

**Florida Power & Light Company
Biological Plan of Study Implementation
for St. Lucie Plant EPU
Baseline Event 6 Data Report**

**Report to
Florida Power & Light Company**

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**Submitted by
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INTRODUCTION

During June 2012, Ecological Associates, Inc. (EAI) conducted the sixth baseline field sampling event in accordance with the St. Lucie Plant EPU Biological Plan of Study. During this sixth event, sampling was conducted on four days between June 13 and June 29, 2012. Data collected included general environmental data; water quality data; numbers and sizes of fish and shellfish collected by gill net, trawl, and beach seine; numbers of fish eggs and larvae and commercially or recreationally important decapod crustacean larvae collected by plankton net; and, numbers and sizes of sea turtles observed. Results of the sixth sampling event are provided in this report. All data should be considered preliminary until quality assurance checks have been completed.

SAMPLING LOCATIONS

Sampling was conducted within three separate sampling sites: SL1 located midway between the St. Lucie Plant and the Ft. Pierce Inlet, SL2 located in the vicinity of the St. Lucie Plant cooling water discharge, and SL3 located midway between the St. Lucie Plant and the St. Lucie Inlet.

For the purposes of gill netting and trawling, three transects were established within each of the three sampling sites: Transect A was located approximately 600 ft from shore on the beach terrace in water depths of 8-32 ft, Transect B was located approximately 4,000 ft. from shore in water depths of 34-44 ft, and Transect C was located approximately 8,000 ft. from shore in water depths of 31-46 ft. Plankton samples were collected concurrently with trawl samples at all three sites but only on Transects A and C.

Three stations were also established within each of the three sampling sites for the purpose of beach seining: Station A was located 0.5 mi. north of the center of the site, Station B was located at the center of the site, and Station C was located 0.5 mi. south of the center of the site. At all stations, seines were pulled to the beach from a water depth of approximately 4 ft.

For the purpose of boat-based sea turtle surveys, one transect was established in each of the three sampling sites. The transects were located along nearshore hardbottom habitat in each site.

RESULTS

Environmental data were recorded at each station during each day of sampling. Data recorded included sea conditions, air temperature, wind speed and direction, and sky conditions.

Environmental data are summarized by day in Table 1. Values reflect the range of values recorded throughout each day of sampling.

Water quality data were recorded at three locations and three depths along each of the nine transects established for trawl and gill net sampling. Data recorded included specific conductivity, water temperature, salinity, pH, and dissolved oxygen (DO). Water quality data are provided in Table 2.

Trawls were towed for 15 minutes along each of the nine transects. The numbers of fish and commercially or recreationally important shellfish collected in each 15-minute tow are presented in Table 3. Because of variations in tow speed, the distances the trawl traveled during a 15-minute tow varied (based on GPS readings). In order to compare abundances among stations in terms of catch per unit effort, the numbers collected per kilometer of bottom sampled were calculated and are presented in Table 4.

The numbers of fish and commercially or recreationally important shellfish collected by gill net on each of the nine transects is given in Table 5. At each transect the gill net began to be retrieved 30 minutes after it was set. However, the total soak time (time from when the net first entered the water until the time it was completely removed from the water) varied among transects because of differences in retrieval times associated with variations in the number of fish present in the net. In order to compare abundances among stations in terms of catch per unit effort, the numbers collected per hour of total soak time were calculated and are given in Table 6.

Beach seines were deployed at each of the nine stations previously described. The numbers of fish and commercially or recreationally important shellfish collected at each station are presented in Table 7.

A maximum of 25 representative specimens of each Representative Important Species (RIS) of fish collected at each transect/station by trawl, gill net, and beach seine were measured (total length) and a batch weight for those specimens was obtained. Average lengths and average weights of each RIS at each station/transect for each gear type are presented in Table 8.

Bongo nets were used to collect fish eggs and larvae as well as commercially or recreationally important invertebrate larvae at each of the six transects previously described. Nets were pulled for 15 minutes and the volume of water filtered determined by means of flow meters. Numbers of individuals per cubic meter of water filtered are given in Table 9.

To quantify the number of sea turtles present in each of the three sampling sites, one one-kilometer-long transect in each sampling site was traversed by boat twice. The numbers of sea turtles sighted during each pass along each transect are presented in Table 10.

Table 1. Environmental Data, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study. Values reflect the range of values recorded throughout each day of sampling.

Sampling	Date	Sea Conditions	Air Temp	Wind Speed/Direction	Sky Conditions
Trawls/ Ichthyoplankton	6/13/2012	1-2 ft swell	24.1-25.5°C	3-12 mph/SE to SW	Partly Cloudy to Overcast
Trawls/ Ichthyoplankton	6/14/2012	2 ft chop to calm	24.6-26.4°C	2-5 mph/E to N	Partly Cloudy to Overcast
Gill Nets	6/13/2012	Calm to 1 ft swell	27.2-30.3°C	3-10 mph/SE to SW	Clear to Partly Cloudy
Gill Nets	6/14/2012	1 ft swell	27.5-29.6°C	5 mph/SW to N	Clear
Beach Seines	6/29/2012	1-2 ft swell	27.3-34.6°C	0-5 mph/SW to SE	Clear
Sea Turtle Transects	6/15/2012	1-2 ft swell, choppy	29.5-30.6°C	5-7 mph/NNE	Partly Cloudy

Table 2. Water Quality Data, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study.

Transect	Station	Depth	Specific Conductivity (mS/cm)	Water Temp (°C)	Salinity (PSU)	pH	DO (mg/l)
Trawl SL1 A	North	Surface	55.1	27.4	36.7	8.2	6.5
		Mid-Depth	55.2	27.5	36.7	8.2	6.4
		Bottom	55.1	27.4	36.6	8.2	6.3
	Middle	Surface	55.2	27.5	36.7	8.2	6.8
		Mid-Depth	55.2	27.3	36.7	8.2	6.2
		Bottom	55.2	27.3	36.6	8.2	6.1
	South	Surface	55.2	27.3	36.7	8.2	6.4
		Mid-Depth	55.2	27.3	36.7	8.2	6.3
		Bottom	55.2	27.3	36.6	8.2	6.4
Trawl SL1 B	North	Surface	55.2	27.2	36.7	8.2	6.8
		Mid-Depth	55.1	27.2	36.6	8.2	6.7
		Bottom	55.1	27.1	36.6	8.2	6.6
	Middle	Surface	55.1	27.1	36.7	8.2	6.7
		Mid-Depth	55.2	27.1	36.6	8.2	6.6
		Bottom	55.1	27.1	36.6	8.2	6.6
	South	Surface	55.1	27.1	36.7	8.2	6.6
		Mid-Depth	55.1	27.1	36.6	8.2	6.6
		Bottom	55.1	27.1	36.6	8.2	6.6
Trawl SL1 C	North	Surface	55.1	27.2	36.6	8.1	6.7
		Mid-Depth	55.2	27.2	36.6	8.2	6.7
		Bottom	55.2	27.1	36.6	8.2	6.7
	Middle	Surface	55.2	27.3	36.7	8.2	6.5
		Mid-Depth	55.2	27.3	36.6	8.2	6.6
		Bottom	55.2	27.2	36.6	8.2	6.6
	South	Surface	55.1	27.4	36.7	8.2	6.7
		Mid-Depth	55.2	27.1	36.7	8.2	6.6
		Bottom	55.2	27.1	36.7	8.2	6.6
Trawl SL2 A	North	Surface	55.5	26.1	36.8	8.2	6.8
		Mid-Depth	55.4	26.1	36.8	8.2	6.7
		Bottom	55.4	26.0	36.8	8.2	6.7
	Middle	Surface	55.4	26.2	36.8	8.2	6.6
		Mid-Depth	55.4	26.1	36.8	8.2	6.6
		Bottom	55.4	26.0	36.8	8.2	6.7
	South	Surface	55.4	26.1	36.8	8.2	6.6
		Mid-Depth	55.4	25.9	36.8	8.2	6.5
		Bottom	55.4	25.9	36.8	8.2	6.6

Table 2 (Continued). Water Quality Data, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study.

Transect	Station	Depth	Specific Conductivity (mS/cm)	Water Temp (°C)	Salinity (PSU)	pH	DO (mg/l)
Trawl SL2 B	North	Surface	55.4	26.3	36.8	8.2	6.9
		Mid-Depth	55.4	25.9	36.8	8.2	6.7
		Bottom	55.4	25.9	36.8	8.2	6.7
	Middle	Surface	55.4	26.3	36.7	8.2	6.5
		Mid-Depth	55.4	25.8	36.8	8.2	6.7
		Bottom	55.4	25.7	36.8	8.2	6.7
	South	Surface	55.4	26.3	36.8	8.2	6.6
		Mid-Depth	55.4	25.7	36.8	8.2	6.7
		Bottom	55.4	25.7	36.8	8.2	6.7
Trawl SL2 C	North	Surface	55.3	26.2	36.8	8.2	6.7
		Mid-Depth	55.4	26.1	36.8	8.2	6.7
		Bottom	55.4	25.9	36.8	8.2	6.6
	Middle	Surface	55.3	26.2	36.7	8.2	6.3
		Mid-Depth	55.4	25.9	36.7	8.2	6.6
		Bottom	55.4	25.8	36.8	8.2	6.6
	South	Surface	55.3	26.3	36.7	8.2	6.7
		Mid-Depth	55.4	26.1	36.8	8.2	6.8
		Bottom	55.4	25.7	36.8	8.2	6.6
Trawl SL3 A	North	Surface	54.9	28.5	36.5	8.2	6.3
		Mid-Depth	55.0	28.0	36.6	8.2	6.5
		Bottom	55.0	28.0	36.7	8.2	6.4
	Middle	Surface	54.7	28.7	36.4	8.2	6.3
		Mid-Depth	54.8	28.6	36.5	8.2	6.4
		Bottom	54.8	28.6	36.5	8.2	6.5
	South	Surface	54.4	28.9	36.3	8.1	6.4
		Mid-Depth	54.8	28.8	36.4	8.1	6.4
		Bottom	54.8	28.4	36.6	8.2	6.5
Trawl SL3 B	North	Surface	54.9	27.8	36.6	8.2	6.6
		Mid-Depth	55.2	26.6	36.7	8.2	6.8
		Bottom	55.3	26.1	36.7	8.2	6.9
	Middle	Surface	55.0	27.8	36.5	8.2	6.4
		Mid-Depth	55.3	26.5	36.7	8.2	6.7
		Bottom	55.3	26.1	36.7	8.2	6.9
	South	Surface	55.0	27.8	36.6	8.2	6.4
		Mid-Depth	55.3	26.4	36.7	8.2	6.8
		Bottom	55.3	26.1	36.7	8.2	6.9

Table 2 (Continued). Water Quality Data, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study.

Transect	Station	Depth	Specific Conductivity (mS/cm)	Water Temp (°C)	Salinity (PSU)	pH	DO (mg/l)
Trawl SL3 C	North	Surface	55.1	27.7	36.7	8.2	6.3
		Mid-Depth	55.4	26.5	36.7	8.2	6.6
		Bottom	55.4	26.1	36.7	8.2	6.8
	Middle	Surface	55.0	27.8	36.6	8.2	6.3
		Mid-Depth	55.3	26.5	36.7	8.2	6.6
		Bottom	55.4	25.9	36.7	8.2	6.8
	South	Surface	55.0	27.9	36.6	8.2	6.4
		Mid-Depth	55.3	26.0	36.8	8.2	6.7
		Bottom	55.4	25.9	36.7	8.2	6.7
Gill Net SL1 A	West	Surface	55.1	27.3	36.6	8.2	6.1
		Mid-Depth	55.2	27.3	36.7	8.2	6.1
		Bottom	55.1	27.3	36.7	8.2	6.3
	Middle	Surface	55.2	27.3	36.7	8.2	6.1
		Mid-Depth	55.1	27.3	36.6	8.2	6.1
		Bottom	55.1	27.3	36.6	8.2	6.1
	East	Surface	55.2	27.2	36.7	8.1	6.1
		Mid-Depth	55.1	27.2	36.7	8.2	6.2
		Bottom	55.2	27.2	36.7	8.2	6.2
Gill Net SL1 B	West	Surface	55.1	27.2	36.6	8.2	6.2
		Mid-Depth	55.1	27.2	36.6	8.2	6.3
		Bottom	55.1	27.2	36.6	8.2	6.2
	Middle	Surface	55.0	27.2	36.6	8.2	6.4
		Mid-Depth	55.1	27.2	36.6	8.2	6.3
		Bottom	55.1	27.2	36.6	8.2	6.2
	East	Surface	55.1	27.2	36.6	8.2	6.3
		Mid-Depth	55.1	27.2	36.6	8.2	6.3
		Bottom	55.1	27.2	36.6	8.2	6.3
Gill Net SL1 C	West	Surface	55.1	27.5	36.6	8.2	6.3
		Mid-Depth	55.2	27.1	36.6	8.2	6.2
		Bottom	55.1	27.1	36.6	8.2	6.3
	Middle	Surface	55.1	27.4	36.6	8.2	6.2
		Mid-Depth	55.2	27.1	36.6	8.2	6.3
		Bottom	55.1	27.1	36.6	8.2	6.3
	East	Surface	55.1	27.4	36.7	8.2	6.4
		Mid-Depth	55.1	27.1	36.6	8.2	6.4
		Bottom	55.0	27.1	36.6	8.2	6.4

Table 2 (Continued). Water Quality Data, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study.

Transect	Station	Depth	Specific Conductivity (mS/cm)	Water Temp (°C)	Salinity (PSU)	pH	DO (mg/l)
Gill Net SL2 A	West	Surface	55.2	27.5	36.7	8.2	6.3
		Mid-Depth	55.2	27.4	36.7	8.2	6.4
		Bottom	55.2	27.3	36.7	8.2	6.4
	Middle	Surface	55.2	27.5	36.7	8.2	6.2
		Mid-Depth	55.2	27.4	36.6	8.2	6.4
		Bottom	55.2	27.3	36.7	8.2	6.5
	East	Surface	55.1	27.6	36.6	8.1	6.5
		Mid-Depth	55.1	27.4	36.7	8.2	6.4
		Bottom	55.2	27.3	36.4	8.2	6.5
Gill Net SL2 B	West	Surface	55.1	27.7	36.7	8.2	6.4
		Mid-Depth	55.2	27.2	36.6	8.2	6.5
		Bottom	55.1	26.8	36.6	8.2	6.5
	Middle	Surface	55.1	27.7	36.7	8.2	6.4
		Mid-Depth	55.1	27.1	36.6	8.2	6.5
		Bottom	55.1	26.8	36.6	8.2	6.6
	East	Surface	55.1	27.7	36.7	8.2	6.5
		Mid-Depth	55.1	26.9	36.6	8.2	6.5
		Bottom	55.1	26.8	36.6	8.2	6.6
Gill Net SL2 C	West	Surface	55.1	27.2	36.7	8.2	6.6
		Mid-Depth	55.2	26.8	36.7	8.2	6.7
		Bottom	55.1	26.7	36.7	8.2	6.7
	Middle	Surface	55.2	27.2	36.7	8.2	6.6
		Mid-Depth	55.2	26.8	36.7	8.2	6.7
		Bottom	55.1	26.8	36.6	8.2	6.7
	East	Surface	55.0	27.2	36.6	8.2	6.6
		Mid-Depth	55.2	26.9	36.6	8.2	6.7
		Bottom	55.1	26.8	36.6	8.2	6.7
Gill Net SL3 A	West	Surface	54.9	27.4	36.5	8.2	6.3
		Mid-Depth	55.1	26.7	36.5	8.2	6.4
		Bottom	55.3	26.2	36.7	8.2	6.4
	Middle	Surface	54.9	27.4	36.5	8.2	6.4
		Mid-Depth	55.2	26.6	36.7	8.2	6.5
		Bottom	55.4	25.7	36.8	8.2	6.5
	East	Surface	54.9	27.5	36.5	8.0	7.2
		Mid-Depth	55.2	26.3	36.6	8.2	6.6
		Bottom	55.4	25.7	36.7	8.2	6.6

Table 2 (Continued). Water Quality Data, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study.

Transect	Station	Depth	Specific Conductivity (mS/cm)	Water Temp (°C)	Salinity (PSU)	pH	DO (mg/l)
Gill Net SL3 B	West	Surface	54.9	27.8	36.5	8.2	6.2
		Mid-Depth	55.3	26.0	36.7	8.2	6.4
		Bottom	55.4	25.7	36.8	8.2	6.4
	Middle	Surface	54.9	27.8	36.5	8.2	6.3
		Mid-Depth	55.3	26.1	36.7	8.2	6.5
		Bottom	55.4	25.7	36.8	8.2	6.4
	East	Surface	55.0	27.8	36.6	8.1	7.4
		Mid-Depth	55.4	26.1	36.7	8.2	6.6
		Bottom	55.4	25.8	36.8	8.2	6.5
Gill Net SL3 C	West	Surface	55.0	28.3	36.5	8.2	6.3
		Mid-Depth	55.1	27.3	36.6	8.2	6.4
		Bottom	55.4	25.7	36.7	8.2	6.4
	Middle	Surface	54.9	28.3	36.5	8.2	6.4
		Mid-Depth	55.1	27.2	36.6	8.2	6.4
		Bottom	55.4	25.7	36.7	8.2	6.4
	East	Surface	54.9	28.3	36.5	8.0	7.7
		Mid-Depth	55.1	27.1	36.6	8.1	6.4
		Bottom	55.4	25.7	36.7	8.1	6.4

Table 3. Number of Individuals of Each Taxon of Fish and Commercially or Recreationally Important Shellfish Captured by Trawl during One 15-minute Tow at Each Station, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study.

TAXON	SL1			SL2			SL3			TOTAL
	A	B	C	A	B	C	A	B	C	
<i>Rimapenaeus</i> sp.		1				1	9			11
<i>Citharichthys macrops</i> (spotted whiff)				1						1
<i>Trachinocephalus myops</i> (snakefish)			1							1
<i>Umbrina coroides</i> (sand drum)							3			3
TOTAL	0	1	1	1	0	1	12	0	0	16

Table 4. Number of Individuals of Each Taxon of Fish and Commercially or Recreationally Important Shellfish Captured per Kilometer by Trawl at Each Station, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study. (Note: Totals in the right column represent the number of individuals captured per kilometer for all nine transects.)

TAXON	SL1			SL2			SL3			TOTAL
	A	B	C	A	B	C	A	B	C	
<i>Rimapenaeus</i> sp.	0.00	1.26	0.00	0.00	0.00	1.15	10.94	0.00	0.00	1.49
<i>Citharichthys macrops</i> (spotted whiff)	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.14
<i>Trachinocephalus myops</i> (snakefish)	0.00	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.14
<i>Umbrina coroides</i> (sand drum)	0.00	0.00	0.00	0.00	0.00	0.00	3.65	0.00	0.00	0.41
TOTAL	0.00	1.26	1.17	1.25	0.00	1.15	14.58	0.00	0.00	2.17

Table 5. Number of Individuals of Each Taxon of Fish and Commercially or Recreationally Important Shellfish Captured by Gill Net at Each Station, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study.

TAXON	SL1			SL2			SL3			TOTAL
	A	B	C	A	B	C	A	B	C	
<i>Anisotremus virginicus</i> (porkfish)	1									1
<i>Calamus arctifrons</i> (grass pogy)	1									1
<i>Caranx crysos</i> (blue runner)				2				2		4
<i>Carcharhinus acronotus</i> (blacknose shark)								1		1
<i>Chloroscombrus chrysurus</i> (Atlantic bumper)	5			6						11
<i>Citharichthys macrops</i> (spotted whiff)					1					1
<i>Echeneis naucrates</i> (sharksucker)			1							1
<i>Rachycentron canadum</i> (cobia)								1		1
<i>Rhizoprionodon terraenovae</i> (Atlantic sharpnose shark)		1	8			2			6	17
Scombridae								3		3
<i>Stephanolepis hispidus</i> (planehead filefish)								2		2
TOTAL	7	1	9	8	1	2	0	9	6	43

Table 6. Catch Per Unit Effort (Number of Individuals Per Hour of Soak Time) for Each Taxon of Fish and Commercially or Recreationally Important Shellfish Captured by Gill Net at Each Station, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study. (Note: Totals in the right column represent the number of individuals captured per hour for all nine transects.)

TAXON	SL1			SL2			SL3			TOTAL
	A	B	C	A	B	C	A	B	C	
<i>Anisotremus virginicus</i> (porkfish)	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
<i>Calamus arctifrons</i> (grass porgy)	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
<i>Caranx crysos</i> (blue runner)	0.0	0.0	0.0	2.7	0.0	0.0	0.0	1.4	0.0	0.5
<i>Carcharhinus acronotus</i> (blacknose shark)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.1
<i>Chloroscombrus chrysurus</i> (Atlantic bumper)	6.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	1.3
<i>Citharichthys macrops</i> (spotted whiff)	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.1
<i>Echeneis naucrates</i> (sharksucker)	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1
<i>Rachycentron canadum</i> (cobia)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.1
<i>Rhizoprionodon terraenovae</i> (Atlantic sharpnose shark)	0.0	1.4	6.3	0.0	0.0	2.1	0.0	0.0	7.1	2.0
Scombridae	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.3
<i>Stephanolepis hispidus</i> (planehead filefish)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.2
TOTAL	8.4	1.4	7.1	10.7	0.8	2.1	0.0	6.4	7.1	5.0

Table 7. Number of Individuals of Each Taxon of Fish and Commercially or Recreationally Important Shellfish Captured by Beach Seine at Each Station, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study.

TAXON	SL1			SL2			SL3			TOTAL
	A	B	C	A	B	C	A	B	C	
<i>Arenaeus cribrarius</i> (speckled swimming crab)				1						1
Albuneidae									9	9
<i>Anchoa lyolepis</i> (dusky anchovy)				1				2		3
<i>Caranx latus</i> (horse-eye jack)								1		1
<i>Etrumeus teres</i> (round herring)								1		1
<i>Harengula humeralis</i> (redeer sardine)	1			67	1	70			15	154
<i>Menticirrhus littoralis</i> (Gulf kingfish)	1								9	10
<i>Micropogonias undulates</i> (Atlantic croaker)						1				1
<i>Mugil curema</i> (white mullet)									1	1
<i>Pomatomus saltatrix</i> (bluefish)						1				1
<i>Selene vomer</i> (lookdown)							1	1		2
<i>Trachinotus carolinus</i> (Florida pompano)			2	1	1				3	7
TOTAL	2	0	2	70	2	72	1	5	37	191

Table 8. Average total length (TL) and average weight (W) of each Representative Important Species Captured by Gill Net, Trawl, and Beach Seine, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study. For each species the number weighed/measured (n) and the total number collected (N) are given.

TAXON	Gill Net				Trawl				Beach Seine			
	TL (mm)	W (g)	n	N	TL (mm)	W (g)	n	N	TL (mm)	W (g)	n	N
<i>Anchoa lyolepis</i> (dusky anchovy)									47.3	0.7	3	3
<i>Etrumeus teres</i> (round herring)									38.0	3.5	1	1
<i>Harengula humeralis</i> (redear sardine)									72.3	3.9	72	154
<i>Menticirrhus littoralis</i> (Gulf kingfish)									71.2	5.2	9	10
<i>Micropogonias undulatus</i> (Atlantic croaker)									220.0	119.4	1	1
<i>Pomatomus saltatrix</i> (bluefish)									49.2	1.0	1	1
<i>Trachinotus carolinus</i> (Florida pompano)									66.9	5.2	7	7
<i>Umbrina coroides</i> (sand drum)					84.8	7.5	2	3				

Table 9. Number of Individuals of Each Taxon of Fish Eggs and Larvae and Commercially or Recreationally Important Decapod Crustacean Larvae Captured Per Cubic Meter of Water Filtered During One 15-minute Bongo-Net Tow at Each Transect, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study. (Note: Totals in the right column represent numbers captured per cubic meter of water filtered at all six transects.)

TAXON	SL 1		SL 2		SL 3		TOTAL
	A	C	A	C	A	C	
Acropomatidae, post yolk-sac larvae						0.014	0.003
<i>Anchoa lyolepis</i> , post yolk-sac larvae	0.229						0.037
Anguilloidei, post yolk-sac larvae				0.167			0.020
<i>Bathygobius soporator</i> , post yolk-sac larvae			0.065				0.010
Blenniidae, post yolk-sac larvae			0.043		0.036	0.028	0.020
<i>Brevoortia</i> sp., post yolk-sac larvae			0.043				0.007
Carangidae, post yolk-sac larvae			0.022			0.042	0.013
Clupeidae, yolk-sac larvae		0.048	3.087	0.028	0.250		0.532
Congridae, post yolk-sac larvae		0.024					0.003
<i>Cynoscion nebulosus</i> , post yolk-sac larvae			0.065				0.010
Dactyloscopidae, post yolk-sac larvae			0.174				0.027
Diodontidae, post yolk-sac larvae			0.348				0.054
Engraulidae, post yolk-sac larvae	0.042	0.024					0.010
Gerreidae, post yolk-sac larvae			0.022		0.018		0.007
Gobiidae, post yolk-sac larvae	0.083	0.524	0.087	0.444		0.070	0.171
<i>Gobiosoma robustum</i> , post yolk-sac larvae				0.833			0.100
<i>Gobiosoma</i> sp., post yolk-sac larvae	0.063						0.010
Gonostomatidae, post yolk-sac larvae		0.024					0.003
Haemulidae, post yolk-sac larvae		0.024	0.065				0.013
<i>Larimus fasciatus</i> , post yolk-sac larvae			0.239				0.037
Microdesmidae, post yolk-sac larvae			0.630			0.056	0.110
<i>Microgobius thalassinus</i> , post yolk-sac larvae		2.143	3.283	7.306		0.239	1.742
Monacanthidae, post yolk-sac larvae			0.065	0.056			0.017
Ophidiiformes, post yolk-sac larvae				0.139			0.017
Ostraciidae, post yolk-sac larvae				0.056			0.007
<i>Pareques</i> sp., post yolk-sac larvae				0.056		0.042	0.017

Table 9 (continued). Number of Individuals of Each Taxon of Fish Eggs and Larvae and Commercially or Recreationally Important Decapod Crustacean Larvae Captured Per Cubic Meter of Water Filtered During One 15-minute Bongo-Net Tow at Each Transect, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study. (Note: Totals in the right column represent numbers captured per cubic meter of water filtered at all six transects.)

TAXON	SL 1		SL 2		SL 3		TOTAL
	A	C	A	C	A	C	
<i>Saurida brasiliensis</i> , post yolk-sac larvae		0.024		0.056			0.010
Scaridae, post yolk-sac larvae						0.014	0.003
Sciaenidae, post yolk-sac larvae		0.048	0.065	0.194	0.018		0.043
<i>Scomberomorus maculatus</i> , post yolk-sac larvae				0.028			0.003
Sparidae, post yolk-sac larvae		0.024					0.003
<i>Symphurus</i> sp., post yolk-sac larvae				0.028			0.003
<i>Syngnathus louisianae</i> , juvenile	0.021						0.003
Tetraodontidae, post yolk-sac larvae	0.083						0.013
Triglidae, post yolk-sac larvae				0.028			0.003
Unidentified fish fragment, post yolk-sac larvae		0.119	0.174	0.139			0.060
Clupeidae, eggs						0.014	0.003
Engraulidae, eggs				2.417			0.291
Synodontidae, eggs						0.014	0.003
Unidentified fish eggs	1.000	0.548	0.217	4.444	0.518	0.465	1.013
<i>Albunea</i> sp., zoea		0.690		3.556	0.161	0.789	0.742
<i>Callinectes sapidus</i> , megalops		0.310		2.778	2.250	0.366	0.886
<i>Callinectes sapidus</i> , juvenile	0.042						0.007
<i>Callinectes similis</i> , megalops		0.262		3.111	2.679	1.352	1.234
<i>Callinectes similis</i> , juvenile	0.042			0.167			0.027
<i>Callinectes</i> sp., megalops	2.667	0.071	0.891	1.444	0.196	0.056	0.799
<i>Callinectes</i> sp., zoea				0.111	0.071	0.310	0.100
<i>Emerita talpoida</i> , zoea		0.095		1.500	0.125	0.085	0.237
<i>Emerita talpoida</i> , juvenile	0.042		0.043		0.018		0.017
<i>Farfantepenaeus aztecus</i> , postlarvae			0.652		0.250		0.147
<i>Farfantepenaeus duorarum</i> , postlarvae					0.143		0.027
<i>Farfantepenaeus</i> sp., postlarvae			0.130		0.304	0.028	0.084

Table 9 (continued). Number of Individuals of Each Taxon of Fish Eggs and Larvae and Commercially or Recreationally Important Decapod Crustacean Larvae Captured Per Cubic Meter of Water Filtered During One 15-minute Bongo-Net Tow at Each Transect, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study. (Note: Totals in the right column represent numbers captured per cubic meter of water filtered at all six transects.)

TAXON	SL 1		SL 2		SL 3		TOTAL
	A	C	A	C	A	C	
<i>Loligo pealeii</i> , juvenile			0.022	0.056			0.010
<i>Loligo pealeii</i> , other	0.125						0.020
<i>Loligo</i> sp., juvenile				0.056			0.007
<i>Menippe mercenaria</i> , megalops			0.022				0.003
<i>Menippe mercenaria</i> , zoea			0.022		0.268	0.169	0.094
Penaeidae, mysis			0.152			0.113	0.050
Penaeidae, protozoa		0.048					0.007
<i>Rimapenaeus constrictus</i> , postlarvae					0.107		0.020
<i>Scyllarus americanus</i> , phyllosoma			0.022	0.778	0.018		0.100
<i>Sicyonia</i> sp., postlarvae						0.028	0.007
TOTAL	4.438	5.048	10.652	29.972	7.429	4.296	9.080

Table 10. Number of Individuals of Each Species of Sea Turtle Sighted During Each of Two Passes Along Three One-Kilometer-Long Transects, Baseline Sampling Event 6 (June 2012), St. Lucie Plant EPU Biological Study.

SPECIES	SL 1		SL 2		SL 3	
	Pass 1	Pass 2	Pass 1	Pass 2	Pass 1	Pass 2
<i>Chelonia mydas</i> (green turtle)	0	1	3	1	0	0