

GEOLOGICAL SURVEY OF ALABAMA

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A SURVEY OF ALABAMA'S COASTAL RIVERS AND STREAMS FOR FISHES OF CONSERVATION CONCERN

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by

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INTRODUCTION

A symposium was recently convened to compile and synthesize the best available information about Alabama's wildlife, including fishes, with the intent of ranking all vertebrate and aquatic mollusk wildlife relative to their conservation status (highest to lowest conservation concern) in the state (Mirarchi, 2004). Alabama's coastal region was identified as an area of critical conservation concern because it is drained by a vast network of streams, bayous, rivers, and wetlands that are home to a diverse assemblage of plants and animals, many of which are rare and(or) in need of conservation action. Future protection plans for Alabama's coastal wildlife will require accurate data concerning the occurrence and distribution of species, their life history requirements, and data concerning threats to their habitats and survival.

The distribution and occurrence of fishes in Alabama's coastal aquatic environments are generally known based on a few drainage or region-specific surveys and from general sampling in the area by students and agencies (Mettee and others, 1996; Boschung and Mayden, 2004). The larger river and stream fauna is generally not represented in some of the earlier fish surveys because small wadeable streams were only sampled for the most part. Several early collections of fishes were made in the Escambia River system (Bollman, 1886; Gilbert, 1891), but Bailey and others (1954) were the first to conduct a methodical survey of that river system in relatively modern times. Thirteen sites were sampled in Alabama with only a few of these sites in larger stream channels (Big Escambia Creek and Murder Creek). Hemphill (1960) conducted the first comprehensive survey of fishes across Alabama's Coastal Plain. He sampled 83 sites distributed in creeks and streams across Mobile, Baldwin, and Escambia Counties. Beckham (1973) completed a synoptic survey of the Escatawpa River at 49 sites in Mississippi and Alabama reporting 67 species which included 11 species found primarily in brackish or marine habitats. Swingle and Bland (1974) conducted the first comprehensive survey of fishes in Alabama's coastal watercourses. Monthly trawl and seine samples were collected at 23 brackish water stations in tributaries to Mobile Bay, Mobile-Tensaw River Delta, Mississippi Sound, and Wolf Bay yielding 104 species of fishes. These authors reported that about equal numbers of marine, estuarine and freshwater fish species were taken at most sites but that marine and estuarine fishes comprised more than 95 percent of the catch.

The Geological Survey of Alabama commenced work in Alabama's coastal streams in the early 1980s. Mettee and others (1983) conducted biological monitoring studies in streams draining the Gilbertown, Citronelle, and Pollard oil fields in south Alabama while O'Neil and others (1984) reported results of fish biomonitoring efforts in streams around the Citronelle oil field specifically. The Citronelle field is drained by tributaries of the Escatawpa and Mobile Rivers while the Pollard field is drained by tributaries to Little Escambia and Big Escambia Creeks. Mettee and others (1993) compiled data and information in published studies and collection records from southeastern museums plus new collection data into an unpublished summary list of fishes of the Mobile-Tensaw River Delta, tributaries to Mobile Bay, and Perdido River system.

This study reports on the first year sampling results of a three-year survey of fishes in selected Alabama coastal river systems focusing, in part, on species that were recognized as highest or high conservation concern by Mirarchi and others (2004) and on habitats and stream reaches that have not been adequately sampled in past surveys.

ACKNOWLEDGMENTS

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STUDY AREA AND METHODS

Samples were collected from four areas in Alabama's coastal region: the Escatawpa River main channel, tributaries to the lower Mobile-Tensaw River Delta, Fish River in the Weeks Bay system, and the Perdido River (fig. 1). Fifty-one samples were collected from 47 sites in the study area (table 1). Five sites were sampled with a small stream electrofishing boat on March 25, 2004 in the Escatawpa River main channel (table 1) from the Alabama-Mississippi state line at U.S. Hwy. 98 upstream to approximately 0.5 mile upstream of Brushy Creek mouth. Twelve sites were sampled in the Mobile-Tensaw River system: three sites in Chickasaw Creek, four sites in Bayou Sara/Gunnison Creek, four sites in Bay Minette Creek/Bay Minette Basin, and one site in the lower Tensaw River around Gravine Island. All of these sites were sampled with a small stream electrofishing boat with the exception of Bayou Sara and Tensaw River which were sampled with monofilament gill nets. Dates of sampling in the Mobile-Tensaw River system were March 26, April 9, April 23, and May 13, 2004. Four sites were sampled with a larger electrofishing boat on April 8, 2004, in the Fish River system, one site in a small bayou off of Green Branch, one site in a small channel off Fish River proper, one site in the mouth of Cowpen Creek, and one site in Fish River northwest of Clay City. Significant sampling effort was expended at 26 sites in the Perdido River system. One site was sampled in the Blackwater River, five sites in the Styx River, and 20 sites in the Perdido River system. Electrofishing boats were used for 17 samples and monofilament gill nets were used for 12 samples. Sampling dates in the Perdido River system were April 20-22 and May 11-12, 2004.

Two sampling techniques were used to collect fishes: electrofishing boats and monofilament gill nets. One electrofishing rig was a 14-foot aluminum boat equipped with a Smith-Root GPP 2.5 electrofishing unit and a 25 horsepower Mercury motor. This boat was excellent for sampling small, deep streams and bayous and also sampled well in larger waters. The other electrofishing rig was a 17-foot aluminum boat equipped with a Smith Root GPP 5.0 electrofishing unit and a 100 hp. Johnson motor. This boat was used for sites where long travel distances over water were required.

Sites were sampled for 1 to 4 efforts with electrofishing rigs where one effort was defined as 10 minutes of pedal-down time. In operation the boat would locate on site, the person netting

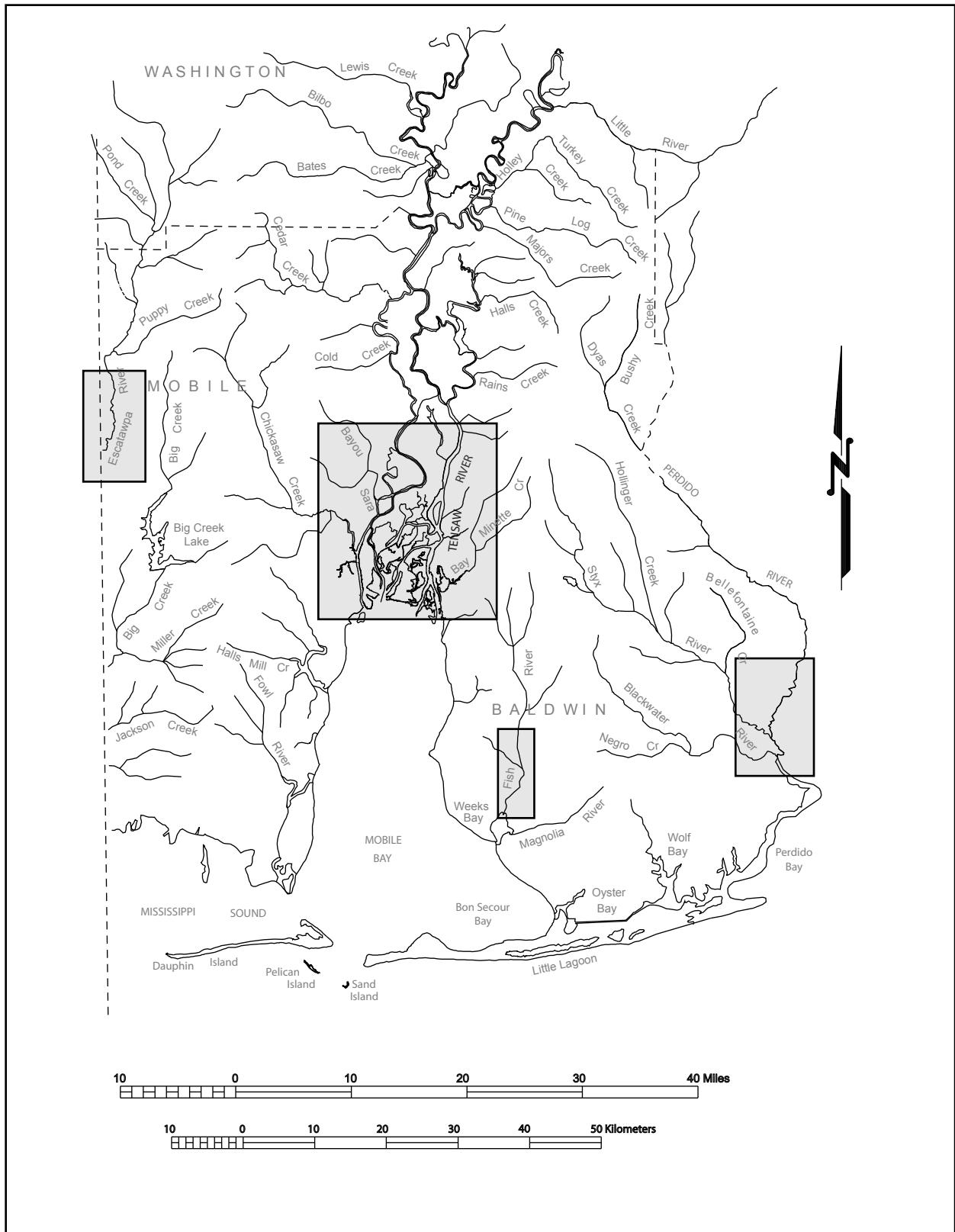


Figure 1. Study areas in the Alabama coastal region.

Table 1. Locations of fish sampling sites in the Escatawpa, Mobile-Tensaw, Fish, and Perdido River systems.

Site no.	GSA no.	Site name	Location		Date	Sample time	Method
			Section, Township, Range	Latitude/Longitude (decimal degrees)			
Escatawpa River System							
E-1	2983	Escatawpa River nr. Powell Creek	sec. 8, T.2 S., R.4 W.	30.8954 - 88.4019	March 25, 2004	1000-1120	Electroboat
E-2	2982	Escatawpa River	sec. 8, T.2 S., R.4 W.	30.8875 - 88.4019	March 25, 2004	1130-1210	Electroboat
E-3	2981	Escatawpa River @ Brushy Creek	sec. 8, T.2 S., R.4 W.	30.8815 - 88.4041	March 25, 2004	1345-1410	Electroboat
E-4	2979	Escatawpa River	sec. 17, T.2 S., R.4 W.	30.87582 - 88.4121	March 25, 2004	1410-1500	Electroboat
E-5	2980	Escatawpa River	sec. 20, T.2 S., R.4 W.	30.86583 - 88.4104	March 25, 2004	1500-1545	Electroboat
Mobile-Tensaw River Delta System							
5	MT-1a	Bay Minette Creek nr. power line	sec. 4, T.4 S., R.2 E.	30.7221 - 87.8733	March 26, 2004	0930-1130	Electroboat
	MT-1b				May 13, 2004	1000-1100	Electroboat
MT-2	2817	Bay Minette Creek tributary	sec. 4, T.4 S., R.2 E.	30.7253 - 87.8705	May 13, 2004	1110-1125	Electroboat
MT-3	2814	Bay Minette Basin nr. Hammock Br.	sec. 40, T.4 S., R.1 E.	30.7130 - 87.9179	May 13, 2004	0815-0835	Electroboat
MT-4	2816	Bay Minette Creek	sec. 4, T.4 S., R.2 E.	30.7300 - 87.8733	May 13, 2004	1140-1155	Electroboat
MT-5	2984	Gunnison Creek @ Steel Creek	sec. 24, T.2 S., R.1 W.	30.8548 - 88.0369	April 23, 2004	1045-1100	Electroboat
MT-6	2985	Gunnison Creek @ paddlewheel boat	sec. 24, T.2 S., R.1 W.	30.8625 - 88.0308	April 23, 2004	1015-1045	Electroboat
MT-7	2986	Gunnison Creek @ power line	sec. 13, T.2 S., R.1 W.	30.8760 - 88.0340	April 23, 2004	0930-1015	Electroboat
MT-8	2800	Bayou Sara	sec. 25, T.2 S., R.1 W.	30.8405 - 88.0297	April 23, 2004	0930-1200	Gill net
MT-9	2974	Chickasaw Creek tributary	sec. 9, T.3 S., R.1 W.	30.7932 - 88.0890	April 9, 2004	0830-0900	Electroboat
MT-10	2973	Chickasaw Creek upstream of park	sec. 17, T.3 S., R.1 W.	30.7819 - 88.1095	April 9, 2004	0930-1110	Electroboat

Table 1. Locations of fish sampling sites in the Escatawpa, Mobile-Tensaw, Fish, and Perdido River systems – Continued.

Site no.	GSA no.	Site name	Location		Date	Sample time	Method
			Section, Township, Range	Latitude/Longitude (decimal degrees)			
MT-11	2972	Chickasaw Creek slough near park	sec. 17, T.3 S., R.1 W.	30.7862 - 88.1057	April 9, 2004	1110-1140	Electroboat
MT-12	2821	Tensaw River nr. Gravine Island	sec	30.8063 - 87.9283	May 13, 2004	1000-1230	Gill net
Weeks Bay System							
WB-1	2978	Cowpen Creek @ mouth	sec. 31, T.6 S., R.3 E.	30.4781 - 87.8052	April 8, 2004	1345-1405	Electroboat
WB-2	2975	Green Branch tributary	sec. 12, T.7 S., R.2 E.	30.4374 - 87.8237	April 8, 2004	1610-1630	Electroboat
WB-3	2976	Fish River bayou	sec. 18, T.7 S., R.3 E.	30.4369 - 87.8145	April 8, 2004	1545-1605	Electroboat
WB-4	2977	Fish River nr. Clay City	sec. 30, T.6 S., R.3 E.	30.4913 - 87.8052	April 8, 2004	1430-1500	Electroboat
Perdido River System							
P-1	2992	Blackwater River	sec. 34, T.6 S., R.6 E.	30.4843 - 87.4557	April 20, 2004	1530-1640	Electroboat
P-2	2807	Styx River @ large slough	sec. 16, T.6 S., R.6 E.	30.5254 - 87.4747	May 11, 2004	1715-1735	Electroboat
P-3	2806	Styx River downstream of power line	sec. 16, T.6 S., R.6 E.	30.5259 - 87.4804	May 11, 2004	1640-1705	Electroboat
P-4	2805	Styx River @ backwater upstream of power line	sec. 17, T.6 S., R.6 E.	30.5290 - 87.4859	May 11, 2004	1550-1620	Electroboat
P-5	2804	Styx River @ dog leg upstream of Soper Branch	sec. 7, T.6 S., R.6 E.	30.5379 - 87.4961	May 11, 2004	1520-1535	Electroboat
P-6	2803	Styx River @ unnamed tributary	sec. 7, T.6 S., R.6 E.	30.5456 - 87.4998	May 11, 2004	1405-1515	Electroboat
P-7	2801	Perdido River SE of Alligator Bayou	sec. 1, T.7 S., R.6 E.	30.4683 - 87.4277	April 22, 2004	1300-1615	Gill net
P-8	2999	Reeder Lake upper end	sec. 35, T.6 S., R.6 E.	30.4854 - 87.4439	April 22, 2004	1000-1100	Gill net

Table 1. Locations of fish sampling sites in the Escatawpa, Mobile-Tensaw, Fish, and Perdido River systems – Continued.

Site no.	GSA no.	Site name	Location		Date	Sample time	Method
			Section, Township, Range	Latitude/Longitude (decimal degrees)			
P-9	2993	Perdido River bayou 0.5 mi upstream Blackwater River	sec. 26, T.6 S., R.6 E.	30.4903 - 87.4331	April 20, 2004	1430-1500	Electroboat
P-10a	2994	Perdido River between Blackwater River and Black Lake	sec. 26, T.6 S., R.6 E.	30.4886 - 87.4323	April 20, 2004	1430-1630	Gill net
P-10b	2802				April 22, 2004	0830-1030	Gill net
P-11	2991	Perdido River slough W of Black Creek	sec. 26, T.6 S., R.6 E.	30.4888 - 87.4309	April 20, 2004	1700-1725	Electroboat
P-12a	2995	Perdido River @ Black Creek	sec. 26, T.6 S., R.6 E.	30.4875 - 87.4292	April 21, 2004	1500-1600	Gill net
P-12b	2998				April 22, 2004	1230-1600	Gill net
P-12c	2820				May 11, 2004	1300-1630	Gill net
7	P-13	Perdido River 0.25 mi. upstream Black Creek	sec. 26, T.6 S., R.6 E.	30.4910 - 87.4309	May 12, 2004	1445-1640	Gill net
P-14	2997	Perdido River nr. Browns Landing	sec. 26, T.6 S., R.6 E.	30.4965 - 87.4309	April 21, 2004	0900-1100	Gill net
P-15	2990	Perdido River slough nr. Browns Landing	sec. 26, T.6 S., R.6 E.	30.4979 - 87.4372	April 21, 2004	0830-0945	Electroboat
P-16	2996	Perdido River @ Styx River	sec. 22. T.6 S., R.6 E.	30.5141 - 87.4496	April 21, 2004	1440-1650	Gill net
P-17	2987	Perdido River @ old RR crossing	sec. 15, T.6 S., R.6 E.	30.5166 - 87.4459	April 21, 2004	1400-1450	Gill net
P-18	2813	Perdido River @ Hwy. 90	sec. 15, T.6 S., R.6 E.	30.5221 - 87.4472	May 12, 2004	1500-1515	Electroboat
P-19	2819	Perdido River slough	sec. 15, T.6 S., R.6 E.	30.5272 - 87.4473	May 12, 2004	0830-1100	Gill net
P-20	2988	Perdido River slough @ power line	sec. 11, T.6 S., R.6 E.	30.5322 - 87.4409	April 21, 2004	1300-1320	Electroboat
P-21	2989	Perdido River slough 0.25 mi. N. of power line	sec. 11, T.6 S., R.6 E.	30.5370 - 87.4427	April 21, 2004	1130-1230	Electroboat
P-22	2812	Perdido River	sec. 11, T.6 S., R.6 E.	30.5402 - 87.4382	May 12, 2004	1345-1405	Electroboat

Table 1. Locations of fish sampling sites in the Escatawpa, Mobile-Tensaw, Fish, and Perdido River systems – Continued.

Site no.	GSA no.	Site name	Location		Date	Sample time	Method
			Section, Township, Range	Latitude/Longitude (decimal degrees)			
P-23	2811	Perdido River	sec. 11, T.6 S., R.6 E.	30.5427 - 87.4353	May 12, 2004	1230-1330	Electroboat
P-24	2810	Perdido river slough	sec. 11, T.6 S., R.6 E.	30.5437 - 87.4351	May 12, 2004	1130-1145	Electroboat
P-25	2809	Perdido River	sec. 2, T.6 S., R.6 E.	30.5472 - 87.4353	May 12, 2004	1025-1125	Electroboat
P-26	2808	Perdido River	sec. 1, T.6 S., R.6 E.	30.5549 - 87.4269	May 12, 2004	0910-1010	Electroboat

fish on the bow would operate the foot pedal and dip net, placing the captured individuals in a live well. The generator was stopped after 10 minutes of pedal time and the catch identified, counted, and recorded. Some specimens were preserved in 10 to 20 percent formalin if identifications needed to be checked in the laboratory and when voucher specimens were needed if a new location was discovered for lesser known species. Most sites were sampled for two to three efforts and some were sampled for four efforts if the site was particularly diverse or yielded species for which we had little distributional information.

Monofilament gill nets were 200 feet long, 8 feet in depth tied down to 6 feet, and 2.5-inch bar with a 5.0-inch stretch. Gill nets were operated from an aluminum deck boat custom built for netting. Up to five nets were deployed at sampling sites, but in a few situations where time or habitat was limited only one or two nets were fished. All net sets were weighted to the bottom and the ends tagged with floating buoys. Nets remained in water for one to two hours after which time they were worked. Captured individuals were maintained in live wells on board, identified, counted, and then returned to the water.

Field notes concerning habitat and water conditions, special sampling conditions, sampling times, and catch statistics were made for each collection. Sampling sites were located with a hand held GPS unit and also referenced to a township-range grid and local geographic features. Preserved specimens were stored in the GSA Fish Collection and all sampling data were entered into a database for management and manipulation.

RESULTS AND DISCUSSION

Seventy species of fishes were collected during this investigation (table 2) represented by 2,750 individuals in 27 families. Catch varied considerably across the study area ranging from no catch in three gill net samples in the Perdido River (sites P-8, P-13, and P-12b) to 26 species at site MT-10 in Chickasaw Creek (appendix). Catch and species diversity were higher in samples collected with the electrofishing boat, averaging 182 individuals per hour of pedal sample time and 13.1 species per sample, compared to 2.1 individuals per net and 2.2 species per sample for gill net collections. Catch rates for the electrofishing boat gear varied across drainages. Samples from the Escatawpa River system averaged 16.2 species and 121 individuals per hour, samples from the Mobile-Tensaw River Delta tributaries averaged 14.1 species and 218 individuals per hour, while samples from the Perdido River system averaged 12.6 species and 151 individuals per hour. Electrofishing gear was more efficient at collecting a variety of species and sampling small, shallow habitats whereas gill nets were most effective for collecting large species like paddlefish, Gulf sturgeon, and flathead catfish that prefer larger river habitat.

Mirarchi and others (2004) listed two species that occur in the coastal area as highest conservation concern (P1): the ironcolor shiner (*Notropis chalybaeus*) and the brighteye darter (*Etheostoma lynceum*). Two other species were listed as high conservation concern (P2); the Gulf sturgeon (*Acipenser oxyrinchus desotoi*) and the Alabama shad (*Alosa alabamae*). The blackmouth shiner (*Notropis melanostomus*), unknown in Alabama prior to preparation of the state imperiled fauna list, was discovered recently in Bay Minette Creek. Although not officially listed for conservation concern as of this date, the blackmouth shiner should be added as a species of highest conservation concern (P1) in Alabama because of its rarity and apparently restricted distribution.

SPECIES OF CRITICAL CONSERVATION CONCERN

Brighteye darter (P1)

The brighteye darter occurs in streams of the upper Coastal Plain generally east of the Mississippi River from the Obion River system in Kentucky and Tennessee, south to the Pascagoula River system in Mississippi and Alabama, and west to the Lake Pontchartrain system in Louisiana. In Alabama, the brighteye darter reaches its southeast range limit in the Escatawpa

Table 2. List of fish species collected in the Escatawpa, Mobile-Tensaw, Fish, and Perdido rivers, 2004.

Scientific - common name	Escatawpa River	Mobile-Tensaw River	Fish River	Perdido River	Total
Petromyzontidae <i>Ichthyomyzon gagei</i> - southern brook lamprey	5	--	--	--	5
Dasyatidae <i>Dasyatis sabina</i> - Atlantic stingray	--	14	--	--	14
Acipenseridae <i>Acipenser oxyrinchus desotoi</i> - Gulf sturgeon	--	--	--	1	1
Polyodontidae <i>Polyodon spatula</i> - paddlefish	--	2	--	--	2
Lepisosteidae <i>Lepisosteus oculatus</i> - spotted gar <i>Lepisosteus osseus</i> - longnose gar	3 1	54 4	7 --	10 73	74 78
Amiidae <i>Amia calva</i> - bowfin	--	11	1	3	15
Anguillidae <i>Anguilla rostrata</i> - American eel	--	--	1	5	6
Engraulidae <i>Anchoa mitchilli</i> - bay anchovy	--	--	104	--	104
Clupeidae <i>Brevoortia patronus</i> - Gulf menhaden <i>Dorosoma cepedianum</i> - gizzard shad	-- --	6 6	-- --	-- --	6 6
Cyprinidae <i>Ctenopharyngodon idella</i> - grass carp <i>Cyprinella venusta</i> - blacktail shiner <i>Lythrurus roseipinnis</i> - cherryfin shiner <i>Notemigonus crysoleucas</i> - golden shiner <i>Notropis longirostris</i> - longnose shiner <i>Notropis maculatus</i> - taillight shiner <i>Notropis melanostomus</i> - blackmouth shiner <i>Notropis petersoni</i> - coastal shiner <i>Notropis texanus</i> - weed shiner <i>Opsopoeodus emiliae</i> - pugnose minnow <i>Pteronotropis hypselopterus</i> - sailfin shiner	-- 64 17 -- 3 -- -- -- 5 --	-- 2 -- 1 -- 116 27 14 54 --	-- -- -- -- -- -- -- -- 80 --	1 31 -- 3 -- 28 -- 7 68 9	1 97 17 4 3 144 27 21 207 29 9
Catostomidae <i>Carpoides velifer</i> - highfin carpsucker <i>Erimyzon suetta</i> - lake chubsucker <i>Erimyzon tenuis</i> - sharpfin chubsucker <i>Ictiobus bubalus</i> - smallmouth buffalo <i>Minytrema melanops</i> - spotted sucker <i>Moxostoma poecilurum</i> - blacktail redhorse	-- -- -- -- 12 21	1 1 104 26 8 2	-- -- 1 -- 4 --	-- 14 51 -- 50 82	1 15 156 26 74 105
Ictaluridae <i>Ameiurus natalis</i> - yellow bullhead <i>Ictalurus furcatus</i> - blue catfish <i>Ictalurus punctatus</i> - channel catfish <i>Noturus leptacanthus</i> - speckled madtom <i>Noturus nocturnus</i> - freckled madtom <i>Pylodictis olivaris</i> - flathead catfish	-- -- 83 7 17 7	1 3 3 -- -- 1	-- -- -- -- -- --	-- -- 2 1 -- 1	1 3 88 8 17 9
Ariidae <i>Ariopsis felis</i> - hardhead catfish <i>Bagre marinus</i> - gafftopsail catfish	-- --	11 --	-- --	2 16	13 16
Esocidae <i>Esox americanus</i> - redfin pickerel <i>Esox niger</i> - chain pickerel	-- --	-- 19	-- 1	1 9	1 29

Table 2. List of fish species collected in the Escatawpa, Mobile-Tensaw, Fish, and Perdido rivers, 2004.

Scientific - common name	Escatawpa River	Mobile-Tensaw River	Fish River	Perdido River	Total
Aphredoderidae <i>Aphredoderus sayanus</i> - pirate perch	--	--	--	7	7
Mugilidae <i>Mugil cephalus</i> - striped mullet	--	16	14	10	40
Atherinopsidae <i>Labidesthes sicculus</i> - brook silverside	14	70	4	71	159
Belonidae <i>Strongylura marina</i> - Atlantic needlefish	--	1	--	--	1
Fundulidae <i>Fundulus chrysotus</i> - golden topminnow <i>Fundulus cingulatus</i> - banded topminnow <i>Fundulus escambiae</i> - russetfin topminnow <i>Fundulus notti</i> - bayou topminnow <i>Fundulus olivaceus</i> - blackspotted topminnow <i>Lucania parva</i> - rainwater killifish	-- -- -- -- 9 --	3 -- -- 63 4 7	-- 4 -- -- -- 4	-- 9 1 10 23 --	3 4 9 64 23 11
Poeciliidae <i>Gambusia holbrooki</i> - eastern mosquitofish <i>Heterandria formosa</i> - least killifish	-- --	17 3	9 --	20 --	46 3
Centrarchidae <i>Ambloplites ariommus</i> - shadow bass <i>Enneacanthus gloriosus</i> - bluespotted sunfish <i>Lepomis gulosus</i> - warmouth <i>Lepomis macrochirus</i> - bluegill <i>Lepomis marginatus</i> - dollar sunfish <i>Lepomis megalotis</i> - longear sunfish <i>Lepomis microlophus</i> - redear sunfish <i>Lepomis miniatus</i> - redspotted sunfish <i>Micropterus punctulatus</i> - spotted bass <i>Micropterus salmoides</i> - largemouth bass <i>Pomoxis nigromaculatus</i> - black crappie	18 -- -- 12 -- 76 1 1 35 3 --	-- 51 32 80 -- 10 25 19 -- 48 3	-- -- 2 12 2 -- 3 1 -- 5 --	3 -- 51 113 99 	21 51 85 217 185 51 75 135 39 4
Percidae <i>Ammocrypta beanii</i> - naked sand darter <i>Etheostoma lynceum</i> - brighteye darter <i>Perca flavescens</i> - yellow perch <i>Percina nigrofasciata</i> - blackbanded darter	1 2 -- 26	-- -- 1 --	-- -- 2 2	-- -- -- 10	1 2 1 38
Sparidae <i>Archosargus probatocephalus</i> - sheepshead	--	--	--	1	1
Sciaenidae <i>Aplodinotus grunniens</i> - freshwater drum	--	5	--	--	5
Elassomatidae <i>Elassoma zonatum</i> - banded pygmy sunfish	--	2	--	3	5
Paralichthyidae <i>Paralichthys lethostigma</i> - southern flounder	--	2	--	--	2
Achiridae <i>Trinectes maculatus</i> - hogchoker	--	1	--	--	1
Total species	25	48	20	43	70
Total individuals	443	983	261	1,063	2,750

River system in west Mobile County and southwest Washington County. Populations of the brighteye darter are known from just a few stream systems in these counties with most individuals taken in Puppy Creek and Big Creek, both in Mobile County. Its perceived rarity in Alabama may be related to insufficient sampling throughout its range in the state.

Brighteye darters were found at only one site in the main channel of Escatawpa River (E-2) during this survey. The two individuals were taken in flow over a large submerged log embedded over 50 percent with sand and mud. Beckham (1973) reported only two individuals from Big Creek in Alabama in his study of the Escatawpa River. Studies of the aquatic fauna in two Escatawpa River tributaries draining the Citronelle Oil Field, Puppy Creek and Bennett Creek (Mettee and others, 1983; O'Neil and others, 1984), revealed that a sustainable population of brighteye darters occurred over 20 years ago in Puppy Creek based on the collection of 148 individuals in 16 samples out of 24 total samples taken. No brighteye darters were taken in nine samples collected from Bennett Creek, a tributary just north of Puppy Creek, during the same survey (O'Neil and others, 1984). One collection made in Puppy Creek by GSA in August 1992 (GSA 4301) had eight individuals that were found in the same preferred habitat sampled in 1980-82. Individuals collected in samples taken in the early 1980s ranged from 15 to 43 mm SL while the number collected per sample ranged from 1 to 39 individuals (average 9.3). Brighteye darters were restricted to a clay bedrock shoal area where Puppy Creek had carved 1.0 to 3.25 feet (0.3 to 1.0 m) deep channels. Darters were consistently found in or near aquatic vegetation clumps in areas of moderate to swift flow. Collection data suggests that where found, brighteye darters are likely sustaining their population numbers but that they are restricted to structure, either aquatic vegetation or snags, in flowing areas of streams.

Puppy Creek from Ala. Hwy. 217 to its source has been listed on the Alabama Department of Environmental Management section 303(d) list of impaired waters for pathogens due to urban runoff and storm sewer runoff. As such, the Puppy Creek population appears vulnerable over time to the cumulative effects of nonpoint source pollution due to both urban expansion of the Citronelle community and potential runoff and spills from the Citronelle Oil Field. The city of Mobile is already encroaching on brighteye darter habitat in the Big Creek system. Additional

sampling in tributaries to the Escatawpa River as well as the main channel should reveal new locations where the brighteye darter occurs in the system.

Blackmouth shiner (P1 - proposed)

Bortone (1989) described the blackmouth shiner (*Notropis melanostomus*) from specimens collected in Pond Creek and the Blackwater River in northwest Florida. He reported a habitat preference of quiet, backwater areas with shiners occurring most commonly in offshore pools 3 feet deep (Bortone, 1993). Suttkus and Bailey (1990) later reported additional blackmouth shiner populations in the Florida portion of the Yellow River system and in the Pascagoula River system in southeast Mississippi, indicating a preferred habitat of sluggish or stagnant waters usually well vegetated. Ross (2001) reported blackmouth shiners from lower Black Creek, Chickasawhay River and Pascagoula River systems in southeast Mississippi indicating that oxbow lakes were favored. While on a survey to collect specimens of the yellow perch in Bay Minette Creek, James D. Williams of the U.S. Geological Survey, Florida Integrated Science Center, preserved several specimens of small shiners he collected while electrofishing on April 16, 2003. Williams later identified 14 specimens out of the lot as blackmouth shiners and these are deposited in the University of Alabama Ichthyological Collection (UAIC 13866.01). This is the first reported record of the blackmouth shiner in Alabama, although a precise location was unknown at the time of preservation.

During sampling in Bay Minette Creek for this project 27 individuals of the blackmouth shiner were discovered in Bay Minette Creek at site MT-12a (appendix) on March 26, 2004 (GSA 2971). The specimens were taken in a small backwater bayou off the main channel of Bay Minette Creek. The bayou was about 6.5 feet (2.0 m) deep in the center shallowing to 1.6 feet (0.5 m) or less near shore. The shoreline had a thick growth of emergent and submerged aquatic vascular plants, and golden club (*Orontium*) was the dominant species (fig. 2).

The entire shoreline and deeper open water areas were sampled with the small electrofishing boat, but blackmouth shiners were only found in one restricted area near the northeast shore over an area of thick golden club growth. The shiners were schooling within a thick vegetation mat below open water. When the electroboat was activated, the shiners popped out of the vegetation mat. The shoreline and open water of the bayou and shoreline of main



Figure 2. Photos of blackmouth shiner habitat in Bay Minette Creek.

channel Bay Minette Creek were fished for 70 minutes of pedal time and no additional blackmouth shiners were found either in the bayou or in Bay Minette Creek proper. The bayou site and exact spot where the shiners were collected was sampled a second time on May 13, 2004, and no shiners were taken after 48 minutes of pedal time.

Discovery of this small population of blackmouth shiners prompted sampling at additional locations in Bay Minette Creek (MT-2, MT-3, and MT-4) on May 13, 2004, but no shiners were found. Several locations on tributaries to the Mobile River on the west side of the Mobile-Tensaw River Delta were also sampled. Three locations were sampled in Gunnison Creek (MT-5, MT-6, and MT-7) and three locations were sampled in Chickasaw Creek (MT-9, MT-10, MT-11), but no blackmouth shiners were found. Most of these sites supported habitat that was considered to be very representative of the habitat where blackmouth shiners were found in Bay Minette Creek.

Bernard Kuhajda of the University of Alabama has presented recent unpublished findings that *Notropis melanostomus* is variable across its range based on morphological and molecular data and may consist of at least two distinct taxonomic entities. Because of limited distribution throughout its range and in Alabama, the blackmouth shiner should be added to Alabama's list of imperiled fauna at a level of highest conservation concern (P1). The blackmouth shiner is currently listed as endangered in Florida by the Fish and Wildlife Conservation Commission.

Gulf sturgeon (P2)

A recovery and management plan for the Gulf sturgeon was published in 1995 (U.S. Fish and Wildlife Service, 1995) and critical habitat was officially designated March 19, 2003 (68 FR 13369-13495). The Conecuh, Yellow, and Choctawhatchee River systems were designated as critical habitat in Alabama for the Gulf sturgeon. The Mobile River basin and Perdido River system were not designated because of limited data to substantiate the presence of sustainable, reproducing populations. Records reported in the recovery plan date from 1972, when several hundred individuals were sighted feeding at the mouth of the Blakeley River, to 1993 when a live sturgeon was captured in the Bayou LaBatre area and later tagged. Sightings over the intervening years were of lone individuals captured in Mobile Bay, Mobile River, Tensaw River, Blakeley River, Tombigbee River and the Alabama River. The U.S. Fish and Wildlife Service recently reported that several Gulf sturgeon tagged in river systems to the east of Mobile Bay were found

moving along the Alabama coastline in near shore marine environments. No individuals have ever been reported from the Perdido River system on the Alabama-Florida state line.

A single individual of the Gulf sturgeon was captured on April 20, 2004 during this study at station P-10a in the Perdido River, approximately 0.5 mile (0.8 km) upstream of the mouth of Blackwater River. It was captured at 1635 hours (h) in a gill net set on the bottom in 14 feet (4 m) of water, measured 765 mm total length, and weighed 2,050 grams. Water temperature at time of collection was 21°C. Interestingly, all five nets that were set at this site had extensive accumulations of jellyfish. High tide at Perdido Pass on April 20 occurred at 1153 h while low tide occurred at 2151 h indicating the sturgeon was captured on an outgoing tide.

This is the first confirmed record of the Gulf sturgeon in the drainage and raises many questions concerning the distribution, occurrence, and abundance of the species in the Perdido system. Gulf sturgeon are known to utilize the Yellow River system for spawning based on the collection of juvenile individuals in the Alabama portion of the system and because bedrock spawning substrate is present in the upper reaches of the river proper. The Perdido River system has not been thoroughly surveyed along its length for either sturgeon or potential spawning habitat but the potential for the existence of an active population is possible based on similarities in hydrologic characteristics and geology. The Yellow and Perdido systems are similar in watershed area and water yields (table 3) indicating that flow, adequate to support sturgeon reproduction, would be available in the Perdido as now exists in the Yellow.

Table 3. Watershed and hydrologic comparisons between Perdido and Yellow Rivers.

	Perdido River	Yellow River
Drainage area at mouth	980	1,337
Gaging station	Perdido River @ Barrineau Park	Yellow river @ Milligan
USGS station number	02376500	02368000
Drainage area at gaging station	394	624
Period of record	1942-2002	1939-2002
Average annual flow (ft ³ /s)	773	1,154
Water yield (ft ³ /s/mi ²)	1.96	1.85

Also, the surficial geology is similar between the two systems with alluvium of Quarternary age occurring along main river trunks and tributary channels and Miocene clays and sand of Tertiary age occurring further upstream. Sampling this year was confined to the lower reaches of the Perdido River main channel and lower reaches of the Styx and Blackwater River, which are all located within a large area of Quarternary alluvium. The Miocene occurs further upstream in the Perdido, and also in the Yellow, and the upper Perdido should be surveyed for the presence of bedrock outcrops along its middle and upper reaches for the presence of deep holes and side channels that could serve as sturgeon reproduction habitat. In addition, the lower reaches of the Perdido River and Perdido Bay proper should be surveyed for the presence of Gulf sturgeon.

The ironcolor shiner (*Notropis chalybaeus*) is listed as a P1 species and was not collected during this survey. It is typically found in small, blackwater coastal streams draining swamps and vegetated wetlands. This species is generally not found in larger streams and rivers which were the target habitats of this study. The Alabama shad (*Alosa alabamae*) is listed as a P2 species and was also not collected during this years sampling effort.

Other species were collected that are of interest because of new drainage records or, in the case of poorly known species, their collection represents new locations in Alabama. Two paddlefish (*Polyodon spathula*) were netted in the lower Tensaw River near Gravine Island (MT-12) but, of more interest is that during this sample period four paddlefish were located that had been sonic tagged by GSA approximately 170 miles upstream at Millers Ferry. This finding has expanded our ideas about where paddlefish move in the Alabama River and Mobile-Tensaw River Delta complex (Mettee and others, 2004). The coastal shiner (*Notropis petersoni*) was found at four stations (21 individuals) in the study area (MT-3, P-6, P-9, P-15) and the taillight shiner (*Notropis maculatus*) was found at 7 stations (144 individuals) in the study area (MT-1a, MT-1b, MT-4, MT-6, MT-7, MT-10, P-2, P-22). When found, taillight shiners were somewhat abundant over submerged vegetation at the mouths of small off-stream bayous. The single individual of the flathead catfish (*Pylodictis olivaris*) represents the first official record of that species in the Perdido River system. Conversations with a local fisherman revealed that he catches flatheads at times in the lower Perdido River, so there appears to be a small population in that part of the

drainage. The freckled madtom (*Noturus nocturnus*) was found at all five stations in the Escatawpa River (17 individuals). The preferred habitat of this species is deep runs with moderate flow over log and debris snags which were easily sampled with the electrofishing boat. The golden topminnow (*Fundulus chrysotus*) was found at one station (MT-3) in Bay Minette Basin while the banded topminnow (*Fundulus cingulatus*) was found at two stations in Fish River (WB-2, WB-3). The least killifish (*Heterandria formosa*) was also found at site MT-3 in Bay Minette Basin. Bluespotted sunfish (*Enneacanthus gloriosus*) were found exclusively in tributaries to the Mobile-Tensaw River Delta complex at 6 stations (MT-1a, MT1b, MT-3, MT-6, MT-7, MT-10, MT11) and were somewhat common at sites MT-1 and MT-7. One individual of the yellow perch (*Perca flavescens*) was captured at site 12-1b in Bay Minette Creek.

Streams in the study area were particularly rich in species and numbers of fishes in the family Centrarchidae. Eleven species were found and 32 percent of all fishes collected this year were from the family Centrarchidae. Out of all Centrarchids collected, bluegill (*Lepomis macrochirus*) were most abundant (24 percent) followed by longear sunfish (*Lepomis megalotis*) at 21 percent, largemouth bass (*Micropterus salmoides*) at 15 percent, warmouth (*Lepomis gulosus*) at 9.5 percent, and redspotted sunfish (*Lepomis miniatus*) at 8.4 percent. Centrarchids were also frequently encountered over the study area. Bluegill were found at 33 out of 47 total sites sampled, largemouth bass were found at 30 sites, warmouth at 25 sites, longear sunfish at 22 sites, redspotted sunfish at 19 sites, and redear sunfish at 18 sites.

Sampling during the second year is planned to include smaller stream sites in the Escatawpa River system, additional sites in tributaries to the lower Mobile-Tensaw River Delta, large river sites in the lower Delta proper, and a few sites in lower Perdido River/Perdido Bay and the Perdido River proper upstream of 2004 sampling sites. Sampling during the third year will tentatively include sites in the Yellow and Blackwater Rivers, and sites in lower Big Escambia Creek and Conecuh River.

SUMMARY

Seventy species of fishes were collected during this investigation represented by 2,750 individuals in 27 families. Catch varied considerably across the study area ranging from no catch to 26 species. Catch and species diversity were higher in samples collected with the electrofishing boat but varied across drainages. Samples from the Escatawpa River system were lowest in catch while samples from the Mobile-Tensaw River delta tributaries were highest. Electrofishing gear was more efficient at collecting a variety of species and sampling small, shallow habitats whereas gill nets were most effective for collecting large species like paddlefish, gulf sturgeon, and flathead catfish that prefer large river habitat.

Collection of the Gulf sturgeon (*Acipenser oxyrinchus desotoi*) in the Perdido River is the first record from that system and is significant because the Perdido River was not listed as critical habitat for this species. If more Gulf sturgeon are found in the Perdido over the next two years of sampling, it may indicate that they are using this system for reproduction or other critical life history needs, necessitating the need to reconsider the Perdido River as critical habitat for the Gulf sturgeon. Discovery of a specific location for the blackmouth shiner (*Notropis melanostomus*) in Bay Minette Creek was a significant finding and will help to better understand the distribution and biology of this species in the state. The blackmouth shiner was unknown in Alabama at the time the official state imperiled species list was compiled. However, since its discovery in 2003 and our work this year, we conclude that it should be added as a species of highest conservation concern. Two paddlefish (*Polyodon spathula*) were collected in the lower Tensaw River near Gravine Island; more interestingly, on that same day, four paddlefish were located that had been sonic-tagged approximately 170 miles upstream at Millers Ferry on the Alabama River. This finding has led to a host of new theories concerning the migration patterns of this species in the Mobile River system. New locations for several other poorly known species were found, including the taillight shiner (*Notropis maculatus*), coastal shiner (*Notropis petersoni*), freckled madtom (*Noturus nocturnus*), least killifish (*Heterandria formosa*), and the bluespotted sunfish (*Enneacanthus gloriosus*).

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Appendix

Collection data for samples in the Escatawpa, Mobile-Tensaw, Fish, and
Perdido River systems

Scientific name	Common name	Station					
		E-1	E-2	E-3	E-4	E-5	MT-1a
Petromyzontidae <i>Ichthyomyzon gagei</i>	southern brook lamprey	--	2	3	--	--	--
Dasyatidae <i>Dasyatis sabina</i>	Atlantic stingray	--	--	--	--	--	--
Acipenseridae <i>Acipenser oxyrinchus desotoi</i>	Gulf sturgeon	--	--	--	--	--	--
Polyodontidae <i>Polyodon spatula</i>	paddlefish	--	--	--	--	--	--
Lepisosteidae <i>Lepisosteus oculatus</i>	spotted gar	--	1	--	1	1	2
	<i>Lepisosteus osseus</i>	longnose gar	--	--	--	1	--
Amiidae <i>Amia calva</i>	bowfin	--	--	--	--	--	--
Anguillidae <i>Anguilla rostrata</i>	American eel	--	--	--	--	--	--
Engraulidae <i>Anchoa mitchilli</i>	bay anchovy	--	--	--	--	--	--
Clupeidae <i>Brevoortia patronus</i>	Gulf menhaden	--	--	--	--	--	--
	<i>Dorosoma cepedianum</i>	gizzard shad	--	--	--	--	--
Cyprinidae							
<i>Ctenopharyngodon idella</i>	grass carp	--	--	--	--	--	--
<i>Cyprinella venusta</i>	blacktail shiner	14	20	8	8	14	--
<i>Lythrurus roseipinnis</i>	cherryfin shiner	--	3	13	--	1	--
<i>Notemigonus crysoleucas</i>	golden shiner	--	--	--	--	--	--
<i>Notropis longirostris</i>	longnose shiner	1	--	2	--	--	--
<i>Notropis maculatus</i>	taillight shiner	--	--	--	--	--	9
<i>Notropis melanostomus</i>	blackmouth shiner	--	--	--	--	--	27
<i>Notropis petersoni</i>	coastal shiner	--	--	--	--	--	--
<i>Notropis texanus</i>	weed shiner	--	2	2	--	1	1
<i>Opsopoeodus emiliae</i>	pugnose minnow	--	--	--	--	--	8
<i>Pteronotropis hypselopterus</i>	sailfin shiner	--	--	--	--	--	--
Catostomidae							
<i>Carpoides velifer</i>	highfin carpsucker	--	--	--	--	--	--
<i>Erimyzon sucetta</i>	lake chubsucker	--	--	--	--	--	1
<i>Erimyzon tenuis</i>	sharpfin chubsucker	--	--	--	--	--	6
<i>Ictiobus bubalus</i>	smallmouth buffalo	--	--	--	--	--	1
<i>Minytrema melanops</i>	spotted sucker	1	4	5	1	1	--
<i>Moxostoma poecilurum</i>	blacktail redhorse	2	4	9	2	4	1
Ictaluridae							
<i>Ameiurus natalis</i>	yellow bullhead	--	--	--	--	--	--
<i>Ictalurus furcatus</i>	blue catfish	--	--	--	--	--	--
<i>Ictalurus punctatus</i>	channel catfish	5	12	57	5	4	--
<i>Noturus leptacanthus</i>	speckled madtom	2	--	4	1	--	--
<i>Noturus nocturnus</i>	freckled madtom	3	4	7	2	1	--
<i>Pygocentrus olivaris</i>	flathead catfish	3	--	1	--	3	--
Ariidae							
<i>Ariopsis felis</i>	hardhead catfish	--	--	--	--	--	--
<i>Bagre marinus</i>	gafftopsail catfish	--	--	--	--	--	--

Scientific name	Common name	Station					
		E-1	E-2	E-3	E-4	E-5	MT-1a
Esocidae							
<i>Esox americanus</i>	redfin pickerel	--	--	--	--	--	--
<i>Esox niger</i>	chain pickerel	--	--	--	--	--	4
Aphredoderidae							
<i>Aphredoderus sayanus</i>	pirate perch	--	--	--	--	--	--
Mugilidae							
<i>Mugil cephalus</i>	striped mullet	--	--	--	--	--	--
Atherinopsidae							
<i>Labidesthes sicculus</i>	brook silverside	4	3	6	--	1	18
Belonidae							
<i>Strongylura marina</i>	Atlantic needlefish	--	--	--	--	--	--
Fundulidae							
<i>Fundulus chrysotus</i>	golden topminnow	--	--	--	--	--	--
<i>Fundulus cingulatus</i>	banded topminnow	--	--	--	--	--	--
<i>Fundulus escambiae</i>	russetfin topminnow	--	--	--	--	--	--
<i>Fundulus notti</i>	bayou topminnow	--	--	--	--	--	11
<i>Fundulus olivaceus</i>	blackspotted topminnow	2	--	7	--	--	--
<i>Lucania parva</i>	rainwater killifish	--	--	--	--	--	--
Poeciliidae							
<i>Gambusia holbrooki</i>	eastern mosquitofish	--	--	--	--	--	--
<i>Heterandria formosa</i>	least killifish	--	--	--	--	--	--
Centrarchidae							
<i>Ambloplites ariommus</i>	shadow bass	6	1	7	1	3	--
<i>Enneacanthus gloriosus</i>	bluespotted sunfish	--	--	--	--	--	8
<i>Lepomis gulosus</i>	warmouth	--	--	--	--	--	1
<i>Lepomis macrochirus</i>	bluegill	3	2	5	--	2	1
<i>Lepomis marginatus</i>	dollar sunfish	--	--	--	--	--	--
<i>Lepomis megalotis</i>	longear sunfish	25	15	22	6	8	--
<i>Lepomis microlophus</i>	redear sunfish	--	--	1	--	--	4
<i>Lepomis miniatus</i>	redspotted sunfish	--	1	--	--	--	1
<i>Micropterus punctulatus</i>	spotted bass	11	7	5	4	8	--
<i>Micropterus salmoides</i>	largemouth bass	--	--	2	1	--	1
<i>Pomoxis nigromaculatus</i>	black crappie	--	--	--	--	--	--
Percidae							
<i>Ammocrypta beanii</i>	naked sand darter	--	1	--	--	--	--
<i>Etheostoma lynceum</i>	brighteye darter	--	2	--	--	--	--
<i>Perca flavescens</i>	yellow perch	--	--	--	--	--	--
<i>Percina nigrofasciata</i>	blackbanded darter	4	10	9	3	--	--
Sparidae							
<i>Archosargus probatocephalus</i>	sheepshead	--	--	--	--	--	--
Sciaenidae							
<i>Aplodinotus grunniens</i>	freshwater drum	--	--	--	--	--	--
Elassomatidae							
<i>Elassoma zonatum</i>	banded pygmy sunfish	--	--	--	--	--	--
Paralichthyidae							
<i>Paralichthys lethostigma</i>	southern flounder	--	--	--	--	--	--
Achiridae							
<i>Trinectes maculatus</i>	hogchoker	--	--	--	--	--	--
Total species		15	18	20	12	15	18
Total individuals		86	94	175	35	53	105
Sample time (hours)		0.75	0.46	0.83	0.54	0.51	1.16
Sampling method, [(n) refers to number of gill nets]		electro	electro	electro	electro	electro	electro

Scientific name	Common name	MT-1b	MT-2	MT-3	MT-4	MT-5	MT-6
Petromyzontidae <i>Ichthyomyzon gagei</i>	southern brook lamprey	--	--	--	--	--	--
Dasyatidae <i>Dasyatis sabina</i>	Atlantic stingray	--	--	--	--	--	--
Acipenseridae <i>Acipenser oxyrinchus desotoi</i>	Gulf sturgeon	--	--	--	--	--	--
Polyodontidae <i>Polyodon spatula</i>	paddlefish	--	--	--	--	--	--
Lepisosteidae <i>Lepisosteus oculatus</i>	spotted gar	6	2	5	2	8	4
	<i>Lepisosteus osseus</i>	1	--	--	--	2	--
Amiidae <i>Amia calva</i>	bowfin	1	--	--	--	3	1
Anguillidae <i>Anguilla rostrata</i>	American eel	--	--	--	--	--	--
Engraulidae <i>Anchoa mitchilli</i>	bay anchovy	--	--	--	--	--	--
Clupeidae <i>Brevoortia patronus</i>	Gulf menhaden	--	--	--	--	--	--
	<i>Dorosoma cepedianum</i>	--	--	--	--	--	--
Cyprinidae <i>Ctenopharyngodon idella</i>	grass carp	--	--	--	--	--	--
	<i>Cyprinella venusta</i>	blacktail shiner	--	--	--	--	--
	<i>Lythrurus roseipinnis</i>	cherryfin shiner	--	--	--	--	--
	<i>Notemigonus crysoleucas</i>	golden shiner	1	--	--	--	--
	<i>Notropis longirostris</i>	longnose shiner	--	--	--	--	--
	<i>Notropis maculatus</i>	taillight shiner	66	--	--	1	--
	<i>Notropis melanostomus</i>	blackmouth shiner	--	--	--	--	--
	<i>Notropis petersoni</i>	coastal shiner	--	--	14	--	--
	<i>Notropis texanus</i>	weed shiner	--	--	--	--	--
	<i>Opsopoeodus emiliae</i>	pugnose minnow	--	--	--	2	--
	<i>Pteronotropis hypselopterus</i>	sailfin shiner	--	--	--	--	--
Catostomidae <i>Carpoides velifer</i>	highfin carpsucker	--	--	--	--	--	--
	<i>Erimyzon sucetta</i>	lake chubsucker	--	--	--	--	--
	<i>Erimyzon tenuis</i>	sharpfin chubsucker	30	3	--	9	7
	<i>Ictiobus bubalus</i>	smallmouth buffalo	--	--	--	--	2
	<i>Minytrema melanops</i>	spotted sucker	--	1	--	1	--
	<i>Moxostoma poecilurum</i>	blacktail redhorse	--	--	--	--	--
Ictaluridae <i>Ameiurus natalis</i>	yellow bullhead	1	--	--	--	--	--
	<i>Ictalurus furcatus</i>	blue catfish	--	--	--	--	--
	<i>Ictalurus punctatus</i>	channel catfish	1	--	--	--	1
	<i>Noturus leptacanthus</i>	speckled madtom	--	--	--	--	--
	<i>Noturus nocturnus</i>	freckled madtom	--	--	--	--	--
	<i>Pygocentrus olivaris</i>	flathead catfish	--	--	--	--	--
Ariidae <i>Ariopsis felis</i>	hardhead catfish	--	--	--	--	--	--
	<i>Bagre marinus</i>	gafftopsail catfish	--	--	--	--	--

Scientific name	Common name	MT-1b	MT-2	MT-3	MT-4	MT-5	MT-6
Esocidae <i>Esox americanus</i>	redfin pickerel	--	--	--	--	--	--
<i>Esox niger</i>	chain pickerel	6	1	--	--	2	2
Aphredoderidae <i>Aphredoderus sayanus</i>	pirate perch	--	--	--	--	--	--
Mugilidae <i>Mugil cephalus</i>	striped mullet	--	--	--	--	3	2
Atherinopsidae <i>Labidesthes sicculus</i>	brook silverside	25	--	--	1	--	3
Belonidae <i>Strongylura marina</i>	Atlantic needlefish	--	--	--	--	--	--
Fundulidae <i>Fundulus chrysotus</i>	golden topminnow	--	--	3	--	--	--
<i>Fundulus cingulatus</i>	banded topminnow	--	--	--	--	--	--
<i>Fundulus escambiae</i>	russetfin topminnow	--	--	--	--	--	--
<i>Fundulus notti</i>	bayou topminnow	31	6	--	--	--	2
<i>Fundulus olivaceus</i>	blackspotted topminnow	--	--	--	--	--	--
<i>Lucania parva</i>	rainwater killifish	--	--	7	--	--	--
Poeciliidae <i>Gambusia holbrooki</i>	eastern mosquitofish	2	--	4	9	--	--
<i>Heterandria formosa</i>	least killifish	--	--	3	--	--	--
Centrarchidae <i>Ambloplites ariommus</i>	shadow bass	--	--	--	--	--	--
<i>Enneacanthus gloriosus</i>	bluespotted sunfish	12	--	3	--	--	1
<i>Lepomis gulosus</i>	warmouth	3	1	7	--	2	4
<i>Lepomis macrochirus</i>	bluegill	12	4	6	4	6	6
<i>Lepomis marginatus</i>	dollar sunfish	--	--	--	--	--	--
<i>Lepomis megalotis</i>	longear sunfish	--	--	--	--	--	1
<i>Lepomis microlophus</i>	redear sunfish	5	--	8	--	--	1
<i>Lepomis miniatus</i>	redspotted sunfish	--	--	13	--	2	--
<i>Micropterus punctulatus</i>	spotted bass	--	--	--	--	--	--
<i>Micropterus salmoides</i>	largemouth bass	5	2	3	1	6	5
<i>Pomoxis nigromaculatus</i>	black crappie	--	--	--	--	--	--
Percidae <i>Ammocrypta beanii</i>	naked sand darter	--	--	--	--	--	--
<i>Etheostoma lynceum</i>	brighteye darter	--	--	--	--	--	--
<i>Perca flavescens</i>	yellow perch	1	--	--	--	--	--
<i>Percina nigrofasciata</i>	blackbanded darter	--	--	--	--	--	--
Sparidae <i>Archosargus probatocephalus</i>	sheepshead	--	--	--	--	--	--
Sciaenidae <i>Aplodinotus grunniens</i>	freshwater drum	--	--	--	--	--	1
Elassomatidae <i>Elassoma zonatum</i>	banded pygmy sunfish	--	--	--	--	--	--
Paralichthyidae <i>Paralichthys lethostigma</i>	southern flounder	--	--	1	--	--	--
Achiridae <i>Trinectes maculatus</i>	hogchoker	--	--	--	--	--	--
Total species		18	8	13	9	12	17
Total individuals		209	20	77	30	44	63
Sample time (hours)		0.79	0.18	0.55	0.17	0.20	0.25
Sampling method, [(n) refers to number of gill nets]		electro	electro	electro	electro	electro	electro

Scientific name	Common name	Station					
		MT-7	MT-8	MT-9	MT-10	MT-11	MT-12
Petromyzontidae <i>Ichthyomyzon gagei</i>	southern brook lamprey	--	--	--	--	--	--
Dasyatidae <i>Dasyatis sabina</i>	Atlantic stingray	--	--	--	--	--	14
Acipenseridae <i>Acipenser oxyrinchus desotoi</i>	Gulf sturgeon	--	--	--	--	--	--
Polyodontidae <i>Polyodon spatula</i>	paddlefish	--	--	--	--	--	2
Lepisosteidae <i>Lepisosteus oculatus</i>	spotted gar	2	--	4	9	10	--
	<i>Lepisosteus osseus</i>	--	--	--	1	--	--
Amiidae <i>Amia calva</i>	bowfin	2	--	--	2	2	--
Anguillidae <i>Anguilla rostrata</i>	American eel	--	--	--	--	--	--
Engraulidae <i>Anchoa mitchilli</i>	bay anchovy	--	--	--	--	--	--
Clupeidae <i>Brevoortia patronus</i>	Gulf menhaden	--	4	--	--	--	2
	<i>Dorosoma cepedianum</i>	--	1	--	--	--	5
Cyprinidae							
<i>Ctenopharyngodon idella</i>	grass carp	--	--	--	--	--	--
<i>Cyprinella venusta</i>	blacktail shiner	--	--	--	2	--	--
<i>Lythrurus roseipinnis</i>	cherryfin shiner	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i>	golden shiner	--	--	--	--	--	--
<i>Notropis longirostris</i>	longnose shiner	--	--	--	--	--	--
<i>Notropis maculatus</i>	taillight shiner	15	--	--	7	--	--
<i>Notropis melanostomus</i>	blackmouth shiner	--	--	--	--	--	--
<i>Notropis petersoni</i>	coastal shiner	--	--	--	--	--	--
<i>Notropis texanus</i>	weed shiner	--	--	--	35	18	--
<i>Opsopoeodus emiliae</i>	pugnose minnow	--	--	--	16	2	--
<i>Pteronotropis hypselopterus</i>	sailfin shiner	--	--	--	--	--	--
Catostomidae							
<i>Carpoides velifer</i>	highfin carpsucker	--	--	--	--	--	1
<i>Erimyzon sucetta</i>	lake chubsucker	--	--	--	--	--	--
<i>Erimyzon tenuis</i>	sharpfin chubsucker	28	--	--	11	--	--
<i>Ictiobus bubalus</i>	smallmouth buffalo	--	5	--	--	--	17
<i>Minytrema melanops</i>	spotted sucker	--	--	5	1	--	--
<i>Moxostoma poecilurum</i>	blacktail redhorse	--	--	--	1	--	--
Ictaluridae							
<i>Ameiurus natalis</i>	yellow bullhead	--	--	--	--	--	--
<i>Ictalurus furcatus</i>	blue catfish	--	--	--	--	--	3
<i>Ictalurus punctatus</i>	channel catfish	--	--	--	1	--	--
<i>Noturus leptacanthus</i>	speckled madtom	--	--	--	--	--	--
<i>Noturus nocturnus</i>	freckled madtom	--	--	--	--	--	--
<i>Pygocentrus olivaris</i>	flathead catfish	--	--	--	--	--	1
Ariidae							
<i>Ariopsis felis</i>	hardhead catfish	--	--	--	--	--	11
<i>Bagre marinus</i>	gafftopsail catfish	--	--	--	--	--	--

Scientific name	Common name	Station					
		MT-7	MT-8	MT-9	MT-10	MT-11	MT-12
Esocidae							
<i>Esox americanus</i>	redfin pickerel	--	--	--	--	--	--
<i>Esox niger</i>	chain pickerel	1	--	--	3	--	--
Aphredoderidae							
<i>Aphredoderus sayanus</i>	pirate perch	--	--	--	--	--	--
Mugilidae							
<i>Mugil cephalus</i>	striped mullet	--	--	11	--	--	--
Atherinopsidae							
<i>Labidesthes sicculus</i>	brook silverside	1	--	2	18	2	--
Belonidae							
<i>Strongylura marina</i>	Atlantic needlefish	--	1	--	--	--	--
Fundulidae							
<i>Fundulus chrysotus</i>	golden topminnow	--	--	--	--	--	--
<i>Fundulus cingulatus</i>	banded topminnow	--	--	--	--	--	--
<i>Fundulus escambiae</i>	russetfin topminnow	--	--	--	--	--	--
<i>Fundulus notti</i>	bayou topminnow	1	--	6	2	4	--
<i>Fundulus olivaceus</i>	blackspotted topminnow	--	--	--	4	--	--
<i>Lucania parva</i>	rainwater killifish	--	--	--	--	--	--
Poeciliidae							
<i>Gambusia holbrooki</i>	eastern mosquitofish	--	--	--	2	--	--
<i>Heterandria formosa</i>	least killifish	--	--	--	--	--	--
Centrarchidae							
<i>Ambloplites ariommus</i>	shadow bass	--	--	--	--	--	--
<i>Enneacanthus gloriosus</i>	bluespotted sunfish	16	--	--	4	7	--
<i>Lepomis gulosus</i>	warmouth	5	--	6	3	--	--
<i>Lepomis macrochirus</i>	bluegill	8	--	22	5	6	--
<i>Lepomis marginatus</i>	dollar sunfish	--	--	--	--	--	--
<i>Lepomis megalotis</i>	longear sunfish	1	--	--	7	1	--
<i>Lepomis microlophus</i>	redear sunfish	1	--	3	3	--	--
<i>Lepomis miniatus</i>	redspotted sunfish	1	--	--	2	--	--
<i>Micropterus punctulatus</i>	spotted bass	--	--	--	--	--	--
<i>Micropterus salmoides</i>	largemouth bass	5	--	18	2	--	--
<i>Pomoxis nigromaculatus</i>	black crappie	--	--	--	3	--	--
Percidae							
<i>Ammocrypta beanii</i>	naked sand darter	--	--	--	--	--	--
<i>Etheostoma lynceum</i>	brighteye darter	--	--	--	--	--	--
<i>Perca flavescens</i>	yellow perch	--	--	--	--	--	--
<i>Percina nigrofasciata</i>	blackbanded darter	--	--	--	--	--	--
Sparidae							
<i>Archosargus probatocephalus</i>	sheepshead	--	--	--	--	--	--
Sciaenidae							
<i>Aplodinotus grunniens</i>	freshwater drum	--	--	--	3	--	1
Elassomatidae							
<i>Elassoma zonatum</i>	banded pygmy sunfish	1	--	--	--	1	--
Paralichthyidae							
<i>Paralichthys lethostigma</i>	southern flounder	--	--	--	--	--	1
Achiridae							
<i>Trinectes maculatus</i>	hogchoker	--	--	--	1	--	--
Total species		15	4	9	26	10	11
Total individuals		88	11	77	148	53	58
Sample time (hours)		0.16	2.00	0.36	0.83	0.27	2.00
Sampling method, [(n) refers to number of gill nets]		electro	gill(3)	electro	electro	electro	gill(5)

Scientific name	Common name	Station					
		WB-1	WB-2	WB-3	WB-4	P-1	P-2
Petromyzontidae <i>Ichthyomyzon gagei</i>	southern brook lamprey	--	--	--	--	--	--
Dasyatidae <i>Dasyatis sabina</i>	Atlantic stingray	--	--	--	--	--	--
Acipenseridae <i>Acipenser oxyrinchus desotoi</i>	Gulf sturgeon	--	--	--	--	--	--
Polyodontidae <i>Polyodon spatula</i>	paddlefish	--	--	--	--	--	--
Lepisosteidae <i>Lepisosteus oculatus</i>	spotted gar	3	2	2	--	--	2
	<i>Lepisosteus osseus</i>	longnose gar	--	--	--	1	--
Amiidae <i>Amia calva</i>	bowfin	--	1	--	--	--	--
Anguillidae <i>Anguilla rostrata</i>	American eel	--	--	1	--	--	--
Engraulidae <i>Anchoa mitchilli</i>	bay anchovy	--	--	104	--	--	--
Clupeidae <i>Brevoortia patronus</i>	Gulf menhaden	--	--	--	--	--	--
	<i>Dorosoma cepedianum</i>	gizzard shad	--	--	--	--	--
Cyprinidae							
<i>Ctenopharyngodon idella</i>	grass carp	--	--	--	--	--	--
<i>Cyprinella venusta</i>	blacktail shiner	--	--	--	--	--	--
<i>Lythrurus roseipinnis</i>	cherryfin shiner	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i>	golden shiner	--	--	--	--	--	3
<i>Notropis longirostris</i>	longnose shiner	--	--	--	--	--	--
<i>Notropis maculatus</i>	taillight shiner	--	--	--	--	--	26
<i>Notropis melanostomus</i>	blackmouth shiner	--	--	--	--	--	--
<i>Notropis petersoni</i>	coastal shiner	--	--	--	--	--	--
<i>Notropis texanus</i>	weed shiner	70	--	--	10	3	--
<i>Opsopoeodus emiliae</i>	pugnose minnow	--	--	--	--	--	--
<i>Pteronotropis hypselopterus</i>	sailfin shiner	--	--	--	--	--	--
Catostomidae							
<i>Carpoides velifer</i>	highfin carpsucker	--	--	--	--	--	--
<i>Erimyzon sucetta</i>	lake chubsucker	--	--	--	--	--	3
<i>Erimyzon tenuis</i>	sharpfin chubsucker	1	--	--	--	--	6
<i>Ictiobus bubalus</i>	smallmouth buffalo	--	--	--	--	--	--
<i>Minytrema melanops</i>	spotted sucker	3	--	--	1	--	2
<i>Moxostoma poecilurum</i>	blacktail redhorse	--	--	--	--	6	3
Ictaluridae							
<i>Ameiurus natalis</i>	yellow bullhead	--	--	--	--	--	--
<i>Ictalurus furcatus</i>	blue catfish	--	--	--	--	--	--
<i>Ictalurus punctatus</i>	channel catfish	--	--	--	--	--	--
<i>Noturus leptacanthus</i>	speckled madtom	--	--	--	--	--	--
<i>Noturus nocturnus</i>	freckled madtom	--	--	--	--	--	--
<i>Pygocentrus olivaris</i>	flathead catfish	--	--	--	--	--	--
Ariidae							
<i>Ariopsis felis</i>	hardhead catfish	--	--	--	--	--	--
<i>Bagre marinus</i>	gafftopsail catfish	--	--	--	--	--	--

Scientific name	Common name	Station					
		WB-1	WB-2	WB-3	WB-4	P-1	P-2
Esocidae							
<i>Esox americanus</i>	redfin pickerel	--	--	--	--	--	--
<i>Esox niger</i>	chain pickerel	--	--	--	1	--	--
Aphredoderidae							
<i>Aphredoderus sayanus</i>	pirate perch	--	--	--	--	--	--
Mugilidae							
<i>Mugil cephalus</i>	striped mullet	1	11	2	--	2	--
Atherinopsidae							
<i>Labidesthes sicculus</i>	brook silverside	1	--	--	3	1	--
Belonidae							
<i>Strongylura marina</i>	Atlantic needlefish	--	--	--	--	--	--
Fundulidae							
<i>Fundulus chrysotus</i>	golden topminnow	--	--	--	--	--	--
<i>Fundulus cingulatus</i>	banded topminnow	--	2	2	--	--	--
<i>Fundulus escambiae</i>	russetfin topminnow	--	--	--	--	--	1
<i>Fundulus notti</i>	bayou topminnow	--	--	--	--	--	--
<i>Fundulus olivaceus</i>	blackspotted topminnow	--	--	--	--	--	--
<i>Lucania parva</i>	rainwater killifish	--	4	--	--	--	--
Poeciliidae							
<i>Gambusia holbrooki</i>	eastern mosquitofish	--	9	--	--	--	1
<i>Heterandria formosa</i>	least killifish	--	--	--	--	--	--
Centrarchidae							
<i>Ambloplites ariommus</i>	shadow bass	--	--	--	--	--	--
<i>Enneacanthus gloriosus</i>	bluespotted sunfish	--	--	--	--	--	--
<i>Lepomis gulosus</i>	warmouth	1	--	1	--	4	5
<i>Lepomis macrochirus</i>	bluegill	3	3	--	6	17	--
<i>Lepomis marginatus</i>	dollar sunfish	--	--	--	2	--	3
<i>Lepomis megalotis</i>	longear sunfish	--	--	--	--	1	--
<i>Lepomis microlophus</i>	redear sunfish	1	1	--	1	--	5
<i>Lepomis miniatus</i>	redspotted sunfish	--	--	1	--	1	--
<i>Micropterus punctulatus</i>	spotted bass	--	--	--	--	--	--
<i>Micropterus salmoides</i>	largemouth bass	2	1	--	2	4	1
<i>Pomoxis nigromaculatus</i>	black crappie	--	--	--	--	--	--
Percidae							
<i>Ammocrypta beanii</i>	naked sand darter	--	--	--	--	--	--
<i>Etheostoma lynceum</i>	brighteye darter	--	--	--	--	--	--
<i>Perca flavescens</i>	yellow perch	--	--	--	--	--	--
<i>Percina nigrofasciata</i>	blackbanded darter	--	--	--	2	--	--
Sparidae							
<i>Archosargus probatocephalus</i>	sheepshead	--	--	--	--	--	--
Sciaenidae							
<i>Aplodinotus grunniens</i>	freshwater drum	--	--	--	--	--	--
Elassomatidae							
<i>Elassoma zonatum</i>	banded pygmy sunfish	--	--	--	--	--	--
Paralichthyidae							
<i>Paralichthys lethostigma</i>	southern flounder	--	--	--	--	--	--
Achiridae							
<i>Trinectes maculatus</i>	hogchoker	--	--	--	--	--	--
Total species		10	9	7	9	10	13
Total individuals		86	34	113	28	40	61
Sample time (hours)		0.26	0.21	0.18	0.26	0.54	0.17
Sampling method, [(n) refers to number of gill nets]		electro	electro	electro	electro	electro	electro

Scientific name	Common name	P-3	P-4	P-5	P-6	P-7	P-8	Station
Petromyzontidae <i>Ichthyomyzon gagei</i>	southern brook lamprey	--	--	--	--	--	--	--
Dasyatidae <i>Dasyatis sabina</i>	Atlantic stingray	--	--	--	--	--	--	--
Acipenseridae <i>Acipenser oxyrinchus desotoi</i>	Gulf sturgeon	--	--	--	--	--	--	--
Polyodontidae <i>Polyodon spatula</i>	paddlefish	--	--	--	--	--	--	--
Lepisosteidae <i>Lepisosteus oculatus</i>	spotted gar	1	1	--	--	--	--	--
	<i>Lepisosteus osseus</i>	2	5	1	4	--	--	--
Amiidae <i>Amia calva</i>	bowfin	1	--	--	--	--	--	--
Anguillidae <i>Anguilla rostrata</i>	American eel	--	--	--	--	--	--	--
Engraulidae <i>Anchoa mitchilli</i>	bay anchovy	--	--	--	--	--	--	--
Clupeidae <i>Brevoortia patronus</i>	Gulf menhaden	--	--	--	--	--	--	--
	<i>Dorosoma cepedianum</i>	--	--	--	--	--	--	--
Cyprinidae <i>Ctenopharyngodon idella</i>	grass carp	--	--	--	--	--	--	--
	<i>Cyprinella venusta</i>	blacktail shiner	--	--	2	3	--	--
	<i>Lythrurus roseipinnis</i>	cherryfin shiner	--	--	--	--	--	--
	<i>Notemigonus crysoleucas</i>	golden shiner	--	--	--	--	--	--
	<i>Notropis longirostris</i>	longnose shiner	--	--	--	--	--	--
	<i>Notropis maculatus</i>	taillight shiner	--	--	--	--	--	--
	<i>Notropis melanostomus</i>	blackmouth shiner	--	--	--	--	--	--
	<i>Notropis petersoni</i>	coastal shiner	--	--	--	1	--	--
	<i>Notropis texanus</i>	weed shiner	2	--	--	20	--	--
	<i>Opsopoeodus emiliae</i>	pugnose minnow	--	--	--	--	--	--
	<i>Pteronotropis hypselopterus</i>	sailfin shiner	--	--	--	--	--	--
Catostomidae <i>Carpoides velifer</i>	highfin carpsucker	--	--	--	--	--	--	--
	<i>Erimyzon suetta</i>	lake chubsucker	1	4	--	--	--	--
	<i>Erimyzon tenuis</i>	sharpfin chubsucker	4	8	--	--	--	--
	<i>Ictiobus bubalus</i>	smallmouth buffalo	--	--	--	--	--	--
	<i>Minytrema melanops</i>	spotted sucker	1	--	--	1	--	--
	<i>Moxostoma poecilurum</i>	blacktail redhorse	2	1	--	14	--	--
Ictaluridae <i>Ameiurus natalis</i>	yellow bullhead	--	--	--	--	--	--	--
	<i>Ictalurus furcatus</i>	blue catfish	--	--	--	--	--	--
	<i>Ictalurus punctatus</i>	channel catfish	--	1	--	--	--	--
	<i>Noturus leptacanthus</i>	speckled madtom	--	--	--	--	--	--
	<i>Noturus nocturnus</i>	freckled madtom	--	--	--	--	--	--
	<i>Pygocentrus olivaris</i>	flathead catfish	--	--	--	--	--	--
Ariidae <i>Ariopsis felis</i>	hardhead catfish	--	--	--	--	--	--	--
	<i>Bagre marinus</i>	gafftopsail catfish	--	--	--	--	1	--

Scientific name	Common name	Station					
		P-3	P-4	P-5	P-6	P-7	P-8
Esocidae <i>Esox americanus</i>	redfin pickerel	1	--	--	--	--	--
<i>Esox niger</i>	chain pickerel	--	--	--	--	--	--
Aphredoderidae <i>Aphredoderus sayanus</i>	pirate perch	--	--	--	--	--	--
Mugilidae <i>Mugil cephalus</i>	striped mullet	--	3	--	--	--	--
Atherinopsidae <i>Labidesthes sicculus</i>	brook silverside	6	2	--	2	--	--
Belonidae <i>Strongylura marina</i>	Atlantic needlefish	--	--	--	--	--	--
Fundulidae <i>Fundulus chrysotus</i>	golden topminnow	--	--	--	--	--	--
<i>Fundulus cingulatus</i>	banded topminnow	--	--	--	--	--	--
<i>Fundulus escambiae</i>	russetfin topminnow	4	--	--	--	--	--
<i>Fundulus notti</i>	bayou topminnow	--	--	--	--	--	--
<i>Fundulus olivaceus</i>	blackspotted topminnow	--	--	--	--	--	--
<i>Lucania parva</i>	rainwater killifish	--	--	--	--	--	--
Poeciliidae <i>Gambusia holbrooki</i>	eastern mosquitofish	--	--	--	--	--	--
<i>Heterandria formosa</i>	least killifish	--	--	--	--	--	--
Centrarchidae <i>Ambloplites ariommus</i>	shadow bass	--	--	--	--	--	--
<i>Enneacanthus gloriosus</i>	bluespotted sunfish	--	--	--	--	--	--
<i>Lepomis gulosus</i>	warmouth	5	1	--	--	--	--
<i>Lepomis macrochirus</i>	bluegill	6	8	--	7	--	--
<i>Lepomis marginatus</i>	dollar sunfish	10	2	--	--	--	--
<i>Lepomis megalotis</i>	longear sunfish	3	--	--	8	--	--
<i>Lepomis microlophus</i>	redear sunfish	7	--	--	--	--	--
<i>Lepomis miniatus</i>	redspotted sunfish	2	--	--	1	--	--
<i>Micropterus punctulatus</i>	spotted bass	--	1	--	3	--	--
<i>Micropterus salmoides</i>	largemouth bass	4	2	--	8	--	--
<i>Pomoxis nigromaculatus</i>	black crappie	--	--	--	--	--	--
Percidae <i>Ammocrypta beanii</i>	naked sand darter	--	--	--	--	--	--
<i>Etheostoma lynceum</i>	brighteye darter	--	--	--	--	--	--
<i>Perca flavescens</i>	yellow perch	--	--	--	--	--	--
<i>Percina nigrofasciata</i>	blackbanded darter	--	--	--	3	--	--
Sparidae <i>Archosargus probatocephalus</i>	sheepshead	--	--	--	--	--	--
Sciaenidae <i>Aplodinotus grunniens</i>	freshwater drum	--	--	--	--	--	--
Elassomatidae <i>Elassoma zonatum</i>	banded pygmy sunfish	--	--	--	--	--	--
Paralichthyidae <i>Paralichthys lethostigma</i>	southern flounder	--	--	--	--	--	--
Achiridae <i>Trinectes maculatus</i>	hogchoker	--	--	--	--	--	--
Total species		18	13	2	13	1	0
Total individuals		62	39	3	75	1	0
Sample time (hours)		0.37	0.33	0.18	0.68	2.00	1.00
Sampling method, [(n) refers to number of gill nets]		electro	electro	electro	electro	gill(4)	gill(1)

Scientific name	Common name	Station					
		P-9	P-10a	P-10b	P-11	P-12a	P-12b
Petromyzontidae <i>Ichthyomyzon gagei</i>	southern brook lamprey	--	--	--	--	--	--
Dasyatidae <i>Dasyatis sabina</i>	Atlantic stingray	--	--	--	--	--	--
Acipenseridae <i>Acipenser oxyrinchus desotoi</i>	Gulf sturgeon	--	1	--	--	--	--
Polyodontidae <i>Polyodon spatula</i>	paddlefish	--	--	--	--	--	--
Lepisosteidae <i>Lepisosteus oculatus</i>	spotted gar	1	--	--	--	--	--
	<i>Lepisosteus osseus</i>	longnose gar	--	--	--	6	--
Amiidae <i>Amia calva</i>	bowfin	--	--	--	--	--	--
Anguillidae <i>Anguilla rostrata</i>	American eel	--	--	--	--	--	--
Engraulidae <i>Anchoa mitchilli</i>	bay anchovy	--	--	--	--	--	--
Clupeidae <i>Brevoortia patronus</i>	Gulf menhaden	--	--	--	--	--	--
	<i>Dorosoma cepedianum</i>	gizzard shad	--	--	--	--	--
Cyprinidae							
<i>Ctenopharyngodon idella</i>	grass carp	--	--	--	--	--	--
<i>Cyprinella venusta</i>	blacktail shiner	--	--	--	--	--	--
<i>Lythrurus roseipinnis</i>	cherryfin shiner	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i>	golden shiner	--	--	--	--	--	--
<i>Notropis longirostris</i>	longnose shiner	--	--	--	--	--	--
<i>Notropis maculatus</i>	taillight shiner	--	--	--	--	--	--
<i>Notropis melanostomus</i>	blackmouth shiner	--	--	--	--	--	--
<i>Notropis petersoni</i>	coastal shiner	1	--	--	--	--	--
<i>Notropis texanus</i>	weed shiner	--	--	--	1	--	--
<i>Opsopoeodus emiliae</i>	pugnose minnow	--	--	--	--	--	--
<i>Pteronotropis hypselopterus</i>	sailfin shiner	--	--	--	--	--	--
Catostomidae							
<i>Carpoides velifer</i>	highfin carpsucker	--	--	--	--	--	--
<i>Erimyzon sucetta</i>	lake chubsucker	--	--	--	--	--	--
<i>Erimyzon tenuis</i>	sharpfin chubsucker	--	--	--	1	--	--
<i>Ictiobus bubalus</i>	smallmouth buffalo	--	--	--	--	--	--
<i>Minytrema melanops</i>	spotted sucker	--	--	--	--	--	--
<i>Moxostoma poecilurum</i>	blacktail redhorse	--	--	--	1	--	--
Ictaluridae							
<i>Ameiurus natalis</i>	yellow bullhead	--	--	--	--	--	--
<i>Ictalurus furcatus</i>	blue catfish	--	--	--	--	--	--
<i>Ictalurus punctatus</i>	channel catfish	--	--	--	--	--	--
<i>Noturus leptacanthus</i>	speckled madtom	--	--	--	--	--	--
<i>Noturus nocturnus</i>	freckled madtom	--	--	--	--	--	--
<i>Pygocentrus olivaris</i>	flathead catfish	--	--	--	--	--	--
Ariidae							
<i>Ariopsis felis</i>	hardhead catfish	--	--	2	--	--	--
<i>Bagre marinus</i>	gafftopsail catfish	--	2	8	--	--	--

Scientific name	Common name	Station					
		P-9	P-10a	P-10b	P-11	P-12a	P-12b
Esocidae <i>Esox americanus</i>	redfin pickerel	--	--	--	--	--	--
<i>Esox niger</i>	chain pickerel	--	--	--	--	--	--
Aphredoderidae <i>Aphredoderus sayanus</i>	pirate perch	--	--	--	--	--	--
Mugilidae <i>Mugil cephalus</i>	striped mullet	4	--	--	--	--	--
Atherinopsidae <i>Labidesthes sicculus</i>	brook silverside	--	--	--	--	--	--
Belonidae <i>Strongylura marina</i>	Atlantic needlefish	--	--	--	--	--	--
Fundulidae <i>Fundulus chrysotus</i>	golden topminnow	--	--	--	--	--	--
<i>Fundulus cingulatus</i>	banded topminnow	--	--	--	--	--	--
<i>Fundulus escambiae</i>	russetfin topminnow	1	--	--	--	--	--
<i>Fundulus notti</i>	bayou topminnow	--	--	--	1	--	--
<i>Fundulus olivaceus</i>	blackspotted topminnow	--	--	--	--	--	--
<i>Lucania parva</i>	rainwater killifish	--	--	--	--	--	--
Poeciliidae <i>Gambusia holbrooki</i>	eastern mosquitofish	1	--	--	1	--	--
<i>Heterandria formosa</i>	least killifish	--	--	--	--	--	--
Centrarchidae <i>Ambloplites ariommus</i>	shadow bass	--	--	--	--	--	--
<i>Enneacanthus gloriosus</i>	bluespotted sunfish	--	--	--	--	--	--
<i>Lepomis gulosus</i>	warmouth	4	--	--	1	--	--
<i>Lepomis macrochirus</i>	bluegill	5	--	--	--	--	--
<i>Lepomis marginatus</i>	dollar sunfish	--	--	--	--	--	--
<i>Lepomis megalotis</i>	longear sunfish	--	--	--	--	--	--
<i>Lepomis microlophus</i>	redear sunfish	1	--	--	--	--	--
<i>Lepomis miniatus</i>	redspotted sunfish	3	--	--	--	--	--
<i>Micropterus punctulatus</i>	spotted bass	--	--	--	--	--	--
<i>Micropterus salmoides</i>	largemouth bass	8	--	--	2	--	--
<i>Pomoxis nigromaculatus</i>	black crappie	--	--	--	--	--	--
Percidae <i>Ammocrypta beanii</i>	naked sand darter	--	--	--	--	--	--
<i>Etheostoma lynceum</i>	brighteye darter	--	--	--	--	--	--
<i>Perca flavescens</i>	yellow perch	--	--	--	--	--	--
<i>Percina nigrofasciata</i>	blackbanded darter	--	--	--	--	--	--
Sparidae <i>Archosargus probatocephalus</i>	sheepshead	--	--	--	--	--	--
Sciaenidae <i>Aplodinotus grunniens</i>	freshwater drum	--	--	--	--	--	--
Elassomatidae <i>Elassoma zonatum</i>	banded pygmy sunfish	--	--	--	--	--	--
Paralichthyidae <i>Paralichthys lethostigma</i>	southern flounder	--	--	--	--	--	--
Achiridae <i>Trinectes maculatus</i>	hogchoker	--	--	--	--	--	--
Total species		10	2	2	7	1	0
Total individuals		29	3	10	8	6	0
Sample time (hours)		0.41	2.00	2.00	0.30	1.00	5.00
Sampling method, [(n) refers to number of gill nets]		electro	gill(5)	gill(5)	electro	gill(5)	gill(1)

Scientific name	Common name	P-12c	P-13	P-14	P-15	P-16	Station P-17
Petromyzontidae <i>Ichthyomyzon gagei</i>	southern brook lamprey	--	--	--	--	--	--
Dasyatidae <i>Dasyatis sabina</i>	Atlantic stingray	--	--	--	--	--	--
Acipenseridae <i>Acipenser oxyrinchus desotoi</i>	Gulf sturgeon	--	--	--	--	--	--
Polyodontidae <i>Polyodon spatula</i>	paddlefish	--	--	--	--	--	--
Lepisosteidae <i>Lepisosteus oculatus</i>	spotted gar	--	--	--	2	--	1
	<i>Lepisosteus osseus</i>	1	--	6	--	6	4
Amiidae <i>Amia calva</i>	bowfin	--	--	--	--	--	--
Anguillidae <i>Anguilla rostrata</i>	American eel	--	--	--	--	--	--
Engraulidae <i>Anchoa mitchilli</i>	bay anchovy	--	--	--	--	--	--
Clupeidae <i>Brevoortia patronus</i>	Gulf menhaden	--	--	--	--	--	--
	<i>Dorosoma cepedianum</i>	--	--	--	--	--	--
Cyprinidae <i>Ctenopharyngodon idella</i>	grass carp	--	--	--	--	--	--
<i>Cyprinella venusta</i>	blacktail shiner	--	--	--	--	--	--
<i>Lythrurus roseipinnis</i>	cherryfin shiner	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i>	golden shiner	--	--	--	--	--	--
<i>Notropis longirostris</i>	longnose shiner	--	--	--	--	--	--
<i>Notropis maculatus</i>	taillight shiner	--	--	--	--	--	--
<i>Notropis melanostomus</i>	blackmouth shiner	--	--	--	--	--	--
<i>Notropis petersoni</i>	coastal shiner	--	--	--	5	--	--
<i>Notropis texanus</i>	weed shiner	--	--	--	--	--	4
<i>Opsopoeodus emiliae</i>	pugnose minnow	--	--	--	--	--	--
<i>Pteronotropis hypselopterus</i>	sailfin shiner	--	--	--	--	--	--
Catostomidae <i>Carpoides velifer</i>	highfin carpsucker	--	--	--	--	--	--
<i>Erimyzon sucetta</i>	lake chubsucker	--	--	--	--	--	1
<i>Erimyzon tenuis</i>	sharpfin chubsucker	--	--	--	--	--	7
<i>Ictiobus bubalus</i>	smallmouth buffalo	--	--	--	--	--	--
<i>Minytrema melanops</i>	spotted sucker	--	--	--	--	--	23
<i>Moxostoma poecilurum</i>	blacktail redhorse	--	--	--	2	--	3
Ictaluridae <i>Ameiurus natalis</i>	yellow bullhead	--	--	--	--	--	--
<i>Ictalurus furcatus</i>	blue catfish	--	--	--	--	--	--
<i>Ictalurus punctatus</i>	channel catfish	--	--	--	--	--	1
<i>Noturus leptacanthus</i>	speckled madtom	--	--	--	--	--	--
<i>Noturus nocturnus</i>	freckled madtom	--	--	--	--	--	--
<i>Pygocentrus olivaris</i>	flathead catfish	--	--	--	--	--	--
Ariidae <i>Ariopsis felis</i>	hardhead catfish	--	--	--	--	--	--
<i>Bagre marinus</i>	gafftopsail catfish	4	--	1	--	--	--

Scientific name	Common name	P-12c	P-13	P-14	P-15	P-16	Station P-17
Esocidae							
<i>Esox americanus</i>	redfin pickerel	--	--	--	--	--	--
<i>Esox niger</i>	chain pickerel	--	--	--	--	--	1
Aphredoderidae							
<i>Aphredoderus sayanus</i>	pirate perch	--	--	--	--	--	--
Mugilidae							
<i>Mugil cephalus</i>	striped mullet	--	--	--	--	--	1
Atherinopsidae							
<i>Labidesthes sicculus</i>	brook silverside	--	--	--	--	--	14
Belonidae							
<i>Strongylura marina</i>	Atlantic needlefish	--	--	--	--	--	--
Fundulidae							
<i>Fundulus chrysotus</i>	golden topminnow	--	--	--	--	--	--
<i>Fundulus cingulatus</i>	banded topminnow	--	--	--	--	--	--
<i>Fundulus escambiae</i>	russetfin topminnow	--	--	--	--	--	1
<i>Fundulus notti</i>	bayou topminnow	--	--	--	--	--	--
<i>Fundulus olivaceus</i>	blackspotted topminnow	--	--	--	--	--	--
<i>Lucania parva</i>	rainwater killifish	--	--	--	--	--	--
Poeciliidae							
<i>Gambusia holbrooki</i>	eastern mosquitofish	--	--	--	--	--	1
<i>Heterandria formosa</i>	least killifish	--	--	--	--	--	--
Centrarchidae							
<i>Ambloplites ariommus</i>	shadow bass	--	--	--	--	--	--
<i>Enneacanthus gloriosus</i>	bluespotted sunfish	--	--	--	--	--	--
<i>Lepomis gulosus</i>	warmouth	--	--	--	2	--	1
<i>Lepomis macrochirus</i>	bluegill	--	--	--	1	--	9
<i>Lepomis marginatus</i>	dollar sunfish	--	--	--	5	--	--
<i>Lepomis megalotis</i>	longear sunfish	--	--	--	4	--	6
<i>Lepomis microlophus</i>	redear sunfish	--	--	--	4	--	2
<i>Lepomis miniatus</i>	redspotted sunfish	--	--	--	--	--	6
<i>Micropterus punctulatus</i>	spotted bass	--	--	--	--	--	--
<i>Micropterus salmoides</i>	largemouth bass	--	--	--	7	--	7
<i>Pomoxis nigromaculatus</i>	black crappie	--	--	--	--	--	1
Percidae							
<i>Ammocrypta beanii</i>	naked sand darter	--	--	--	--	--	--
<i>Etheostoma lynceum</i>	brighteye darter	--	--	--	--	--	--
<i>Perca flavescens</i>	yellow perch	--	--	--	--	--	--
<i>Percina nigrofasciata</i>	blackbanded darter	--	--	--	--	--	--
Sparidae							
<i>Archosargus probatocephalus</i>	sheepshead	--	--	1	--	--	--
Sciaenidae							
<i>Aplodinotus grunniens</i>	freshwater drum	--	--	--	--	--	--
Elassomatidae							
<i>Elassoma zonatum</i>	banded pygmy sunfish	--	--	--	--	--	--
Paralichthyidae							
<i>Paralichthys lethostigma</i>	southern flounder	--	--	--	--	--	--
Achiridae							
<i>Trinectes maculatus</i>	hogchoker	--	--	--	--	--	--
Total species		2	0	3	9	1	20
Total individuals		5	0	8	32	6	94
Sample time (hours)		3.50	1.50	2.00	0.50	1.45	0.53
Sampling method, [(n) refers to number of gill nets]		gill(5)	gill(5)	gill(5)	electro	gill(5)	electro

Scientific name	Common name	P-18	P-19	P-20	P-21	P-22	Station P-23
Petromyzontidae <i>Ichthyomyzon gagei</i>	southern brook lamprey	--	--	--	--	--	--
Dasyatidae <i>Dasyatis sabina</i>	Atlantic stingray	--	--	--	--	--	--
Acipenseridae <i>Acipenser oxyrinchus desotoi</i>	Gulf sturgeon	--	--	--	--	--	--
Polyodontidae <i>Polyodon spatula</i>	paddlefish	--	--	--	--	--	--
Lepisosteidae <i>Lepisosteus oculatus</i>	spotted gar	--	--	--	1	1	--
	<i>Lepisosteus osseus</i>	--	17	--	--	1	3
Amiidae <i>Amia calva</i>	bowfin	--	--	1	--	--	--
Anguillidae <i>Anguilla rostrata</i>	American eel	--	--	--	--	2	1
Engraulidae <i>Anchoa mitchilli</i>	bay anchovy	--	--	--	--	--	--
Clupeidae <i>Brevoortia patronus</i>	Gulf menhaden	--	--	--	--	--	--
	<i>Dorosoma cepedianum</i>	--	--	--	--	--	--
Cyprinidae <i>Ctenopharyngodon idella</i>	grass carp	--	--	1	--	--	--
<i>Cyprinella venusta</i>	blacktail shiner	--	--	--	--	--	10
<i>Lythrurus roseipinnis</i>	cherryfin shiner	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i>	golden shiner	--	--	--	--	--	--
<i>Notropis longirostris</i>	longnose shiner	--	--	--	--	--	--
<i>Notropis maculatus</i>	taillight shiner	--	--	--	--	2	--
<i>Notropis melanostomus</i>	blackmouth shiner	--	--	--	--	--	--
<i>Notropis petersoni</i>	coastal shiner	--	--	--	--	--	--
<i>Notropis texanus</i>	weed shiner	--	--	--	--	4	10
<i>Opsopoeodus emiliae</i>	pugnose minnow	--	--	--	--	--	--
<i>Pteronotropis hypselopterus</i>	sailfin shiner	--	--	--	--	--	7
Catostomidae <i>Carpoides velifer</i>	highfin carpsucker	--	--	--	--	--	--
<i>Erimyzon sucetta</i>	lake chubsucker	--	--	--	2	3	--
<i>Erimyzon tenuis</i>	sharpfin chubsucker	--	--	1	10	13	1
<i>Ictiobus bubalus</i>	smallmouth buffalo	--	--	--	--	--	--
<i>Minytrema melanops</i>	spotted sucker	--	--	3	--	4	1
<i>Moxostoma poecilurum</i>	blacktail redhorse	1	--	10	2	--	6
Ictaluridae <i>Ameiurus natalis</i>	yellow bullhead	--	--	--	--	--	--
<i>Ictalurus furcatus</i>	blue catfish	--	--	--	--	--	--
<i>Ictalurus punctatus</i>	channel catfish	--	--	--	--	--	--
<i>Noturus leptacanthus</i>	speckled madtom	--	--	--	--	--	1
<i>Noturus nocturnus</i>	freckled madtom	--	--	--	--	--	--
<i>Pygocentrus olivaris</i>	flathead catfish	--	1	--	--	--	--
Ariidae <i>Ariopsis felis</i>	hardhead catfish	--	--	--	--	--	--
<i>Bagre marinus</i>	gafftopsail catfish	--	--	--	--	--	--

Scientific name	Common name	Station					
		P-18	P-19	P-20	P-21	P-22	P-23
Esocidae							
<i>Esox americanus</i>	redfin pickerel	--	--	--	--	--	--
<i>Esox niger</i>	chain pickerel	2	--	2	2	2	--
Aphredoderidae							
<i>Aphredoderus sayanus</i>	pirate perch	--	--	--	--	--	1
Mugilidae							
<i>Mugil cephalus</i>	striped mullet	--	--	--	--	--	--
Atherinopsidae							
<i>Labidesthes sicculus</i>	brook silverside	1	--	1	31	3	--
Belonidae							
<i>Strongylura marina</i>	Atlantic needlefish	--	--	--	--	--	--
Fundulidae							
<i>Fundulus chrysotus</i>	golden topminnow	--	--	--	--	--	--
<i>Fundulus cingulatus</i>	banded topminnow	--	--	--	--	--	--
<i>Fundulus escambiae</i>	russetfin topminnow	--	--	--	1	--	--
<i>Fundulus notti</i>	bayou topminnow	--	--	--	--	--	--
<i>Fundulus olivaceus</i>	blackspotted topminnow	2	--	--	--	--	2
<i>Lucania parva</i>	rainwater killifish	--	--	--	--	--	--
Poeciliidae							
<i>Gambusia holbrooki</i>	eastern mosquitofish	--	--	--	9	--	7
<i>Heterandria formosa</i>	least killifish	--	--	--	--	--	--
Centrarchidae							
<i>Ambloplites ariommus</i>	shadow bass	--	--	--	--	--	2
<i>Enneacanthus gloriosus</i>	bluespotted sunfish	--	--	--	--	--	--
<i>Lepomis gulosus</i>	warmouth	--	--	1	9	5	2
<i>Lepomis macrochirus</i>	bluegill	2	--	8	10	3	6
<i>Lepomis marginatus</i>	dollar sunfish	--	--	--	4	3	--
<i>Lepomis megalotis</i>	longear sunfish	4	--	5	16	2	12
<i>Lepomis microlophus</i>	redear sunfish	--	--	1	--	--	--
<i>Lepomis miniatus</i>	redspotted sunfish	2	--	--	3	2	10
<i>Micropterus punctulatus</i>	spotted bass	--	--	--	--	--	--
<i>Micropterus salmoides</i>	largemouth bass	--	--	3	5	--	6
<i>Pomoxis nigromaculatus</i>	black crappie	--	--	--	--	--	--
Percidae							
<i>Ammocrypta beanii</i>	naked sand darter	--	--	--	--	--	--
<i>Etheostoma lynceum</i>	brighteye darter	--	--	--	--	--	--
<i>Perca flavescens</i>	yellow perch	--	--	--	--	--	--
<i>Percina nigrofasciata</i>	blackbanded darter	--	--	--	--	--	2
Sparidae							
<i>Archosargus probatocephalus</i>	sheepshead	--	--	--	--	--	--
Sciaenidae							
<i>Aplodinotus grunniens</i>	freshwater drum	--	--	--	--	--	--
Elassomatidae							
<i>Elassoma zonatum</i>	banded pygmy sunfish	--	--	--	--	1	1
Paralichthyidae							
<i>Paralichthys lethostigma</i>	southern flounder	--	--	--	--	--	--
Achiridae							
<i>Trinectes maculatus</i>	hogchoker	--	--	--	--	--	--
Total species		7	2	12	14	16	20
Total individuals		14	18	37	105	51	91
Sample time (hours)		0.19	2.00	0.23	0.50	0.22	0.52
Sampling method, [(n) refers to number of gill nets]		electro	gill(5)	electro	electro	electro	electro

Scientific name	Common name	Station P-24	Station P-25	Station P-26	
Petromyzontidae <i>Ichthyomyzon gagei</i>	southern brook lamprey	--	--	--	
Dasyatidae <i>Dasyatis sabina</i>	Atlantic stingray	--	--	--	
Acipenseridae <i>Acipenser oxyrinchus desotoi</i>	Gulf sturgeon	--	--	--	
Polyodontidae <i>Polyodon spatula</i>	paddlefish	--	--	--	
Lepisosteidae <i>Lepisosteus oculatus</i>	spotted gar	--	--	--	
	<i>Lepisosteus osseus</i>	longnose gar	2	10	4
Amiidae <i>Amia calva</i>	bowfin	1	--	--	
Anguillidae <i>Anguilla rostrata</i>	American eel	--	--	2	
Engraulidae <i>Anchoa mitchilli</i>	bay anchovy	--	--	--	
Clupeidae <i>Brevoortia patronus</i>	Gulf menhaden	--	--	--	
	<i>Dorosoma cepedianum</i>	gizzard shad	--	--	--
Cyprinidae <i>Ctenopharyngodon idella</i>	grass carp	--	--	--	
	<i>Cyprinella venusta</i>	blacktail shiner	--	15	1
	<i>Lythrurus roseipinnis</i>	cherryfin shiner	--	--	--
	<i>Notemigonus crysoleucas</i>	golden shiner	--	--	--
	<i>Notropis longirostris</i>	longnose shiner	--	--	--
	<i>Notropis maculatus</i>	taillight shiner	--	--	--
	<i>Notropis melanostomus</i>	blackmouth shiner	--	--	--
	<i>Notropis petersoni</i>	coastal shiner	--	--	--
	<i>Notropis texanus</i>	weed shiner	4	5	15
	<i>Opsopoeodus emiliae</i>	pugnose minnow	--	--	--
	<i>Pteronotropis hypselopterus</i>	sailfin shiner	--	--	2
Catostomidae <i>Carpoides velifer</i>	highfin carpsucker	--	--	--	
	<i>Erimyzon suetta</i>	lake chubsucker	--	--	--
	<i>Erimyzon tenuis</i>	sharpfin chubsucker	--	--	--
	<i>Ictiobus bubalus</i>	smallmouth buffalo	--	--	--
	<i>Minytrema melanops</i>	spotted sucker	7	--	8
	<i>Moxostoma poecilurum</i>	blacktail redhorse	9	11	11
Ictaluridae <i>Ameiurus natalis</i>	yellow bullhead	--	--	--	
	<i>Ictalurus furcatus</i>	blue catfish	--	--	--
	<i>Ictalurus punctatus</i>	channel catfish	--	--	--
	<i>Noturus leptacanthus</i>	speckled madtom	--	--	--
	<i>Noturus nocturnus</i>	freckled madtom	--	--	--
	<i>Pygocentrus olivaris</i>	flathead catfish	--	--	--
Ariidae <i>Ariopsis felis</i>	hardhead catfish	--	--	--	
	<i>Bagre marinus</i>	gafftopsail catfish	--	--	--

Scientific name	Common name	Station P-24	Station P-25	Station P-26
Esocidae <i>Esox americanus</i> <i>Esox niger</i>	redfin pickerel chain pickerel	-- --	-- --	-- --
Aphredoderidae <i>Aphredoderus sayanus</i>	pirate perch	1	--	5
Mugilidae <i>Mugil cephalus</i>	striped mullet	--	--	--
Atherinopsidae <i>Labidesthes sicculus</i>	brook silverside	2	5	3
Belonidae <i>Strongylura marina</i>	Atlantic needlefish	--	--	--
Fundulidae <i>Fundulus chrysotus</i> <i>Fundulus cingulatus</i> <i>Fundulus escambiae</i> <i>Fundulus notti</i> <i>Fundulus olivaceus</i> <i>Lucania parva</i>	golden topminnow banded topminnow russetfin topminnow bayou topminnow blackspotted topminnow rainwater killifish	-- -- -- -- -- --	-- -- -- -- 3 --	-- -- 1 -- 3 --
Poeciliidae <i>Gambusia holbrooki</i> <i>Heterandria formosa</i>	eastern mosquitofish least killifish	-- --	-- --	-- --
Centrarchidae <i>Ambloplites ariommus</i> <i>Enneacanthus gloriosus</i> <i>Lepomis gulosus</i> <i>Lepomis macrochirus</i> <i>Lepomis marginatus</i> <i>Lepomis megalotis</i> <i>Lepomis microlophus</i> <i>Lepomis miniatus</i> <i>Micropterus punctulatus</i> <i>Micropterus salmoides</i> <i>Pomoxis nigromaculatus</i>	shadow bass bluespotted sunfish warmouth bluegill dollar sunfish longear sunfish redear sunfish redspotted sunfish spotted bass largemouth bass black crappie	-- -- 1 4 -- 10 -- 4 -- 1 --	-- -- -- 15 -- 6 -- 2 -- 3 --	1 -- 10 12 -- 22 2 18 -- 18 --
Percidae <i>Ammocrypta beanii</i> <i>Etheostoma lynceum</i> <i>Perca flavescens</i> <i>Percina nigrofasciata</i>	naked sand darter brighteye darter yellow perch blackbanded darter	-- -- -- --	-- -- -- 3	-- -- -- 2
Sparidae <i>Archosargus probatocephalus</i>	sheepshead	--	--	--
Sciaenidae <i>Aplodinotus grunniens</i>	freshwater drum	--	--	--
Elassomatidae <i>Elassoma zonatum</i>	banded pygmy sunfish	--	--	1
Paralichthyidae <i>Paralichthys lethostigma</i>	southern flounder	--	--	--
Achiridae <i>Trinectes maculatus</i>	hogchoker	--	--	--
Total species		12	11	20
Total individuals		46	78	141
Sample time (hours)		0.17	0.68	0.55
Sampling method, [(n) refers to number of gill nets]		electro	electro	electro

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