932	0.129
1999	0.145	0.136
2000	0.983	0.363
2001	1.264	0.426
2002	0.956	0.346
2003	0.511	0.508
2004	0.319	0.079
2005	1.873	0.785
2006	0.402	0.168
2007	1.442	0.774
2008	0.796	0.206
2009	0.878	0.462
2010	2.922	1.435
2011	0.426	0.288

Table F-10 Spottail Shiner Indices of Annual Abundance Based on Beach Seine Survey, 1974-2011

	Beach Seine Survey	
	Juvenile	
	Index	Std. Err.
1974	6.406	1.419
1975	13.648	3.194
1976	9.211	1.452
1977	4.860	1.112
1978	12.232	1.725
1979	8.562	1.357
1980	6.785	1.281
1981	19.134	3.977
1982	4.991	0.815
1983	11.890	3.007
1984	8.202	1.942
1985	4.916	0.780
1986	4.629	1.165
1987	5.868	1.403
1988	4.663	0.722
1989	6.626	1.472
1990	9.098	1.505
1991	11.223	1.880
1992	6.987	1.066
1993	6.379	0.797
1994	14.684	2.022
1995	4.875	0.696
1996	1.681	0.632
1997	11.880	1.742
1998	2.478	0.568
1999	24.848	5.432
2000	2.287	0.634
2001	19.556	4.314
2002	12.833	1.847
2003	25.669	4.877
2004	8.613	1.323
2005	13.370	4.976
2006	2.849	0.461
2007	13.419	3.931
2008	18.279	2.781
2009	11.380	5.983
2010	18.328	2.305
2011	8.980	2.648

Table F-11 White Catfish Indices of Annual Abundance Based on Beach Seine Survey, 1974-2011

	Beach Seine Survey	
	Yearling and Older	
	Index	Std. Err.
1974	0.034	0.020
1975	0.021	0.011
1976	0.030	0.010
1977	0.072	0.022
1978	0.069	0.030
1979	0.054	0.028
1980	0.023	0.008
1981	0.050	0.029
1982	0.048	0.026
1983	0.064	0.044
1984	0.019	0.006
1985	0.010	0.005
1986	0.026	0.012
1987	0.031	0.015
1988	0.049	0.018
1989	0.123	0.056
1990	0.010	0.005
1991	0.016	0.008
1992	0.005	0.003
1993	0.013	0.009
1994	0.002	0.002
1995	0.012	0.008
1996	0.028	0.016
1997	0.002	0.001
1998	0.028	0.022
1999	0.000	0.000
2000	0.004	0.003
2001	0.002	0.002
2002	0.009	0.008
2003	0.002	0.001
2004	0.001	0.001
2005	0.000	0.000
2006	0.022	0.013
2007	0.002	0.002
2008	0.002	0.002
2009	0.005	0.003
2010	0.000	0.000
2011	0.012	0.005

Table F-12 Weakfish Indices of Annual Abundance Based on Fall Juvenile Survey, 1979-2011

	Fall Juvenile Survey	
	Juvenile	
	Index	Std. Err.
1979	0.133	0.070
1980	0.599	0.284
1981	0.215	0.125
1982	0.663	0.306
1983	0.125	0.088
1984	1.588	0.633
1985	0.977	0.481
1986	0.294	0.105
1987	0.253	0.180
1988	1.444	0.599
1989	0.763	0.248
1990	0.149	0.090
1991	0.100	0.061
1992	0.025	0.017
1993	0.252	0.149
1994	0.130	0.058
1995	0.229	0.128
1996	0.213	0.160
1997	0.156	0.053
1998	0.377	0.277
1999	0.117	0.047
2000	0.167	0.115
2001	0.019	0.009
2002	0.007	0.007
2003	0.095	0.049
2004	0.094	0.062
2005	0.014	0.014
2006	0.011	0.011
2007	0.077	0.054
2008	0.000	0.000
2009	0.044	0.021
2010	0.000	0.000
2011	0.026	0.017

Table F-13 Bluefish Indices of Annual Abundance Based on Beach Seine Survey, 1974-2011

	Beach Seine Survey	
	Juvenile	
	Index	Std. Err.
1974	0.712	0.210
1975	0.283	0.074
1976	0.189	0.028
1977	0.325	0.097
1978	0.350	0.075
1979	0.217	0.054
1980	0.303	0.053
1981	0.464	0.119
1982	0.295	0.059
1983	0.320	0.101
1984	0.153	0.034
1985	0.245	0.068
1986	0.127	0.054
1987	0.173	0.049
1988	0.176	0.027
1989	0.176	0.043
1990	0.237	0.053
1991	0.156	0.043
1992	0.133	0.050
1993	0.098	0.033
1994	0.058	0.017
1995	0.182	0.043
1996	0.036	0.012
1997	0.185	0.028
1998	0.155	0.026
1999	2.660	1.116
2000	0.065	0.027
2001	0.692	0.242
2002	0.863	0.300
2003	0.204	0.073
2004	0.103	0.037
2005	0.214	0.071
2006	0.206	0.069
2007	0.149	0.026
2008	0.190	0.046
2009	0.217	0.030
2010	0.287	0.072
2011	0.025	0.019

Appendix G

Length Frequency Distribution

APPENDIX G

LIST OF TABLES

APPENDIX G

LIST OF TABLES (CONTINUED)

Table G-1 Length Frequency Distribution of Larval and Young-of-Year Striped Bass in Hudson River Estuary Determined from Long River Survey, 2011

DATES	0.0-1.9	2.0-3.9	4.0-5.9	6.0-7.9	8.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-17.9	18.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9
14MAR-16MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21MAR-23MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28MAR-30MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04APR-08APR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11APR-15APR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18APR-22APR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25APR-28APR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02MAY-05MAY	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09MAY-12MAY	0	53	208	67	0	0	0	0	0	0	0	0	0	0	0	0	0
16MAY-19MAY	0	505	782	88	0	0	0	0	0	0	0	0	0	0	0	0	0
23MAY-26MAY	0	247	982	601	0	0	0	0	0	0	0	0	0	0	0	0	0
30MAY-02JUN	0	90	788	1070	34	1	0	0	0	0	0	0	0	0	0	0	0
06JUN-09JUN	0	26	919	1169	428	34	4	0	0	0	0	0	0	0	0	0	0
13JUN-17JUN	0	13	404	954	650	315	105	23	3	0	1	0	0	0	0	0	0
20JUN-23JUN	0	15	464	718	461	223	94	45	24	18	28	11	2	0	0	0	0
27JUN-30JUN	0	3	93	237	187	110	55	80	49	30	36	21	16	5	0	0	0
11JUL-13JUL	0	0	4	40	40	39	63	42	34	21	17	6	13	40	22	18	3
25JUL-27JUL	0	0	0	0	0	1	1	5	9	6	25	19	6	2	6	3	6
08AUG-10AUG	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2	3
22AUG-24AUG	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	4
06SEP-08SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
19SEP-21SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03OCT-05OCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	0	952	4645	4944	1800	723	322	195	119	75	107	57	38	50	34	27	17

DATES	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9+	N	MEAN	MIN	MED	MAX	SD
14MAR-16MAR	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
21MAR-23MAR	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
28MAR-30MAR	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
04APR-08APR	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
11APR-15APR	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
18APR-22APR	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
25APR-28APR	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
02MAY-05MAY	0	0	0	0	0	0	0	0	0	0	1	4.8	4.8	4.8	4.8	.
09MAY-12MAY	0	0	0	0	0	0	0	0	0	0	328	5.1	2.8	5.4	6.4	0.9
16MAY-19MAY	0	0	0	0	0	0	0	0	0	0	1375	4.4	2.0	4.3	7.1	1.0
23MAY-26MAY	0	0	0	0	0	0	0	0	0	0	1830	5.3	2.3	5.4	7.8	1.0
30MAY-02JUN	0	0	0	0	0	0	0	0	0	0	1983	5.8	2.8	6.0	10.4	1.0
06JUN-09JUN	0	0	0	0	0	0	0	0	0	0	2580	6.5	2.6	6.3	12.7	1.4
13JUN-17JUN	0	0	0	0	0	0	0	0	0	0	2468	8.0	2.4	7.6	21.1	2.2
20JUN-23JUN	0	0	0	0	0	0	0	0	0	0	2103	8.4	3.1	7.5	31.0	3.5
27JUN-30JUN	0	0	0	0	0	0	0	0	0	0	922	11.2	3.5	9.3	39.0	6.0
11JUL-13JUL	1	0	0	0	0	0	0	0	0	0	403	19.6	4.9	14.7	56.0	12.4
25JUL-27JUL	10	5	2	2	0	0	0	0	0	0	111	33.6	11.1	26.1	70.0	16.4
08AUG-10AUG	1	1	2	3	1	1	0	0	1	0	20	58.0	33.0	55.5	96.0	16.3
22AUG-24AUG	3	7	5	4	4	3	1	0	0	0	39	62.0	38.0	63.0	89.0	13.3
06SEP-08SEP	2	0	2	5	3	3	0	0	0	0	17	68.9	44.0	71.0	83.0	10.8
19SEP-21SEP	0	0	1	0	0	0	0	0	0	0	1	67.0	67.0	67.0	67.0	.
03OCT-05OCT	1	0	0	1	0	0	0	0	1	0	3	76.0	59.0	74.0	95.0	18.1
	======	======	======	======	======	======	======	======	======	======	======					
	18	13	12	15	8	7	1	0	2	0	14184					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-2 Length Frequency Distribution of Young-of-Year Striped Bass in Hudson River Estuary Determined from Fall Juvenile Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9
05JUL-09JUL	7	17	16	12	10	9	9	5	1	0	0	0	0	0
18JUL-21JUL	2	8	16	8	12	14	14	17	6	2	2	0	0	0
01AUG-04AUG	0	0	0	1	0	1	1	3	14	16	14	17	14	7
15AUG-18AUG	0	0	0	0	0	0	2	3	5	9	11	16	14	10
30AUG-01SEP	0	0	0	0	0	0	3	2	8	12	8	16	17	21
12SEP-15SEP	0	0	0	0	0	1	1	0	0	3	0	2	0	4
26SEP-29SEP	0	0	0	0	0	0	0	0	0	0	1	1	2	1
10OCT-13OCT	0	0	0	0	0	0	0	0	0	0	0	1	1	1
24OCT-27OCT	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07NOV-11NOV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28NOV-02DEC	0	0	0	0	0	0	0	0	0	0	1	0	1	2
	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	9	25	32	21	22	25	30	30	34	42	37	53	49	47

DATES	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9	110.0-114.9	115.0-119.9+	N	MEAN	MIN	MED	MAX	SD
05JUL-09JUL	0	0	0	0	0	0	0	0	86	27.3	11.0	26.0	53.0	10.5
18JUL-21JUL	0	0	0	0	0	0	0	0	102	35.6	13.0	36.0	62.0	12.0
01AUG-04AUG	0	0	0	0	0	0	0	0	89	61.8	26.0	63.0	79.0	9.5
15AUG-18AUG	6	1	1	1	0	0	0	0	82	66.6	41.0	67.0	98.0	11.1
30AUG-01SEP	10	8	7	3	1	0	0	0	116	71.3	42.0	71.0	100.0	13.2
12SEP-15SEP	5	1	6	2	0	0	1	0	26	78.5	39.0	80.5	110.0	16.7
26SEP-29SEP	2	4	3	2	3	1	0	0	20	86.9	62.0	88.5	106.0	12.5
10OCT-13OCT	0	0	2	0	1	0	1	0	7	86.1	65.0	90.0	110.0	16.3
24OCT-27OCT	0	2	0	0	0	0	0	0	3	84.3	78.0	87.0	88.0	5.5
07NOV-11NOV	0	0	2	0	0	0	0	0	2	92.5	92.0	92.5	93.0	0.7
28NOV-02DEC	1	1	2	1	0	0	1	0	10	84.9	62.0	83.5	110.0	13.9
	======	======	======	======	======	======	======	======	======					
	24	17	23	9	5	1	3	0	543					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-3 Length Frequency Distribution of Young-of-Year Striped Bass in Hudson River Estuary Determined from Beach Seine Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9	80.0-84.9
14JUN-16JUN	2	23	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUN-30JUN	4	27	35	34	22	11	3	0	0	0	0	0	0	0	0
12JUL-14JUL	0	2	7	14	32	32	26	16	8	6	0	0	0	0	0
25JUL-28JUL	0	0	1	2	7	9	7	16	26	32	23	15	7	2	1
08AUG-11AUG	0	0	0	0	2	7	18	6	10	15	14	17	17	14	10
22AUG-25AUG	0	0	0	0	0	2	6	9	11	9	11	25	21	23	12
06SEP-09SEP	0	0	0	0	0	0	3	4	3	11	7	8	9	15	8
19SEP-22SEP	0	0	0	0	0	0	0	1	6	5	6	6	5	6	5
03OCT-06OCT	0	0	0	0	0	0	0	0	3	5	5	12	7	10	7
17OCT-20OCT	0	0	0	0	0	0	0	0	1	2	2	7	12	8	9
	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	6	52	43	50	63	61	63	52	68	85	68	90	78	78	52

DATES	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9	110.0-114.9	115.0-119.9	120.0-124.9	125.0-129.9+	N	MEAN	MIN	MED	MAX	SD
14JUN-16JUN	0	0	0	0	0	0	0	0	0	25	16.0	13.0	16.0	19.0	1.5
28JUN-30JUN	0	0	0	0	0	0	0	0	0	136	25.2	12.0	25.0	43.0	6.7
12JUL-14JUL	0	0	0	0	0	0	0	0	0	143	37.5	15.0	36.0	59.0	8.8
25JUL-28JUL	0	0	0	0	0	0	0	0	0	154	54.3	24.0	55.0	80.0	11.1
08AUG-11AUG	4	4	0	0	0	0	0	0	0	142	61.9	30.0	62.0	94.0	15.0
22AUG-25AUG	6	2	4	0	0	0	0	0	0	143	67.7	38.0	68.0	99.0	13.2
06SEP-09SEP	12	7	6	2	0	0	0	0	0	96	73.5	40.0	76.0	102.0	15.2
19SEP-22SEP	13	4	3	1	2	2	1	0	0	66	77.2	49.0	77.0	116.0	16.9
03OCT-06OCT	10	4	8	3	4	1	1	2	0	83	80.0	51.0	78.0	124.0	16.9
17OCT-20OCT	9	8	6	4	3	0	0	0	0	72	81.4	54.0	81.0	105.0	13.1
	======	======	======	======	======	======	======	======	======	======					
	54	29	27	10	9	3	2	2	0	1060					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-4 Length Frequency Distribution of Larval and Young-of-Year White Perch in Hudson River Estuary Determined from Long River Survey, 2011

DATES	0.0-1.9	2.0-3.9	4.0-5.9	6.0-7.9	8.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-17.9	18.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9
14MAR-16MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21MAR-23MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28MAR-30MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04APR-08APR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11APR-15APR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18APR-22APR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25APR-28APR	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02MAY-05MAY	0	49	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09MAY-12MAY	1	829	115	2	0	0	0	0	0	0	0	0	0	0	0	0
16MAY-19MAY	0	1141	647	0	0	0	0	0	0	0	0	0	0	0	0	0
23MAY-26MAY	0	1128	2040	1	0	0	0	0	0	0	0	0	0	0	0	0
30MAY-02JUN	0	850	1756	210	2	0	0	0	0	0	0	0	0	0	0	0
06JUN-09JUN	0	620	742	798	105	7	0	0	0	0	0	0	0	0	0	0
13JUN-17JUN	1	328	543	689	332	76	5	0	0	0	0	0	0	0	0	0
20JUN-23JUN	0	271	724	373	133	15	0	0	0	0	0	0	0	0	0	0
27JUN-30JUN	0	63	415	325	102	16	6	2	5	1	0	0	0	0	0	0
11JUL-13JUL	0	0	2	10	11	25	33	19	13	3	3	1	0	0	0	0
25JUL-27JUL	0	0	0	0	0	0	2	1	9	16	18	9	2	2	0	0
08AUG-10AUG	0	0	0	0	0	0	0	0	0	0	6	8	17	4	0	0
22AUG-24AUG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	2
06SEP-08SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
19SEP-21SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
03OCT-05OCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	2	5280	6985	2408	685	139	46	22	27	20	27	18	19	6	10	11

DATES	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9	90.0-94.9+	N	MEAN	MIN	MED	MAX	SD
14MAR-16MAR	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
21MAR-23MAR	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
28MAR-30MAR	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
04APR-08APR	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
11APR-15APR	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
18APR-22APR	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
25APR-28APR	0	0	0	0	0	0	0	0	0	1	3.4	3.4	3.4	3.4	.
02MAY-05MAY	0	0	0	0	0	0	0	0	0	50	3.3	2.5	3.4	4.0	0.3
09MAY-12MAY	0	0	0	0	0	0	0	0	0	947	3.3	1.7	3.2	6.0	0.5
16MAY-19MAY	0	0	0	0	0	0	0	0	0	1788	3.7	2.1	3.8	5.2	0.5
23MAY-26MAY	0	0	0	0	0	0	0	0	0	3169	4.0	2.3	4.1	6.4	0.5
30MAY-02JUN	0	0	0	0	0	0	0	0	0	2818	4.4	2.0	4.2	8.1	1.0
06JUN-09JUN	0	0	0	0	0	0	0	0	0	2272	5.4	2.1	5.5	11.9	1.6
13JUN-17JUN	0	0	0	0	0	0	0	0	0	1974	6.3	1.9	6.3	13.1	2.0
20JUN-23JUN	0	0	0	0	0	0	0	0	0	1516	5.5	2.7	5.2	11.8	1.6
27JUN-30JUN	0	0	0	0	0	0	0	0	0	935	6.1	2.4	5.9	18.1	1.9
11JUL-13JUL	0	0	0	0	0	0	0	0	0	120	12.8	4.6	12.7	27.0	3.6
25JUL-27JUL	0	0	0	0	0	0	0	0	0	59	21.5	13.3	20.4	36.0	4.7
08AUG-10AUG	0	0	1	0	0	0	0	0	0	36	30.6	21.0	31.0	62.0	7.0
22AUG-24AUG	0	0	0	0	0	0	0	0	0	12	42.8	40.0	42.5	49.0	2.8
06SEP-08SEP	14	12	4	10	18	10	6	3	0	86	65.0	45.0	66.5	86.0	10.7
19SEP-21SEP	3	8	3	4	2	0	0	0	0	25	58.7	45.0	58.0	70.0	7.2
03OCT-05OCT	0	2	1	2	4	2	1	1	0	15	68.1	49.0	70.0	85.0	9.7
	======	======	======	======	======	======	======	======	======	======					
	17	22	9	16	24	12	7	4	0	15823					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-5 Length Frequency Distribution of Young-of-Year White Perch in Hudson River Estuary Determined from Fall Juvenile Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9
05JUL-09JUL	1	14	3	0	0	1	0	0	0	0	0	0
18JUL-21JUL	3	38	17	8	2	0	0	0	0	0	0	0
01AUG-04AUG	0	1	6	16	9	6	1	0	0	0	0	0
15AUG-18AUG	0	0	0	1	11	16	8	7	1	3	1	6
30AUG-01SEP	0	0	0	0	0	0	2	8	6	14	10	8
12SEP-15SEP	0	0	0	0	0	1	0	2	11	15	8	13
26SEP-29SEP	0	0	0	0	0	0	0	4	11	17	14	12
10OCT-13OCT	0	0	0	0	0	0	0	2	10	13	15	9
24OCT-27OCT	0	0	0	0	0	0	0	0	1	0	0	1
07NOV-11NOV	0	0	0	0	0	0	0	0	0	0	0	0
28NOV-02DEC	0	0	0	0	0	0	0	2	9	10	13	21
	======	======	======	======	======	======	======	======	======	======	======	======
	4	53	26	25	22	24	11	25	49	72	61	70

DATES	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9+	N	MEAN	MIN	MED	MAX	SD
05JUL-09JUL	0	0	0	0	0	0	19	18.7	13.0	18.0	36.0	4.6
18JUL-21JUL	0	0	0	0	0	0	68	19.8	11.0	19.0	32.0	4.1
01AUG-04AUG	0	0	0	0	0	0	39	29.1	19.0	28.0	40.0	5.3
15AUG-18AUG	2	0	0	0	0	0	57	44.4	26.0	40.0	71.0	12.5
30AUG-01SEP	13	11	10	1	0	0	85	65.0	41.0	65.0	86.0	11.3
12SEP-15SEP	12	13	10	4	0	0	93	66.6	38.0	65.0	87.0	11.1
26SEP-29SEP	7	4	6	3	0	0	81	63.3	45.0	62.0	88.0	10.1
10OCT-13OCT	7	3	4	6	1	0	74	64.8	45.0	62.5	92.0	11.2
24OCT-27OCT	0	2	1	1	0	0	6	72.8	54.0	75.5	86.0	11.6
07NOV-11NOV	0	2	1	0	0	0	3	77.7	75.0	78.0	80.0	2.5
28NOV-02DEC	7	9	22	14	5	0	116	71.1	48.0	69.0	94.0	12.1
	======	======	======	======	======	======	======					
	48	44	54	29	6	0	641					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-6 Length Frequency Distribution of Young-of-Year White Perch in Hudson River Estuary Determined from Beach Seine Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9
14JUN-16JUN	0	0	1	0	0	0	0	0	0	0	0	0
28JUN-30JUN	3	6	5	3	7	4	0	0	1	0	0	0
12JUL-14JUL	1	4	4	3	5	10	8	6	1	1	0	0
25JUL-28JUL	0	0	2	14	8	6	7	3	13	9	4	4
08AUG-11AUG	0	0	0	0	8	9	14	7	7	5	10	10
22AUG-25AUG	0	0	0	0	0	5	2	10	15	10	14	9
06SEP-09SEP	0	0	0	0	0	1	7	11	14	19	14	18
19SEP-22SEP	0	0	0	0	0	0	1	2	7	6	2	12
03OCT-06OCT	0	0	0	0	0	0	0	1	2	15	15	24
17OCT-20OCT	0	0	0	0	0	0	0	2	4	15	14	11
	======	======	======	======	======	======	======	======	======	======	======	======
	4	10	12	20	28	35	39	42	64	80	73	88

DATES	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9+	N	MEAN	MIN	MED	MAX	SD
14JUN-16JUN	0	0	0	0	0	0	1	24.0	24.0	24.0	24.0	.
28JUN-30JUN	0	0	0	0	0	0	29	26.1	12.0	25.0	53.0	9.4
12JUL-14JUL	0	0	0	0	0	0	43	34.8	14.0	36.0	59.0	10.8
25JUL-28JUL	0	0	0	0	0	0	72	44.0	24.0	44.0	69.0	13.5
08AUG-11AUG	7	1	0	0	0	0	79	51.6	30.0	51.0	75.0	13.2
22AUG-25AUG	13	10	3	0	0	0	92	60.6	35.0	62.0	84.0	11.9
06SEP-09SEP	16	9	8	0	0	0	120	61.8	38.0	62.0	84.0	11.3
19SEP-22SEP	12	10	11	2	3	0	73	68.9	40.0	70.0	90.0	11.7
03OCT-06OCT	22	20	15	7	1	0	125	70.0	45.0	70.0	90.0	9.3
17OCT-20OCT	17	13	14	9	7	0	110	71.0	46.0	71.5	94.0	11.8
	======	======	======	======	======	======	======					
	87	63	51	18	11	0	744					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-7 Length Frequency Distribution of Larval and Young-of-Year Atlantic Tomcod in Hudson River Estuary Determined from Long River Survey, 2011

DATES	0.0-1.9	2.0-3.9	4.0-5.9	6.0-7.9	8.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-17.9	18.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9
14MAR-16MAR	0	0	1	165	194	4	0	0	0	0	0	0	0	0	0	0	0
21MAR-23MAR	0	0	0	97	248	84	2	0	0	0	0	0	0	0	0	0	0
28MAR-30MAR	0	0	0	16	99	111	19	0	0	0	0	0	0	0	0	0	0
04APR-08APR	0	0	0	4	82	361	382	67	4	0	0	0	0	0	0	0	0
11APR-15APR	0	0	0	0	6	34	78	122	84	31	1	0	0	0	0	0	0
18APR-22APR	0	0	0	0	0	4	29	49	67	59	30	0	0	0	0	0	0
25APR-28APR	0	0	0	0	0	0	1	3	5	7	34	51	6	0	0	0	0
02MAY-05MAY	0	0	0	0	0	0	0	0	0	2	18	62	87	41	0	0	0
09MAY-12MAY	0	0	0	0	0	0	0	0	0	0	1	2	30	110	188	129	19
16MAY-19MAY	0	0	0	0	0	0	0	0	0	0	0	4	7	42	136	208	157
23MAY-26MAY	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	10	20
30MAY-02JUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	46
06JUN-09JUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10
13JUN-17JUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
20JUN-23JUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27JUN-30JUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11JUL-13JUL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25JUL-27JUL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08AUG-10AUG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22AUG-24AUG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06SEP-08SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19SEP-21SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03OCT-05OCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	0	0	1	282	629	598	511	241	160	99	84	119	130	194	329	354	253

DATES	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9+	N	MEAN	MIN	MED	MAX	SD
14MAR-16MAR	0	0	0	0	0	0	0	0	0	0	0	364	8.1	5.8	8.0	10.4	0.7
21MAR-23MAR	0	0	0	0	0	0	0	0	0	0	0	431	9.0	6.2	9.0	12.1	1.1
28MAR-30MAR	0	0	0	0	0	0	0	0	0	0	0	245	10.0	7.1	10.0	13.3	1.3
04APR-08APR	0	0	0	0	0	0	0	0	0	0	0	900	11.9	7.5	12.0	16.9	1.5
11APR-15APR	0	0	0	0	0	0	0	0	0	0	0	356	14.8	9.0	15.0	20.0	2.3
18APR-22APR	0	0	0	0	0	0	0	0	0	0	0	238	16.9	10.7	17.1	23.0	2.5
25APR-28APR	0	0	0	0	0	0	0	0	0	0	0	107	24.5	12.2	25.2	32.8	4.0
02MAY-05MAY	0	0	0	0	0	0	0	0	0	0	0	210	30.8	19.7	31.2	39.0	4.1
09MAY-12MAY	3	0	0	0	0	0	0	0	0	0	0	482	41.9	24.1	42.0	56.0	4.8
16MAY-19MAY	45	1	0	0	0	0	0	0	0	0	0	603	47.0	26.0	47.0	61.0	5.6
23MAY-26MAY	33	23	14	1	0	0	0	0	0	0	0	112	56.8	39.0	58.0	70.0	6.7
30MAY-02JUN	79	89	152	88	43	4	1	0	0	0	0	529	64.5	47.0	65.0	87.0	7.1
06JUN-09JUN	36	41	70	62	37	22	7	0	0	0	0	298	68.2	48.0	68.0	87.0	8.1
13JUN-17JUN	7	14	28	36	31	25	6	0	0	0	0	150	72.3	45.0	73.0	89.0	8.0
20JUN-23JUN	1	6	13	19	36	38	22	19	1	0	0	155	79.3	56.0	80.0	95.0	7.9
27JUN-30JUN	1	1	15	18	38	36	29	15	4	1	1	161	79.9	58.0	80.0	105.0	8.3
11JUL-13JUL	1	2	3	3	4	3	16	4	6	1	0	43	83.5	56.0	87.0	101.0	11.0
25JUL-27JUL	0	0	1	0	1	3	4	3	1	1	1	15	87.3	66.0	88.0	105.0	9.7
08AUG-10AUG	0	0	0	2	0	0	0	1	0	0	0	3	77.3	70.0	72.0	90.0	11.0
22AUG-24AUG	0	0	0	0	0	1	0	0	0	0	0	1	84.0	84.0	84.0	84.0	.
06SEP-08SEP	0	0	0	0	0	0	0	1	0	0	0	1	93.0	93.0	93.0	93.0	.
19SEP-21SEP	0	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
03OCT-05OCT	0	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
	======	======	======	======	======	======	======	======	======	======	======	======					
	206	177	296	229	190	132	85	43	12	3	2	5404					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-8 Length Frequency Distribution of Young-of-Year Atlantic Tomcod in Hudson River Estuary Determined from Fall Juvenile Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9
05JUL-09JUL	0	0	0	0	0	0	0	0	0	2	2	6
18JUL-21JUL	0	0	0	0	0	0	0	0	0	0	2	5
01AUG-04AUG	0	0	0	0	0	0	0	0	0	0	0	1
15AUG-18AUG	0	0	0	0	0	0	0	0	0	0	0	1
30AUG-01SEP	0	0	0	0	0	0	0	0	0	0	0	0
12SEP-15SEP	0	0	0	0	0	0	0	0	0	0	0	0
26SEP-29SEP	0	0	0	0	0	0	0	0	0	0	0	0
10OCT-13OCT	0	0	0	0	0	0	0	0	0	0	0	0
24OCT-27OCT	0	0	0	0	0	0	0	0	0	0	0	0
07NOV-11NOV	0	0	0	0	0	0	0	0	0	0	0	0
28NOV-02DEC	0	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	0	0	0	0	0	0	2	4	13

DATES	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9	110.0-114.9	115.0-119.9	120.0-124.9	125.0-129.9
05JUL-09JUL	15	19	36	21	6	6	1	2	0	0	0	0
18JUL-21JUL	13	14	23	21	10	5	6	0	0	0	0	0
01AUG-04AUG	2	4	5	2	0	1	0	0	0	0	0	0
15AUG-18AUG	0	2	5	8	2	3	2	0	0	0	1	0
30AUG-01SEP	0	0	0	1	1	1	0	0	1	0	0	1
12SEP-15SEP	0	0	1	0	0	2	1	0	0	1	0	0
26SEP-29SEP	0	0	0	0	0	0	1	0	1	2	2	0
10OCT-13OCT	0	0	0	0	0	0	1	0	1	1	0	1
24OCT-27OCT	0	0	0	0	0	0	0	0	0	0	0	0
07NOV-11NOV	0	0	0	0	0	0	0	0	0	0	0	0
28NOV-02DEC	0	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======	======
	30	39	70	53	19	18	12	2	3	4	3	2

DATES	130.0-134.9	135.0-139.9	140.0-144.9	145.0-149.9	150.0-154.9+	N	MEAN	MIN	MED	MAX	SD
05JUL-09JUL	0	0	0	0	0	116	81.1	58.0	81.0	105.0	8.7
18JUL-21JUL	0	0	0	0	0	99	82.8	63.0	83.0	104.0	9.3
01AUG-04AUG	0	0	0	0	0	15	80.0	69.0	80.0	95.0	6.6
15AUG-18AUG	0	0	0	0	0	24	89.0	69.0	87.0	121.0	10.2
30AUG-01SEP	0	0	0	0	0	5	102.6	87.0	97.0	127.0	16.7
12SEP-15SEP	0	1	0	0	0	6	105.3	82.0	100.5	138.0	19.2
26SEP-29SEP	1	0	1	0	0	8	120.8	102.0	120.0	141.0	12.2
10OCT-13OCT	2	2	0	0	0	8	123.9	101.0	128.5	137.0	12.7
24OCT-27OCT	2	2	0	0	0	4	133.3	130.0	132.5	138.0	3.9
07NOV-11NOV	0	0	0	0	0	0	.	.	.	.	.
28NOV-02DEC	0	1	0	1	1	3	145.3	137.0	148.0	151.0	7.4
	======	======	======	======	======	======					
	5	6	1	1	1	288					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-9 Length Frequency Distribution of Young-of-Year Atlantic Tomcod in Hudson River Estuary Determined from Beach Seine Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9
14JUN-16JUN	0	0	0	0	0	0	0	0	0	0	0
28JUN-30JUN	0	0	0	0	0	0	0	0	0	0	0
12JUL-14JUL	0	0	0	0	0	0	0	0	0	0	0
25JUL-28JUL	0	0	0	0	0	0	0	0	0	0	0
08AUG-11AUG	0	0	0	0	0	0	0	0	0	0	0
22AUG-25AUG	0	0	0	0	0	0	0	0	0	0	0
06SEP-09SEP	0	0	0	0	0	0	0	0	0	0	0
19SEP-22SEP	0	0	0	0	0	0	0	0	0	0	0
03OCT-06OCT	0	0	0	0	0	0	0	0	0	0	0
17OCT-20OCT	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	0	0	0	0	0	0	0	0

DATES	65.0-69.9	70.0-74.9	75.0-79.9	80.0-84.9+	N	MEAN	MIN	MED	MAX	SD
14JUN-16JUN	0	0	1	0	1	77.0	77.0	77.0	77.0	.
28JUN-30JUN	0	0	1	0	1	79.0	79.0	79.0	79.0	.
12JUL-14JUL	0	0	0	0	0	.	.	.	.	.
25JUL-28JUL	0	0	0	0	0	.	.	.	.	.
08AUG-11AUG	0	0	0	0	0	.	.	.	.	.
22AUG-25AUG	0	0	0	0	0	.	.	.	.	.
06SEP-09SEP	0	0	0	0	0	.	.	.	.	.
19SEP-22SEP	0	0	0	0	0	.	.	.	.	.
03OCT-06OCT	0	0	0	0	0	.	.	.	.	.
17OCT-20OCT	0	0	0	0	0	.	.	.	.	.
	======	======	======	======	======					
	0	0	2	0	2					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-10 Length Frequency Distribution of Larval and Young-of-Year Bay Anchovy in Hudson River Estuary Determined from Long River Survey, 2011

DATES	0.0-1.9	2.0-3.9	4.0-5.9	6.0-7.9	8.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-17.9	18.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9
14MAR-16MAR	0	0	0	0	0	0	0	0	0	0	0	0	0
21MAR-23MAR	0	0	0	0	0	0	0	0	0	0	0	0	0
28MAR-30MAR	0	0	0	0	0	0	0	0	0	0	0	0	0
04APR-08APR	0	0	0	0	0	0	0	0	0	0	0	0	0
11APR-15APR	0	0	0	0	0	0	0	0	0	0	0	0	0
18APR-22APR	0	0	0	0	0	0	0	0	0	0	0	0	0
25APR-28APR	0	0	0	0	0	0	0	0	0	0	0	0	0
02MAY-05MAY	0	0	0	0	0	0	0	0	0	0	0	0	0
09MAY-12MAY	0	0	0	0	0	0	0	0	0	0	0	0	0
16MAY-19MAY	0	1	0	0	0	0	0	0	0	0	0	0	0
23MAY-26MAY	0	0	0	0	0	0	0	0	0	0	0	0	0
30MAY-02JUN	0	10	3	0	0	0	0	0	0	0	0	0	0
06JUN-09JUN	0	12	58	94	19	0	0	0	0	0	0	0	0
13JUN-17JUN	0	157	342	191	138	172	107	8	1	0	0	0	0
20JUN-23JUN	0	34	216	408	355	197	132	77	29	3	0	0	0
27JUN-30JUN	1	159	259	217	273	319	257	98	54	33	19	0	0
11JUL-13JUL	0	22	91	158	220	265	249	212	160	198	198	28	4
25JUL-27JUL	3	195	198	245	230	182	162	104	138	182	338	49	85
08AUG-10AUG	0	13	87	223	262	268	233	214	162	96	247	165	103
22AUG-24AUG	0	0	1	51	113	146	114	99	108	132	271	212	190
06SEP-08SEP	0	0	0	6	18	23	13	20	22	41	104	100	98
19SEP-21SEP	0	0	0	0	0	1	5	9	16	14	43	61	49
03OCT-05OCT	0	0	0	0	0	0	1	5	5	7	20	35	25
	======	======	======	======	======	======	======	======	======	======	======	======	======
	4	603	1255	1593	1628	1573	1273	846	695	706	1240	650	554

DATES	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9+	N	MEAN	MIN	MED	MAX	SD
14MAR-16MAR	0	0	0	0	0	0	0	.	.	.	.	.
21MAR-23MAR	0	0	0	0	0	0	0	.	.	.	.	.
28MAR-30MAR	0	0	0	0	0	0	0	.	.	.	.	.
04APR-08APR	0	0	0	0	0	0	0	.	.	.	.	.
11APR-15APR	0	0	0	0	0	0	0	.	.	.	.	.
18APR-22APR	0	0	0	0	0	0	0	.	.	.	.	.
25APR-28APR	0	0	0	0	0	0	0	.	.	.	.	.
02MAY-05MAY	0	0	0	0	0	0	0	.	.	.	.	.
09MAY-12MAY	0	0	0	0	0	0	0	.	.	.	.	.
16MAY-19MAY	0	0	0	0	0	0	1	3.4	3.4	3.4	3.4	.
23MAY-26MAY	0	0	0	0	0	0	0	.	.	.	.	.
30MAY-02JUN	0	0	0	0	0	0	13	3.7	3.1	3.6	4.8	0.5
06JUN-09JUN	0	0	0	0	0	0	183	6.2	2.9	6.3	8.9	1.4
13JUN-17JUN	0	0	0	0	0	0	1116	7.3	2.0	6.3	16.4	3.1
20JUN-23JUN	0	0	0	0	0	0	1451	8.8	2.0	8.3	19.4	3.1
27JUN-30JUN	0	0	0	0	0	0	1689	9.4	1.8	9.5	24.1	4.1
11JUL-13JUL	0	0	0	0	0	0	1805	13.5	2.5	13.0	32.0	5.2
25JUL-27JUL	67	31	5	0	0	0	2214	14.6	1.2	12.5	46.0	9.2
08AUG-10AUG	98	73	18	6	0	0	2268	17.3	3.0	14.4	53.0	10.0
22AUG-24AUG	179	141	48	27	13	0	1845	24.4	5.9	22.4	59.0	11.6
06SEP-08SEP	81	82	57	21	6	0	692	30.1	6.8	29.9	59.0	11.4
19SEP-21SEP	27	16	16	7	0	0	264	29.4	11.8	28.9	54.0	9.3
03OCT-05OCT	19	13	9	7	4	0	150	31.8	12.7	30.4	59.0	10.3
	======	======	======	======	======	======	======					
	471	356	153	68	23	0	13691					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-11 Length Frequency Distribution of Young-of-Year Bay Anchovy in Hudson River Estuary Determined from Fall Juvenile Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9
05JUL-09JUL	2	9	9	1	0	0	0	0	0	0
18JUL-21JUL	6	13	45	45	13	2	1	0	0	0
01AUG-04AUG	0	5	20	32	31	58	17	6	1	0
15AUG-18AUG	0	0	15	35	64	54	19	1	1	0
30AUG-01SEP	0	0	8	21	29	25	25	20	9	2
12SEP-15SEP	0	0	7	11	21	20	20	15	8	1
26SEP-29SEP	0	0	3	22	16	15	24	21	7	5
10OCT-13OCT	0	0	2	14	14	12	11	12	6	0
24OCT-27OCT	0	0	0	0	0	0	0	0	0	0
07NOV-11NOV	0	0	0	0	0	0	0	0	0	0
28NOV-02DEC	0	0	0	0	2	8	9	8	0	2
	======	======	======	======	======	======	======	======	======	======
	8	27	109	181	190	194	126	83	32	10

DATES	60.0-64.9	65.0-69.9	70.0-74.9+	N	MEAN	MIN	MED	MAX	SD
05JUL-09JUL	0	0	0	21	19.0	11.0	19.0	27.0	4.2
18JUL-21JUL	0	0	0	125	24.1	11.0	24.0	41.0	5.3
01AUG-04AUG	0	0	0	170	32.6	15.0	34.0	50.0	7.2
15AUG-18AUG	0	0	0	189	32.6	20.0	33.0	51.0	5.7
30AUG-01SEP	0	0	0	139	37.1	20.0	37.0	57.0	8.5
12SEP-15SEP	1	0	0	104	37.6	22.0	37.5	62.0	8.5
26SEP-29SEP	7	0	0	120	39.9	23.0	40.0	64.0	10.4
10OCT-13OCT	4	1	0	77	39.1	22.0	37.0	67.0	10.7
24OCT-27OCT	0	0	0	0	.	.	.	.	.
07NOV-11NOV	0	0	0	0	.	.	.	.	.
28NOV-02DEC	1	1	0	32	44.1	33.0	42.0	67.0	8.8
	======	======	======	======					
	13	2	0	977					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-12 Length Frequency Distribution of Young-of-Year Bay Anchovy in Hudson River Estuary Determined from Beach Seine Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9
14JUN-16JUN	0	0	0	0	0	0	0	0	0
28JUN-30JUN	0	10	6	0	0	0	0	0	0
12JUL-14JUL	0	4	15	20	3	0	0	0	0
25JUL-28JUL	0	6	50	23	12	4	0	0	0
08AUG-11AUG	0	1	28	13	15	9	0	1	0
22AUG-25AUG	0	2	36	18	9	10	3	0	0
06SEP-09SEP	0	0	3	11	21	37	34	19	7
19SEP-22SEP	0	0	0	7	32	51	44	26	10
03OCT-06OCT	0	0	3	25	30	18	10	7	4
17OCT-20OCT	0	0	1	10	23	16	7	10	2
	======	======	======	======	======	======	======	======	======
	0	23	142	127	145	145	98	63	23

DATES	55.0-59.9	60.0-64.9	65.0-69.9+	N	MEAN	MIN	MED	MAX	SD
14JUN-16JUN	0	0	0	0	.	.	.	.	.
28JUN-30JUN	0	0	0	16	18.6	15.0	18.5	22.0	2.3
12JUL-14JUL	0	0	0	42	24.5	19.0	25.0	30.0	3.3
25JUL-28JUL	0	0	0	95	24.6	17.0	24.0	37.0	4.4
08AUG-11AUG	0	0	0	67	27.2	19.0	25.0	45.0	5.8
22AUG-25AUG	0	0	0	78	26.8	19.0	25.0	42.0	5.8
06SEP-09SEP	0	0	0	132	38.3	22.0	38.0	53.0	6.6
19SEP-22SEP	3	1	0	175	39.8	25.0	39.0	63.0	7.0
03OCT-06OCT	1	0	0	99	34.5	23.0	32.0	60.0	7.9
17OCT-20OCT	2	2	0	73	37.1	22.0	35.0	64.0	8.8
	======	======	======	======					
	6	3	0	777					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-13 Length Frequency Distribution of Larval and Young-of-Year American Shad in Hudson River Estuary Determined from Long River Survey, 2011

DATES	0.0-1.9	2.0-3.9	4.0-5.9	6.0-7.9	8.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-17.9	18.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9
14MAR-16MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21MAR-23MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28MAR-30MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04APR-08APR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11APR-15APR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18APR-22APR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25APR-28APR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02MAY-05MAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09MAY-12MAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16MAY-19MAY	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
23MAY-26MAY	0	0	0	0	4	5	0	0	0	0	0	0	0	0	0	0	0	0
30MAY-02JUN	0	0	0	0	1	2	4	1	0	0	0	0	0	0	0	0	0	0
06JUN-09JUN	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0
13JUN-17JUN	0	0	0	0	3	4	2	2	3	7	16	0	0	0	0	0	0	0
20JUN-23JUN	0	0	0	0	0	0	0	0	0	3	12	14	6	0	0	0	0	0
27JUN-30JUN	0	0	0	0	0	0	0	0	1	0	1	7	9	8	10	1	0	0
11JUL-13JUL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
25JUL-27JUL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08AUG-10AUG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22AUG-24AUG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06SEP-08SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19SEP-21SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03OCT-05OCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	0	10	11	6	4	5	10	29	21	16	8	10	1	2	2

DATES	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9	110.0-114.9	115.0-119.9+	N	MEAN	MIN	MED	MAX	SD
14MAR-16MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
21MAR-23MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
28MAR-30MAR	0	0	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
04APR-08APR	0	0	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
11APR-15APR	0	0	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
18APR-22APR	0	0	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
25APR-28APR	0	0	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
02MAY-05MAY	0	0	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
09MAY-12MAY	0	0	0	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
16MAY-19MAY	0	0	0	0	0	0	0	0	0	0	0	0	1	8.5	8.5	8.5	8.5	.
23MAY-26MAY	0	0	0	0	0	0	0	0	0	0	0	0	9	10.1	8.3	10.2	11.2	1.0
30MAY-02JUN	0	0	0	0	0	0	0	0	0	0	0	0	8	12.1	9.3	12.3	15.0	1.8
06JUN-09JUN	0	0	0	0	0	0	0	0	0	0	0	0	4	18.2	9.0	16.4	31.0	9.2
13JUN-17JUN	0	0	0	0	0	0	0	0	0	0	0	0	37	17.7	8.8	18.9	23.9	4.7
20JUN-23JUN	0	0	0	0	0	0	0	0	0	0	0	0	35	25.8	18.0	25.4	34.0	4.1
27JUN-30JUN	0	0	0	0	0	0	0	0	0	0	0	0	37	34.7	16.6	35.0	45.0	6.6
11JUL-13JUL	0	0	0	0	0	0	0	0	0	0	0	0	5	55.6	50.0	58.0	60.0	4.3
25JUL-27JUL	0	0	1	0	0	0	0	0	0	0	0	0	1	70.0	70.0	70.0	70.0	.
08AUG-10AUG	0	0	0	0	1	0	0	0	0	0	0	0	1	80.0	80.0	80.0	80.0	.
22AUG-24AUG	0	0	0	0	3	0	0	0	0	0	0	0	3	82.0	80.0	82.0	84.0	2.0
06SEP-08SEP	0	0	0	0	2	4	1	2	1	0	0	0	10	90.1	80.0	89.0	101.0	7.1
19SEP-21SEP	0	0	0	0	0	0	3	1	1	0	0	0	5	95.2	92.0	94.0	100.0	3.6
03OCT-05OCT	0	0	0	1	0	1	1	0	1	0	1	0	5	93.2	76.0	90.0	112.0	13.5
	======	======	======	======	======	======	======	======	======	======	======	======	======					
	0	0	1	1	6	5	5	3	3	0	1	0	161					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-14 Length Frequency Distribution of Young-of-Year American Shad in Hudson River Estuary Determined from Fall Juvenile Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9
05JUL-09JUL	0	0	0	1	7	10	3	4	3	3	0	0	0	0
18JUL-21JUL	0	0	0	0	0	1	1	0	2	6	5	12	1	1
01AUG-04AUG	0	0	0	0	0	0	0	0	0	0	0	0	3	0
15AUG-18AUG	0	0	0	0	0	0	0	0	0	1	0	0	0	0
30AUG-01SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12SEP-15SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26SEP-29SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10OCT-13OCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24OCT-27OCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07NOV-11NOV	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28NOV-02DEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	1	7	11	4	4	5	10	5	12	4	1

DATES	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9	110.0-114.9+	N	MEAN	MIN	MED	MAX	SD
05JUL-09JUL	0	0	0	0	0	0	0	31	40.9	29.0	37.0	57.0	8.4
18JUL-21JUL	0	0	0	0	0	0	0	30	62.1	37.0	64.0	76.0	8.2
01AUG-04AUG	3	0	0	0	0	0	0	6	77.2	70.0	78.0	83.0	5.8
15AUG-18AUG	1	1	1	0	0	0	0	4	79.5	55.0	84.5	94.0	16.9
30AUG-01SEP	0	4	2	1	0	1	0	8	91.8	85.0	89.5	109.0	8.0
12SEP-15SEP	1	0	1	0	1	0	0	3	92.7	83.0	92.0	103.0	10.0
26SEP-29SEP	0	2	2	0	0	0	0	4	89.5	88.0	89.5	91.0	1.3
10OCT-13OCT	0	0	0	0	0	0	0	0	.	.	.	.	.
24OCT-27OCT	0	0	0	0	0	0	0	0	.	.	.	.	.
07NOV-11NOV	0	0	0	0	0	0	0	0	.	.	.	.	.
28NOV-02DEC	0	0	0	0	0	0	0	0	.	.	.	.	.
	======	======	======	======	======	======	======	======					
	5	7	6	1	1	1	0	86					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-15 Length Frequency Distribution of Young-of-Year American Shad in Hudson River Estuary Determined from Beach Seine Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9	90.0-94.9
14JUN-16JUN	0	1	9	13	2	1	0	0	0	0	0	0	0	0	0	0	0
28JUN-30JUN	0	0	5	20	17	25	17	4	0	0	0	0	0	0	0	0	0
12JUL-14JUL	0	0	1	0	5	10	8	17	34	29	1	1	0	0	0	0	0
25JUL-28JUL	0	0	0	0	0	0	0	0	7	11	14	47	29	7	0	0	0
08AUG-11AUG	0	0	0	0	0	0	0	0	1	2	3	10	30	21	9	0	0
22AUG-25AUG	0	0	0	0	0	0	0	0	0	0	0	0	2	19	35	11	0
06SEP-09SEP	0	0	0	0	0	0	0	0	0	0	0	1	5	7	11	1	3
19SEP-22SEP	0	0	0	0	0	0	0	0	0	0	1	1	3	6	15	16	3
03OCT-06OCT	0	0	0	0	0	0	0	0	0	0	0	1	7	8	23	19	11
17OCT-20OCT	0	0	0	0	0	0	0	0	0	0	0	0	4	3	12	35	14
	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	0	1	15	33	24	36	25	21	42	42	19	61	80	71	105	82	31

DATES	95.0-99.9	100.0-104.9	105.0-109.9	110.0-114.9	115.0-119.9	120.0-124.9	125.0-129.9	130.0-134.9	135.0-139.9	140.0-144.9+	N	MEAN	MIN	MED	MAX	SD
14JUN-16JUN	0	0	0	0	0	0	0	0	0	0	26	25.3	19.0	25.0	36.0	3.6
28JUN-30JUN	0	0	0	0	0	0	0	0	0	0	88	34.3	21.0	35.0	49.0	6.3
12JUL-14JUL	0	0	0	0	0	0	0	0	0	0	106	49.2	22.0	51.5	69.0	8.2
25JUL-28JUL	0	0	0	0	0	0	0	0	0	0	119	65.9	52.0	67.0	77.0	5.8
08AUG-11AUG	0	0	0	0	0	0	0	0	0	0	76	72.8	52.0	73.5	84.0	5.7
22AUG-25AUG	0	0	0	0	0	0	0	0	0	0	67	80.7	71.0	81.0	89.0	3.5
06SEP-09SEP	0	0	0	1	0	0	0	0	0	0	29	80.8	67.0	80.0	111.0	8.3
19SEP-22SEP	0	0	0	0	0	0	0	0	0	0	45	81.9	62.0	82.0	94.0	6.4
03OCT-06OCT	2	0	1	0	0	0	0	0	1	0	73	84.8	67.0	84.0	137.0	9.1
17OCT-20OCT	1	1	0	0	0	0	0	0	0	0	71	85.7	60.0	87.0	100.0	6.0
	======	======	======	======	======	======	======	======	======	======	======					
	3	1	1	1	0	0	0	0	1	0	700					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-16 Length Frequency Distribution of Young-of-Year Alewife in Hudson River Estuary Determined from Fall Juvenile Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9
05JUL-09JUL	0	0	0	0	0	0	31	11	3	0	1	0	1
18JUL-21JUL	0	0	0	0	0	0	8	16	21	16	4	3	0
01AUG-04AUG	0	0	0	0	0	1	0	0	3	3	3	15	5
15AUG-18AUG	0	0	0	0	0	0	0	0	2	1	0	2	0
30AUG-01SEP	0	0	0	0	0	1	0	0	0	0	1	1	8
12SEP-15SEP	0	0	0	0	0	0	0	0	0	0	0	0	1
26SEP-29SEP	0	0	0	0	0	0	0	0	0	0	0	1	2
10OCT-13OCT	0	0	0	0	0	0	0	0	0	0	0	0	0
24OCT-27OCT	0	0	0	0	0	0	0	0	0	0	0	0	0
07NOV-11NOV	0	0	0	0	0	0	0	0	0	0	0	0	0
28NOV-02DEC	0	0	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	0	0	2	39	27	29	20	9	22	17

DATES	75.0-79.9	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9+	N	MEAN	MIN	MED	MAX	SD
05JUL-09JUL	1	0	0	0	0	0	0	48	45.5	41.0	44.0	78.0	7.2
18JUL-21JUL	2	0	0	0	0	0	0	71	52.9	40.0	52.0	77.0	7.5
01AUG-04AUG	7	0	0	0	0	0	0	37	66.4	39.0	67.0	79.0	8.4
15AUG-18AUG	3	0	1	0	0	1	0	10	71.4	52.0	72.0	101.0	14.9
30AUG-01SEP	10	9	5	1	1	0	0	38	77.2	36.0	77.5	97.0	10.2
12SEP-15SEP	2	3	0	0	1	0	0	7	81.7	71.0	82.0	97.0	8.0
26SEP-29SEP	3	4	1	0	0	0	0	11	78.3	69.0	79.0	89.0	6.0
10OCT-13OCT	0	4	1	1	0	0	0	7	80.7	60.0	83.0	90.0	9.9
24OCT-27OCT	0	0	0	0	1	0	0	1	97.0	97.0	97.0	97.0	.
07NOV-11NOV	0	0	0	0	0	0	0	0	.	.	.	.	.
28NOV-02DEC	0	1	1	1	1	0	0	4	89.0	84.0	88.5	95.0	5.4
	======	======	======	======	======	======	======	======					
	28	21	9	3	4	1	0	234					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-17 Length Frequency Distribution of Young-of-Year Alewife in Hudson River Estuary Determined from Beach Seine Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9
14JUN-16JUN	0	0	0	0	0	2	13	2	0	0	0	0	0	0
28JUN-30JUN	0	0	0	0	0	0	10	0	1	1	5	0	2	0
12JUL-14JUL	0	0	0	0	0	0	26	12	9	1	0	2	0	0
25JUL-28JUL	0	0	0	0	0	1	0	2	5	13	10	31	5	1
08AUG-11AUG	0	0	0	0	0	0	0	0	2	3	12	17	28	15
22AUG-25AUG	0	0	0	4	0	1	0	0	0	0	1	5	23	17
06SEP-09SEP	0	0	0	0	0	0	0	0	0	3	13	21	21	16
19SEP-22SEP	0	0	0	0	0	0	0	0	1	2	10	24	17	17
03OCT-06OCT	0	0	0	0	0	0	0	1	1	2	7	20	16	4
17OCT-20OCT	0	0	0	0	0	0	0	0	0	2	5	11	11	11
	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	4	0	4	49	17	19	27	63	131	123	81

DATES	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9	110.0-114.9	115.0-119.9+	N	MEAN	MIN	MED	MAX	SD
14JUN-16JUN	0	0	0	0	0	0	0	0	17	41.6	37.0	41.0	47.0	2.4
28JUN-30JUN	0	0	0	0	0	0	0	0	20	52.5	41.0	48.5	73.0	10.5
12JUL-14JUL	0	0	0	0	0	0	0	0	51	46.5	41.0	44.0	69.0	6.5
25JUL-28JUL	0	2	3	2	1	0	0	0	80	65.5	36.0	65.0	100.0	11.0
08AUG-11AUG	2	0	3	1	1	0	0	0	86	70.7	53.0	71.0	104.0	8.8
22AUG-25AUG	19	5	0	0	3	0	1	0	79	74.7	25.0	76.0	111.0	14.6
06SEP-09SEP	12	2	0	0	0	0	0	0	93	70.8	57.0	71.0	88.0	7.4
19SEP-22SEP	9	3	0	0	0	0	0	0	87	70.9	50.0	70.0	88.0	7.7
03OCT-06OCT	6	5	0	0	0	0	0	0	63	70.4	49.0	69.0	89.0	8.3
17OCT-20OCT	8	2	0	1	0	0	0	0	51	73.0	55.0	73.0	99.0	7.9
	======	======	======	======	======	======	======	======	======					
	56	19	6	4	5	0	1	0	627					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-18 Length Frequency Distribution of Young-of-Year Blueback Herring in Hudson River Estuary Determined from Fall Juvenile Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9
05JUL-09JUL	0	0	0	0	0	0	16	1	1	0	0	0
18JUL-21JUL	0	0	0	0	0	0	54	31	15	5	0	0
01AUG-04AUG	0	0	0	0	0	1	15	19	26	13	2	1
15AUG-18AUG	0	0	0	0	0	1	3	15	16	17	5	1
30AUG-01SEP	0	0	0	0	0	0	0	1	16	30	39	26
12SEP-15SEP	0	0	0	0	0	0	0	3	8	47	34	23
26SEP-29SEP	0	0	0	0	0	0	0	0	6	31	50	41
10OCT-13OCT	0	0	0	0	0	0	0	1	4	25	40	26
24OCT-27OCT	0	0	0	0	0	0	0	0	0	0	0	0
07NOV-11NOV	0	0	0	0	0	0	0	0	0	0	0	0
28NOV-02DEC	0	0	0	0	0	0	0	0	0	0	1	0
	======	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	0	0	2	88	71	92	168	171	118

DATES	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9	90.0-94.9+	N	MEAN	MIN	MED	MAX	SD
05JUL-09JUL	0	0	0	0	0	18	42.7	41.0	42.0	51.0	2.4
18JUL-21JUL	0	0	0	0	0	105	45.5	40.0	44.0	57.0	4.4
01AUG-04AUG	0	0	0	0	0	77	49.9	39.0	50.0	68.0	5.9
15AUG-18AUG	1	0	0	0	0	63	53.1	39.0	53.0	71.0	6.5
30AUG-01SEP	8	1	0	0	0	129	61.1	48.0	61.0	77.0	5.4
12SEP-15SEP	4	0	0	0	0	135	60.3	47.0	60.0	73.0	4.6
26SEP-29SEP	14	2	0	0	0	154	62.8	53.0	63.0	76.0	4.8
10OCT-13OCT	9	4	0	2	0	120	63.3	48.0	63.0	87.0	6.2
24OCT-27OCT	1	0	0	0	0	1	70.0	70.0	70.0	70.0	.
07NOV-11NOV	0	0	0	0	0	0	.	.	.	.	.
28NOV-02DEC	0	0	0	0	0	1	63.0	63.0	63.0	63.0	.
	======	======	======	======	======	======					
	37	7	0	2	0	803					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-19 Length Frequency Distribution of Young-of-Year Blueback Herring in Hudson River Estuary Determined from Beach Seine Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9
14JUN-16JUN	0	0	0	0	0	0	0	0	0	0	0
28JUN-30JUN	0	0	0	0	0	0	2	1	0	0	0
12JUL-14JUL	0	0	0	0	0	0	43	24	3	0	0
25JUL-28JUL	0	0	0	0	0	1	18	27	63	25	1
08AUG-11AUG	0	0	0	0	0	0	10	21	38	12	1
22AUG-25AUG	0	0	0	0	0	0	4	20	18	37	22
06SEP-09SEP	0	0	0	0	0	0	1	14	43	63	31
19SEP-22SEP	0	0	0	0	0	0	1	4	28	50	46
03OCT-06OCT	0	0	0	0	0	0	1	4	23	53	30
17OCT-20OCT	0	0	0	0	0	0	0	2	12	43	35
	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	0	0	1	80	117	228	283	166

DATES	65.0-69.9	70.0-74.9	75.0-79.9	80.0-84.9+	N	MEAN	MIN	MED	MAX	SD
14JUN-16JUN	0	0	0	0	0	.	.	.	.	.
28JUN-30JUN	0	0	0	0	3	42.3	41.0	41.0	45.0	2.3
12JUL-14JUL	0	0	0	0	70	43.9	40.0	44.0	52.0	2.7
25JUL-28JUL	0	0	0	0	137	50.7	39.0	52.0	62.0	5.0
08AUG-11AUG	0	0	0	0	84	50.5	40.0	51.0	63.0	4.5
22AUG-25AUG	12	2	1	0	121	56.7	43.0	58.0	78.0	7.1
06SEP-09SEP	8	1	0	0	176	56.6	43.0	57.0	70.0	5.1
19SEP-22SEP	16	3	2	0	173	58.9	42.0	60.0	75.0	5.4
03OCT-06OCT	30	8	0	0	160	59.8	44.0	59.0	73.0	5.7
17OCT-20OCT	48	12	4	0	168	62.0	48.0	62.0	75.0	5.9
	======	======	======	======	======					
	114	26	7	0	1092					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-20 Length Frequency Distribution of Young-of-Year Spottail Shiner in Hudson River Estuary Determined from Fall Juvenile Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9
05JUL-09JUL	0	0	0	0	1	0	0	0	0	0	0
18JUL-21JUL	0	0	0	0	0	1	1	0	0	0	0
01AUG-04AUG	0	0	0	0	0	0	0	0	0	0	0
15AUG-18AUG	0	0	0	0	0	0	0	0	0	0	0
30AUG-01SEP	0	0	0	0	0	0	0	0	0	0	1
12SEP-15SEP	0	0	0	0	0	0	0	0	0	0	1
26SEP-29SEP	0	0	0	0	0	0	0	0	0	2	1
10OCT-13OCT	0	0	0	0	0	0	0	0	0	1	0
24OCT-27OCT	0	0	0	0	0	0	0	0	0	0	0
07NOV-11NOV	0	0	0	0	0	0	0	0	0	0	0
28NOV-02DEC	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	0	1	1	1	0	0	3	3

DATES	65.0-69.9	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9+	N	MEAN	MIN	MED	MAX	SD
05JUL-09JUL	0	0	0	0	0	1	33.0	33.0	33.0	33.0	.
18JUL-21JUL	0	0	0	0	0	2	37.5	35.0	37.5	40.0	3.5
01AUG-04AUG	0	0	0	0	0	0	.	.	.	.	.
15AUG-18AUG	0	0	0	0	0	0	.	.	.	.	.
30AUG-01SEP	3	0	0	0	0	4	66.0	62.0	66.5	69.0	3.2
12SEP-15SEP	1	2	0	1	0	5	70.8	63.0	71.0	80.0	6.4
26SEP-29SEP	1	3	4	2	0	13	71.4	56.0	74.0	82.0	8.4
10OCT-13OCT	0	2	3	0	0	7	70.4	59.0	72.0	79.0	8.1
24OCT-27OCT	0	0	0	0	0	0	.	.	.	.	.
07NOV-11NOV	0	0	0	0	0	0	.	.	.	.	.
28NOV-02DEC	2	2	0	0	0	4	69.3	67.0	69.0	72.0	2.2
	======	======	======	======	======	======					
	7	9	7	3	0	36					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-21 Length Frequency Distribution of Young-of-Year Spottail Shiner in Hudson River Estuary Determined from Beach Seine Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9
14JUN-16JUN	4	35	2	0	0	0	0	0	0	0	0
28JUN-30JUN	0	19	43	14	1	0	0	0	0	0	0
12JUL-14JUL	0	0	7	15	32	15	6	2	0	0	0
25JUL-28JUL	0	0	0	0	0	12	29	26	9	4	3
08AUG-11AUG	0	0	0	1	0	0	10	16	16	6	0
22AUG-25AUG	0	0	0	0	0	0	1	4	10	19	15
06SEP-09SEP	0	0	0	0	0	0	0	0	6	19	22
19SEP-22SEP	0	0	0	0	0	1	1	2	4	16	16
03OCT-06OCT	0	0	0	0	0	0	0	1	1	10	19
17OCT-20OCT	0	0	0	0	0	0	0	0	2	9	10
	======	======	======	======	======	======	======	======	======	======	======
	4	54	52	30	33	28	47	51	48	83	85

DATES	65.0-69.9	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9+	N	MEAN	MIN	MED	MAX	SD
14JUN-16JUN	0	0	0	0	0	41	16.3	14.0	16.0	22.0	1.5
28JUN-30JUN	0	0	0	0	0	77	21.6	15.0	21.0	31.0	3.2
12JUL-14JUL	0	0	0	0	0	77	32.3	20.0	31.0	46.0	5.6
25JUL-28JUL	0	0	0	0	0	83	45.2	35.0	45.0	62.0	5.9
08AUG-11AUG	0	0	0	0	0	49	48.3	26.0	48.0	58.0	5.7
22AUG-25AUG	13	0	0	0	0	67	58.5	40.0	59.0	69.0	6.4
06SEP-09SEP	28	19	2	0	0	101	63.8	51.0	64.0	79.0	6.0
19SEP-22SEP	25	22	14	2	0	111	65.3	36.0	66.0	80.0	8.2
03OCT-06OCT	34	29	23	1	0	120	67.8	48.0	68.0	81.0	6.4
17OCT-20OCT	19	25	12	0	0	80	67.6	50.0	68.0	79.0	6.9
	======	======	======	======	======	======					
	119	95	51	3	0	806					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-22 Length Frequency Distribution of Young-of-Year White Catfish in Hudson River Estuary Determined from Fall Juvenile Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9
05JUL-09JUL	0	0	0	0	0	0	0	0	0	0	0	0	0
18JUL-21JUL	0	0	0	0	1	1	3	0	0	0	0	0	0
01AUG-04AUG	0	0	0	0	0	0	0	0	0	0	0	0	0
15AUG-18AUG	0	0	0	0	0	0	0	0	0	0	0	0	0
30AUG-01SEP	0	0	0	0	0	0	0	0	0	0	0	0	0
12SEP-15SEP	0	0	0	0	0	0	0	0	0	0	0	0	0
26SEP-29SEP	0	0	0	0	0	0	0	0	0	0	1	0	1
10OCT-13OCT	0	0	0	0	0	0	0	0	0	0	0	0	0
24OCT-27OCT	0	0	0	0	0	0	0	0	0	0	0	0	0
07NOV-11NOV	0	0	0	0	0	0	0	0	0	0	0	0	0
28NOV-02DEC	0	0	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	0	1	1	3	0	0	0	1	0	1

DATES	75.0-79.9	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9+	N	MEAN	MIN	MED	MAX	SD
05JUL-09JUL	0	0	0	0	0	0	0	0	.	.	.	.	.
18JUL-21JUL	0	0	0	0	0	0	0	5	39.4	31.0	40.0	44.0	5.4
01AUG-04AUG	0	0	0	0	0	0	0	0	.	.	.	.	.
15AUG-18AUG	0	0	0	0	0	0	0	0	.	.	.	.	.
30AUG-01SEP	1	0	0	1	0	0	0	2	84.0	77.0	84.0	91.0	9.9
12SEP-15SEP	0	0	0	0	0	0	0	0	.	.	.	.	.
26SEP-29SEP	0	1	1	0	0	0	0	4	75.5	64.0	76.5	85.0	9.4
10OCT-13OCT	0	1	0	0	0	0	0	1	84.0	84.0	84.0	84.0	.
24OCT-27OCT	0	0	0	0	0	0	0	0	.	.	.	.	.
07NOV-11NOV	0	0	0	0	1	0	0	1	99.0	99.0	99.0	99.0	.
28NOV-02DEC	0	0	0	1	0	1	0	2	98.0	94.0	98.0	102.0	5.7
	======	======	======	======	======	======	======	======					
	1	2	1	2	1	1	0	15					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-23 Length Frequency Distribution of Young-of-Year White Catfish in Hudson River Estuary Determined from Beach Seine Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9
14JUN-16JUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUN-30JUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12JUL-14JUL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25JUL-28JUL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08AUG-11AUG	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22AUG-25AUG	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06SEP-09SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19SEP-22SEP	0	0	0	0	0	0	0	0	0	0	1	0	0	0
03OCT-06OCT	0	0	0	0	0	0	0	0	0	0	0	0	1	0
17OCT-20OCT	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	0	0	0	0	0	0	1	1	0	1	0

DATES	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9	110.0-114.9+	N	MEAN	MIN	MED	MAX	SD
14JUN-16JUN	0	0	0	0	0	0	0	0	.	.	.	.	.
28JUN-30JUN	0	0	0	0	0	0	0	0	.	.	.	.	.
12JUL-14JUL	0	0	0	0	0	0	0	0	.	.	.	.	.
25JUL-28JUL	0	0	0	0	0	0	0	0	.	.	.	.	.
08AUG-11AUG	0	0	0	0	0	0	0	0	.	.	.	.	.
22AUG-25AUG	0	0	0	0	0	0	0	0	.	.	.	.	.
06SEP-09SEP	0	0	0	0	0	0	0	0	.	.	.	.	.
19SEP-22SEP	1	0	0	0	0	0	0	2	72.5	63.0	72.5	82.0	13.4
03OCT-06OCT	0	2	1	0	0	0	0	4	84.5	73.0	86.5	92.0	8.2
17OCT-20OCT	0	0	0	0	0	1	0	2	81.0	56.0	81.0	106.0	35.4
	======	======	======	======	======	======	======	======					
	1	2	1	0	0	1	0	8					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-24 Length Frequency Distribution of Young-of-Year Weakfish in Hudson River Estuary Determined from Fall Juvenile Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9
05JUL-09JUL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18JUL-21JUL	0	0	0	0	1	3	6	12	5	4	0	0	1	0
01AUG-04AUG	0	0	0	0	1	4	7	5	3	3	3	5	4	11
15AUG-18AUG	0	0	0	0	0	0	0	1	1	0	0	6	5	3
30AUG-01SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12SEP-15SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	1
26SEP-29SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10OCT-13OCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24OCT-27OCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07NOV-11NOV	0	0	0	0	0	0	0	0	0	1	0	0	0	0
28NOV-02DEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	0	2	7	13	18	9	8	3	11	10	15

DATES	80.0-84.9	85.0-89.9	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9	110.0-114.9	115.0-119.9+	N	MEAN	MIN	MED	MAX	SD
05JUL-09JUL	0	0	0	0	0	0	0	0	0	.	.	.	.	.
18JUL-21JUL	0	0	0	0	0	0	0	0	32	47.3	31.0	47.5	72.0	7.7
01AUG-04AUG	4	0	0	0	0	0	0	0	50	60.2	32.0	62.5	83.0	15.9
15AUG-18AUG	2	1	1	5	2	0	0	0	28	77.3	45.0	74.0	101.0	15.0
30AUG-01SEP	0	0	0	0	0	0	0	0	0	.	.	.	.	.
12SEP-15SEP	0	0	0	0	0	0	0	0	1	75.0	75.0	75.0	75.0	.
26SEP-29SEP	0	0	0	0	0	0	1	0	1	113.0	113.0	113.0	113.0	.
10OCT-13OCT	0	0	0	0	0	0	0	0	0	.	.	.	.	.
24OCT-27OCT	0	0	0	0	0	0	0	0	0	.	.	.	.	.
07NOV-11NOV	0	0	0	0	0	0	0	0	1	57.0	57.0	57.0	57.0	.
28NOV-02DEC	0	0	0	0	0	0	0	0	0	.	.	.	.	.
	======	======	======	======	======	======	======	======	======					
	6	1	1	5	2	0	1	0	113					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.

Table G-25 Length Frequency Distribution of Young-of-Year Weakfish in Hudson River Estuary Determined from Beach Seine Survey, 2011

DATES	10.0-14.9	15.0-19.9	20.0-24.9	25.0-29.9	30.0-34.9	35.0-39.9	40.0-44.9	45.0-49.9	50.0-54.9	55.0-59.9	60.0-64.9	65.0-69.9	70.0-74.9	75.0-79.9	80.0-84.9	85.0-89.9
14JUN-16JUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28JUN-30JUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12JUL-14JUL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25JUL-28JUL	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0
08AUG-11AUG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22AUG-25AUG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06SEP-09SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19SEP-22SEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03OCT-06OCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17OCT-20OCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======	======
	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0

DATES	90.0-94.9	95.0-99.9	100.0-104.9	105.0-109.9	110.0-114.9	115.0-119.9	120.0-124.9	125.0-129.9	130.0-134.9+	N	MEAN	MIN	MED	MAX	SD
14JUN-16JUN	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
28JUN-30JUN	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
12JUL-14JUL	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
25JUL-28JUL	0	0	0	0	0	0	0	0	0	6	42.7	37.0	43.0	47.0	3.9
08AUG-11AUG	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
22AUG-25AUG	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
06SEP-09SEP	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
19SEP-22SEP	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
03OCT-06OCT	0	0	0	0	0	0	0	0	0	0	.	.	.	.	.
17OCT-20OCT	0	0	0	0	0	0	0	0	1	1	132.0	132.0	132.0	132.0	.
	======	======	======	======	======	======	======	======	======	======					
	0	0	0	0	0	0	0	0	1	7					

NOTE: Lengths are total lengths in mm, N = Number of lengths, MEAN = Mean length, MIN = Minimum length, MED = Median length, MAX = Maximum length, SD = Standard deviation.