

Center for Fisheries Research & Development - Gulf Coast Research Laboratory

**SEAMAP Fall Shrimp/Groundfish Survey, *R/V Tommy Munro*
Cruise 1006 – East Delta Stations**

Introduction - The East Delta Fall Shrimp/Groundfish Survey cruise was conducted from October 6, 2010, through October 8, 2010. A total of 17 trawl stations were sampled following the revised trawl protocol of a 30-minute (bottom) tow time and no day/night designations for stations. Two SEAMAP plankton stations (B178 & B179) were also sampled during the cruise.

Objectives

- Conduct fall trawl survey in East Delta region at randomly-selected stations (locations of which are provided by NMFS) with standard SEAMAP 40-ft trawls to collect information on shrimp and groundfish abundance and distribution.
- Process all species (identified to the species level) collected by 40-ft trawl using the FSCS software for total number and total weight. Process individual lengths and weights, sampled (or sub-sampled) by species, using FSCS software according to the SEAMAP Operations Manual.
- Collect information on physical-chemical and environmental parameters in conjunction with trawl sampling and process those using SCS software.
- Submit data to the Gulf States Marine Fisheries commission/NMFS Data Manager.

Methods - All trawl samples were collected aboard the *R/V Tommy Munro*. A 40 ft. trawl with 1.58 inch stretched mesh was lowered into position at selected stations, and the towline was set at a 3.5:1 cable length to water depth ratio. Trawling was conducted at or near 3 knots for a period of 30 minutes after lockdown. Sample and data processing was conducted in accordance with the SEAMAP Operations Manual. Data were entered using the Fisheries Scientific Computer System. Environmental data were collected in conjunction with each trawl. Temperature, dissolved oxygen, and salinity values were measured and recorded, along with meteorological conditions.

Results – An expanded total of 2,333.5 kg of biota was collected in 17 trawl samples. Time, location and depth are presented in Table 1 and overall catch data are given in Tables 2 and 3. All data are on file with the Gulf States Marine Fisheries Commission.

Deviations - There were no deviations from standard SEAMAP protocol.

Cruise participants - USM/GCRL/CFRD

Submitted By:



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Table 1. Time, location and depth data for 40-ft trawl samples collected aboard *R/V Tommy Munro*, SEAMAP Cruise Number 1006 – East Delta, Oct 6 - 8, 2010.

SEAMAP STATION N	START DATE/TIME	START LATITUDE	START LONGITUDE	START DEPT H	TOW TIME
E1102	10/06/2010 23:23:34	3009.66	08841.75	7.6	29.7
E1103	10/07/2010 2:32:51	3006.00	08815.61	10.3	30.07
E1106	10/07/2010 5:02:20	2952.63	08812.89	17	30.02
E1108	10/07/2010 7:54:16	2948.37	08816.82	19	30.1
E1109	10/07/2010 10:36:01	2944.54	08812.46	20	30.47
E1006	10/07/2010 13:23:12	2940.28	08757.32	21	30.03
E1008	10/07/2010 15:12:53	2936.28	08755.61	20	30.02
E1112	10/07/2010 17:22:23	2929.10	08808.24	24	30.43
E1113	10/07/2010 19:33:34	2928.79	08814.73	26	30.28
E1115	10/08/2010 0:42:01	2918.24	08838.94	33	30.17
E1116	10/08/2010 3:45:52	2905.17	08853.04	46	30.1
E1114	10/08/2010 7:13:49	2924.63	08846.03	17	30.25
E1111	10/08/2010 9:30:39	2929.15	08856.60	6.4	30.3
E1110	10/08/2010 13:18:37	2939.80	08826.73	21	30.48
E1107	10/08/2010 16:02:31	2951.62	08825.98	17	29.95
E1105	10/08/2010 19:18:09	2958.97	08836.03	12	30.3
E1104	10/08/2010 22:00:14	3005.34	08838.46	8.9	30.33

Table 2. Total catch weight (kg) for SEAMAP Cruise Number 1006 – East Delta, Oct 6 - 8, 2010.

SEAMAP STATION	"FINFISH" TOTAL	"CRUSTACEAN" TOTAL	"OTHER" TOTAL	STATION TOTAL
E1102	22.9	0.1	20.6	43.5
E1103	81.3	3.3	0.5	85.2
E1106	183.5	3.8	0.0	187.3
E1108	134.7	5.5	0.0	140.2
E1109	78.5	9.5	0.0	88.0
E1006	8.1	0.0	4.0	12.2
E1008	1.9	0.0	3.2	5.2
E1112	26.7	0.0	0.6	27.3
E1113	41.4	0.0	1.3	42.6
E1115	28.2	19.6	3.5	51.3

E1116	20.6	9.2	0.0	29.8
E1114	36.0	2.0	0.0	38.0
E1111	2.2	0.2	23.3	25.7
E1110	39.3	0.1	0.0	39.5
E1107	262.3	0.1	0.0	262.4
E1105	1125.9	0.4	0.0	1126.3
E1104	38.0	0.9	90.3	129.1

Table 3. Dominant species collected by number (A) and weight (B) in 40-ft trawls aboard R/V Tommy Munro, SEAMAP Cruise Number 1006 – East Delta, Oct 6 - 8, 2010.

A. Dominant Species by Total Number

TAXON	TOTAL NUMBER
<i>MICROPOGONIAS UNDULATUS</i>	42,420
<i>STENOTOMUS CAPRINUS</i>	10,545
<i>PENAEUS AZTECUS</i>	1,681
<i>CHLOROSCOMBRUS CHRYSURUS</i>	826
<i>TRICHIURUS LEPTURUS</i>	703
<i>LEIOSTOMUS XANTHURUS</i>	697
<i>CENTROPRISTIS PHILADELPHICUS</i>	537
<i>PORTUNUS SPINICARPUS</i>	462
<i>CYNOSCIION NOTHUS</i>	378
<i>SQUILLA CHYDAEA</i>	327
<i>PARAPENAEUS POLITUS</i>	309
<i>PRIONOTUS LONGISPINOSUS</i>	305
<i>SOLENOCERA VIOSCAI</i>	233
<i>ANCHOA HEPSETUS</i>	232
<i>TRACHURUS LATHAMI</i>	226
<i>PEPRILUS BURTI</i>	201
<i>LAGODON RHOMBOIDES</i>	191
<i>AMUSIUM POPYRACEUM</i>	155

B. Dominant Species by Total Weight (kg)

TAXON	TOTAL WEIGHT (kg)
<i>MICROPOGONIAS UNDULATUS</i>	1,457.6
<i>STENOTOMUS CAPRINUS</i>	173.5
<i>TRICHIURUS LEPTURUS</i>	150.5
<i>LEIOSTOMUS XANTHURUS</i>	53.8
<i>AURELIA AURITA</i>	50.4
<i>PENAEUS AZTECUS</i>	40.6
<i>BAGRE MARINUS</i>	37.5
<i>CHLOROSCOMBRUS CHRYSURUS</i>	34.4
<i>CYNOSCIION NOTHUS</i>	34.0
<i>LAGODON RHOMBOIDES</i>	20.9
<i>CYNOSCIION ARENARIUS</i>	20.8
<i>SYNODUS FOETENS</i>	16.5
<i>POMATOMUS SALTATRIX</i>	15.3
<i>CENTROPRISTIS PHILADELPHICUS</i>	14.6
<i>PRIONOTUS LONGISPINOSUS</i>	12.3
<i>PEPRILUS BURTI</i>	9.9
<i>ELOPS SAURUS</i>	8.5
<i>ARIUS FELIS</i>	7.6