PMSTPCOL PEmails

From: Lopas, Sarah
Sent: Monday, September 21, 2009 10:29 AM
To: STPCOL
Subject: FW: [Fwd: Updated Aquatic Information - STP Colorado River Studies] - public
Attachments: Report Changes Summary 3-5-09.doc; Table 11 Cumulative historic 3-5-09.pdf; Jaccard data analysis 3-5-09.pdf; Overall Raw data 3-05-09.pdf; Sample gear data analysis 3-5-09.pdf; Table 2 Cumulative 3-5-09.pdf; Table 3 Abundance 3-5-09.pdf

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From: Sam A. Damico [mailto:sdamico44@sbcglobal.net]
Sent: Friday, March 06, 2009 2:58 PM
To: Jessie Muir; nona.diediker@pnl.com
Subject: [Fwd: Updated Aquatic Information - STP Colorado River Studies]

Jessie/Nona,

The attached files are being send as a result of the discussions on aquatic ecology held in last Tuesday's ER status call. Please refer to the Word file for a list of ENSR's responses to Amoret's original questions, a chronology of what caused the inconsistencies in the 2008 Report tables and the summarized data set we sent in our RAI response. The spreadsheet files include revised versions of three tables from the Report, revised Raw Data summary and the Jaccard calculation which were revised to reflect the correct taxonomy. Please note as is explained in the Word file, the Jaccard calculations themselves were unaffected by the data inconsistencies.

STPNOC is preparing a letter which will transmit hard copy versions of each of the spreadsheets under oath and affirmation after our next call at 1:00 pm (Project Time) on March 10th.

If there are any questions on this submittal please call me at (281) 451-5702.

Thank you for your attention to this matter.

Sam

Hearing Identifier: SouthTexas34Public_EX
Email Number: 1736

Mail Envelope Properties (1FA53ADF29758448974A8AC1118E627EB5E43D9FB9)

Subject: FW: [Fwd: Updated Aquatic Information - STP Colorado River Studies] - public
Sent Date: 9/21/2009 10:29:26 AM
Received Date: 9/21/2009 10:29:28 AM
From: Lopas, Sarah

Created By: Sarah.Lopas@nrc.gov

Recipients:
"STPCOL" <STP.COL@nrc.gov>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	1236	9/21/2009 10:29:28 AM
Report Changes Summary 3-5-09.doc	39490	
Table 11 Cumulative historic 3-5-09.pdf	62745	
Jaccard data analysis 3-5-09.pdf	129764	
Overall Raw data 3-05-09.pdf	233261	
Sample gear data analysis 3-5-09.pdf	134854	
Table 2 Cumulative 3-5-09.pdf	51773	
Table 3 Abundance 3-5-09.pdf	51133	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

STPNOC
UNIT 3 & 4 Licensing Project
Aquatic Ecology Update

NRC Conference Call
March 3, 2005 1:00pm

Summary of Questions and Actions

On March 3, 2009, AECOM and STPNOC held a conference call to discuss specific questions relevant to ENSR's (AECOM) report titled " Aquatic Ecology- Colorado River Monitoring Report Unit 3 & 4 Licensing Project" (June 2008). Discussions were focused around data reported in Table 2 and Table 3 of the report as well as data submitted to the NRC as part of RAI 2.4.2-11. The following information provides a summary of those questions and our actions taken to rectifying discrepancies identified in the report.

AECOM reevaluated the raw data to identify possible errors that may have occurred. This evaluation included:

1. Reviewing the raw data set to identify any inconsistencies;
2. Reviewing Tables 2, 3, and 11 to identify and correct inconsistencies;
3. Reviewing the Jaccard data analysis spreadsheet;
4. Reviewing the Sample gear data analysis spreadsheet;
5. Reviewing all the figures; and
6. Reviewing the report for possible changes.

Questions: The report identifies there to be 3 different river segments labeled Segment A, Segment B, and Segment C; however, data submitted in the RAI 2.4.2-11 indicates that the segments are labeled as Segments 1, 2, and 3. Which is correct?

Response: The Segments are identified throughout the report as Segments A, B, and C. and are the correct labels to use. The new data files (xls files: Jaccard data analysis 3-5-09, and Sample gear data analysis 3-5-09) have been corrected to account for the differences between segment labels.

Question: Data presented in Table 2 and Table 3 indicates there are two different total numbers of species. One indicates 69 and the other indicates 70. Which is correct?

Response: The correct number of species is 70. Inconsistencies were found between the two tables concerning the species of lady fish and red-eared slider. Red-eared slider originally should have been included in Table 2 and was added to the table as part of this review (xls file: Table 2). Two different species of lady fish were indicated in Table 3 (xls file: Table 11). There should only be one species, *Elops saurus*, represented in this table for all the ladyfish species collected. The two fish counted as *Elops lacerta* were moved in the table to *E. saurus*. Additionally, in both Table 2 and 3, Gulf killifish were combined with mudminnow (*Fundulus sp*.) as cumulative number. We have separated these as two separate species categories in the revised Tables 2, 3, and 11 (xls file: Table 11). Separating these is now consistent with how each is used in the data analysis for the Jaccard and Species Richness.

Question: The data provided in the RAI 2.4.2-11 for the Sample gear data analysis, specifically for bagseines indicated that there was a central mudminnow (*Umbra limi*) captured in our data analysis and it was not included in Tables 2, 3, and 11. Is this correct?

Response: The name central mudminnow was improperly used in the data analysis. The species should have been listed as *Fundulus sp.* Tables 2, 3, and 11 have been rectified so the data is now consistent across all data sets.

Question: Roughback shrimp was included in Table 2 but included in Table 3 or the other data analysis? Is this correct?

Response: The roughback shrimp was not collected during this study. It was incorrectly included in Table 3 as a result of comparing information that was compiled in Table 11 which compares the historical data with the current data.

Question: Red-eared slider was included in Table 3 but not Table 2. Should it be included in both?

Response: The red-eared slider should be included in Table 2. It has been added to the table. The original analysis for both the Jaccard and the species richness included the red-eared slider. No other changes were warranted.

Question: Table 2 shows there to be one species of lady fish and Table 3 shows there to be two. Which is correct?

Response: Table 2 is correct. Table 3 has been modified to account for only one species of lady fish captured. There should only be one species, *Elops saurus*, represented in the tables for all the ladyfish species collected. The two fish counted as *Elops lacerta* were moved in the table to *E. saurus*. Combining these species did not affect the results of the data analysis as the two different species used were analyzed separately based on the gear types they were collected in.

<u>Summary</u>
To support the changes made in response to these questions AECOM initiated a complete internal review which included analyzing each line of data for each of the tables presented in the report, the data analysis spread sheets, and for the raw data. In addition, we sent the data out for additional QA/QC review to a fisheries biologist within AECOM to verify and validate these changes. We have provided copies of the excel spreadsheets as a measure for checking consistency between data sets. These include:

- Table 2 Cumulative 3-5-09.xls
- Table 3 Abundance 3-5-09.xls
- Table 11 Cumulative historic 3-5-09.xls
- Sample gear data analysis 3-5-09.xls
- Jaccard data analysis 3-5-09.xls

Based on this review changes were made to the following documents.

- Table 2 changes included the addition of red-eared slider and mudminnow (*Fundulus sp.*), modified totals for Gulf killifish to reflect the addition of mudminnow, recalculation of the totals for each species, removal of roughback shrimp

- Tables 3 changes included combining ladyfish into one species (*E. saurus*), recalculating totals for each species, added mudminnow (*Fundulus sp.*) and changing the number for Gulf killifish to reflect the addition of mudminnow, and splitting the table between finfish and invertebrates so that it is consistent with Table 2.

- Tables 11 changes included adding mudminnow (*Fundulus sp*.) and changing the number for Gulf killifish to reflect the addition of mudminnow.

- Jaccard Analysis Data spreadsheet changes included changing the scientific name for lady fish on the gillnet spreadsheet, changing the naming for mudminnow *(Fundulus sp*.) in the bagseine data, changing the name for cichlids in the trawl data. Overall data numbers and calculations did not change.

- Sample gear data analysis changes included changing the scientific name for lady fish on the gillnet spreadsheet, changing the naming central mudminnow, *Umbra limi* for mudminnow *(Fundulus sp*.) in the bagseine data, changing the name for cichlids in the trawl data. Overall data numbers and calculations did not change.

- Review of the report indicated that the only changes made were reflected in Section 3.1, first paragraph. Species number was changed from 69 to 70, number of fish species was changed from 58 to 59, and the number of estuarine species was changed from 51 to 52. No other changes were necessary to any of the information presented in the report.

Final review of the data indicated that no changes to the data analysis (Jaccard and species richness) were warranted as a result of the data changes in Tables 2, , and 11. The number of species used in both the Jaccard and species richness analysis was consistent with the raw data used for each analysis. Changing of the species names relevant to each gear did not have an impact on the individual numbers used or the total number of species used in each analysis.

Table 11. Cumulative Catch by Gear for the lower Colorado River 1983, 1984, and 2008

		Trawls			Seines			
Common Name	**Scientific Name**	**1983[a]**	**1984[b]**	**2007[c]**	**1983[d]**	**1984[e]**	**2007[f]**	**Totals**
Alligator Gar	*Atractosteus spatula*						2	2
Atlantic Brief Squid	*Lolliguncula brevis*			30			1	31
Atlantic Croaker	*Micropogonias undulatus*	37		482			562	1081
Atlantic Cutlassfish	*Trichiurus lepturus*			6				6
Atlantic Threadfin	*Polydactylus octonemus*			6				6
Bay Anchovy	*Anchoa mitchilli*	3617		264	73	170	24	4148
Bay Whiff	*Citharichthys spilopterus*	15		2	67	1	15	100
Bayou Killifish	*Fundulus pulvereus*						3	3
Black Drum	*Pogonias cromis*			1360			1	1361
Blue Catfish	*Ictalurus furcatus*	15		677			51	743
Blue Crab	*Callinectes sapidus*	264		77	110	9	189	649
Bluegill	*Lepomis macrochirus*						3	3
Bluntnose Jack	*Hemicaranx amblyrhynchus*					5		5
Brown Shrimp	*Farfantepenaeus aztecus*			192	1	5	264	462
Bull Shark	*Carcharhinus leucas*							0
Channel Catfish	*Ictalurus punctatus*			6			22	28
Cichlid	*Cichlasoma sp.*			16				16
Crawfish	*Procamburus sp.*			1	1			2
Crevalle Jack	*Caranx hippos*				13		2	15
Cyprinid Spp.	*Cyprinid sp.*						1	1
Darter Goby	*Gobionellus boleosoma*	10			42	10		62
Diamond Killifish	*Adinia xenica*						11	11
Fat Sleeper	*Dormitator maculatus*				20			20
Flathead Catfish	*Polydictis olivaris*							0
Freshwater Goby	*Ctenogobius shufeldti*				2		9	11
Gafftopsail Catfish	*Bagre marinus*	9		183				192
Gizzard Shad	*Dorosoma cepedianum*	2		52			8	62
Grass Carp	*Ctenopharyngodon idella*				2			2
Grass Shrimp	*Palaemonetes pugio*	2				65	1762	1829
Gulf Killifish	*Fundulus grandis*					2	15	17
Gulf Menhaden	*Brevoortia patronus*	3		1076	29	24	2960	4092
Hardhead Catfish	*Ariopsis felis*	40		252				292
Inland Silverside	*Menidia beryllina*				9	3	6	18
Ladyfish	*Elops saurus*			1		1		2
Leatherjacket	*Oligoplites saurus*					1		1
Lesser Blue Crab	*Callinectes similis*			5			1	6
Lined Sole	*Achirus lineatus*	3		3				6
Longnose Gar	*Lepisosteus osseus*							0
Lyre Goby	*Evorthodus lyricus*				2	1		3
Mangrove Snapper	*Lutjanus griseus*			1				1
Mosquitofish	*Gambusia affinis*				1		1	2
Mottled Mojarra	*Eucinostomus lefroyi*				2			2
Mud Crab	*Rhithropanopeus harrisii*	1		1				2
Mudminnow	*Fundulus sp.*						5	5
Naked Goby	*Gobiosoma bosci*	2					3	5
Pigfish	*Orthopristis chrysoptera*			1				1
Pinfish	*Lagodon rhomboides*	2		11		9		22
Rainwater Killifish	*Lucania parva*						2	2
Red Drum	*Sciaenops ocellatus*			25			8	33
River Shrimp	*Macrobrachium ohione*	747		5	52	1	10	815
Rough Silverside	*Membras martinica*						17	17
Roughneck Shrimp	*Trachypenaeus constrictus*	1				1		2
Sailfin Molly	*Poecilia latipinna*				2	1	150	153
Sand Trout	*Cynoscion arenarius*	29		294	9	3	22	357
Seabob	*Xiphopenaeus kroyeri*			127				127
Sharptail Goby	*Oligolepis acutipennis*						39	39
Sheepshead	*Archosargus probatocephalus*			48	1		14	63
Sheepshead Minnow	*Cyprinodon variegatus*			7			79	86
Shiner	*Shiner sp.*						2	2
Silver Jenny	*Eucinostomus gula*			2				2

Silver Perch	*Bairdiella chrysoura*	1		350				351
Skipjack Herring	*Alosa chysochloris*					1		1

Table 11. continued.

		Trawls			Seines			
Common Name	**Scientific Name**	**1983[a]**	**1984[b]**	**2007[c]**	**1983[d]**	**1984[e]**	**2007[f]**	**Totals**
Southern Flounder	*Paralichthys lethostigma*	4		12	2	1	2	21
Southern Stingray	*Dasyatis americana*			1				1
Speckled Trout	*Cynoscion nebulosus*			53				53
Spot Croaker	*Leiostomus xanthurus*	18		156	1	9	88	272
Spotfin Mojarra	*Eucinostomus argenteus*			5	2	9	3	19
Spotted Gar	*Lepisosteus oculatus*	2		1	4	1	1	9
Star Drum	*Stellifer lanceolatus*			86				86
Striped Anchovy	*Anchoa hepsetus*					1		1
Striped Mullet	*Mugil cephalus*			1			1671	1672
Threadfin Shad	*Dorosoma petenense*			7			3	10
Tonguefish	*Symphurus plaguisa*			3				3
Violet Goby	*Gobioides broussonnetii*	1					1	2
White Mullet	*Mugil curema*			2	68	10	180	260
White Shrimp	*Litopenaeus setiferus*	115		2870	652	643	584	4864
	Totals	4940	0	8760	1167	987	8797	24651

a - 14 trawls were conducted
b - No trawls were conducted
c - 65 trawls were conducted
d - 10 seines were conducted
e - 4 seines were conducted
f - 55 seines were conducted

Gillnet

		Segment A vs Segment B				Segment A vs Segment C				Segment B vs C			
Common	**Scientific**	Segment A	Segment B	Both	Either	Segment A	Segment C	Both	Either	Segment B	Segment C	Both	Either
Sheepshead	*Archosargus probatocephalus*	1	0		1	1	0		1	0	0		
Blue Crab	*Callinectus sapidus*	0	2		1	0	0			2	0		1
Grass Carp	*Ctenopharyngodon idella*	1	0		1	1	1	1	1	0	1		1
Spotted Gar	*Lepisosteus oculatus*	1	0		1	1	0		1	0	0		
Red Drum	*Sciaenops ocellatus*	4	1	1	1	4	3	1	1	1	3	1	1
Gafftopsail Catfish	*Bagre marinus*	5	4	1	1	5	0		1	4	0		1
Ladyfish	*Elops saurus*	1	1	1	1	1	0		1	1	0		1
Bull Shark	*Carcharhinus leucas*	5	1	1	1	5	0		1	1	0		1
Blue Catfish	*Ictalurus furcatus*	9	7	1	1	9	6	1	1	7	6	1	1
Smallmouth Buffalo	*Ictiobus bubalus*	5	14	1	1	5	13	1	1	14	13	1	1
Sand Trout	*Cynoscion arenarius*	2	1	1	1	2	2	1	1	1	2	1	1
Southern flounder	*Paralichthys lethostigma*	1	1	1	1	1	0		1	1	0		1
Gulf Menhaden	*Brevoortia patronus*	2	1	1	1	2	2	1	1	1	2	1	1
Hardhead Catfish	*Ariopsis felis*	0	1		1	0	0			1	0		1
Speckled Trout	*Cynoscion nebulosus*	3	0		1	3	1	1	1	0	1		1
Black Drum	*Pogonias cromis*	1	0		1	1	0		1	0	0		
Alligator Gar	*Atractosteus spatula*	0	1		1	0	1		1	1	1	1	1
Atlantic Croaker	*Micropogonias undulatus*	0	0			0	1		1	0	1		1
	Total	41	35	9	17	41	30	7	16	35	30	6	15
		Jaccard Coefficient=		**0.529412**		**Jaccard Coefficient=**		**0.4375**		**Jaccard Coefficient=**		**0.4**	
		%CCJ=		**52.94118**		**%CCJ=**		**43.75**		**%CCJ=**		**40**	

Hoopnet

		Segment A vs Segment B				Segment A vs Segment C				Segment B vs C			
Common	**Scientific**	Segment A	Segment B	Both	Either	Segment A	Segment C	Both	Either	Segment B	Segment C	Both	Either
Hardhead Catfish	*Ariopis felis*	1	0		1	1	0		1	0	0		
Sheepshead	*Archosargus probatocephalus*	3	2	1	1	3	1	1	1	2	1	1	1
Smallmouth Buffalo	*Ictiobus bubalus*	0	3		1	0	2		1	3	2	1	1
Alligator Gar	*Lepisosteus spatula*	3	5	1	1	3	5	1	1	5	5	1	1
Spotted Gar	*Lepisosteus oculatus*	1	5	1	1	1	4	1	1	5	4	1	1
Southern Flounder	*Paralichthys lethostigma*	1	0		1	1	2	1	1	0	2		1
Red Drum	*Sciaenops ocellatus*	13	8	1	1	13	17	1	1	8	17	1	1
Longnose Gar	*Lepisosteus osseus*	0	0			0	1		1	0	1		1
Gulf Menhaden	*Brevoortia patronus*	2	0		1	2	0		1	0	0		
Gizzard Shad	*Dorosoma petenense*	1	0		1	1	1	1	1	0	1		1
Blue Crab	*Callinectes sapidus*	1	1	1	1	1	1	1	1	1	1	1	1
Channel Catfish	*Ictalurus punctatus*	0	0			0	2		1	0	2		1
Blue Catfish	*Ictalurus furcatus*	0	1		1	0	2		1	1	2	1	1
Striped Mullet	*Mugil cephalus*	0	1		1	0	0			1	0		1
Red Eared Slider	*Trachemys scripta elegans*	0	1		1	0	0			1	0		1
Flathead Catfish	*Polydictis olivaris*	0	0			0	2		1	0	2		1
Spot croaker	*Leiostomus xanthurus*	1	0		1	1	0		1	0	0		
Grass carp	*Ctenopharyngodon idella*	0	1		1	0	0			1	0		1
Spadefish	*Chaetodipterus faber*	2	1	1	1	2	0		1	1	0		1
Black Drum	*Pogonias cromis*	0	1		1	0	0			1	0		1
	Total	29	30	6	17	29	40	7	16	30	40	7	17
		Jaccard Coefficient=		**0.352941**		**Jaccard Coefficient=**		**0.4375**		**Jaccard Coefficient=**		**0.411765**	
		%CCJ=		**35.29412**		**%CCJ=**		**43.75**		**%CCJ=**		**41.17647**	

Bagseine

		Segment A vs Segment B				Segment A vs Segment C				Segment B vs C			
		Segment A	Segment B	Both	Either	Segment A	Segment C	Both	Either	Segment B	Segment C	Both	Either
Cyprinid Spp.	*Cyprinid sp.*	1	0		1	1	0		1	0	0		
Striped Mullet	*Mugi cephalus*	794	342	1	1	794	535	1	1	342	535	1	1
White Mullet	*Mugil curema*	137	32	1	1	137	11	1	1	32	11	1	1
Bay Anchovy	*Anchoa mitchilli*	15	9	1	1	15	0		1	9	0		1
Grass Shrimp	*Palaemonetes pugio*	385	1211	1	1	385	166	1	1	1211	166	1	1
Blue Crab	*Callinectus sapidus*	113	40	1	1	113	36	1	1	40	36	1	1
Rough Silverside	*Membras martinica*	17	0		1	17	0		1	0	0		
Bay Whiff	*Citharichthys spilopterus*	9	6	1	1	9	0		1	6	0		1
Gulf Menhaden	*Brevoorita patronus*	316	2369	1	1	316	275	1	1	2369	275	1	1
Blue Catfish	*Ictalurus furcatus*	4	6	1	1	4	41	1	1	6	41	1	1
Atlantic Croaker	*Micropogonias undulatus*	237	183	1	1	237	142	1	1	183	142	1	1
Gizzard Shad	*Dorosoma cepedianum*	4	4	1	1	4	0		1	4	0		1
Sharptail Goby	*Oligolepis acutipennis*	19	15	1	1	19	5	1	1	15	5	1	1
Threadfin Shad	*Dorosoma petense*	2	1	1	1	2	0		1	1	0		1
Sand Trout	*Cynoscion arenarius*	5	7	1	1	5	10	1	1	7	10	1	1
White Shrimp	*Litopenaeus setiferus*	393	138	1	1	393	53	1	1	138	53	1	1
Spotted Gar	*Lepisosteus oculatus*	0	1		1	0	0			1	0		1
Channel Catfish	*Ictalurus punctatus*	2	8	1	1	2	12	1	1	8	12	1	1
Violet Goby	*Gobioides broussonnetii*	1	0		1	1	0		1	0	0		
Spotfin mojarra	*Eucinostomus argenteus*	3	0		1	3	0		1	0	0		
Sheepshead minnow	*Cyprinodon variegatus*	29	37	1	1	29	13	1	1	37	13	1	1
Diamond killifish	*Adinia xenica*	5	3	1	1	5	3	1	1	3	3	1	1
Naked Goby	*Gobiosoma bosci*	3	0		1	3	0		1	0	0		
Bayou killifish	*Fundulus pulvereus*	1	1	1	1	1	1	1	1	1	1	1	1
Brown Shrimp	*Farfantepenaeus aztecus*	49	114	1	1	49	101	1	1	114	101	1	1
Black Drum	*Pogonias cromis*	1	0		1	1	0		1	0	0		
Sailfin Molly	*Poecilia latipinna*	32	110	1	1	32	8	1	1	110	8	1	1
Freshwater Goby	*Ctenogobius shufeldti*	7	2	1	1	7	0		1	2	0		1
Rainwater killifish	*Lucania parva*	1	1	1	1	1	0		1	1	0		1
Gulf Killifish	*Fundulus sp.*	0	12		1	0	3		1	12	3	1	1
Shiner	*Shiner sp.*	0	2		1	0	0			2	0		1
Alligator Gar	*Atractosteus spatula*	1	1	1	1	1	0		1	1	0		1
Mudminnow	*Fundulus sp.*	1	4	1	1	1	0		1	4	0		1
Bluegill	*Lepomis machrochirus*	1	2	1	1	1	0		1	2	0		1
River Shrimp	*Macrobrachium ohione*	1	8	1	1	1	1	1	1	8	1	1	1
Inland Silverside	*Menidia beryllina*	3	1	1	1	3	2	1	1	1	2	1	1
Sheepshead	*Archosargus probatocephalus*	0	14		1	0	0			14	0		1
Mosquitofish	*Gambusia affinis*	0	1		1	0	0			1	0		1
Spot Croaker	*Leiostomus xanthurus*	80	4	1	1	80	4	1	1	4	4	1	1
Red Drum	*Sciaenops ocellatus*	4	1	1	1	4	3	1	1	1	3	1	1
Southern Flounder	*Paralichthys lethostigma*	2	0		1	2	0			0	0		
Atlantic Brief Squid	*Lolliguncula brevis*	0	1		1	0	0			1	0		1
Lesser Blue Crab	*Callinectus similis*	1	0		1	1	0		1	0	0		
Crevalle Jack	*Caranx hippos*	1	0		1	1	1	1	1	0	1		1
	Total	2680	4691	29	44	2680	1426	21	38	4691	1426	21	36
		Jaccard Coefficient =		**0.659091**		**Jaccard Coefficient =**		**0.552632**		**Jaccard Coefficient =**		**0.583333**	
			%CCJ =	**65.90909**			**%CCJ =**	**55.26316**			**%CCJ =**	**58.33333**	

TRAWL		Segment A vs Segment B				Segment A vs Segment C				Segment B vs C			
		Segment A	Segment B	Both	Either	Segment A	Segment C	Both	Either	Segment B	Segment C	Both	Either
Atlantic Croaker	*Micropogonias undulatus*	322	104	1	1	322	56	1	1	104	56	1	1
Southern flounder	*Paralichthys lethostigma*	10	2	1	1	10	0		1	2	0		1
Hardhead Catfish	*Ariopis felis*	181	60	1	1	181	11	1	1	60	11	1	1
Gulf Menhaden	*Brevoortia patronus*	132	295	1	1	132	649	1	1	295	649	1	1
Star Drum	*Stellifer lanceolatus*	86	0		1	86	0		1	0	0		
Sand Trout	*Cynoscion arenarius*	238	38	1	1	238	18	1	1	38	18	1	1
Silver perch	*Bairdiella chrysoura*	330	8	1	1	330	12	1	1	8	12	1	1
Blue Crab	*Callinectus sapidus*	22	7	1	1	22	48	1	1	7	48	1	1
Brown Shrimp	*Farfantepenaeus aztecus*	187	5	1	1	187	0		1	5	0		1
Crawfish	*Procamburus sp.*	1	0		1	1	0		1	0	0		
River Shrimp	*Macrobrachium ohione*	0	3		1	0	2		1	3	2	1	1
Blue Catfish	*Ictalurus furcatus*	26	166	1	1	26	485	1	1	166	485	1	1
Speckled Trout	*Cynoscion nebulosus*	45	8	1	1	45	0		1	8	0		1
Gafftop Catfish	*Bagre marinus*	143	20	1	1	143	20	1	1	20	20	1	1
Red Drum	*Sciaenops ocellatus*	5	15	1	1	5	5	1	1	15	5	1	1
Black Drum	*Pogonias cromis*	660	631	1	1	660	69	1	1	631	69	1	1
White Shrimp	*Litopenaeus setiferus*	2375	375	1	1	2375	120	1	1	375	120	1	1
Lined Sole	*Achirus lineatus*	1	2	1	1	1	0		1	2	0		1
Channel Catfish	*Ictalurus punctatus*	0	3		1	0	3		1	3	3	1	1
Seabob	*Xiphopenaeus kroyeri*	24	5	1	1	24	98	1	1	5	98	1	1
Striped Mullet	*Mugil cephalus*	1	0		1	1	0		1	0	0		
Atlantic Threadfin	*Polydactylus octonemus*	6	0		1	6	0		1	0	0		
Bay Anchovy	*Anchoa mitchilli*	120	110	1	1	120	34	1	1	110	34	1	1
Spot	*Leiostomus xanthurus*	69	60	1	1	69	27	1	1	60	27	1	1
Ladyfish	*Elops saurus*	0	1		1	0	0			1	0		1
Silver Jenny	*Eucinostomus gula*	0	1		1	0	1		1	1	1	1	1
Spotted Gar	*Lepisosteus oculatus*	0	0		0	0	1		1	0	1		1
Sheepshead Minnow	*Cyprinodon variegatus*	7	0		1	7	0		1	0	0		
Gizzard Shad	*Dorosoma cepedianum*	16	10	1	1	16	26	1	1	10	26	1	1
Spotfin mojarra	*Eucinostomus argenteus*	4	1	1	1	4	0		1	1	0		1
Pinfish	*Lagodon rhomboides*	11	0		1	11	0		1	0	0		
Bay Whiff	*Citharichthys spilopterus*	2	0		1	2	0		1	0	0		
Cichlid	*Cichlasoma sp.*	16	0		1	16	0		1	0	0		
Lesser Blue Crab	*Callinectes similis*	5	0		1	5	0		1	0	0		
Pigfish	*Orthopristis chrysoptera*	0	1		1	0	0			1	0		1
Threadfin Shad	*Dorosoma petenense*	0	1		1	0	6		1	1	6	1	1
White Mullet	*Mugil curema*	1	0		1	1	1	1	1	0	1		1
Southern Stingray	*Dasyatis americana*	1	0		1	1	0		1	0	0		
Atlantic Cutlassfish	*Trichiurus lepturus*	2	3	1	1	2	1	1	1	3	1	1	1
Mangrove Snapper	*Lutjanus griseus*	1	0		1	1	0		1	0	0		
Mud Crab	*Rhithropanopeus harrisii*	1	0		1	1	0		1	0	0		
Sheepshead	*Archosargus probatocephalus*	9	29	1	1	9	10	1	1	29	10	1	1
Atlantic Brief Squid	*Lolliguncula brevis*	21	8	1	1	21	1	1	1	8	1	1	1
Tonguefish	*Symphurus plagiusa*	3	0		1	3	0		1	0	0		
	Total	5084	1972	23	43	5084	1704	19	42	1972	1704	22	31
		Jaccard Coefficient=		**0.534884**		**Jaccard Coefficient=**		**0.452381**		**Jaccard Coefficient=**		**0.709677**	
		%CCJ=		**53.48837**		**%CCJ=**		**45.2381**		**%CCJ=**		**70.96774**	

		6/11/2007			8/28/2007			9/27/2007		
		Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C
Cyprinid Spp.	*Cyprinid sp.*	1	NC	NC	0	0	0	0	0	0
Striped Mullet	*Mugi cephalus*	2	NC	NC	0	0	0	5	0	1
White Mullet	*Mugil curema*	6	NC	NC	0	0	0	0	1	1
Bay Anchovy	*Anchoa mitchilli*	1	NC	NC	5	0	0	0	0	0
Grass Shrimp	*Palaemonetes pugio*	7	NC	NC	0	0	0	0	0	0
Blue Crab	*Callinectus sapidus*	13	NC	NC	2	0	1	1	0	0
Rough Silverside	*Membras martinica*	3	NC	NC	14	0	0	0	0	0
Bay Whiff	*Citharichthys spilopterus*	6	NC	NC	0	1	0	0	0	0
Gulf Menhaden	*Brevoorita patronus*	136	NC	NC	0	1	0	0	0	0
Blue Catfish	*Ictalurus furcatus*	1	NC	NC	2	1	0	0	0	0
Atlantic Croaker	*Micropogonias undulatus*	2	NC	NC	0	0	0	0	0	0
Gizzard Shad	*Dorosoma cepedianum*	0	NC	NC	4	4	0	0	0	0
Sharptail Goby	*Oligolepis acutipennis*	0	NC	NC	1	0	0	0	0	0
Threadfin Shad	*Dorosoma petense*	0	NC	NC	1	1	0	1	0	0
Sand Trout	*Cynoscion arenarius*	0	NC	NC	0	2	1	0	0	0
White Shrimp	*Litopenaeus setiferus*	0	NC	NC	0	3	0	0	0	0
Spotted Gar	*Lepisosteus oculatus*	0	NC	NC	0	1	0	0	0	0
Channel Catfish	*Ictalurus punctatus*	0	NC	NC	0	2	1	0	0	0
Violet Goby	*Gobioides broussonnetii*	0	NC	NC	0	0	0	1	0	0
Spotfin mojarra	*Eucinostomus argenteus*	0	NC	NC	0	0	0	0	0	0
Sheepshead minnow	*Cyprinodon variegatus*	0	NC	NC	0	0	0	0	0	0
Diamond killifish	*Adinia xenica*	0	NC	NC	0	0	0	0	0	0
Naked Goby	*Gobiosoma bosci*	0	NC	NC	0	0	0	0	0	0
Bayou killifish	*Fundulus pulvereus*	0	NC	NC	0	0	0	0	0	0
Brown Shrimp	*Farfantepenaeus aztecus*	0	NC	NC	0	0	0	0	0	0
Black Drum	*Pogonias cromis*	0	NC	NC	0	0	0	0	0	0
Sailfin Molly	*Poecilia latipinna*	0	NC	NC	0	0	0	0	0	0
Freshwater Goby	*Ctenogobius shufeldti*	0	NC	NC	0	0	0	0	0	0
Rainwater killifish	*Lucania parva*	0	NC	NC	0	0	0	0	0	0
Gulf Killifish	*Fundulus grandis*	0	NC	NC	0	0	0	0	0	0
Shiner	*Shiner sp.*	0	NC	NC	0	0	0	0	0	0
Alligator Gar	*Atractosteus spatula*	0	NC	NC	0	0	0	0	0	0
Mudminnow	*Fundulus sp.*	0	NC	NC	0	0	0	0	0	0
Bluegill	*Lepomis machrochirus*	0	NC	NC	0	0	0	0	0	0
River Shrimp	*Macrobrachium ohione*	0	NC	NC	0	0	0	0	0	0
Inland Silverside	*Menidia beryllina*	0	NC	NC	0	0	0	0	0	0
Sheepshead	*Archosargus probatocephalus*	0	NC	NC	0	0	0	0	0	0
Mosquitofish	*Gambusia affinis*	0	NC	NC	0	0	0	0	0	0
Spot Croaker	*Leiostomus xanthurus*	0	NC	NC	0	0	0	0	0	0
Red Drum	*Sciaenops ocellatus*	0	NC	NC	0	0	0	0	0	0
Southern Flounder	*Paralichthys lethostigma*	0	NC	NC	0	0	0	0	0	0
Atlantic Brief Squid	*Lolliguncula brevis*	0	NC	NC	0	0	0	0	0	0
Lesser Blue Crab	*Callinectus similis*	0	NC	NC	0	0	0	0	0	0
Crevalle Jack	*Caranx hippos*	0	NC	NC	0	0	0	0	0	0

bagseine

bagseine

10/30/2007			11/14/2007			12/13/2007			1/24/2008			2/21/2008		
Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C
0	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
0	NC	0	3	1	1	1	2	3	6	4	3	103	29	60
1	NC	0	63	0	0	4	1	0	0	0	0	0	0	0
1	NC	0	6	2	0	0	7	0	0	0	0	1	0	0
0	NC	0	2	19	0	3	2	0	163	179	48	13	580	40
9	NC	1	21	2	4	27	5	5	6	16	3	4	1	2
0	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
1	NC	0	0	0	0	0	0	0	1	5	0	0	0	0
0	NC	0	0	0	0	3	0	0	0	0	7	3	0	4
0	NC	0	1	4	1	0	0	0	0	0	5	0	1	0
0	NC	0	0	0	0	15	0	2	16	27	24	116	55	10
0	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
0	NC	0	0	0	0	3	0	0	0	1	0	1	0	0
0	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
0	NC	0	1	1	0	0	0	0	0	0	0	0	0	0
146	NC	26	63	72	20	184	63	2	0	0	0	0	0	0
0	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
0	NC	7	2	2	0	0	4	0	0	0	0	0	0	0
0	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
3	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
3	NC	0	0	1	0	1	31	2	18	0	9	2	4	2
5	NC	2	0	0	1	0	2	0	0	1	0	0	0	0
2	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
1	NC	0	0	0	0	0	1	0	0	0	1	0	0	0
3	NC	0	3	15	0	0	0	0	0	0	0	0	0	0
0	NC	0	1	0	0	0	0	0	0	0	0	0	0	0
0	NC	0	30	102	6	0	6	2	0	0	0	0	2	0
0	NC	0	4	2	0	0	0	0	0	0	0	1	0	0
0	NC	0	1	1	0	0	0	0	0	0	0	0	0	0
0	NC	0	0	0	0	0	12	1	0	0	2	0	0	0
0	NC	0	0	0	0	0	1	0	0	1	0	0	0	0
0	NC	0	0	0	0	0	1	0	0	0	0	0	0	0
0	NC	0	0	0	0	0	0	0	1	4	0	0	0	0
0	NC	0	0	0	0	0	0	0	1	2	0	0	0	0
0	NC	0	0	0	0	0	0	0	1	0	0	0	0	0
0	NC	0	0	0	0	0	0	0	1	1	2	0	0	0
0	NC	0	0	0	0	0	0	0	0	12	0	0	0	0
0	NC	0	0	0	0	0	0	0	0	1	0	0	0	0
0	NC	0	0	0	0	0	0	0	0	0	0	2	0	0
0	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
0	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
0	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
0	NC	0	0	0	0	0	0	0	0	0	0	0	0	0
0	NC	0	0	0	0	0	0	0	0	0	0	0	0	0

bagseine

bagseine

3/19/2008			4/8/2008			May			Segment Totals			
Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	**Grand Total**
0	0	0	0	0	0	0	0	0	1	0	0	1
135	119	309	523	80	84	16	107	74	794	342	535	1671
0	0	0	34	0	4	29	30	6	137	32	11	180
1	0	0	0	0	0	0	0	0	15	9	0	24
90	20	5	10	8	1	97	403	72	385	1211	166	1762
13	9	14	2	0	0	15	7	6	113	40	36	189
0	0	0	0	0	0	0	0	0	17	0	0	17
0	0	0	0	0	0	1	0	0	9	6	0	15
16	10	1	11	2357	174	147	1	89	316	2369	275	2960
0	0	0	0	0	0	0	0	35	4	6	41	51
21	32	27	55	48	58	12	21	21	237	183	142	562
0	0	0	0	0	0	0	0	0	4	4	0	8
1	0	0	0	2	1	13	12	4	19	15	5	39
0	0	0	0	0	0	0	0	0	2	1	0	3
0	0	0	2	4	7	2	0	2	5	7	10	22
0	0	0	0	0	5	0	0	0	393	138	53	584
0	0	0	0	0	0	0	0	0	0	1	0	1
0	0	0	0	0	4	0	0	0	2	8	12	22
0	0	0	0	0	0	0	0	0	1	0	0	1
0	0	0	0	0	0	0	0	0	3	0	0	3
5	1	0	0	0	0	0	0	0	29	37	13	79
0	0	0	0	0	0	0	0	0	5	3	3	11
0	0	0	0	0	0	1	0	0	3	0	0	3
0	0	0	0	0	0	0	0	0	1	1	1	3
0	0	0	5	0	0	38	99	101	49	114	101	264
0	0	0	0	0	0	0	0	0	1	0	0	1
2	0	0	0	0	0	0	0	0	32	110	8	150
0	0	0	0	0	0	2	0	0	7	2	0	9
0	0	0	0	0	0	0	0	0	1	1	0	2
0	0	0	0	0	0	0	0	0	0	12	3	15
0	0	0	0	0	0	0	0	0	0	2	0	2
0	0	0	1	0	0	0	0	0	1	1	0	2
0	0	0	0	0	0	0	0	0	1	4	0	5
0	0	0	0	0	0	0	0	0	1	2	0	3
0	8	1	0	0	0	0	0	0	1	8	1	10
1	0	0	1	0	0	0	0	0	3	1	2	6
0	0	0	0	0	0	0	2	0	0	14	0	14
0	0	0	0	0	0	0	0	0	0	1	0	1
0	0	0	42	1	3	36	3	1	80	4	4	88
1	0	0	2	0	2	1	1	1	4	1	3	8
1	0	0	0	0	0	1	0	0	2	0	0	2
0	1	0	0	0	0	0	0	0	0	1	0	1
0	0	0	0	0	0	1	0	0	1	0	0	1
0	0	0	0	0	0	1	0	1	1	0	1	2

bagseine

sums	**2680**	**4691**	**1426**	**8797**

bagseine

		6/11/2007			8/28/2007			9/27/2007		
		Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C
Hardhead Catfish	*Ariopis felis*	1	0	0	0	0	0	0	0	0
Sheepshead	*Archosargus probatocephalus*	2	0	0	0	0	0	0	0	0
Smallmouth Buffalo	*Ictiobus bubalus*	0	1	0	0	0	1	0	0	0
Alligator Gar	*Lepisosteus spatula*	0	1	0	0	1	0	0	0	0
Spotted Gar	*Lepisosteus oculatus*	0	0	1	0	0	0	0	1	0
Southern Flounder	*Paralichthys lethostigma*	0	0	1	0	0	0	0	0	0
Red Drum	*Sciaenops ocellatus*	0	0	0	0	0	1	0	1	0
Longnose Gar	*Lepisosteus osseus*	0	0	0	0	0	0	0	0	1
Gulf Menhaden	*Brevoortia patronus*	0	0	0	0	0	0	0	0	0
Gizzard Shad	*Dorosoma petenense*	0	0	0	0	0	0	0	0	0
Blue Crab	*Callinectes sapidus*	0	0	0	0	0	0	0	0	0
Channel Catfish	*Ictalurus punctatus*	0	0	0	0	0	0	0	0	0
Blue Catfish	*Ictalurus furcatus*	0	0	0	0	0	0	0	0	0
Striped Mullet	*Mugil cephalus*	0	0	0	0	0	0	0	0	0
Red Eared Slider	*Trachemys scripta elegans*	0	0	0	0	0	0	0	0	0
Flathead Catfish	*Polydictis olivaris*	0	0	0	0	0	0	0	0	0
Spot croaker	*Leiostomus xanthurus*	0	0	0	0	0	0	0	0	0
Grass carp	*Ctenopharyngodon idella*	0	0	0	0	0	0	0	0	0
Spadefish	*Chaetodipterus faber*	0	0	0	0	0	0	0	0	0
Black Drum	*Pogonias cromis*	0	0	0	0	0	0	0	0	0

hoopnet

10/30/2007			11/14/2007			12/13/2007			1/24/2008			2/21/2008		
Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	2	0	0	0	0	0	0	1	0	0	0
0	1	0	0	0	0	0	0	0	0	0	1	0	1	0
1	0	1	0	1	4	0	1	0	0	0	0	0	0	0
0	1	1	0	1	0	0	0	0	0	0	0	1	1	0
0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
1	2	4	2	1	2	1	2	2	1	0	5	1	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3/19/2008			4/8/2008			May			Totals			Grand Total
Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	
0	0	0	0	0	0	0	0	0	1	0	0	**1**
0	0	0	0	0	0	1	0	0	3	2	1	**6**
0	0	0	0	0	0	0	0	0	0	3	2	**5**
0	0	0	2	1	0	0	0	0	3	5	5	**13**
0	0	1	0	0	0	0	1	1	1	5	4	**10**
0	0	0	0	0	1	0	0	0	1	0	2	**3**
1	0	1	0	0	1	6	1	0	13	8	17	**38**
0	0	0	0	0	0	0	0	0	0	0	1	**1**
0	0	0	0	0	0	0	0	0	2	0	0	**2**
0	0	0	0	0	0	0	0	0	1	0	1	**2**
0	0	0	0	0	0	0	1	1	1	1	1	**3**
0	0	0	0	0	1	0	0	0	0	0	2	**2**
0	0	0	0	1	0	0	0	0	0	1	2	**3**
0	0	0	0	0	0	0	0	0	0	1	0	**1**
0	0	0	0	0	0	0	0	0	0	1	0	**1**
0	0	0	0	0	0	0	0	0	0	0	2	**2**
1	0	0	0	0	0	0	0	0	1	0	0	**1**
0	1	0	0	0	0	0	0	0	0	1	0	**1**
0	0	0	0	0	0	2	1	0	2	1	0	**3**
0	0	0	0	0	0	0	1	0	0	1	0	**1**
									29	**30**	**40**	**99**

		6/11/2007			8/28/2007			9/27/2007			
		Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A
Sheepshead	*Archosargus probatocephalus*	1	0	0	0	0	0	0	0	0	0
Blue Crab	*Callinectus sapidus*	0	2	0	0	0	0	0	0	0	0
Grass Carp	*Ctenopharyngodon idella*	0	0	0	1	0	0	0	0	1	0
Spotted Gar	*Lepisosteus oculatus*	0	0	0	1	0	0	0	0	0	0
Red Drum	*Sciaenops ocellatus*	0	0	0	0	1	1	0	0	0	0
Gafftopsail Catfish	*Bagre marinus*	0	0	0	0	0	0	4	3	0	0
Ladyfish	*Elops saurus*	0	0	0	0	0	0	1	1	0	0
Bull Shark	*Carcharhinus leucas*	0	0	0	0	0	0	3	0	0	0
Blue Catfish	*Ictalurus furcatus*	0	0	0	0	0	0	0	1	1	3
Smallmouth Buffalo	*Ictiobus bubalus*	0	0	0	0	0	0	0	0	1	0
Sand Trout	*Cynoscion arenarius*	0	0	0	0	0	0	0	0	0	2
Southern flounder	*Paralichthys lethostigma*	0	0	0	0	0	0	0	0	0	0
Gulf Menhaden	*Brevoortia patronus*	0	0	0	0	0	0	0	0	0	0
Hardhead Catfish	*Ariopsis felis*	0	0	0	0	0	0	0	0	0	0
Speckled Trout	*Cynoscion nebulosus*	0	0	0	0	0	0	0	0	0	0
Black Drum	*Pogonias cromis*	0	0	0	0	0	0	0	0	0	0
Alligator Gar	*Atractosteus spatula*	0	0	0	0	0	0	0	0	0	0
Atlantic Croaker	*Micropogonias undulatus*	0	0	0	0	0	0	0	0	0	0

gillnet

10/30/2007			11/14/2007			12/13/2007			1/24/2008			2/21/2008		
Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	4	0	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	1	1	2	0	1	1	0	2	0	1	1
0	0	0	7	1	0	4	2	0	0	0	1	0	0	2
1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	1	0	0	1	0	0	0	0	0	1
0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

gillnet

3/19/2008			4/8/2008			May			Total		
Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Total
0	0	0	0	0	0	0	0	1	0	0	**1**
0	0	0	0	0	0	0	0	0	2	0	**2**
0	0	0	0	0	0	0	0	1	0	1	**2**
0	0	0	0	0	0	0	0	1	0	0	**1**
0	0	0	0	1	0	0	0	4	1	3	**8**
1	0	0	0	0	1	0	0	5	4	0	**9**
0	0	0	0	0	0	0	0	1	1	0	**2**
0	0	0	0	0	2	1	0	5	1	0	**6**
2	1	1	1	1	0	0	0	9	7	6	**22**
0	4	2	1	2	0	2	3	5	14	13	**32**
0	0	0	0	0	0	0	0	2	1	2	**5**
0	0	0	0	0	0	0	0	1	1	0	**2**
0	0	0	0	1	1	0	1	2	1	2	**5**
0	0	0	0	0	0	0	0	0	1	0	**1**
0	0	0	0	0	0	0	0	3	0	1	**4**
0	0	0	0	0	0	0	0	1	0	0	**1**
0	0	0	0	0	0	1	0	0	1	1	**2**
0	1	0	0	0	0	0	0	0	0	1	**1**
								41	35	30	**106**

gillnet

		6/11/2007			8/28/2007			9/27/2007			
		Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A
Atlantic Croaker	*Micropogonias undulatus*	19	2	0	6	0	0	1	0	0	43
Southern flounder	*Paralichthys lethostigma*	1	0	0	1	0	0	1	0	0	1
Hardhead Catfish	*Ariopis felis*	7	0	0	2	0	0	3	0	0	65
Menhaden	*Brevoorita patronus*	1	0	0	0	0	0	16	172	5	8
Star Drum	*Stellifer lanceolatus*	5	0	0	0	0	0	1	0	0	0
Sand Trout	*Cynoscion arenarius*	4	0	0	0	0	0	7	0	0	65
Silver perch	*Bairdiella chrysoura*	1	0	0	9	0	0	23	2	0	282
Blue Crab	*Callinectus sapidus*	10	3	2	0	0	0	0	0	0	1
Brown Shrimp	*Farfantepenaeus aztecus*	7	0	0	0	0	0	0	0	0	1
Crawfish	*Procamburus sp.*	1	0	0	0	0	0	0	0	0	0
River Shrimp	*Macrobrachium ohione*	0	2	0	0	1	2	0	0	0	0
Blue Catfish	*Ictalurus furcatus*	0	1	4	14	100	56	0	13	205	0
Speckled Trout	*Cynoscion nebulosus*	0	0	0	3	0	0	1	0	0	1
Gafftop Catfish	*Bagre marinus*	0	0	0	11	0	0	24	0	0	40
Red Drum	*Sciaenops ocellatus*	0	0	0	1	0	0	0	3	1	0
Black Drum	*Pogonias cromis*	0	0	0	1	0	0	3	0	0	2
White Shrimp	*Litopenaeus setiferus*	0	0	0	45	68	0	28	20	1	1042
Lined Sole	*Achirus lineatus*	0	0	0	0	2	0	0	0	0	0
Channel Catfish	*Ictalurus punctatus*	0	0	0	0	3	1	0	0	1	0
Seabob	*Xiphopenaeus kroyeri*	0	0	0	0	0	0	1	2	9	18
Striped Mullet	*Mugil cephalus*	0	0	0	0	0	0	1	0	0	0
Atlantic Threadfin	*Polydactylus octonemus*	0	0	0	0	0	0	1	0	0	0
Bay Anchovy	*Anchoa mitchilli*	0	0	0	0	0	0	9	0	5	2
Spot	*Leiostomus xanthurus*	0	0	0	0	0	0	0	2	0	5
Ladyfish	*Elops saurus*	0	0	0	0	0	0	0	1	0	0
Silver Jenny	*Eucinostomus gula*	0	0	0	0	0	0	0	0	1	0
Spotted Gar	*Lepisosteus oculatus*	0	0	0	0	0	0	0	0	1	0
Sheepshead Minnow	*Cyprinodon variegatus*	0	0	0	0	0	0	0	0	0	7
Gizzard Shad	*Dorosoma cepedianum*	0	0	0	0	0	0	0	0	0	3
Spotfin mojarra	*Eucinostomus argenteus*	0	0	0	0	0	0	0	0	0	1
Pinfish	*Lagodon rhomboides*	0	0	0	0	0	0	0	0	0	11
Bay Whiff	*Citharichthys spilopterus*	0	0	0	0	0	0	0	0	0	2
Cichlid	*Cichlasoma sp.*	0	0	0	0	0	0	0	0	0	9
Lesser Blue Crab	*Callinectes similis*	0	0	0	0	0	0	0	0	0	2
Pigfish	*Orthopristis chrysoptera*	0	0	0	0	0	0	0	0	0	0
Threadfin Shad	*Dorosoma petenense*	0	0	0	0	0	0	0	0	0	0
White Mullet	*Mugil curema*	0	0	0	0	0	0	0	0	0	0
Southern Stingray	*Dasyatis americana*	0	0	0	0	0	0	0	0	0	0
Atlantic Cutlassfish	*Trichiurus lepturus*	0	0	0	0	0	0	0	0	0	0
Mangrove Snapper	*Lutjanus griseus*	0	0	0	0	0	0	0	0	0	0
Mud Crab	*Rhithropanopeus harrisii*	0	0	0	0	0	0	0	0	0	0
Sheepshead	*Archosargus probatocephalus*	0	0	0	0	0	0	0	0	0	0
Squid	*Lolliguncula brevis*	0	0	0	0	0	0	0	0	0	0
Tonguefish	*Symphurus plagiusa*	0	0	0	0	0		0	0	0	0

trawl

trawl

10/30/2007			11/14/2007			12/13/2007			1/24/2008			2/21/2008		
Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A
3	0	17	0	0	13	1	4	18	0	0	70	68	8	30
0	0	3	0	0	2	0	0	0	2	0	1	0	0	0
2	5	97	51	0	4	4	0	0	0	0	1	0	1	0
39	45	83	77	573	0	3	1	0	0	0	1	0	0	0
0	0	36	0	0	34	0	0	0	0	0	0	0	0	0
9	11	80	5	0	4	0	0	0	0	0	0	0	0	0
3	9	7	0	1	2	1	1	0	1	0	0	0	0	3
0	0	2	0	0	0	0	1	2	1	0	0	3	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	70	0	0	4	0	0	0	0	47	83	12	4	4	0
0	0	1	0	0	0	2	0	32	4	0	3	2	0	4
10	7	64	9	0	2	0	0	0	0	0	0	0	0	0
0	3	3	0	1	0	1	0	1	9	0	0	2	0	0
85	3	3	105	4	29	318	8	504	99	0	118	23	43	0
19	38	1056	195	52	128	26	3	0	0	0	5	0	0	26
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
0	44	2	0	42	0	3	3	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	3	0	0	0	1	0	0	0	0	0	2	0	1
5	18	2	43	3	1	3	3	0	1	0	7	0	0	9
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	3	4	1	0	0	0	2	0	3	10	1	0	0	4
0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	3	0	0	0	0	0	0	0	0	1	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	1	3	0	0	0	0	0	1	0
0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	4	3	9	20	2	0	4	3	0
0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

trawl

trawl

3/19/2008			4/8/2008			May			Total			Grand Total
Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C	Segment A	Segment B	Segment C		
11	9	13	4	22	92	15	13	322	104	56		482
0	0	0	0	0	0	0	0	10	2	0		12
2	0	0	0	3	2	1	2	181	60	11		252
0	0	20	3	0	3	1	25	132	295	649		1076
0	0	0	0	0	10	0	0	86	0	0		86
0	0	2	4	2	76	20	5	238	38	18		294
0	1	1	1	0	2	0	0	330	8	12		350
0	1	1	0	0	5	0	44	22	7	48		77
0	0	0	0	0	179	5	0	187	5	0		192
0	0	0	0	0	0	0	0	1	0	0		1
0	0	0	0	0	0	0	0	0	3	2		5
1	58	0	0	1	0	0	0	26	166	485		677
0	0	0	0	0	0	0	0	45	8	0		53
0	0	0	0	0	2	1	13	143	20	20		183
0	0	0	0	0	0	0	0	5	15	5		25
1	11	0	0	0	0	0	0	660	631	69		1360
14	1	15	3	6	30	30	19	2375	375	120		2870
0	0	1	0	0	0	0	0	1	2	0		3
0	0	0	0	0	0	0	0	0	3	3		6
0	0	1	0	0	0	0	0	24	5	98		127
0	0	0	0	0	0	0	0	1	0	0		1
0	0	0	0	0	5	0	0	6	0	0		6
0	2	103	103	25	2	1	2	120	110	34		264
1	1	4	2	2	41	3	0	69	60	27		156
0	0	0	0	0	0	0	0	0	1	0		1
0	0	0	0	0	0	0	0	0	1	1		2
0	0	0	0	0	0	0	0	0	0	1		1
0	0	0	0	0	0	0	0	7	0	0		7
2	10	1	2	0	3	2	1	16	10	26		52
0	0	0	0	0	1	1	0	4	1	0		5
0	0	0	0	0	0	0	0	11	0	0		11
0	0	0	0	0	0	0	0	2	0	0		2
0	0	0	0	0	3	0	0	16	0	0		16
0	0	0	0	0	3	0	0	5	0	0		5
0	0	0	0	0	0	0	0	0	1	0		1
0	0	0	0	0	0	0	0	0	1	6		7
0	0	0	0	0	0	0	0	1	0	1		2
0	0	0	0	0	0	0	0	1	0	0		1
0	0	0	0	0	1	3	1	2	3	1		6
0	0	0	0	0	0	0	0	1	0	0		1
0	0	0	0	0	0	0	0	1	0	0		1
1	2	0	0	0	0	0	0	9	29	10		48
2	1	7	0	0	12	4	0	21	8	1		30
0	0	1	0	0	1	0	0	3	0	0		3

trawl

Sums	**5084**	**1972**	**1704**	**8760**

trawl

Trawl

		Segment A					Segment B					Segment C			
		Total	***Pi***	***Pi^2***	***ln(Pi)***	***Pi*ln(Pi)***	**Total**	***Pi***	***Pi^2***	***ln(Pi)***	***Pi*ln(Pi)***	**Total**	***Pi***	***Pi^2***	***ln(Pi)***
Atlantic Croaker	*Micropogonias undulatus*	322	0.063335956	0.004011443	-2.759302	-0.174763	104	0.052738337	0.002781332	-2.942413	-0.155178	56	0.03286385	0.001080033	-3.415382
Southern flounder	*Paralichthys lethostigma*	10	0.001966955	3.86891E-06	-6.231269	-0.012257	2	0.001014199	1.0286E-06	-6.893656	-0.006992	0	0	0	0
Hardhead Catfish	*Ariopis felis*	181	0.035601888	0.001267494	-3.335357	-0.118745	60	0.030425963	0.000925739	-3.492459	-0.106261	11	0.006455399	4.16722E-05	-5.042838
Gulf Menhaden	*Brevoortia patronus*	132	0.025963808	0.000674119	-3.651052	-0.094795	295	0.14959432	0.022378461	-1.899828	-0.284204	649	0.380868545	0.145060848	-0.965301
Star Drum	*Stellifer lanceolatus*	86	0.016915814	0.000286145	-4.079506	-0.069008	0	0	0	0	0	0	0	0	0
Sand Trout	*Cynoscion arenarius*	238	0.046813533	0.002191507	-3.061583	-0.143324	38	0.019269777	0.000371324	-3.949217	-0.076101	18	0.01056338	0.000111585	-4.550362
Silver perch	*Bairdiella chrysoura*	330	0.06490952	0.004213246	-2.734761	-0.177512	8	0.004056795	1.64576E-05	-5.507362	-0.022342	12	0.007042254	4.95933E-05	-4.955827
Blue Crab	*Callinectus sapidus*	22	0.004327301	1.87255E-05	-5.442811	-0.023553	7	0.003549696	1.26003E-05	-5.640893	-0.020023	48	0.028169014	0.000793493	-3.569533
Brown Shrimp	*Farfantepenaeus aztecus*	187	0.036782061	0.00135292	-3.302745	-0.121482	5	0.002535497	6.42874E-06	-5.977366	-0.015156	0	0	0	0
Crawfish	*Procamburus sp.*	1	0.000196696	3.86891E-08	-8.533854	-0.001679	0	0	0	0	0	0	0	0	0
River Shrimp	*Macrobrachium ohione*	0	0	0	0	0	3	0.001521298	2.31435E-06	-6.488191	-0.00987	2	0.001173709	1.37759E-06	-6.747587
Blue Catfish	*Ictalurus furcatus*	26	0.005114083	2.61538E-05	-5.275757	-0.026981	166	0.084178499	0.00708602	-2.474816	-0.208326	485	0.284624413	0.081011057	-1.256585
Speckled Trout	*Cynoscion nebulosus*	45	0.008851298	7.83455E-05	-4.727191	-0.041842	8	0.004056795	1.64576E-05	-5.507362	-0.022342	0	0	0	0
Gafftopsail Catfish	*Bagre marinus*	143	0.028127459	0.000791154	-3.571009	-0.100443	20	0.010141988	0.00010286	-4.591071	-0.046563	20	0.011737089	0.000137759	-4.445001
Red Drum	*Sciaenops ocellatus*	5	0.000983478	9.67228E-07	-6.924416	-0.00681	15	0.007606491	5.78587E-05	-4.878753	-0.03711	5	0.002934272	8.60995E-06	-5.831296
Black Drum	*Pogonias cromis*	660	0.12981904	0.016852983	-2.041614	-0.26504	631	0.319979716	0.102387019	-1.139498	-0.364616	69	0.040492958	0.00163968	-3.206627
White Shrimp	*Litopenaeus setiferus*	2375	0.467151849	0.21823085	-0.761101	-0.35555	375	0.190162272	0.03616169	-1.659878	-0.315646	120	0.070422535	0.004959333	-2.653242
Lined Sole	*Achirus lineatus*	1	0.000196696	3.86891E-08	-8.533854	-0.001679	2	0.001014199	1.0286E-06	-6.893656	-0.006992	0	0	0	0
Channel Catfish	*Ictalurus punctatus*	0	0	0	0	0	3	0.001521298	2.31435E-06	-6.488191	-0.00987	3	0.001760563	3.09958E-06	-6.342121
Seabob	*Xiphopenaeus kroyeri*	24	0.004720692	2.22849E-05	-5.3558	-0.025283	5	0.002535497	6.42874E-06	-5.977366	-0.015156	98	0.057511737	0.0033076	-2.855766
Striped Mullet	*Mugil cephalus*	1	0.000196696	3.86891E-08	-8.533854	-0.001679	0	0	0	0	0	0	0	0	0
Atlantic Threadfin	*Polydactylus octonemus*	6	0.001180173	1.39281E-06	-6.742094	-0.007957	0	0	0	0	0	0	0	0	0
Bay Anchovy	*Anchoa mitchilli*	120	0.023603462	0.000557123	-3.746362	-0.088427	110	0.055780933	0.003111512	-2.886323	-0.161002	34	0.019953052	0.000398124	-3.914373
Spot Croaker	*Leiostomus xanthurus*	69	0.013571991	0.000184199	-4.299747	-0.058356	60	0.030425963	0.000925739	-3.492459	-0.106261	27	0.01584507	0.000251066	-4.144897
Ladyfish	*Elops saurus*	0	0	0	0	0	1	0.000507099	2.5715E-07	-7.586804	-0.003847	0	0	0	0
Silver Jenny	*Eucinostomus gula*	0	0	0	0	0	1	0.000507099	2.5715E-07	-7.586804	-0.003847	1	0.000586854	3.44398E-07	-7.440734
Spotted Gar	*Lepisosteus oculatus*	0	0	0	0	0	0	0	0	0	0	1	0.000586854	3.44398E-07	-7.440734
Sheepshead Minnow	*Cyprinodon variegatus*	7	0.001376869	1.89577E-06	-6.587943	-0.009071	0	0	0	0	0	0	0	0	0
Gizzard Shad	*Dorosoma cepedianum*	16	0.003147128	9.90442E-06	-5.761265	-0.018131	10	0.005070994	2.5715E-05	-5.284218	-0.026796	26	0.015258216	0.000232813	-4.182637
Spotfin mojarra	*Eucinostomus argenteus*	4	0.000786782	6.19026E-07	-7.147559	-0.005624	1	0.000507099	2.5715E-07	-7.586804	-0.003847	0	0	0	0
Pinfish	*Lagodon rhomboides*	11	0.002163651	4.68138E-06	-6.135958	-0.013276	0	0	0	0	0	0	0	0	0
Bay Whiff	*Citharichthys spilopterus*	2	0.000393391	1.54757E-07	-7.840706	-0.003084	0	0	0	0	0	0	0	0	0
Cichlid	*Cichlasoma sp.*	16	0.003147128	9.90442E-06	-5.761265	-0.018131	0	0	0	0	0	0	0	0	0
Lesser Blue Crab	*Callinectes similis*	5	0.000983478	9.67228E-07	-6.924416	-0.00681	0	0	0	0	0	0	0	0	0
Pigfish	*Orthopristis chrysoptera*	0	0	0	0	0	1	0.000507099	2.5715E-07	-7.586804	-0.003847	0	0	0	0
Threadfin Shad	*Dorosoma petenense*	0	0	0	0	0	1	0.000507099	2.5715E-07	-7.586804	-0.003847	6	0.003521127	1.23983E-05	-5.648974
White Mullet	*Mugil curema*	1	0.000196696	3.86891E-08	-8.533854	-0.001679	0	0	0	0	0	1	0.000586854	3.44398E-07	-7.440734
Southern Stingray	*Dasyatis americana*	1	0.000196696	3.86891E-08	-8.533854	-0.001679	0	0	0	0	0	0	0	0	0
Atlantic Cutlassfish	*Trichiurus lepturus*	2	0.000393391	1.54757E-07	-7.840706	-0.003084	3	0.001521298	2.31435E-06	-6.488191	-0.00987	1	0.000586854	3.44398E-07	-7.440734
Mangrove Snapper	*Lutjanus griseus*	1	0.000196696	3.86891E-08	-8.533854	-0.001679	0	0	0	0	0	0	0	0	0
Mud Crab	*Rhithropanopeus harrisii*	1	0.000196696	3.86891E-08	-8.533854	-0.001679	0	0	0	0	0	0	0	0	0
Sheepshead	*Archosargus probatocephalus*	9	0.00177026	3.13382E-06	-6.336629	-0.011217	29	0.014705882	0.000216263	-4.219508	-0.062052	10	0.005868545	3.44398E-05	-5.138149
Atlantic Brief Squid	*Lolliguncula brevis*	21	0.004130606	1.70619E-05	-5.489331	-0.022674	8	0.004056795	1.64576E-05	-5.507362	-0.022342	1	0.000586854	3.44398E-07	-7.440734
Tonguefish	*Symphurus plagiusa*	3	0.000590087	3.48202E-07	-7.435241	-0.004387	0	0	0	0	0	0	0	0	0
		5084					**1972**					**1704**			

Species Richness & Diversity Indices		***Species Richness & Diversity Indices***		***Species Richness & Diversity Indices***	
Species Richness =	**37**	**Species Richness =**	**29**	**Species Richness =**	
Simpson Index (D) =	**0.250814**	**Simpson Index (D) =**	**0.1766166**	**Simpson Index (D) =**	
Simpson's Index of Diversity (1-D) =	**0.749186**	**Simpson's Index of Diversity (1-D) =**	**0.8233834**	**Simpson's Index of Diversity (1-D) =**	
Simpson's Reciprocal Index (1/D) =	**3.987018**	**Simpson's Reciprocal Index (1/D) =**	**5.6619804**	**Simpson's Reciprocal Index (1/D) =**	
Shannon Index (H) =	**2.039368**	**Shannon Index (H) =**	**2.1303079**	**Shannon Index (H) =**	
Evenness (E) =	**0.564778**	**Evenness (E) =**	**0.6326465**	**Evenness (E) =**	
Catch per Unit of Effort (CPUE) =	**242.0952**	**Catch per Unit of Effort (CPUE) =**	**89.636364**	**Catch per Unit of Effort (CPUE) =**	

*Pi*ln(Pi)*
-0.112243
0
-0.032554
-0.367653
0
-0.048067
-0.0349
-0.10055
0
0
-0.00792
-0.357655
0
-0.052171
-0.017111
-0.129846
-0.186848
0
-0.011166
-0.16424
0
0
-0.078104
-0.065676
0
-0.004367
-0.004367
0
-0.06382
0
0
0
0
0
0
-0.019891
-0.004367
0
-0.004367
0
0
-0.030153
-0.004367
0
24
0.239136
0.760864
4.181716
1.902399
0.598605
77.45455

Gillnet

Common	Scientific	Segment A Total	Pi	Pi^2	ln(Pi)	Pi*ln(Pi)	Segment B Total	Pi	Pi^2	ln(Pi)	Pi*ln(Pi)	Segment C Total	Pi	Pi^2	ln(Pi)	Pi*ln(Pi)
Sheepshead	*Archosargus probatocephalus*	1	0.02439	0.000595	-3.713572	-0.090575	0	0	0	0	0	0	0	0	0	0
Blue Crab	*Callinectus sapidus*	0	0	0	0	0	2	0.057143	0.003265	-2.862201	-0.163554	0	0	0	0	0
Grass Carp	*Ctenopharyngodon idella*	1	0.02439	0.000595	-3.713572	-0.090575	0	0	0	0	0	1	0.033333	0.001111	-3.401197	-0.113373
Spotted Gar	*Lepisosteus oculatus*	1	0.02439	0.000595	-3.713572	-0.090575	0	0	0	0	0	0	0	0	0	0
Red Drum	*Sciaenops ocellatus*	4	0.097561	0.009518	-2.327278	-0.227051	1	0.028571	0.000816	-3.555348	-0.101581	3	0.1	0.01	-2.302585	-0.230259
Gafftopsail Catfish	*Bagre marinus*	5	0.121951	0.014872	-2.104134	-0.256602	4	0.114286	0.013061	-2.169054	-0.247892	0	0	0	0	0
Ladyfish	*Elops saurus*	1	0.02439	0.000595	-3.713572	-0.090575	1	0.028571	0.000816	-3.555348	-0.101581	0	0	0	0	0
Bull Shark	*Carcharhinus leucas*	5	0.121951	0.014872	-2.104134	-0.256602	1	0.028571	0.000816	-3.555348	-0.101581	0	0	0	0	0
Blue Catfish	*Ictalurus furcatus*	9	0.219512	0.048186	-1.516347	-0.332857	7	0.2	0.04	-1.609438	-0.321888	6	0.2	0.04	-1.609438	-0.321888
Smallmouth Buffalo	*Ictiobus bubalus*	5	0.121951	0.014872	-2.104134	-0.256602	14	0.4	0.16	-0.916291	-0.366516	13	0.433333	0.187778	-0.836248	-0.362374
Sand Trout	*Cynoscion arenarius*	2	0.04878	0.00238	-3.020425	-0.147338	1	0.028571	0.000816	-3.555348	-0.101581	2	0.066667	0.004444	-2.70805	-0.180537
Southern flounder	*Paralichthys lethostigma*	1	0.02439	0.000595	-3.713572	-0.090575	1	0.028571	0.000816	-3.555348	-0.101581	0	0	0	0	0
Gulf Menhaden	*Brevoortia patronus*	2	0.04878	0.00238	-3.020425	-0.147338	1	0.028571	0.000816	-3.555348	-0.101581	2	0.066667	0.004444	-2.70805	-0.180537
Hardhead Catfish	*Ariopsis felis*	0	0	0	0	0	1	0.028571	0.000816	-3.555348	-0.101581	0	0	0	0	0
Speckled Trout	*Cynoscion nebulosus*	3	0.073171	0.005354	-2.61496	-0.191339	0	0	0	0	0	1	0.033333	0.001111	-3.401197	-0.113373
Black Drum	*Pogonias cromis*	1	0.02439	0.000595	-3.713572	-0.090575	0	0	0	0	0	0	0	0	0	0
Alligator Gar	*Atractosteus spatula*	0	0	0	0	0	1	0.028571	0.000816	-3.555348	-0.101581	1	0.033333	0.001111	-3.401197	-0.113373
Atlantic Croaker	*Micropogonias undulatus*	0	0	0	0	0	0	0	0	0	0	1	0.033333	0.001111	-3.401197	-0.113373
		41					**35**					**30**				
					Species Richness =	**14**				**Species Richness =**	**12**				**Species Richness =**	**9**
					Simpson Index (D) =	**0.116002**				**Simpson Index (D) =**	**0.222857**				**Simpson Index (D) =**	**0.251111**
					Simpson's Index of Diversity (1-D) =	**0.883998**				**Simpson's Index of Diversity (1-D) =**	**0.777143**				**Simpson's Index of Diversity (1-D) =**	**0.748889**
					Simpson's Reciprocal Index (1/D) =	**8.620513**				**Simpson's Reciprocal Index (1/D) =**	**4.487179**				**Simpson's Reciprocal Index (1/D) =**	**3.982301**
					Shannon Index (H) =	**2.359177**				**Shannon Index (H) =**	**1.912501**				**Shannon Index (H) =**	**1.729087**
					Evenness (E) =	**0.893947**				**Evenness (E) =**	**0.769647**				**Evenness (E) =**	**0.786941**
					Catch per Unit of Effort (CPUE) =	**3.727273**				**Catch per Unit of Effort (CPUE) =**	**3.181818**				**Catch per Unit of Effort (CPUE) =**	**2.727273**

Hoopnet

		Segment A					Segment B					Segment C				
Common	**Scientific**	**Total**	***Pi***	***Pi^2***	***ln(Pi)***	***Pi*ln(Pi)***	**Total**	***Pi***	***Pi^2***	***ln(Pi)***	***Pi*ln(Pi)***	**Total**	***Pi***	***Pi^2***	***ln(Pi)***	***Pi*ln(Pi)***
Hardhead Catfish	*Ariopis felis*	**1**	0.034483	0.001189	-3.367296	-0.116114	**0**	0	0	0	0	**0**	0	0	0	0
Sheepshead	*Archosargus probatocephalus*	**3**	0.103448	0.010702	-2.268684	-0.234691	**2**	0.066667	0.004444	-2.70805	-0.180537	**1**	0.025	0.000625	-3.688879	-0.092222
Smallmouth Buffalo	*Ictiobus bubalus*	**0**	0	0	0	0	**3**	0.1	0.01	-2.302585	-0.230259	**2**	0.05	0.0025	-2.995732	-0.149787
Alligator Gar	*Atractosteus spatula*	**3**	0.103448	0.010702	-2.268684	-0.234691	**5**	0.166667	0.027778	-1.791759	-0.298627	**5**	0.125	0.015625	-2.079442	-0.25993
Spotted Gar	*Lepisosteus oculatus*	**1**	0.034483	0.001189	-3.367296	-0.116114	**5**	0.166667	0.027778	-1.791759	-0.298627	**4**	0.1	0.01	-2.302585	-0.230259
Southern Flounder	*Paralichthys lethostigma*	**1**	0.034483	0.001189	-3.367296	-0.116114	**0**	0	0	0	0	**2**	0.05	0.0025	-2.995732	-0.149787
Red Drum	*Sciaenops ocellatus*	**13**	0.448276	0.200951	-0.802346	-0.359673	**8**	0.266667	0.071111	-1.321756	-0.352468	**17**	0.425	0.180625	-0.855666	-0.363658
Longnose Gar	*Lepisosteus osseus*	**0**	0	0	0	0	**0**	0	0	0	0	**1**	0.025	0.000625	-3.688879	-0.092222
Gulf Menhaden	*Brevoortia patronus*	**2**	0.068966	0.004756	-2.674149	-0.184424	**0**	0	0	0	0	**0**	0	0	0	0
Gizzard Shad	*Dorosoma petenense*	**1**	0.034483	0.001189	-3.367296	-0.116114	**0**	0	0	0	0	**1**	0.025	0.000625	-3.688879	-0.092222
Blue Crab	*Callinectes sapidus*	**1**	0.034483	0.001189	-3.367296	-0.116114	**1**	0.033333	0.001111	-3.401197	-0.113373	**1**	0.025	0.000625	-3.688879	-0.092222
Channel Catfish	*Ictalurus punctatus*	**0**	0	0	0	0	**0**	0	0	0	0	**2**	0.05	0.0025	-2.995732	-0.149787
Blue Catfish	*Ictalurus furcatus*	**0**	0	0	0	0	**1**	0.033333	0.001111	-3.401197	-0.113373	**2**	0.05	0.0025	-2.995732	-0.149787
Striped Mullet	*Mugil cephalus*	**0**	0	0	0	0	**1**	0.033333	0.001111	-3.401197	-0.113373	**0**	0	0	0	0
Red Eared Slider	*Trachemys scripta elegans*	**0**	0	0	0	0	**1**	0.033333	0.001111	-3.401197	-0.113373	**0**	0	0	0	0
Flathead Catfish	*Polydictis olivaris*	**0**	0	0	0	0	**0**	0	0	0	0	**2**	0.05	0.0025	-2.995732	-0.149787
Spot croaker	*Leiostomus xanthurus*	**1**	0.034483	0.001189	-3.367296	-0.116114	**0**	0	0	0	0	**0**	0	0	0	0
Grass carp	*Ctenopharyngodon idella*	**0**	0	0	0	0	**1**	0.033333	0.001111	-3.401197	-0.113373	**0**	0	0	0	0
Spadefish	*Chaetodipterus faber*	**2**	0.068966	0.004756	-2.674149	-0.184424	**1**	0.033333	0.001111	-3.401197	-0.113373	**0**	0	0	0	0
Black Drum	*Pogonias cromis*	**0**	0	0	0	0	**1**	0.033333	0.001111	-3.401197	-0.113373	**0**	0	0	0	0
		29					**30**					**40**				
					Species Richness =	**11**				**Species Richness =**	**12**				**Species Richness =**	**12**
					Simpson Index (D) =	**0.239001**				**Simpson Index (D) =**	**0.148889**				**Simpson Index (D) =**	**0.22125**
					Simpson's Index of Diversity (1-D) =	**0.760999**				**Simpson's Index of Diversity (1-D) =**	**0.851111**				**Simpson's Index of Diversity (1-D) =**	**0.77875**
					Simpson's Reciprocal Index (1/D) =	**4.18408**				**Simpson's Reciprocal Index (1/D) =**	**13.43284**				**Simpson's Reciprocal Index (1/D) =**	**4.519774**
					Shannon Index (H) =	**1.894585**				**Shannon Index (H) =**	**2.154129**				**Shannon Index (H) =**	**1.971668**
					Evenness (E) =	**0.790103**				**Evenness (E) =**	**0.866885**				**Evenness (E) =**	**0.793457**
					Catch per Unit of Effort (CPUE) =	**2.636364**				**Catch per Unit of Effort (CPUE) =**	**2.727273**				**Catch per Unit of Effort (CPUE) =**	**3.636364**

Bagseine

		Segment A					Segment B					Segment C		
		Total	***Pi***	***Pi^2***	***ln(Pi)***	***Pi*ln(Pi)***	**Total**	***Pi***	***Pi^2***	***ln(Pi)***	***Pi*ln(Pi)***	**Total**	***Pi***	***Pi^2***
Cyprinid Spp.	*Cyprinid sp.*	1	0.000373	1.39229E-07	-7.893572	-0.002945	0	0	0	0	0	0	0	0
Striped Mullet	*Mugi cephalus*	794	0.296269	0.087775117	-1.216489	-0.360407	342	0.072906	0.005315221	-2.61859	-0.19091	535	0.375175	0.140756517
White Mullet	*Mugil curema*	137	0.051119	0.002613193	-2.973591	-0.152008	32	0.006822	4.65339E-05	-4.987665	-0.034024	11	0.007714	5.9504E-05
Bay Anchovy	*Anchoa mitchilli*	15	0.005597	3.13266E-05	-5.185522	-0.029023	9	0.001919	3.6809E-06	-6.256176	-0.012003	0	0	0
Grass Shrimp	*Palaemonetes pugio*	385	0.143657	0.020637252	-1.940329	-0.278741	1211	0.258154	0.066643442	-1.354199	-0.349592	166	0.11641	0.01355118
Blue Crab	*Callinectus sapidus*	113	0.042164	0.001777818	-3.166184	-0.1335	40	0.008527	7.27092E-05	-4.764522	-0.040627	36	0.025245	0.000637332
Rough Silverside	*Membras martinica*	17	0.006343	4.02372E-05	-5.060359	-0.032099	0	0	0	0	0	0	0	0
Bay Whiff	*Citharichthys spilopterus*	9	0.003358	1.12776E-05	-5.696347	-0.01913	6	0.001279	1.63596E-06	-6.661642	-0.008521	0	0	0
Gulf Menhaden	*Brevoorita patronus*	316	0.11791	0.013902874	-2.13783	-0.252072	2369	0.50501	0.255034689	-0.683178	-0.345011	275	0.192847	0.037190014
Blue Catfish	*Ictalurus furcatus*	4	0.001493	2.22767E-06	-6.507278	-0.009712	6	0.001279	1.63596E-06	-6.661642	-0.008521	41	0.028752	0.000826663
Atlantic Croaker	*Micropogonias undulatus*	237	0.088433	0.007820366	-2.425512	-0.214495	183	0.039011	0.001521848	-3.243915	-0.126548	142	0.099579	0.009916026
Gizzard Shad	*Dorosoma cepedianum*	4	0.001493	2.22767E-06	-6.507278	-0.009712	4	0.000853	7.27092E-07	-7.067107	-0.006026	0	0	0
Sharptail Goby	*Oligolepis acutipennis*	19	0.00709	5.02618E-05	-4.949133	-0.035087	15	0.003198	1.02247E-05	-5.745351	-0.018371	5	0.003506	1.22942E-05
Threadfin Shad	*Dorosoma petense*	2	0.000746	5.56917E-07	-7.200425	-0.005373	1	0.000213	4.54432E-08	-8.453401	-0.001802	0	0	0
Sand Trout	*Cynoscion arenarius*	5	0.001866	3.48073E-06	-6.284134	-0.011724	7	0.001492	2.22672E-06	-6.507491	-0.009711	10	0.007013	4.91769E-05
White Shrimp	*Litopenaeus setiferus*	393	0.146642	0.021503815	-1.919762	-0.281517	138	0.029418	0.000865421	-3.526147	-0.103732	53	0.037167	0.001381378
Spotted Gar	*Lepisosteus oculatus*	0	0	0	0	0	1	0.000213	4.54432E-08	-8.453401	-0.001802	0	0	0
Channel Catfish	*Ictalurus punctatus*	2	0.000746	5.56917E-07	-7.200425	-0.005373	8	0.001705	2.90837E-06	-6.37396	-0.01087	12	0.008415	7.08147E-05
Violet Goby	*Gobioides broussonnetii*	1	0.000373	1.39229E-07	-7.893572	-0.002945	0	0	0	0	0	0	0	0
Spotfin Mojarra	*Eucinostomus argenteus*	3	0.001119	1.25306E-06	-6.79496	-0.007606	0	0	0	0	0	0	0	0
Sheepshead minnow	*Cyprinodon variegatus*	29	0.010821	0.000117092	-4.526276	-0.048978	37	0.007887	6.22118E-05	-4.842483	-0.038195	13	0.009116	8.31089E-05
Diamond killifish	*Adinia xenica*	5	0.001866	3.48073E-06	-6.284134	-0.011724	3	0.00064	4.08989E-07	-7.354789	-0.004704	3	0.002104	4.42592E-06
Naked Goby	*Gobiosoma bosci*	3	0.001119	1.25306E-06	-6.79496	-0.007606	0	0	0	0	0	0	0	0
Bayou killifish	*Fundulus pulvereus*	1	0.000373	1.39229E-07	-7.893572	-0.002945	1	0.000213	4.54432E-08	-8.453401	-0.001802	1	0.000701	4.91769E-07
Brown Shrimp	*Farfantepenaeus aztecus*	49	0.018284	0.000334289	-4.001752	-0.073166	114	0.024302	0.00059058	-3.717203	-0.090335	101	0.070827	0.005016533
Black Drum	*Pogonias cromis*	1	0.000373	1.39229E-07	-7.893572	-0.002945	0	0	0	0	0	0	0	0
Sailfin Molly	*Poecilia latipinna*	32	0.01194	0.000142571	-4.427836	-0.05287	110	0.023449	0.000549863	-3.752921	-0.088003	8	0.00561	3.14732E-05
Freshwater Goby	*Ctenogobius shufeldti*	7	0.002612	6.82223E-06	-5.947662	-0.015535	2	0.000426	1.81773E-07	-7.760254	-0.003309			
Rainwater killifish	*Lucania parva*	1	0.000373	1.39229E-07	-7.893572	-0.002945	1	0.000213	4.54432E-08	-8.453401	-0.001802			
Gulf Killifish	*Fundulus grandis*	0	0	0	0	0	12	0.002558	6.54382E-06	-5.968494	-0.015268	3	0.002104	4.42592E-06
Shiner	*Shiner sp.*	0	0	0	0	0	2	0.000426	1.81773E-07	-7.760254	-0.003309			
Alligator Gar	*Atractosteus spatula*	1	0.000373	1.39229E-07	-7.893572	-0.002945	1	0.000213	4.54432E-08	-8.453401	-0.001802			
Mudminnow	*Fundulus sp.*	1	0.000373	1.39229E-07	-7.893572	-0.002945	4	0.000853	7.27092E-07	-7.067107	-0.006026			
Bluegill	*Lepomis machrochirus*	1	0.000373	1.39229E-07	-7.893572	-0.002945	2	0.000426	1.81773E-07	-7.760254	-0.003309			
River Shrimp	*Macrobrachium ohione*	1	0.000373	1.39229E-07	-7.893572	-0.002945	8	0.001705	2.90837E-06	-6.37396	-0.01087	1	0.000701	4.91769E-07
Inland Silverside	*Menidia beryllina*	3	0.001119	1.25306E-06	-6.79496	-0.007606	1	0.000213	4.54432E-08	-8.453401	-0.001802	2	0.001403	1.96708E-06
Sheepshead	*Archosargus probatocephalus*	0	0	0	0	0	14	0.002984	8.90687E-06	-5.814344	-0.017353	0	0	0
Mosquitofish	*Gambusia affinis*	0	0	0	0	0	1	0.000213	4.54432E-08	-8.453401	-0.001802	0	0	0
Spot Croaker	*Leiostomus xanthurus*	80	0.029851	0.000891067	-3.511545	-0.104822	4	0.000853	7.27092E-07	-7.067107	-0.006026	4	0.002805	7.8683E-06
Red Drum	*Sciaenops ocellatus*	4	0.001493	2.22767E-06	-6.507278	-0.009712	1	0.000213	4.54432E-08	-8.453401	-0.001802	3	0.002104	4.42592E-06
Southern Flounder	*Paralichthys lethostigma*	2	0.000746	5.56917E-07	-7.200425	-0.005373	0	0	0	0	0			
Atlantic Brief Squid	*Lolliguncula brevis*	0	0	0	0	0	1	0.000213	4.54432E-08	-8.453401	-0.001802			
Lesser Blue Crab	*Callinectus similis*	1	0.000373	1.39229E-07	-7.893572	-0.002945	0	0	0	0	0			
Crevalle Jack	*Caranx hippos*	1	0.000373	1.39229E-07	-7.893572	-0.002945	0	0	0	0	0	1	0.000701	4.91769E-07
		2680					**4691**					**1426**		

Species Richness & Diversity Indices

	Segment A	Segment B	Segment C
Species Richness =	**38**	**35**	**Species R**
Simpson Index (D) =	**0.157676**	**0.330747**	**Simpson I**
Simpson's Index of Diversity (1-D) =	**0.842324**	**0.669253**	**Simpson's Index of Divers**
Simpson's Reciprocal Index (1/D) =	**6.34212**	**3.023461**	**Simpson's Reciprocal Ind**
Shannon Index (H) =	**2.207376**	**1.567389**	**Shannon I**
Evenness (E) =	**0.606824**	**0.440854**	**Even**
Catch per Unit of Effort (CPUE) =	**243.6364**	**Catch per Unit of Effort (CPUE)* =** **521.2222**	**Catch per Unit of Effort (CP**

*skewed by large menhaden catch in April

ln(Pi)	*Pi*ln(Pi)*
0	0
-0.980362	-0.367808
-4.864733	-0.037526
0	0
-2.150641	-0.250355
-3.67911	-0.092881
0	0
0	0
-1.645858	-0.317399
-3.549057	-0.102042
-2.306802	-0.22971
0	0
-5.653191	-0.019822
0	0
-4.960044	-0.034783
-3.292337	-0.122366
0	0
-4.777722	-0.040205
0	0
0	0
-4.697679	-0.042826
-6.164016	-0.012968
0	0
-7.262629	-0.005093
-2.647508	-0.187516
0	0
-5.183187	-0.029078
0	
0	
-6.164016	-0.012968
0	
0	
0	
0	
-7.262629	-0.005093
-6.569481	-0.009214
0	0
0	0
-5.876334	-0.016483
-6.164016	-0.012968
0	
0	
0	
-7.262629	-0.005093

ity Indices

ichness =	**22**
ndex (D) =	**0.209607**
ity (1-D) =	**0.790393**
lex (1/D) =	**4.770842**
Index (H) =	**1.954196**
ness (E) =	**0.632212**
UE) =	**142.6**

Table 2: Cumulative Catch by Gear for the lower Colorado River Study 2008.

Common Name	Scientific Name	Sampling Gear Utilized				Total
		Bag Seine	Gill Net	Hoop Net	Trawl	
Finfish						
Alligator Gar	*Atractosteus spatula*	2	2	13		17
Atlantic Croaker	*Micropogonias undulatus*	562	1		482	1045
Atlantic Cutlassfish	*Trichiurus lepturus*				6	6
Atlantic Threadfin	*Polydactylus octonemus*				6	6
Bay Anchovy	*Anchoa mitchilli*	24			264	288
Bay Whiff	*Citharichthys spilopterus*	15			2	17
Bayou Killifish	*Fundulus pulvereus*	3				3
Black Drum	*Pogonias cromis*	1	1	1	1360	1363
Blue Catfish	*Ictalurus furcatus*	51	22	3	677	753
Bluegill	*Lepomis macrochirus*	3				3
Bull Shark	*Carcharhinus leucas*		6			6
Channel Catfish	*Ictalurus punctatus*	22		2	6	30
Cichlid	*Cichlasoma sp.*				16	16
Crevalle Jack	*Caranx hippos*	2				2
Cyprinid Spp.	*Cyprinid sp.*	1				1
Diamond Killifish	*Adinia xenica*	11				11
Flathead Catfish	*Polydictis olivaris*			2		2
Freshwater Goby	*Ctenogobius shufeldti*	9				9
Gafftopsail Catfish	*Bagre marinus*		9		183	192
Gizzard Shad	*Dorosoma cepedianum*	8		2	52	62
Grass Carp	*Ctenopharyngodon idella*		2	1		3
Gulf Killifish	*Fundulus grandis*	15				15
Gulf Menhaden	*Brevoortia patronus*	2960	5	2	1076	4043
Hardhead Catfish	*Ariopsis felis*		1	1	252	254
Inland Silverside	*Menidia beryllina*	6				6
Ladyfish	*Elops saurus*		2		1	3
Lined Sole	*Achirus lineatus*				3	3
Longnose Gar	*Lepisosteus osseus*			1		1
Mangrove Snapper	*Lutjanus griseus*				1	1
Mosquitofish	*Gambusia affinis*	1				1
Mudminnow	*Fundulus sp.*	5				
Naked Goby	*Gobiosoma bosci*	3				3
Pigfish	*Orthopristis chrysoptera*				1	1
Pinfish	*Lagodon rhomboides*				11	11
Rainwater Killifish	*Lucania parva*	2				2
Red Drum	*Sciaenops ocellatus*	8	8	38	25	79
Rough Silverside	*Membras martinica*	17				17
Sailfin Molly	*Poecilia latipinna*	150				150
Sand Trout	*Cynoscion arenarius*	22	5		294	321
Sharptail Goby	*Oligolepis acutipennis*	39				39
Sheepshead	*Archosargus probatocephalus*	14	1	6	48	69
Sheepshead Minnow	*Cyprinodon variegatus*	79			7	86
Shiner	*Shiner sp.*	2				2
Silver Jenny	*Eucinostomus gula*				2	2
Silver Perch	*Bairdiella chrysoura*				350	350
Smallmouth Buffalo	*Ictiobus bubalus*		32	5		37
Southern Flounder	*Paralichthys lethostigma*	2	2	3	12	19
Southern Stingray	*Dasyatis americana*				1	1
Spadefish	*Chaetodipterus faber*			3		3
Speckled Trout	*Cynoscion nebulosus*		4		53	57
Spot croaker	*Leiostomus xanthurus*	88		1	156	245
Spotfin mojarra	*Eucinostomus argenteus*	3			5	8
Spotted Gar	*Lepisosteus oculatus*	1	1	10	1	13
Star Drum	*Stellifer lanceolatus*				86	86
Striped Mullet	*Mugil cephalus*	1671		1	1	1673
Threadfin Shad	*Dorosoma petenense*	3			7	10
Tonguefish	*Symphurus plaguisa*				3	3
Violet Goby	*Gobioides broussonnetii*	1				1
White Mullet	*Mugil curema*	180			2	182

Table 2 continued.

Common Name	Scientific Name	Sampling Gear Utilized				Total
		Bag Seine	Gill Net	Hoop Net	Trawl	
Invertebrates						
Atlantic Brief squid	*Lolliguncula brevis*	1			30	31
Blue Crab	*Callinectes sapidus*	189	2	3	77	271
Brown Shrimp	*Farfantepenaeus aztecus*	264			192	456
Crawfish	*Procamburus sp.*				1	1
Grass Shrimp	*Palaemonetes pugio*	1762				1762
Lesser Blue Crab	*Callinectes similis*	1			5	6
Mud Crab	*Rhithropanopeus harrisii*				1	1
Red-eared slider	*Trachemys scripta elegans*			1		1
River Shrimp	*Macrobrachium ohione*	10			5	15
Seabob	*Xiphopenaeus kroyeri*				127	127
White Shrimp	*Litopenaeus setiferus*	584			2870	3454
	Total	8797	106	99	8760	**17762**

Table 3. Abundance and distribution of species collected in three reaches of the lower Colorado River, 2007-2008.

Common Name	Scientific Name	Segment A	Segment B	Segment C	Total
Finfish					
Alligator Gar	*Atractosteus spatula*	4	7	6	17
Atlantic Croaker	*Micropogonias undulatus*	559	287	199	1045
Atlantic Cutlassfish	*Trichiurus lepturus*	2	3	1	6
Atlantic Threadfin	*Polydactylus octonemus*	6	0	0	6
Bay Anchovy	*Anchoa mitchilli*	135	119	34	288
Bay Whiff	*Citharichthys spilopterus*	11	6	0	17
Bayou killifish	*Fundulus pulvereus*	1	1	1	3
Black Drum	*Pogonias cromis*	662	632	69	1363
Blue Catfish	*Ictalurus furcatus*	39	180	534	753
Bluegill	*Lepomis machrochirus*	1	2	0	3
Bull Shark	*Carcharhinus leucas*	5	1	0	6
Channel Catfish	*Ictalurus punctatus*	2	11	17	30
Cichlid	*Cichlasoma sp.*	16	0	0	16
Crevalle Jack	*Caranx hippos*	1	0	1	2
Cyprinid Spp.	*Cyprinid sp.*	1	0	0	1
Diamond killifish	*Adinia xenica*	5	3	3	11
Flathead Catfish	*Polydictis olivaris*	0	0	2	2
Freshwater Goby	*Ctenogobius shufeldti*	7	2	0	9
Gafftopsail Catfish	*Bagre marinus*	148	24	20	192
Gizzard Shad	*Dorosoma cepedianum*	21	14	27	62
Grass carp	*Ctenopharyngodon idella*	1	1	1	3
Gulf Killifish	*Fundulus grandis*	0	12	3	15
Gulf Menhaden	*Brevoortia patronus*	452	2665	926	4043
Hardhead Catfish	*Ariopis felis*	182	61	11	254
Inland Silverside	*Menidia beryllina*	3	1	2	6
Ladyfish	*Elops saurus*	1	2	0	3
Lined Sole	*Achirus lineatus*	1	2	0	3
Longnose Gar	*Lepisosteus osseus*	0	0	1	1
Mangrove Snapper	*Lutjanus griseus*	1	0	0	1
Mosquitofish	*Gambusia affinis*	0	1	0	1
Mudminnow	*Fundulus sp.*	1	4	0	5
Naked Goby	*Gobiosoma bosci*	3	0	0	3
Pigfish	*Orthopristis chrysoptera*	0	1	0	1
Pinfish	*Lagodon rhomboides*	11	0	0	11
Rainwater killifish	*Lucania parva*	1	1	0	2
Red Drum	*Sciaenops ocellatus*	26	25	28	79
Rough Silverside	*Membras martinica*	17	0	0	17
Sailfin Molly	*Poecilia latipinna*	32	110	8	150
Sand Trout	*Cynoscion arenarius*	245	46	30	321
Sharptail Goby	*Oligolepis acutipennis*	19	15	5	39
Sheepshead	*Archosargus probatocephalus*	13	45	11	69
Sheepshead Minnow	*Cyprinodon variegatus*	36	37	13	86
Shiner	*Shiner sp.*	0	2	0	2
Silver Jenny	*Eucinostomus gula*	0	1	1	2
Silver Perch	*Bairdiella chrysoura*	330	8	12	350
Smallmouth Buffalo	*Ictiobus bubalus*	5	17	15	37

Southern Flounder	*Paralichthys lethostigma*	14	3	2	19

Table 3. Continued.

Common Name	Scientific Name	Segment A	Segment B	Segment C	Total
Finfish continued					
Southern Stingray	*Dasyatis americana*	1	0	0	1
Spadefish	*Chaetodipterus faber*	2	1	0	3
Speckled Trout	*Cynoscion nebulosus*	48	8	1	57
Spot Croaker	*Leiostomus xanthurus*	150	64	31	245
Spotfin Mojarra	*Eucinostomus argenteus*	7	1	0	8
Spotted Gar	*Lepisosteus oculatus*	2	6	5	13
Star Drum	*Stellifer lanceolatus*	86	0	0	86
Striped Mullet	*Mugil cephalus*	795	343	535	1673
Threadfin Shad	*Dorosoma petenense*	2	2	6	10
Tonguefish	*Symphurus plagiusa*	3	0	0	3
Violet Goby	*Gobioides broussonnetii*	1	0	0	1
White Mullet	*Mugil curema*	138	32	12	182
Invertebrates					
Atlantic Brief Squid	*Lolliguncula brevis*	21	9	1	31
Blue Crab	*Callinectus sapidus*	136	50	85	271
Brown Shrimp	*Farfantepenaeus aztecus*	236	119	101	456
Crawfish	*Procamburus sp.*	1	0	0	1
Grass Shrimp	*Palaemonetes pugio*	385	1211	166	1762
Lesser Blue Crab	*Callinectes similis*	6	0	0	6
Mud Crab	*Rhithropanopeus harrisii*	1	0	0	1
Red-eared Slider	*Trachemys scripta elegans*	0	1	0	1
River Shrimp	*Macrobrachium ohione*	1	11	3	15
Seabob	*Xiphopenaeus kroyeri*	24	5	98	127
White Shrimp	*Litopenaeus setiferus*	2768	513	173	3454
	Total	7834	6728	3200	17762