

**From:** Strait, Kenneth A. <Kenneth.Strait@pseg.com>  
**Sent:** Monday, December 30, 2019 11:02 AM  
**To:** incidental.take@noaa.gov; EndangeredSpecies Resource  
**Cc:** jeanette.bowers@dep.nj.gov  
**Subject:** [External\_Sender] SALEM GENERATING STATION-INCIDENTAL TAKE OF ATLANTIC STURGEON  
**Attachments:** Sturgeon Incidental Take Report for 12-27-19 Specimen #1.pdf; Sturgeon Incidental Take Report for 12-27-19 Specimen #2.pdf

Attached are the Incidental Take Reports and Data Collection Forms for the two Atlantic sturgeon collected on 12/27/2019 at the Salem Generating Station cooling water intake. The one deceased specimen was processed and is being held under refrigeration pending further direction from NMFS GARFO. The live specimen was processed and released as quickly as possible. This incidental take is authorized under Biological Opinion NER-2010-6581.

Please let me know if you have any questions or need additional information. Thanks.

Ken

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**Kenneth A. Strait**

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**Hearing Identifier:** NRR\_DRMA  
**Email Number:** 363

**Mail Envelope Properties** (ced5de7c2c114d8a93cc767b5d13e2ea)

**Subject:** [External\_Sender] SALEM GENERATING STATION-INCIDENTAL TAKE OF ATLANTIC STURGEON  
**Sent Date:** 12/30/2019 11:02:18 AM  
**Received Date:** 12/30/2019 11:02:44 AM  
**From:** Strait, Kenneth A.

**Created By:** Kenneth.Strait@pseg.com

**Recipients:**

"jeanette.bowers@dep.nj.gov" <jeanette.bowers@dep.nj.gov>

Tracking Status: None

"incidental.take@noaa.gov" <incidental.take@noaa.gov>

Tracking Status: None

"EndangeredSpecies Resource" <EndangeredSpecies.Resource@nrc.gov>

Tracking Status: None

**Post Office:** pseg.com

Files	Size	Date & Time
MESSAGE	1543	12/30/2019 11:02:44 AM
Sturgeon Incidental Take Report for 12-27-19 Specimen #1.pdf	401536	
Sturgeon Incidental Take Report for 12-27-19 Specimen #2.pdf	463377	

**Options**

**Priority:** Normal

**Return Notification:** Yes

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

Specimen #1

### Appendix C, Part 2A (Sturgeon)

*Photographs should be taken and the following information should be collected from all sturgeon (alive and dead). Please submit all necropsy results (including sex and stomach contents) to NMFS upon receipt. You must also complete and submit the "Sturgeon Data Collection Form"*

Observer's full name: Alex Riehle (Environmental Consulting Services, Inc. [ECSI])

Reporter's full name: Alex Riehle

Species Identification : Atlantic sturgeon (Acipenser oxyrinchus)

Site of Collection: PSEG Salem Generating Station, SGS Unit 2, intake 22A

Date animal observed: 12/27/2019 Time animal observed: 10:45am

Date animal collected: 12/27/2019 Time animal collected: 10:50 am

Environmental conditions at time of observation (i.e., tidal stage, weather):

Air temp. – 8.0 °C; Sal. – 5.0 ppt; Wind – S; sky – overcast; wave – calm; tide – FS (94.0ft)

If removed from intakes (trash racks or traveling screens):

Date and time of last inspection of screen: 12/27/19; 07:06am

Water temperature (°C) at site and time of observation: 6.0 °C

Number of pumps operating at time of observation: Unit 1: 6 circulators / Unit 2: 6 circulators

Average percent of power generating capacity achieved per unit at time of observation: Unit 1: 99.8% / Unit 2: 99.7%

Average percent of power generating capacity achieved per unit over the 48 hours previous to observation: Unit 1: 99.9% / Unit 2: 100.0%

# STURGEON DATA COLLECTION FORM

For use in documenting sturgeon injury or mortality incidental to a federal action

## OBSERVER'S CONTACT INFORMATION

Name: First Alex Last Riehle  
Agency Affiliation PSEG subcontractor Email Alexander.Riehle@pseg.com  
Address 100 South Cass Street, Middletown, DE 19709  
Area code/Phone number (302) 378-9881 (Environmental Consulting Services, Inc.)

SEC 7 UNIQUE IDENTIFIER (PCTS)  
No. Assigned by NMFS)

## DATE REPORTED:

Month 12 Day 27 Year 2019

## DATE EXAMINED:

Month 12 Day 27 Year 2019

## SPECIES: (check one)

- ☐ shortnose sturgeon  
☒ Atlantic sturgeon  
☐ Unidentified *Acipenser* species  
Check "Unidentified" if uncertain. See reverse side of this form for aid in identification.

LOCATION FOUND: ☐ Offshore (Atlantic or Gulf beach) ☒ Inshore (bay, river, sound, inlet, etc)

River/Body of Water Delaware River City Lower Alloways Creek State NJ  
Descriptive location (be specific) Removed from Circulating Water Intake Structure (CWIS) intake trash racks, intake bay 22A, during routine trash rack cleaning at the Salem Generating Station, PSEG Nuclear LLC.

Latitude 39.460603° (Dec. Degrees) Longitude -75.536133° (Dec. Degrees)

## CARCASS CONDITION at time examined: (check one)

- ☐ 1 = Fresh dead  
☐ 2 = Moderately decomposed  
☐ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeletal, scutes & cartilage

## SEX:

- ☒ Undetermined  
☐ Female ☐ Male  
How was sex determined?  
☐ Necropsy  
☐ Eggs/milt present when pressed  
☐ Borescope

## MEASUREMENTS:

	Circle unit
Fork length	<u>71.0 cm</u>
Total length	<u>80.5 cm</u>
Length <input checked="" type="checkbox"/> actual <input type="checkbox"/> estimate	
Mouth width (inside lips, see reverse side)	<u>4.0 cm</u>
Interorbital width (see reverse side)	<u>6.7 cm</u>
Weight <input checked="" type="checkbox"/> actual <input type="checkbox"/> estimate	<u>2.70 kg</u>

TAGS PRESENT? Examined for external tags including fin clips? ☒ Yes ☐ No Scanned for PIT tags? ☒ Yes ☐ No

Tag #

Tag Type

Location of tag on carcass

No Tags found

## CARCASS DISPOSITION: (check one or more)

- ☐ 1 = Left where found  
☐ 2 = Buried  
☐ 3 = Collected for necropsy/salvage  
☐ 4 = Frozen for later examination  
☒ 5 = Other (describe. Specimen was healthy and in excellent condition. After processing and a period of holding to reduce stress, it was released back to the Delaware River.

## Carcass Necropsied?

☐ Yes ☒ No

Date Necropsied: \_\_\_\_\_

Necropsy Lead: \_\_\_\_\_

## PHOTODOCUMENTATION:

Photos/video taken? ☒ Yes ☐ No

Disposition of Photos/Video PSEG Nuclear Environmental Affairs

## SAMPLES COLLECTED? ☒ Yes ☐ No

Sample

How preserved

Disposition (person, affiliation, use)

Pelvic fin clip

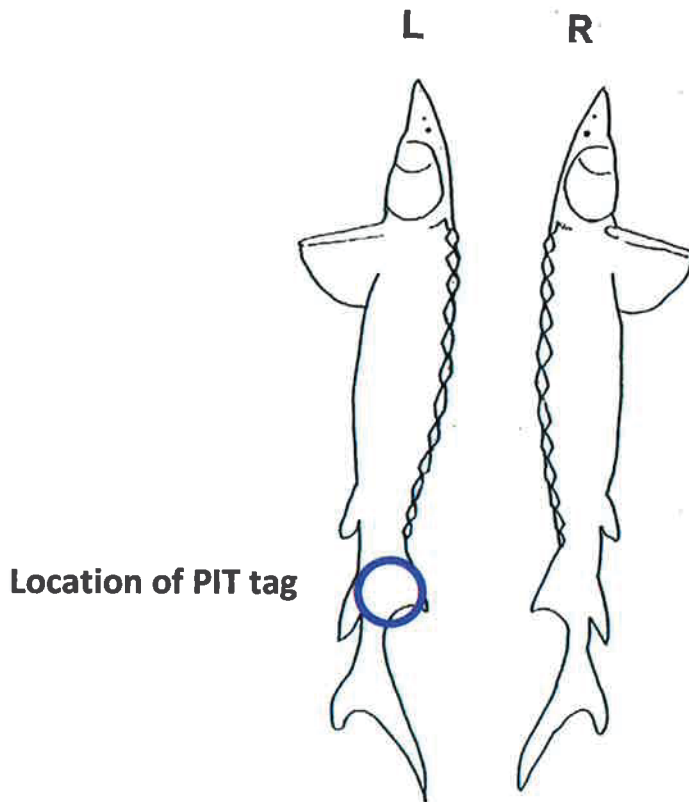
stored in non-denatured ethanol and refrigerated.

Held at the office of ECSI for aggregated shipment to designated laboratory.

Comments: A live, Atlantic sturgeon was collected from the Salem Circulating Water Intake Structure during routine trash rack cleaning on 12/27/19, at 10:50am. Positive identification was made by Environmental Consulting Services personnel at 11:00am, and PSEG Nuclear Environmental Affairs personnel were contacted shortly after. The specimen was measured, photographed, and inspected for tags. No evidence of external tags was found, and no existing PIT tags were indicated. Therefore, PIT tagging procedures for placement of a tag were implemented. Specimen has been identified with tag #933000220017812. A pelvic fin clip was also collected for future DNA analysis. Upon completion of processing, the specimen was released back to the Delaware River at 11:15am.



Draw wounds, abnormalities, tag locations on diagram and briefly describe below



Describe any wounds / abnormalities (note tar or oil, gear or debris entanglement, propeller damage, etc.). **Please note if no wounds / abnormalities are found. Specimen was alive at the time of collection and was found to be in overall good condition. No internal or external tags were indicated during processing, therefore PIT tagging was conducted, with placement of the tag on the left side, near the base of the dorsal fin (refer to illustration above). After processing, the specimen was released back to the Delaware River.**

**Submit completed forms (within 24 hours of observation of fish): by e-mail to [IncidentalTake@noaa.gov](mailto:IncidentalTake@noaa.gov) or by fax (978-281-9394). Questions can be directed to NMFS Protected Resources Division at 978-281-9328.**

**Data Access Policy:** Upon written request, information submitted to National Marine Fisheries Service (NOAA Fisheries) on this form will be released to the requestor provided that the requestor credit the collector of the information and NOAA Fisheries. NOAA Fisheries will notify the collector that these data have been requested and the intent of their use.

## Photographs



A dorsolateral view showing the size and condition of the live, Atlantic sturgeon (*Acipenser oxyrinchus*), retrieved at 10:50am on 12/27/19 from 22A circulator intake by Salem Yard Crew personnel during routine trash rack cleaning at Salem Nuclear Generating Station (12/27/2019).



A dorsal view of the specimen. No injuries or other damage was observed at the time of collection 12/27/2019).



## Photographs



Ventral view of the specimen, showing the overall condition (12/27/2019).



Ventral view of the head, showing the characteristic small mouth and elongated rostrum (12/27/2019).

Specimen # 2

### Appendix C, Part 2A (Sturgeon)

*Photographs should be taken and the following information should be collected from all sturgeon (alive and dead). Please submit all necropsy results (including sex and stomach contents) to NMFS upon receipt. You must also complete and submit the "Sturgeon Data Collection Form"*

Observer's full name: Alex Riehle (Environmental Consulting Services, Inc. [ECSI])

Reporter's full name: Alex Riehle

Species Identification : Atlantic sturgeon (Acipenser oxyrinchus)

Site of Collection: PSEG Salem Generating Station, SGS Unit 2, intake 22A

Date animal observed: 12/27/2019 Time animal observed: 10:55am

Date animal collected: 12/27/2019 Time animal collected: 11:00 am

Environmental conditions at time of observation (i.e., tidal stage, weather):

Air temp. – 8.0 °C; Sal. – 5.0 ppt; Wind – S; sky – overcast; wave – calm; tide – FS (94.0ft)

If removed from intakes (trash racks or traveling screens):

Date and time of last inspection of screen: 12/27/19; 07:06am

Water temperature (°C) at site and time of observation: 6.0 °C

Number of pumps operating at time of observation: Unit 1: 6 circulators / Unit 2: 6 circulators

Average percent of power generating capacity achieved per unit at time of observation: Unit 1: 99.8% / Unit 2: 99.7%

Average percent of power generating capacity achieved per unit over the 48 hours previous to observation: Unit 1: 99.9% / Unit 2: 100.0%

# STURGEON DATA COLLECTION FORM

For use in documenting sturgeon injury or mortality incidental to a federal action

## OBSERVER'S CONTACT INFORMATION

Name: First Alex Last Riehle  
Agency Affiliation PSEG subcontractor Email Alexander.Riehle@pseg.com  
Address 100 South Cass Street, Middletown, DE 19709  
Area code/Phone number (302) 378-9881 (Environmental Consulting Services, Inc.)

SEC 7 UNIQUE IDENTIFIER (PCTS  
No.Assigned by NMFS)

## DATE REPORTED:

Month 12 Day 27 Year 2019

## DATE EXAMINED:

Month 12 Day 27 Year 2019

## SPECIES: (check one)

- ☐ shortnose sturgeon  
☒ Atlantic sturgeon  
☐ Unidentified *Acipenser* species  
Check "Unidentified" if uncertain. See reverse side of this form for aid in identification.

LOCATION FOUND: ☐ Offshore (Atlantic or Gulf beach) ☒ Inshore (bay, river, sound, inlet, etc)

River/Body of Water Delaware River City Lower Alloways Creek State NJ

Descriptive location (be specific) Removed from Circulating Water Intake Structure (CWIS) intake trash racks, intake bay 22A, during routine trash rack cleaning at the Salem Generating Station, PSEG Nuclear LLC.

Latitude 39.460603° (Dec. Degrees) Longitude -75.536133° (Dec. Degrees)

## CARCASS CONDITION at time examined: (check one)

- ☒ 1 = Fresh dead  
☐ 2 = Moderately decomposed  
☐ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeletal, scutes & cartilage

## SEX:

- ☒ Undetermined  
☐ Female ☐ Male  
How was sex determined?  
☐ Necropsy  
☐ Eggs/milt present when pressed  
☐ Borescope

## MEASUREMENTS:

Circle unit

Fork length 63.0 cm

Total length 72.7 cm

Length ☒ actual ☐ estimate

Mouth width (inside lips, see reverse side) 3.4 cm

Interorbital width (see reverse side) 5.2 cm

Weight ☒ actual ☐ estimate 1.9 kg

TAGS PRESENT? Examined for external tags including fin clips? ☒ Yes ☐ No Scanned for PIT tags? ☒ Yes ☐ No

Tag #

Tag Type

Location of tag on carcass

No Tags found

## CARCASS DISPOSITION: (check one or more)

- ☐ 1 = Left where found  
☐ 2 = Buried  
☐ 3 = Collected for necropsy/salvage  
☒ 4 = Frozen for later examination  
☐ 5 = Other (describe.

## Carcass Necropsied?

☐ Yes ☒ No

Date Necropsied: \_\_\_\_\_

Necropsy Lead: \_\_\_\_\_

## PHOTODOCUMENTATION:

Photos/video taken? ☒ Yes ☐ No

Disposition of Photos/Video PSEG Nuclear Environmental Affairs

SAMPLES COLLECTED? ☒ Yes ☐ No

Sample

Pelvic fin clip

How preserved

stored in non-denatured ethanol and refrigerated.

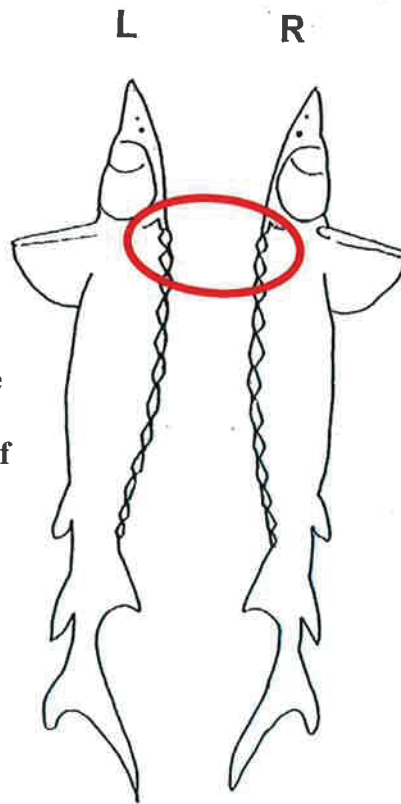
Disposition (person, affiliation, use)

Held at the office of ECSI for aggregated shipment to designated laboratory.

Comments: A deceased Atlantic sturgeon, the second of two specimens, was collected from the Salem Circulating Water Intake Structure (22A intake) during routine trash rack cleaning on 12/27/19, at 11:00am. Positive identification was made by Environmental Consulting Services personnel at 11:05am, and PSEG Nuclear Environmental Affairs personnel were contacted shortly after. During processing, the specimen was measured, photographed, and inspected for tags. No evidence of external tags was found, and no existing PIT tags were indicated. A pelvic fin clip was collected for future DNA analysis. Upon completion of processing, the specimen was placed on ice and prepared for transport back to the ECSI main office, where it will be stored under refrigeration, awaiting direction on further disposition. The fin clip sample has been stored in refrigeration and will be held for aggregated shipment to a designated laboratory.



Draw wounds, abnormalities, tag locations on diagram and briefly describe below



**Existence of large laceration, located dorsally, immediately posterior to the gills and above the pectoral fins.**

**Minor bruising located at the bases of pectoral, pelvic, and anal fins, around the scutes of the torso, and ventrally on the rostrum.**

Describe any wounds / abnormalities (note tar or oil, gear or debris entanglement, propeller damage, etc.). **Please note if no wounds / abnormalities are found. Specimen was deceased at the time of collection but was observed to have a fresh wound, as indicated by the existence of blood. The specimen was complete, but a large laceration was located near the head, and minor bruising was observed on the fin bases, around the bases of scutes, and on the ventral portion of the rostrum (refer to diagram above).**

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## Photographs



Dorsolateral view, showing the size and condition of the recently deceased Atlantic sturgeon (*Acipenser oxyrinchus*), retrieved at 11:00am on 12/27/19 from 22A circulator intake by Salem Yard Crew personnel during routine trash rack cleaning at Salem Nuclear Generating Station (12/27/2019).



A dorsal view of the specimen, showing overall condition at the time of collection. A large laceration is shown near the head, posterior to the gill openings and above the pectoral fins (12/27/2019).



## Photographs



A ventral view of the specimen, showing existing minor bruising at the bases of the pectoral fins, around the scutes, and on the ventral portion of the rostrum (12/27/19).



A close-up dorsal view of the head, showing detail of the large laceration (12/27/2019).

## Photographs



A ventral view of the head, showing a close-up of the characteristic elongated rostrum and small mouth (12/27/2019).