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ANNUAL DATA REPORT
WATERFORD POWER STATION
UNITS 1 AND 2
SCREEN IMPINGEMENT STUDIES
FEBRUARY 1976 THROUGH JANUARY 1977

Prepared for

Louisiana Power and Light Company
142 Delaronde Street
New Orleans, Louisiana 70174

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1.0 INTRODUCTION

The purpose of this investigation was to evaluate the impact of the existing intake structures for Units 1 and 2 of the Waterford Power Station on the biota of the Mississippi River. Waterford Power Station is located on the west bank of the Mississippi River in Killona, Louisiana (approximately River Mile 130 AHP).

The investigation consisted of one year of semimonthly monitoring at the plant's intake structure after Units 1 and 2 began commercial operation. This report presents the results of the 24 semimonthly diurnal screen impingement surveys beginning in February 1976 and ending in January 1977. Table 1-1 provides the date of each sampling run, the number of circulators operational, the volume of cooling water pumped through the plant from the river during the 24-hour period, and the river stage. River stage is also graphically displayed in Fig. 1-1 for February 1976 to January 1977.

TABLE 1-1

SELECTED DATA OF PLANT OPERATION DURING MONITORING EFFORTS

AT WATERFORD POWER STATION

February 1976 through January 1977

Date	No. of Circulators Operational[1]	Vol. of Water Pumped over 24 Hours (1,000 gallons)	River Stage at Carrollton, La.[2] (feet) Day 1	Day 2
2-3 February 1976	4	617,760	5.38	5.45
16-17 February 1976	4	617,760	5.65	5.36
2-3 March 1976	4	617,760	10.20	10.30
15-16 March 1976	3	463,320	11.20	11.42
7-8 April 1976	4	617,760	9.29	9.42
21-22 April 1976	4	617,760	6.50	5.75
5-6 May 1976	4	617,760	5.41	5.79
18-19 May 1976	3	463,320	5.66	5.55
2-3 June 1976	4	617,760	4.48	4.20
16-17 June 1976	4	617,760	4.68	4.30
7-8 July 1976	4	617,760	4.35	4.44
27-28 July 1976	4	617,760	3.30	3.17
10-11 August 1976	4	617,760	2.59	2.46
26-27 August 1976	4	617,760	1.95	1.99
8-9 September 1976	4	617,760	2.13	1.85
22-23 September 1976	3	463,320	2.00	1.87
7-8 October 1976	3	463,320	2.01	2.05
21-22 October 1976	3	463,320	2.01	1.68
3-4 November 1976	3	463,320	1.83	1.90
18-19 November 1976	3	463,320	2.11	1.95
9-10 December 1976	4	617,760	1.46	1.65
21-22 December 1976	3	463,320	1.86	2.26
5-6 January 1977	4	617,760	1.6	1.5
20-21 January 1977	3	510,939	1.5	1.4

[1] Otillio 1976

[2] Bechnel 1977. U. S. Army Corps of Engineers (Daily readings at 8:00 a.m., Gage Zero is at MSL, 1974 Ajd.)

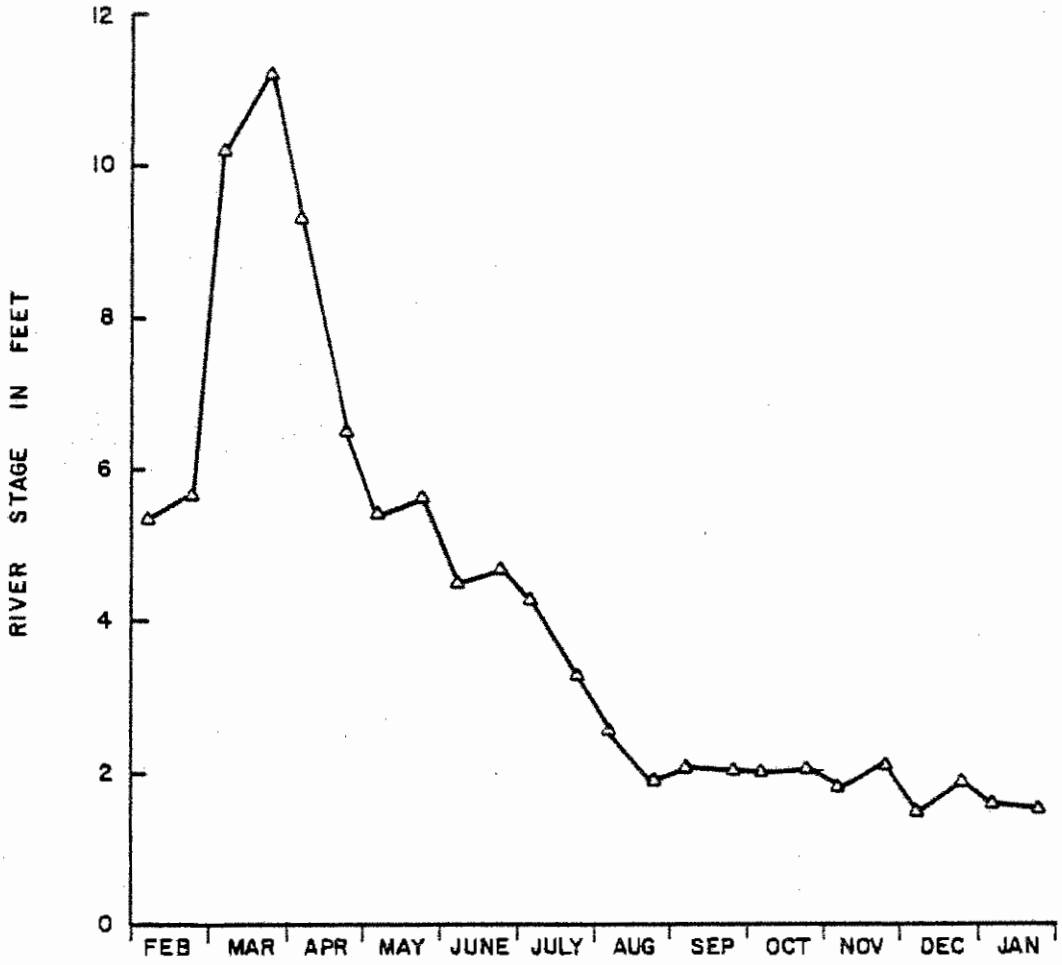

Fig. 1.1 Mississippi River Stage, Carrollton, Louisiana
February 1976 Through January 1977

2.0 METHODS AND MATERIALS

2.1 Equipment

Dissolved oxygen and water temperature were measured with a YSI Model 51A dissolved oxygen, temperature meter. The range of the meter is -5 to +45 C and 0-15 mg/ℓ oxygen (O_2). These temperature measurements are accurate to better than ±0.7 C with the dissolved oxygen measurements being accurate to ±0.2 mg/ℓ O_2 when calibrated to ±5 C of actual sample temperature.

Conductivity was measured with a YSI Model 33 S-C-T (Salinity-Conductivity-Temperature) meter. The meter range is 0-50,000 µmhos/cm for conductivity. The maximum error is ±2.5% at 500, 5,000, and 50,000 µmhos/cm plus probe and ±3.0% at 250, 2,500, and 25,000 µmhos/cm plus probe. The maximum error introduced by the probe is ±2.0% of the reading for conductivity.

Measurements of pH were made with a Fischer Accumet 120 pH meter. The relative accuracy of the meter is ±0.1 with repeatability of ±0.05.

Biological samples were collected in the sluiceway with three baskets; two constructed of 1/4" expanded metal, framed with angle iron and the third basket of 1/2" hardware cloth framed with angle iron. Weights were measured on an O Haus Dial-O-Gram balance, which is sensitive to ±0.1 gram. Lengths for all organisms were measured to the nearest millimeter. The standard length was measured on all fish, the shrimp were measured from the tip of the rostrum to the tip of the telson, while the carapace width of the blue crab is reported.

2.2 Data Collection

Data collection was designed so as not to interrupt the normal plant operations. A 24-hour time unit was designated with the screens being run, washed, and cleared at the outset of the period. Baskets were then set in a series in the sluiceway (see Fig. 2-1). The two 1/4" expanded metal baskets were placed closest to the screens with the 1/2" hardware cloth basket last as a backup. Collections were made when one or more of the screens operated during the 24-hour sampling period. For the final 30 minutes all screens were run and washed, and simultaneously stopped at the end of the twenty-fourth hour.

Physical and chemical data were collected from the Unit 1 West and the Unit 2 East intake pump screen wells at approximately six-hour intervals. Dissolved oxygen, water temperature and conductivity were measured in situ. Water samples were pulled from the appropriate wells, and pH was measured within 30 minutes of sample collection.

All organisms collected during each diurnal were identified to species, except when precluded by physical condition. Physical injuries were noted (Section 3.2.2).

All fish and crustaceans were individually weighed and measured, with the exception of three samples of the bay anchovy (Anchoa mitchilli) and numerous samples of the river shrimp (Macrobrachium ohione). These samples were sub-sampled such that all measurements were taken on 25 randomly selected individuals. Total weight is provided for all species.

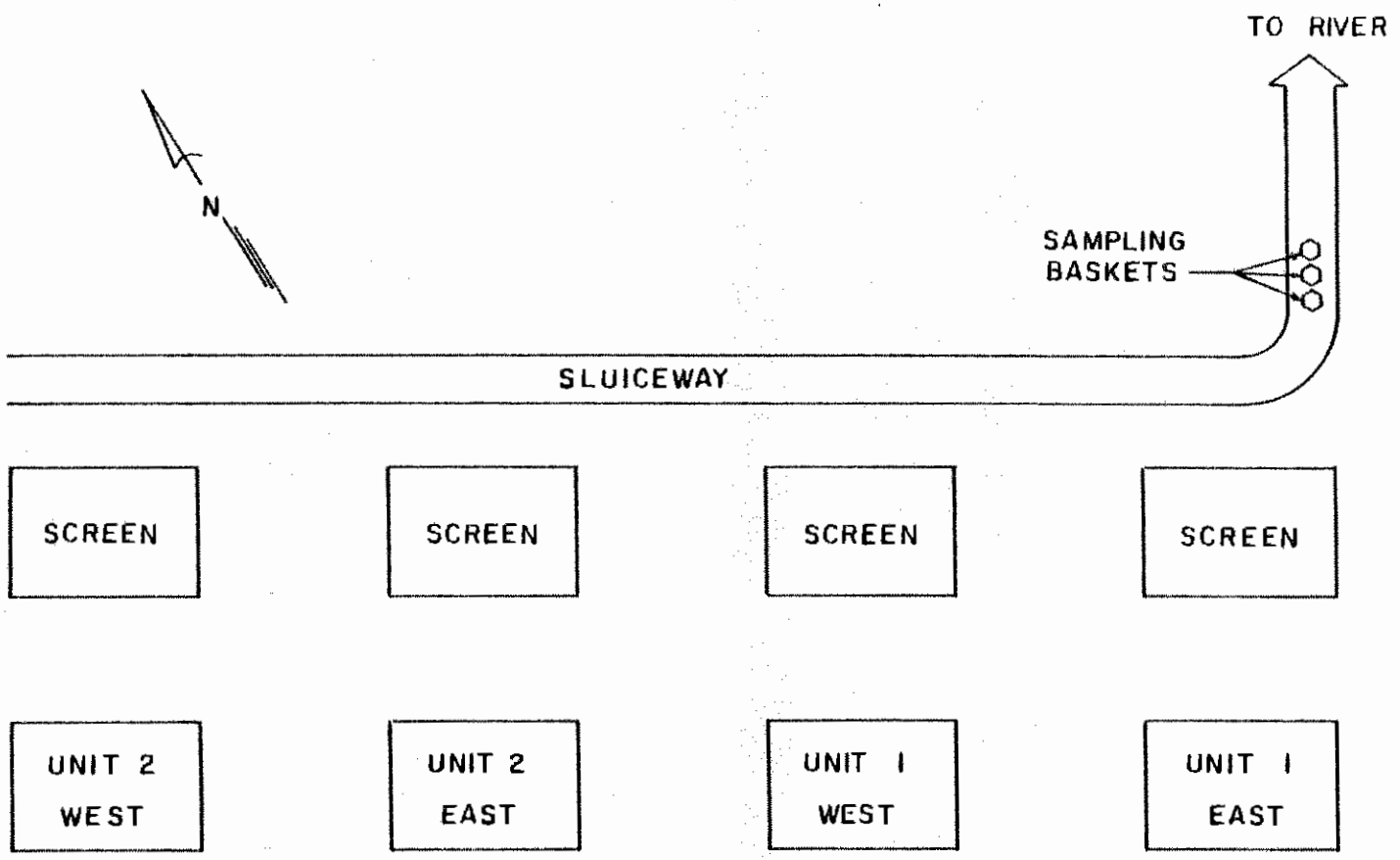

FIG. 2.1 LOCATION OF SCREEN SAMPLE SITES

3.0 RESULTS

3.1 Physical Data

The water chemistry data, including water temperature, dissolved oxygen, conductivity and pH, are presented by date and time in Table 3-1 along with the number of circulating water pumps operating for each unit.

Local climatological data from the New Orleans International Airport are given in Table 3-2. These data are comprised of maximum and minimum temperatures, average dew point, average wind speed and resultant wind direction.

3.2 Biological Analysis

3.2.1 Biomass and Species Composition - Listed in Table 3-3 are the data collected for each species of fish and crustacean from February 1976 through January 1977. In instances where taxonomic identification to the species level was not possible, generic names are reported. Table 3-4 presents a summary of total biomass impinged during each 24-hour sampling period, further divided by fish and crustaceans. Species lists of all fish and crustaceans collected during the survey year are presented in Tables 3-5 and 3-6, respectively.

3.2.2 Observations on the Extent of Physical Injury - Physical injuries were qualitatively noted in situ as well as during laboratory measurements. The catfish (Ictaluridae) displayed hematomas around the mouth and appendages. This damage appeared to be most common in the body areas adjacent caudal and anal fins. Spines and soft rays were also impacted. Shredding and abrading of the

soft rays was common. Spines were sometimes broken. Infrequently there was loss of appendages and severe abrasions. The scaled fish also exhibited hematomas around the head and appendages. Scale loss was common. Loss and shredding of soft rays occurred frequently. The crustaceans and eels were essentially uninjured. The crabs and shrimp sometimes had lost an appendage; however, their exoskeleton appeared undamaged with the exception of occational rostral loss in shrimp. Eels were very active and agressive with no external damage apparent.

TABLE 3-1

WATER CHEMISTRY BY BIOMASS SAMPLING TRIP AT WATERFORD POWER STATION

February 1976 - January 1977

Time (CST)	Unit	Circulators	Temperature (C)	Dissolved Oxygen (mg/ℓ)	Conductivity (μmhos/cm)	pH
			2-3 February 1976			
1700	1	2	5.8	11.1	260	6.4
	2	2	5.8	10.9	260	6.4
2300	1	2	5.8	11.3	305	6.4
	2	2	5.8	11.3	301	6.5
0500	1	2	5.7	11.4	286	6.5
	2	2	5.6	11.6	272	6.5
1100	1	2	5.9	11.9	270	6.4
	2	2	5.9	12.3	271	6.4
1700	1	2	5.9	11.7	263	6.5
	2	2	6.0	11.7	266	6.4
			16-17 February 1976			
1700	1	2	6.5	13.6	271	7.4
	2	2	6.4	13.7	263	7.4
2300	1	2	6.5	12.7	271	7.4
	2	2	6.4	12.8	271	7.4
0500	1	2	5.6	12.3	276	7.4
	2	2	5.6	12.4	268	7.4
1100	1	2	6.9	13.2	268	7.4
	2	2	6.9	13.1	268	7.4
1700	1	2	6.6	12.6	270	7.4
	2	2	6.7	12.6	269	7.4

TABLE 3-1 (cont'd)

Time (CST)	Unit	Circulators	Temperature (C)	Dissolved Oxygen (mg/ℓ)	Conductivity (μmhos/cm)	pH
			2-3 March 1976			
0500	1	2	11.1	7.8	271	7.8
	2	2	11.1	7.8	273	7.8
1100	1	2	11.2	6.9	253	7.8
	2	2	11.2	7.1	257	7.8
1700	1	2	11.5	9.0	246	7.8
	2	2	11.2	9.1	252	7.8
2300	1	2	11.2	9.2	310	7.8
	2	2	11.2	9.2	298	7.8
0500	1	2	11.2	9.1	263	7.8
	2	2	11.2	9.0	264	7.8
			15-16 March 1976			
2300	1	2	13.1	9.0	279	7.8
	2	2	13.1	8.9	281	7.8
0500	1	2	13.1	8.4	271	7.8
	2	2	13.0	8.4	277	7.8
1100	1	2	13.1	8.4	267	8.0
	2	2	13.0	8.4	264	8.0
1700	1	2	13.0	8.9	267	8.2
	2	2	13.0	8.9	276	8.2
2300	1	1	12.7	8.0	274	8.3
	2	2	12.7	8.1	271	8.3
			7-8 April 1976			
1700	1	2	15.7	9.3	246	7.2
	2	2	15.8	9.1	230	7.2
2300	1	2	15.3	8.8	253	7.2
	2	2	15.3	9.0	252	7.2

TABLE 3-1 (cont'd)

Time (CST)	Unit	Circulators	Temperature (C)	Dissolved Oxygen (mg/ℓ)	Conductivity (μmhos/cm)	pH
			7-8 April 1976 (cont'd)			
0500	1	2	15.2	8.6	247	7.2
	2	2	15.2	8.6	246	7.2
1100	1	2	15.6	9.0	251	7.1
	2	2	15.7	8.9	228	7.1
1700	1	2	16.1	8.8	152	7.2
	2	2	16.2	9.6	249	7.2
			21-22 April 1976			
1700	1	1	19.0	7.9	290	7.2
	2	2	19.0	8.0	289	7.2
2300	1	1	18.0	8.4	280	7.4
	2	2	18.0	8.3	283	7.4
0500	1	1	18.0	8.1	280	7.2
	2	2	18.0	8.0	283	7.3
1100	1	1	20.0	8.0	295	7.2
	2	2	20.0	7.9	297	7.3
1700	1	1	19.5	8.0	369	7.3
	2	2	19.5	8.3	370	7.3
(CDST)			5-6 May 1976			
1350	1	2	20.0	7.6	312	7.6
	2	2	19.8	7.8	340	7.5
1800	1	2	19.9	8.1	335	7.5
	2	2	20.0	8.1	335	7.4
0030	1	2	19.1	7.1	350	7.4
	2	2	19.1	7.8	342	7.2
0615	1	2	18.8	8.6	350	7.2
	2	2	18.8	8.4	345	7.2

TABLE 3-1 (cont'd)

Time (CDST)	Unit	Circulators	Temperature (C)	Dissolved Oxygen (mg/ℓ)	Conductivity (μmhos/cm)	pH
			5-6 May 1976 (cont'd)			
1250	1	2	20.0	8.5	348	7.3
	2	2	20.5	8.3	342	7.4
			18-19 May 1976			
1600	1	2	19.4	8.6	292	7.2
	2	1	19.6	8.0	292	7.2
2200	1	2	19.2	7.8	297	7.3
	2	1	19.3	7.4	289	7.3
0400	1	2	19.0	7.4	299	7.4
	2	1	19.0	6.2	288	7.4
1000	1	2	19.2	8.0	297	7.2
	2	1	19.3	7.2	296	7.2
1600	1	2	19.7	8.0	303	7.3
	2	1	20.5	7.8	302	7.3
			2-3 June 1976			
1600	1	2	22.9	9.7	353	7.4
	2	2	22.8	9.7	350	7.4
2200	1	2	22.3	8.4	353	7.4
	2	2	22.4	8.7	356	7.4
0400	1	2	21.8	8.8	356	7.3
	2	2	21.8	8.8	352	7.3
1000	1	2	22.0	7.3	360	7.2
	2	2	22.1	7.3	355	7.2
1600	1	2	22.7	8.6	371	7.2
	2	2	22.6	8.7	368	7.2

TABLE 3-1 (cont'd)

Time (CDST)	Unit	Circulators	Temperature (C)	Dissolved Oxygen (mg/ℓ)	Conductivity (μmhos/cm)	pH
			16-17 June 1976			
2200	1	2	25.0	7.7	418	7.3
	2	2	25.1	7.7	412	7.3
0400	1	2	24.9	7.6	415	7.3
	2	2	24.9	7.5	411	7.3
1000	1	2	25.0	7.8	410	7.2
	2	2	25.0	7.9	398	7.2
1600	1	2	25.4	7.3	418	7.3
	2	2	25.6	7.4	421	7.3
2200	1	2	25.3	7.2	411	7.4
	2	2	25.5	7.3	403	7.4
			7-8 July 1976			
1600	1	2	27.4	7.1	415	8.4
	2	2	27.3	6.9	418	8.4
2200	1	2	27.2	6.9	403	8.2
	2	2	27.2	6.8	398	8.2
0400	1	2	27.0	6.4	400	8.1
	2	2	27.0	5.2	398	8.1
1000	1	2	27.4	6.6	398	8.1
	2	2	27.5	6.4	395	8.1
1700	1	2	27.8	6.9	395	8.2
	2	2	27.8	6.5	388	8.2
			27-28 July 1976			
1600	1	2	30.3	6.5	778	7.5
	2	2	30.5	6.7	780	7.5
2300	1	2	30.0	6.4	860	7.9
	2	2	30.1	6.4	860	7.9

TABLE 3-1 (cont'd)

Time (CDST)	Unit	Circulators	Temperature (C)	Dissolved Oxygen (mg/ℓ)	Conductivity (μmhos/cm)	pH
			27-28 July 1976 (cont'd)			
0400	1	2	29.9	6.4	830	8.4
	2	2	29.8	6.6	890	8.4
1000	1	2	30.2	6.3	770	8.3
	2	2	30.6	6.3	780	8.3
1600	1	2	30.3	6.4	620	8.7
	2	2	30.5	6.7	620	8.7
			10-11 August 1976			
2200	1	2	29.4	7.0	420	8.5
	2	2	29.4	7.0	415	8.5
0400	1	2	29.1	6.8	430	8.4
	2	2	29.1	6.8	453	8.3
1000	1	2	29.1	6.6	426	8.2
	2	2	29.3	6.6	430	8.2
1600	1	2	29.3	7.2	425	8.3
	2	2	29.5	7.2	422	8.3
2200	1	2	29.1	7.3	426	8.3
	2	2	29.2	7.2	432	8.2
			26-27 August 1976			
1000	1	2	29.1	6.9	510	*
	2	2	28.9	6.8	510	*
1600	1	2	29.8	7.5	520	7.6
	2	2	29.4	7.6	520	7.6
2200	1	2	28.8	7.0	450	7.6
	2	2	29.0	7.0	455	7.6
0400	1	2	28.9	7.0	630	7.4
	2	2	29.0	6.8	640	7.4

* Meter Not Operating

TABLE 3-1 (cont'd)

Time (CDST)	Unit	Circulators	Temperature (C)	Dissolved Oxygen (mg/ℓ)	Conductivity (μmhos/cm)	pH
			26-27 August 1976 (cont'd)			
1000	1	2	28.9	6.8	458	7.5
	2	2	28.9	6.9	456	7.6
			8-9 September 1976			
1600	1	2	29.6	6.8	446	7.6
	2	2	29.1	7.0	442	7.6
2200	1	2	28.8	6.6	448	7.8
	2	2	28.8	6.7	446	7.8
0400	1	2	28.1	6.6	448	7.7
	2	2	28.5	6.5	449	7.7
1000	1	2	28.8	6.9	433	7.8
	2	2	28.7	6.7	435	7.8
1600	1	2	29.5	7.0	448	7.8
	2	2	29.0	7.0	449	7.8
			22-23 September 1976			
1600	1	2	27.0	7.6	440	7.3
	2	1	27.1	7.7	428	7.3
2200	1	2	26.1	8.0	465	7.3
	2	1	26.2	8.2	458	7.4
0400	1	2	26.0	7.8	580	7.4
	2	1	26.1	7.8	580	7.4
1000	1	2	26.8	7.9	630	7.5
	2	1	26.6	7.8	620	7.5
1600	1	2	27.3	8.5	460	7.6
	2	1	26.9	8.6	465	7.6

TABLE 3-1 (cont'd)

Time (CDST)	Unit	Circulators	Temperature (C)	Dissolved Oxygen (mg/ℓ)	Conductivity (μmhos/cm)	pH
			7-8 October 1976			
1600	1	2	25.6	7.3	427	7.5
	2	1	25.2	7.1	432	7.5
2200	1	2	25.3	8.2	423	7.6
	2	1	25.5	8.4	421	7.6
0400	1	2	23.9	7.2	432	7.6
	2	1	24.0	7.6	430	7.6
1000	1	2	23.8	7.3	440	7.4
	2	1	24.0	7.1	438	7.4
1600	1	2	23.9	7.7	442	7.5
	2	1	23.9	7.8	444	7.5
			21-22 October 1976			
1600	1	2	19.8	8.5	362	7.6
	2	1	19.6	8.4	357	7.6
2200	1	2	17.8	8.8	357	7.6
	2	1	18.2	8.6	353	7.5
0400	1	2	17.0	8.3	339	7.5
	2	1	18.2	7.9	351	7.4
1000	1	2	19.7	8.7	362	7.5
	2	1	20.2	5.6	370	7.5
1600	1	2	20.9	9.3	375	7.6
	2	1	19.6	8.9	368	7.6
(CST)			3-4 November 1976			
1700	1	2	16.0	*	373	7.4
	2	1	15.7	*	342	7.4
2300	1	2	15.5	*	322	7.4
	2	1	15.2	*	325	7.4

* Meter Not Operating

TABLE 3-1 (cont'd)

Time (CST)	Unit	Circulators	Temperature (C)	Dissolved Oxygen (mg/ℓ)	Conductivity (μmhos/cm)	pH
			3-4 November 1976 (cont'd)			
0500	1	2	14.5	*	308	7.4
	2	1	14.7	*	312	7.4
1100	1	2	16.0	*	342	7.4
	2	1	15.4	*	337	7.4
1700	1	2	15.0	*	332	7.4
	2	1	14.8	*	328	7.4
			18-19 November 1976			
1700	1	2	11.1	8.6	248	7.4
	2	1	11.2	8.7	245	7.4
2300	1	2	10.8	8.3	241	7.7
	2	1	11.0	8.1	238	7.6
0500	1	2	10.3	10.2	232	8.2
	2	1	10.2	9.1	235	8.2
1100	1	2	11.7	8.3	258	7.5
	2	1	11.5	7.9	250	7.5
1700	1	2	11.0	8.6	264	7.6
	2	1	11.1	8.4	258	7.6
			9-10 December 1976			
2200	1	2	8.9	12.2	291	7.7
	2	2	8.9	12.2	292	7.7
0400	1	2	9.0	11.2	281	7.7
	2	2	9.0	11.2	281	7.7
1000	1	2	8.9	11.9	292	7.7
	2	2	8.9	11.9	292	7.8
1600	1	2	8.8	11.9	292	7.5
	2	2	8.8	11.9	292	7.5

* Meter Not Operating

TABLE 3-1 (cont'd)

Time (CST)	Unit	Circulators	Temperature (C)	Dissolved Oxygen (mg/ℓ)	Conductivity (μmhos/cm)	pH
			9-10 December 1976 (cont'd)			
2200	1	2	8.7	12.4	284	7.5
	2	2	8.7	12.1	287	7.5
			21-22 December 1976			
0400	1	2	7.2	11.2	263	8.1
	2	1	6.6	11.7	262	8.1
1000	1	2	7.2	11.1	270	8.2
	2	1	6.8	10.2	267	8.1
1600	1	2	6.8	11.6	262	8.1
	2	1	6.7	11.6	260	8.1
2200	1	2	6.8	11.4	262	8.1
	2	1	7.1	11.4	265	8.1
0400	1	2	6.5	11.0	262	8.1
	2	1	6.7	11.2	264	8.1
			5-6 January 1977			
2200	1	2	6.1	12.3	234	7.6
	2	2	6.3	12.3	242	7.6
0400	1	2	5.7	10.7	238	7.6
	2	2	5.9	10.3	240	7.6
1000	1	2	5.9	10.1	244	7.5
	2	2	6.1	10.3	246	7.5
1600	1	2	6.7	11.4	241	7.6
	2	2	6.8	11.1	243	7.6
2200	1	2	6.2	11.0	236	7.6
	2	2	6.3	11.3	240	7.6

TABLE 3-1 (cont'd)

Time (CST)	Unit	Circulators	Temperature (C)	Dissolved Oxygen (mg/ℓ)	Conductivity (μmhos/cm)	pH
			20-21 January 1977			
1630	1	1	2.2	14.8	201	7.6
	2	2	2.8	14.6	202	7.6
2200	1	1	2.2	12.9	201	7.4
	2	2	2.2	13.0	199	7.4
0400	1	1	2.1	12.4	196	7.3
	2	2	2.1	12.4	196	7.3
1000	1	2	2.3	12.6	202	7.2
	2	2	2.3	12.4	201	7.3
1600	1	2	2.3	12.8	202	7.4
	2	2	2.3	12.3	201	7.4

TABLE 3-2

SELECTED LOCAL CLIMATOLOGICAL DATA FROM NEW ORLEANS INTERNATIONAL AIRPORT

February 1976 through January 1977

(U. S. Department of Commerce, 1976, 1977)

Date	Temperature (F) Maximum	Minimum	Average Dew Point	Average Wind Speed (mph)	Resultant Wind Direction
2 February 1976	63	30	41	7.8	170
3 February 1976	73	41	53	8.3	210
16 February 1976	78	65	65	12.1	170
17 February 1976	78	67	67	14.4	180
2 March 1976	80	64	67	10.4	160
3 March 1976	79	69	68	11.1	160
15 March 1976	81	61	66	10.4	190
16 March 1976	70	49	53	14.7	330
7 April 1976	79	53	59	4.5	190
8 April 1976	81	62	57	7.9	330
21 April 1976	86	60	63	9.4	270
22 April 1976	84	54	58	4.2	150
5 May 1976	82	56	61	10.1	150
6 May 1976	87	71	69	11.9	170
18 May 1976	77	61	54	11.5	10
19 May 1976	77	55	54	8.8	70
2 June 1976	88	68	68	6.8	270
3 June 1976	86	66	69	5.5	360
16 June 1976	85	75	73	8.1	180
17 June 1976	90	77	74	7.5	180
7 July 1976	85	71	78	4.9	180
8 July 1976	88	70	72	4.2	220
27 July 1976	93	75	75	6.0	230
28 July 1976	91	73	74	5.5	220
10 August 1976	90	62	64	3.7	30
11 August 1976	90	64	70	5.8	30
26 August 1976	92	74	73	6.8	70
27 August 1976	90	72	73	3.3	260

TABLE 3-2 (cont'd)

Date	Temperature (F) Maximum	Minimum	Average Dew Point	Average Wind Speed (mph)	Resultant Wind Direction
8 September 1976	91	70	72	4.6	290
9 September 1976	94	70	71	3.9	340
22 September 1976	84	61	58	9.8	50
23 September 1976	86	61	69	7.6	80
7 October 1976	70	60	59	8.5	10
8 October 1976	65	52	51	12.2	330
21 October 1976	66	44	41	7.1	20
22 October 1976	74	39	45	5.3	90
3 November 1976	71	40	46	4.8	320
4 November 1976	68	40	41	5.6	340
18 November 1976	63	44	47	5.8	40
19 November 1976	58	53	52	6.6	40
9 December 1976	60	37	39	9.9	100
10 December 1976	61	50	51	10.5	80
21 December 1976	43	30	15	12.5	360
22 December 1976	47	36	29	5.8	70
5 January 1977	64	48	49	6.3	20
6 January 1977	73	46	49	11.1	80
20 January 1977	57	24	22	9.9	270
21 January 1977	60	25	25	3.2	140

TABLE 3-3

SPECIES COLLECTED BY SAMPLE DATE FROM SCREENS AT WATERFORD POWER STATION

February 1976 through January 1977

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
2-3 February 1976				
Anguilla rostrata	1	198	11.7	11.7
Alosa chrysochloris	3	167(77-337)	234.0(5.3-688.9)	702.0
Dorosma cepedianum	4	196(63-271)	189.6(4.2-349.8)	758.6
Dorosoma petenense	4	57(46-68)	2.6(1.6-4.5)	10.2
Hybopsis storeriana	1	82	8.3	8.3
Ictalurus furcatus	13	124(65-420)	128.0(3.2-1229.8)	1664.0
Ictalurus punctatus	4	139(123-163)	39.5(24.4-67.0)	158.0
Stizostedion canadense	1	243	193.8	193.8
Aplodinotus grunniens	1	62	4.0	4.0
Macrobrachium ohione	69	49(29-88)	1.2(0.1-6.8)	82.3
16-17 February 1976				
Alosa chrysochloris	3	208(73-283)	152.0(4.5-415.9)	456.1
Dorosoma cepedianum	16	166(55-273)	134.6(3.6-378.7)	2153.6
Hybosis storeriana	5	74(66-84)	7.8(4.8-11.1)	39.0
Notropis emiliae	1	44	1.9	1.9
Ictalurus furcatus	27	86(40-190)	11.4(1.3-96.2)	306.8
Ictalurus punctatus	15	101(47-235)	29.3(1.8-169)	439.6
Morone saxatilis	2	223(122-324)	347.4(28.0-666.9)	694.9

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
16-17 February 1976 (cont'd)				
Stizostedion canadense	1	236	178.0	178.0
Aplodinotus grunniens	4	138(50-222)	107.4(3.6-255.7)	429.6
Macrobrachium ohione	59	51(30-90)	2.4(0.5-7.7)	121.4
Procambarus sp.	1	80	15.1	15.1
2-3 March 1976				
Alosa chrysochloris	3	265(233-324)	357.0(239.8-554.9)	1071.1
Dorosoma cepedianum	14	227(89-317)	300.0(8.8-670.9)	4200.0
Dorosoma petenense	1	57	3.3	3.3
Hybopsis storeriana	1	73	5.6	5.6
Carpiodes carpio	1	325	1270.1	1270.1
Ictalurus furcatus	127	89(39-384)	24.4(1.3-1758.6)	3096.4
Ictalurus punctatus	17	80(36-204)	18.3(0.8-145.9)	311.0
Pylodictis olivaris	1	118	21.5	21.5
Aplodinotus grunniens	20	142(56-275)	123.8(4.1-535.5)	2476.4
Macrobrachium ohione	107	55(31-89)	3.1(0.5-8.8)	289.4
15-16 March 1976				
Alosa chrysochloris	6	279(238-326)	411.4(221.8-681.5)	2468.6
Dorosoma cepedianum	15	228(77-319)	259.2(5.4-589.0)	3888.6
Hybopsis storeriana	1	72	6.3	6.3

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
15-16 March 1976 (cont'd)				
Cyprinus carpio	1	638	5193.0	5193.0
Ictiobus bubalus	1	319	1092.5	1092.5
Ictalurus furcatus	105	99(43-403)	39.9(2.1-1187.8)	4195.6
Ictalurus punctatus	10	118.1(48-292)	68.4(2.1-479.6)	683.9
Morone saxatilis	1	262	305.2	305.2
Aplodinotus grunniens	13	223(189-276)	266.2(124.2-478.4)	3460.1
Macrobrachium ohione	5	48(33-78)	1.6(0.2-6.5)	8.0
7-8 April 1976				
Alosa chrysochloris	1	234	172.8	172.8
Dorosoma cepedianum	2	308(286-331)	542.6(442.4-642.8)	1085.2
Dorosoma petenense	8	122(64-148)	42.9(4.7-64.9)	343.3
Hybopsis storeriana	1	77	7.9	7.9
Carpiodes carpio	1	275	709.5	709.5
Ictiobus bubalus	1	387	1682.8	1682.8
Ictalurus furcatus	342	85(47-323)	8.4(1.0-652.3)	2869.5
Ictalurus melas	1	102	26.2	26.2
Ictalurus natalis	1	140	43.7	43.7
Ictalurus punctatus	42	73(39-224)	15.7(0.8-172.4)	660.1
Morone saxatilis	2	347(294-400)	960.2(524.8-1395.5)	1920.3
Lepomis symmetricus	2	48(45-52)	3.0(2.0-4.0)	6.0

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
7-8 April 1976 (cont'd)				
Aplodinotus grunniens	15	167(51-241)	135.2(2.4-327.5)	2027.6
Macrobrachium ohione	101	52(35-81)	1.2(0.1-4.9)	166.3
21-22 April 1976				
Alosa chrysochloris	2	85(73-97)	22.4(5.7-39.2)	44.9
Dorosoma cepedianum	2	222(213-231)	194.6(180.4-208.7)	389.1
Dorosoma petenense	18	88(63-197)	18.6(3.7-130.0)	335.0
Dorosoma sp.	2	74(72-75)	5.2(4.2-6.2)	10.4
Anchoa mitchilli	1	50	1.4	1.4
Notropis shumardi	9	49(43-58)	2.3(1.0-3.5)	21.1
Notropis texanus	1	61	2.8	2.8
Notropis sp.	3	49(46-53)	1.7(1.2-2.7)	5.2
Pimephales vigilax	1	66	4.4	4.4
Ictiobus bubalus	1	369	1522.0	1522.0
Ictalurus furcatus	300	86(38-465)	12.7(1.0-1635.4)	3812.8
Ictalurus punctatus	69	59(35-140)	5.3(0.4-40.1)	369.8
Pylodictis olivaris	3	107(76-236)	20.4(6.1-46.8)	61.1
Morone mississippiensis	1	198	196.1	196.1
Morone saxatilis	1	322	528.5	528.5
Lepomis humilis	1	73	13.6	13.6
Aplodinotus grunniens	27	151(60-236)	117.9(3.7-406.3)	3183.2

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
21-22 April 1976 (cont'd)				
Macrobrachium ohione	2102	50(30-79)	1.3(0.1-6.0)	3144.3
5-6 May 1976				
Alosa chrysochloris	1	135	44.2	44.2
Dorosom cepedianum	3	197(100-248)	146.8(15.2-221.3)	440.5
Dorosoma petenense	9	72(58-115)	6.3(2.7-15.3)	57.1
Dorosoma sp.	1	72	5.2	5.2
Anchoa mitchilli	1	50	1.5	1.5
Salmo gairdneri	1	248	207.2	207.2
Notropis shumardi	3	48(44-55)	2.0(1.5-2.6)	6.1
Ictiobus bubalus	1	405	1833.5	1833.5
Ictalurus furcatus	131	84(44-274)	10.6(1.7-258.9)	1386.1
Ictalurus punctatus	45	86(39-477)	69.8(0.9-1653.5)	3140.9
Lepomis macrochirus	2	66(60-71)	5.6(4.0-7.2)	11.2
Aplodinotus grunniens	9	184(52-231)	155.6(2.5-229.3)	1400.0
Trinectes maculatus	2	34(32-36)	1.4(1.1-1.8)	2.9
Macrobrachium ohione	848	48(31-94)	1.9(0.1-8.4)	1344.5
18-19 May 1976				
Scaphirhynchus albus	1	420	211.8	211.8
Dorosoma cepedianum	6	108(93-117)	22.8(11.2-26.8)	136.8

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
18-19 May 1976 (cont'd)				
Dorosoma petenense	3	90(72-102)	14.2(6.5-19.8)	42.5
Notropis shumardi	1	47	2.3	2.3
Notropis volucellus	4	48(43-56)	2.5(1.4-4.2)	9.9
Ictalurus furcatus	250	93(43-177)	9.3(1.3-72.6)	2333.5
Ictalurus natalis	1	130	51.5	51.5
Ictalurus punctatus	90	64(36-127)	3.9(0.4-28.6)	350.1
Morone mississippiensis	2	85(82-88)	12.0(10.1-14.0)	24.1
Morone saxatilis	1	85	11.0	11.0
Lepomis gulosus	2	47(46-47)	3.6(3.3-3.8)	7.1
Lepomis macrochirus	2	78(36-120)	38.8(1.8-75.9)	77.7
Lepomis punctatus	2	41(40-42)	2.2(1.9-2.5)	4.4
Lepomis symmetricus	3	54(53-57)	5.3(5.0-5.8)	16.0
Micropterus punctulatus	1	38	1.2	1.2
Aplodinotus grunniens	9	97(63-195)	33.4(5.6-182.4)	301.2
Trinectes maculatus	1	34	1.8	1.8
Macrobrachium ohione	783	54(29-84)	2.2(0.2-8.5)	1843.2
2-3 June 1976				
Anguilla rostrata	2	262(235-289)	22.0(16.8-27.2)	44.0
Dorosoma cepedianum	8	59(33-103)	6.6(1.1-15.4)	52.7
Dorosoma petense	36	44(31-105)	2.8(0.4-27.4)	101.1
Notropis emiliae	4	50(48-53)	2.2(1.4-3.0)	8.8

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
2-3 June 1976 (cont'd)				
Notropis shumardi	3	49(47-51)	1.9(1.3-2.3)	5.7
Notropis volucellus	15	48(41-55)	2.0(1.1-2.8)	29.3
Ictalurus furcatus	114	90(47-227)	14.1(1.5-193.3)	1607.0
Ictalurus punctatus	5	100(52-205)	41.8(2.4-193.5)	208.8
Pylodictis olivaris	1	90	10.1	10.1
Aplodinotus grunniens	11	163(80-290)	128.0(11.5-270.8)	1408.5
Trinectes maculatus	1	46	4.6	4.6
Macrobrachium ohione	485	51(30-85)	2.2(0.1-9.9)	1382.1
16-17 June 1976				
Polyodon spathula	2	83(79-87)	2.4(2.0-2.7)	4.7
Alosa chrysochloris	1	210	244.9	244.9
Dorosoma cepedianum	14	72(31-227)	37.1(0.4-201.2)	519.7
Dorosoma petenense	78	56(30-150)	2.8(0.3-63.8)	215.1
Notropis atherinoides	1	51	1.7	1.7
Notropis shumardi	2	50(48-52)	1.7(1.6-1.8)	3.4
Ictalurus furcatus	106	70(33-360)	21.4(0.8-808.7)	2268.2
Ictalurus punctatus	9	145(56-440)	219.7(2.1-1369.1)	1977.8
Morone saxatilis	2	401(352-450)	1406.9(820.7-1993.1)	2813.8
Aplodinotus grunniens	184	39(24-230)	6.1(0.2-260.3)	1130.0

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
16-17 June 1976 (cont'd)				
Archosargus probatocephalus	1	290	771.2	771.2
Macrobrachium ohione	540	51(31-91)	2.6(0.1-12.4)	1325.5
7-8 July 1976				
Polyodon spathula	2	105(100-110)	3.5(3.0-3.9)	6.9
Alosa chrysochloris	1	187	96.3	96.3
Dorosoma cepedianum	22	170(37-270)	168.9(0.7-408.4)	3716.1
Dorosoma petenense	233	44(27-87)	1.6(0.2-13.3)	377.3
Notemigonus crysoleucas	1	97	14.5	14.5
Notropis atherinoides	3	59(47-75)	2.5(1.5-4.5)	7.6
Notropis shumardi	4	50(46-57)	1.8(1.1-2.1)	7.0
Notropis sp.	2	42(42-42)	1.1(1.0-1.1)	2.1
Phenacobius mirabilis	1	48	1.5	1.5
Cyprinidae	4	63(31-96)	5.8(1.1-15.1)	23.2
Ictalurus furcatus	70	97(32-390)	32.4(0.7-1217.5)	2264.7
Ictalurus natalis	1	240	355.3	355.3
Ictalurus punctatus	14	68-(35-98)	5.4(0.6-12.7)	75.0
Morone mississippiensis	1	30	0.5	0.5
Morone saxatilis	2	178(35-320)	301.6(0.8-602.5)	603.3
Lepomis humilis	1	46	2.7	2.7
Aplodinotus grunniens	177	42(23-290)	15.4(0.1-672.1)	2726.1

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell-u)$	WEIGHT (g) $\bar{x}(\ell-u)$	TOTAL WEIGHT (g)
7-8 July 1976(cont'd)				
Macrobrachium ohione	1223	57(28-85)	2.6(0.2-8.7)	2933.2
27-28 July 1976				
Scaphirhynchus albus	1	283	66.4	66.4
Anguilla rostrata	1	575	399.7	399.7
Dorosoma cepedianum	2	112(47-60)	39.9(3.5-76.2)	79.7
Dorosoma petenense	5	41(37-45)	2.8(1.1-4.6)	13.9
Cyrpinus carpio	32	32(27-42)	0.7(0.1-2.6)	22.8
Hybopsis storeriana	2	54(47-60)	2.6(1.2-3.9)	5.1
Notropis shumardi	1	55	2.2	2.2
Ictalurus furcatus	44	53(34-170)	5.3(0.2-91.7)	234.9
Ictalurus punctatus	17	46(27-192)	6.9(0.2-106.2)	116.7
Pylodictis olivaris	1	50	2.3	2.3
Morone saxatilis	1	297	432.7	432.7
Aplodinotus grunniens	55	57(28-233)	26.9(0.4-352.5)	1481.7
Callinectes sapidus	1	150	198.1	198.1
Macrobrachium ohione	438	46(30-80)	1.5(0.2-6.1)	686.1
10-11 August 1976				
Elops saurus	1	155	32.4	32.4
Dorosoma petenense	16	58(37-100)	4.5(0.9-18.6)	71.9

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
10-11 August 1976 (cont'd)				
Anchoa mitchilli	6	47(42-50)	1.3(0.9-1.7)	7.7
Ictalurus furcatus	89	54(32-420)	15.9(0.4-1292.3)	1410.8
Ictalurus punctatus	14	37(33-42)	0.8(0.6-1.1)	11.1
Pylodictis olivaris	1	68	4.1	4.1
Aplodinotus grunniens	42	51-(27-286)	28.1(0.4-578.9)	1179.0
Paralichthys lethostigma	1	340	768.7	768.7
Trinectes maculatus	1	58	7.2	7.2
Callinectes sapidus	1	158	230.1	230.1
Macrobrachium ohione	239	56(33-87)	1.2(0.4-9.0)	297.0
26-27 August 1976				
Brevoortia patronus	1	105	24.7	24.7
Dorosoma petenense	7	42(34-67)	1.9(0.3-6.0)	13.2
Anchoa mitchilli	7	48(40-56)	1.4(0.4-2.7)	10.0
Ictalurus furcatus	317	45(30-118)	1.2(0.2-18.9)	378.8
Ictalurus punctatus	12	45(28-83)	2.2(0.5-10.7)	26.7
Polydictis olivaris	1	90	1.1	1.1
Aplodinotus grunniens	106	58(25-265)	25.6(0.4-429.5)	2711.2
Paralichthys lethostigma	2	272(205-338)	382.3(139.6-625.0)	764.6
Callinectes sapidus	6	172(155-197)	293.6(205.5-466.8)	1761.5
Macrobrachium ohione	355	40(23-82)	0.7(0.2-6.9)	260.3

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
8-9 September 1976				
Lepisosteus platostomus	1	376	226.4	226.4
Dorosoma petenense	35	55(42-68)	3.0(1.1-6.1)	105.2
Anchoa mitchilli	22	54(42-59)	2.2(1.2-3.2)	48.7
Ictalurus furcatus	353	76(26-98)	1.6(0.2-11.1)	558.5
Ictalurus punctatus	26	41(31-53)	1.1(0.4-2.4)	28.1
Pylodictis olivaris	1	53	4.3	4.3
Aplodinotus grunniens	109	67(29-282)	35.3(0.3-500.3)	3843.8
Paralichthys lethostigma	3	229(182-263)	219.5(109.2-291.2)	658.5
Callinectes sapidus	7	153(106-195)	211.6(66.9-370.8)	1481.4
Macrobrachium ohione	512	38(27-68)	0.6(0.4-4.1)	329.8
22-23 September 1976				
Brevoortia patronus	2	110(106-114)	32.9(30-35.9)	65.9
Dorosoma cepedianum	1	233	293.0	293.0
Anchoa mitchilli	11	50(42-114)	2.4(1.3-3.8)	26.6
Ictalurus furcatus	204	60(33-173)	4.1(0.2-120.8)	831.6
Ictalurus punctatus	25	42(29-56)	1.4(0.4-2.8)	34.9
Aplodinotus grunniens	52	88(35-277)	51.9(0.4-298.1)	2701.3
Trinectes maculatus	1	33	2.8	2.8
Callinectes sapidus	5	169(145-186)	330.6(185.4-399.7)	1653.1

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
7-8 October 1976				
Brevoortia patronus	3	114(108-118)	35.4(29.9-40.0)	106.2
Dorosoma cepedianum	1	260	244.9	244.9
Dorosoma petenense	2	61(38-83)	6.3(1.1-11.4)	12.5
Anchoa mitchilli	19	53(40-62)	1.5(0.4-1.7)	27.7
Notropis atherinoides	1	35	0.7	0.7
Ictalurus furcatus	89	70(42-270)	7.9(1.1-238.7)	708.9
Ictalurus punctatus	5	37(30-45)	0.9(0.5-1.5)	4.5
Polydictis olivaris	1	119	21.3	21.3
Aplodinotus grunniens	22	76(28-288)	48.7(0.1-448.7)	1071.2
Trinectes maculatus	5	25(24-34)	0.6(0.1-1.4)	3.0
Callinectes sapidus	2	204(189-218)	370.4(330.8-410.0)	740.8
Macrobrachium ohione	1112	41(19-68)	0.8(0.1-1.1)	911.1
21-22 October 1976				
Alosa chrysochloris	1	145	31.1	31.1
Brevoortia patronus	22	118(108-138)	43.4(32.2-59.7)	955.6
Dorosoma cepedianum	3	174(70-212)	186.4(11.0-301.0)	559.3
Dorosoma petenense	23	68(53-104)	6.9(3.3-20.4)	159.9
Anchoa mitchilli	1124	44(28-83)	1.8(0.3-7.1)	2054.9
Ictalurus furcatus	212	77(32-250)	8.1(0.6-187.3)	1716.3
Ictalurus punctatus	6	51(36-68)	2.0(8.5-4.0)	11.9

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
21-22 October 1976 (cont'd)				
Aplodinotus grunniens	58	48(20-215)	7.0(0.2-207.0)	407.0
Paralichthys lethostigma	1	322	650.7	650.7
Trinectes maculatus	18	30(28-43)	0.9(0.4-2.7)	16.8
Callinectes sapidus	11	161(113-205)	196.4(45.8-407.3)	2159.9
Macrobrachium ohione	932	44(28-83)	1.1(0.3-7.1)	1019.7
3-4 November 1976				
Alosa chrysochloris	1	132	28.3	28.3
Dorosoma cepedianum	56	83(47-302)	30.5(1.7-596.7)	1706.7
Dorosoma petenense	140	67(37-108)	6.3(0.6-31.6)	887.1
Anchoa mitchilli	57	52(38-67)	1.7(0.5-3.5)	96.7
Ictalurus furcatus	405	77(40-302)	9.8(1.0-523.6)	3968.1
Ictalurus punctatus	4	50(32-93)	3.2(0.4-11.0)	13.0
Pylodictis olivaris	1	90	10.7	10.7
Lepomis macrochirus	3	43(37-50)	2.3(1.3-3.4)	6.9
Aplodinotus grunniens	37	67(28-240)	26.7(0.3-379.2)	986.6
Paralichthys lethostigma	1	320	692.2	692.2
Trinectes macaulatus	6	29(25-32)	1.0(0.4-1.4)	5.7
Callinectes sapidus	4	160(145-210)	215.2(77.9-457.7)	860.7
Macrobrachium ohione	649	42(32-66)	1.7(0.6-6.5)	776.6

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
18-19 November 1976				
Anguilla rostrata	3	688(670-699)	790.4(741.0-822.5)	2371.1
Alosa chrysochloris	49	91(65-119)	9.5(2.1-22.3)	466.0
Dorosoma cepedianum	226	85(48-290)	25.4(1.5-341.2)	5734.6
Dorosoma petenense	539	67(42-125)	5.8(0.6-28.8)	3148.4
Anchoa mitchilli	79	57(46-64)	2.3(1.1-3.4)	152.4
Ictalurus furcatus	231	90(36-530)	44.6(1.1-2894.0)	10299.9
Ictalurus punctatus	6	118(53-231)	58.8(1.4-244.8)	352.6
Aplodinotus grunniens	13	100(33-350)	128.7(0.7-944.2)	1672.9
Mugil cephalus	65	128(105-148)	39.9(25.0-69.3)	2595.5
Trinectes maculatus	1	31	1.2	1.2
Macrobrachium ohione	194	48(27-71)	1.3(0.2-4.2)	276.3
9-10 December 1976				
Anguilla rostrata	6	569(182-880)	644.9(5.5-1616.0)	3869.5
Alosa chrysochloris	242	85(68-103)	6.8(3.1-12.2)	1651.2
Dorosoma cepedianum	91	78(47-310)	23.4(1.3-540.9)	2126.6
Dorosoma petenense	465	60(37-104)	3.6(0.7-17.3)	1668.6
Anchoa mitchilli	1	48	1.1	1.1
Ictalurus furcatus	469	88(40-560)	44.8(1.2-3355.6)	21011.9
Ictalurus punctatus	6	96(45-224)	33.0(1.6-164.2)	198.1
Morone saxatilis	1	392	1068.8	1068.8

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}$(ℓ-u)	WEIGHT (g) $\bar{x}$(ℓ-u)	TOTAL WEIGHT (g)
9-10 December 1976				
Lepomis macrochirus	1	32	0.6	0.6
Aplodinotus grunniens	7	209(63-279)	266.7(4.5-503.9)	1867.2
Macrobrachium ohione	66	48(30-72)	1.5(0.2-4.9)	96.8
21-22 December 1976				
Anguilla rostrata	3	27(175-843)	535.5(8.0-1263.8)	1606.6
Alosa chrysochloris	82	81(66-99)	6.3(3.2-11.6)	516.3
Dorosoma cepedianum	44	87(47-308)	37.4(1.4-579.0)	1647.3
Dorosoma petenense	195	61(40-116)	3.8(0.3-27.8)	747.2
Anchoa mitchilli	1	51	1.8	1.8
Notropis shumardi	1	44	1.7	1.7
Ictalurus furcatus	236	113(42-374)	48.9(0.8-841.5)	11539.6
Ictalurus punctatus	4	124(78-174)	41.7(7.1-90.8)	166.8
Morone chrysops	1	242	441.3	441.3
Morone saxatilis	2	304(180-427)	595.8(53.4-1138.2)	1191.6
Lepomis macrochirus	4	37(31-46)	1.6(0.6-2.9)	6.4
Aplodinotus grunniens	15	112(39-288)	126.7(0.4-547.0	1899.9
Callinectes sapidus	1	123	84.7	84.7
Macrobrachium ohione	70	49(28-71)	1.1(0.1-4.8)	79.9
5-6 January 1977				
Anguilla rostrata	1	185	12.5	12.5

TABLE 3-3 (cont'd)

DATE & SPECIES	NUMBER	LENGTH (mm) $\bar{x}(\ell\text{-}u)$	WEIGHT (g) $\bar{x}(\ell\text{-}u)$	TOTAL WEIGHT (g)
5-6 January 1977 (cont'd)				
Alosa chrysochloris	115	83(70-96)	6.9(4.0-10.3)	790.1
Dorosoma cepedianum	34	74(52-270)	45.4(22-334.8)	1542.7
Dorosoma petenense	476	73(39-120)	6.9(0.7-31.6)	3291.0
Ictalurus furcatus	181	77(36-207)	10.6(0.7-106.6)	1912.0
Ictalurus punctatus	8	119(63-232)	50.4(3.4-193.9)	403.2
Morone saxatilis	1	117	32.3	32.3
Lepomis macrochirus	4	58(31-112)	11.8(0.7-40.8)	47.0
Aplodinotus grunniens	6	81(39-231)	43.8(1.8-247.8)	263.0
Mugil cephalus	2	144(120-168)	56.8(31.7-82.0)	113.7
Macrobrachium ohione	74	53(38-77)	1.4(0.3-3.4)	105.4
20-21 January 1977				
Alosa chrysochloris	11	91(66-122)	13.3(6.7-33.3)	146.1
Dorosoma cepedianum	72	175(52-310)	153.1(2.5-612.3)	11025.1
Dorosoma petenense	24	89(64-117)	13.5(4.0-27.6)	323.2
Ictalurus furcatus	69	179(52-428)	252.1(1.1-1602.5)	17396.3
Ictalurus punctatus	3	193(45-379)	408.3(1.3-1153.9	1224.9
Morone mississippiensis	1	171	133.6	133.6
Morone saxatilis	6	272(128-343)	465.0(42.1-762.1)	2790.2
Aplodinotus grunniens	5	49(34-74)	4.7(1.2-12.4)	23.3
Macrobrachium ohione	22	48(32-63)	1.8(0.8-4.6)	39.0

TABLE 3-4

BIOMASS SAMPLE SUMMARY DATA AT WATERFORD POWER STATION

February 1976 through January 1977

Sample Date	Total Fish Weight (g)	Total Crustacea Weight (g)	Total Sample Weight (g)
2-3 February 1976	3510.6	82.3	3592.9
16-17 February 1976	4699.5	136.5	4836.0
2-3 March 1976	12455.4	289.4	12744.8
15-16 March 1976	21293.8	8.0	21301.8
7-8 April 1976	11554.9	166.3	11721.2
21-22 April 1976	10501.4	3144.3	13645.7
5-6 May 1976	8536.4	1344.5	9880.9
18-19 May 1976	3582.9	1843.2	5426.1
2-3 June 1976	3480.6	1382.1	4862.7
16-17 June 1976	9950.5	1325.5	11276.0
7-8 July 1976	10280.1	2933.2	13213.3
27-28 July 1976	2858.1	884.2	3742.3
10-11 August 1976	3492.9	527.1	4028.0
26-27 August 1976	5691.8	260.3	5952.1
8-9 September 1976	5473.5	1811.2	7284.7
22-23 September 1976	3956.1	1653.1	5609.2
7-8 October 1976	2200.9	1651.9	3852.8
21-22 October 1976	6563.5	3179.6	9743.1
3-4 November 1976	8402.0	1637.3	10039.3
18-19 November 1976	26794.6	276.3	27070.9
9-10 December 1976	33463.6	96.8	33560.4
21-22 December 1976	19766.5	164.6	19931.1
5-6 January 1977	8407.5	105.4	8512.9
20-21 January 1977	33062.7	39.0	33101.7

TABLE 3-5

FISH SPECIES[1] COLLECTED FEBRUARY 1976 THROUGH JANUARY 1977

Scaphirhynchus albus - pallid sturgeon
Scaphirhynchus platorynchus - shovelnose sturgeon
Polydon spathula - paddlefish
Lepisosteus platostomus - alligator gar
Elops saurus - ladyfish
Anguilla rostrata - American eel
Alosa chrysochloris - skipjack herring
Brevoortia patronus - gulf menhaden
Dorosoma - shad
Dorosoma cepedianum - gizzard shad
Dorosoma petenense - threadfin shad
Anchoa mitchilli - bay anchovy
Salmo gairdneri - rainbow trout
Cyprinidae - carp or minnow
Cyprinus carpio - carp
Hybopsis storeriana - silver chub
Notemigonus crysoleucas - golden shiner
Notropis sp. - minnow
Notropis atherinoides - emerald shiner
Notropis emiliae - pugnose minnow[2]
Notropis shumardi - silverband shiner
Notropis texanus - weed shiner
Notropis volucellus - mimic shiner
Phenacobius mirabilis - suckermouth minnow
Pimephales vigilax - bullhead minnow
Carpiodes carpio - river carpsucker
Ictiobus bubalus - smallmouth buffalo
Ictalurus furcatus - blue catfish
Ictalurus natalis - yellow bullhead
Ictalurus punctatus - channel catfish
Pylodictis olivaris - flathead catfish
Morone chrysops - white bass
Morone mississippiensis - yellow bass

TABLE 3-5 (cont'd)

Morone saxatilis - striped bass
Lepomis gulosus - warmouth
Lepomis humulis - orangespotted sunfish
Lepomis macrochirus - bluegill
Lepomis punctatus - spotted sunfish
Lepomis symmetricus - bantam sunfish
Micropterus punctulatus - spotted bass
Stizostedion canadense - sauger
Archosargus probatocephalus - sheepshead
Aplodinotus grunniens - freshwater drum
Mugil cephalus - striped mullet
Paralichthys lethostigma - southern flounder
Trinectes maculatus- hogchoker

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[1] Bailey 1970

[2] Formerly reported as *Opsopoeodus emiliae*

TABLE 3-6

CRUSTACEA COLLECTED FEBRUARY 1976 THROUGH JANUARY 1977

Callinectes sapidus - blue crab

Macrobrachium ohione - river shrimp

Procambarus sp. - crayfish

4.0 LITERATURE CITED

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