

SEAMAP Fall 2007 Groundfish and Shrimp Survey Cruise Report

Prepared by
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Introduction

SEAMAP Fall groundfish and shrimp cruises are conducted to provide fishery-independent monitoring and assessment information essential to management of Louisiana Gulf of Mexico fisheries resources in a coordinated and cost-efficient program. Fishery-independent information is that collected without direct reliance on statistics reported by commercial or recreational fishermen.

Objectives

1. Conduct a fall trawl survey to collect information on shrimp and groundfish abundance and distribution with standard SEAMAP 40-ft trawls.
2. Select stations from NMFS generated charts of SEAMAP station location west of the Mississippi River for random sampling. All species are identified, weighed and counted, and measured according to NMFS SEAMAP Operations Manual.
3. Collect information on environmental parameters (salinity, temperature, dissolved oxygen, wind speed and direction, wave height, precipitation) in conjunction with trawl sampling.
4. Code all data according to approved NMFS SEAMAP Operations Manual guidelines, and enter data on the NMFS SEAMAP data entry system.
5. Submit data to the Gulf States Marine Fisheries Commission/NMFS Data Manager.

Methods

The vessel that participated in the Louisiana Summer Groundfish Survey was the R/V Pelican on October 8 – 11, 2007. A 40 ft trawl with 1.58 inch stretched mesh was lowered into position at the selected site and towline was set at a 5:1 cable length water depth ratio to sample shrimp and groundfish species. Trawl towing was conducted at or near 3 knots for a minimum 10 minutes after lockdown, and towed across a one-fathom stratum. Direction of tows were south to north or north to south. Each station was occupied once during daytime hours and once during nighttime hours. Trawl catch specimens were identified, counted, measured for length, and weighed.

Sampling of the plankton was conducted at fixed-coordinate stations, using 60cm, 0.333mm-mesh bongo and 1m x 2m, 0.947mm-mesh neuston samplers. Samples were transported back to the laboratory for measurements of total plankton biomass, measured as displaced volume.

Sample workup and data processing was conducted in accordance with the NMFS SEAMAP Operations Manual guidelines. Data was entered and checked with the NMFS SEAMAP Data Entry Database.

Environmental data were collected in conjunction with each trawl and plankton sample. Temperature, dissolved oxygen, salinity, and conductivity values were measured with a CTD.

Results

Louisiana collected 24 Fall Groundfish stations in Louisiana's territorial sea and the adjacent FEZ (between latitudes 28° 30' and 29° 8' and longitudes -89° 37' and -91° 27') (Table 1). A total of 429 biological and 3586 length frequency records were recorded (Table 1).

Deviations

Dissolved oxygen was determined using the Winkler titration for entire cruise due to CTD malfunction.

Cruise participants:

Louisiana Department of Wildlife and Fisheries, Marine Fisheries Division personnel collected samples. Sample summary and data entry completed by Marsha Strong.

Submitted By:

Cara Hoar
SEAMAP Chief Scientist

Table 1. LDWF SEAMAP 2007 Fall groundfish cruise report summary.

STA #	DATE MM/DD/YYYY	TIME	LAT	LONG	STAT ZONE	MAX DEPTH	DO			SALINITY			TEMPERATURE			FIN CATCH	CRUS CATCH	OTHR CATCH	MIN FISH		
							SUR	MID	MAX	SUR	MID	MAX	SUR	MID	MAX						
35003	10/8/2007	1523	29	6.20	90	7.99	14.0	9	6.4	5.7	5.6	30.380	30.390	33.06 0	28.35	28.31	28.10	32.1	1.4	0.5	20
35004	10/8/2007	1703	29	7.29	90	3.91	14.0	11	6.4	6.4	6.5	31.500	31.660	32.54 0	28.40	28.13	28.40	12.7	1.3	0.1	16
35005	10/8/2007	1934	29	6.18	90	7.71	14.0	7	5.0	5.5	5.2	28.280	28.320	29.62 0	28.16	28.15	27.92	26.6	1.8	0.1	24
35006	10/8/2007	2116	29	7.26	90	3.71	14.0	9	6.5	6.4	6.5	30.220	30.650	31.57 0	28.13	28.16	28.19	3.8	0.6	0.0	15
35007	10/8/2007	2314	29	3.81	89	53.02	13.0	23	6.2	6.1	4.9	32.200	34.380	35.43 0	27.92	28.11	28.06	39.3	1.6	0.0	18
35008	10/9/2007	0113	29	5.17	89	41.60	13.0	24	6.3	6.0	4.0	30.410	31.710	35.21 0	27.86	27.99	28.19	21.3	0.7	0.0	14
35009	10/9/2007	0230	29	1.71	89	37.66	13.0	25	6.1	5.2	4.1	28.480	31.140	35.12 0	27.78	27.91	28.16	37.5	2.5	0.0	15
35011	10/9/2007	0845	29	1.86	89	38.37	13.0	27	5.0	4.7	2.9	28.530	31.860	35.18 0	27.70	28.10	28.22	61.1	2.8	0.1	10
35012	10/9/2007	1000	29	4.90	89	41.54	13.0	22	1.6	5.4	3.5	29.980	31.440	35.09 0	27.71	27.92	28.19	52.7	1.3	0.0	10
35013	10/9/2007	1145	29	3.72	89	52.94	13.0	25	5.8	2.1	0.7	34.450	34.960	35.72 0	27.88	27.99	28.07	44.4	3.6	0.0	15
35015	10/9/2007	1940	28	35.35	90	48.69	14.0	18	5.9	5.9	5.2	31.610	33.400	35.74 0	28.16	28.19	28.32	62.4	4.6	0.0	16
35016	10/9/2007	2157	28	38.62	91	2.32	15.0	16	6.3	6.0	6.0	33.520	33.840	33.94 0	28.26	28.20	28.22	290.5	6.5	0.0	25
35017	10/9/2007	2356	28	40.63	90	59.87	14.0	13	6.0	5.9	6.0	33.210	33.210	33.98 0	28.18	28.17	28.25	38.3	2.7	0.0	19
35018	10/10/2007	0231	28	30.10	91	9.05	15.0	34	5.7	6.0	5.6	34.300	34.560	35.37 0	28.19	28.25	28.23	38.2	2.7	0.0	13
35019	10/10/2007	0451	28	31.23	90	57.06	14.0	28	5.8	4.6	5.9	32.950	34.820	36.01 0	28.03	28.24	28.28	31.5	1.5	0.0	12
35021	10/10/2007	0822	28	30.95	90	57.28	14.0	30	3.2	1.2	0.7	33.270	35.130	36.04 0	28.02	28.30	28.26	45.5	0.1	0.4	12
35022	10/10/2007	1016	28	34.78	90	49.42	14.0	19	5.0	4.6	4.8	31.990	33.090	35.76 0	27.97	28.13	28.29	89.9	0.1	0.0	15
35023	10/10/2007	1154	28	40.53	91	0.21	15.0	14	5.6	5.2	4.9	32.370	32.440	33.91 0	27.98	27.94	28.26	55.5	1.4	0.0	19
35024	10/10/2007	1249	28	38.68	91	2.27	15.0	15	6.2	6.0	5.6	32.430	32.590	33.94 0	28.03	28.02	28.22	312.3	4.7	0.0	28
35025	10/10/2007	1443	28	30.32	91	9.36	15.0	35	5.7	5.2	5.2	33.840	34.700	35.38 0	28.31	28.18	28.24	30.6	0.4	0.0	15
35026	10/10/2007	1657	28	36.71	91	26.54	15.0	32	5.8	6.0	5.4	34.530	34.750	36.10 0	28.44	28.17	28.01	14.3	0.0	0.0	10
35027	10/10/2007	1950	28	36.84	91	26.31	15.0	30	6.3	6.2	5.8	34.470	34.670	36.14 0	27.99	28.17	28.29	10.0	0.5	0.0	13
35028	10/10/2007	2141	28	45.19	91	19.28	15.0	15	6.1	6.0	6.5	33.660	33.670	33.78 0	28.14	28.13	28.04	118.4	2.6	0.0	18
35029	10/11/2007	0817	28	45.26	91	19.29	15.0	14	5.6	5.6	6.0	33.470	33.470	33.47 0	27.86	27.87	27.86	105.5	0.5	0.0	15

Data transfer summary: number of observations in each table.

Station Card	Environmental	Biological Index	General Length Freq.
31	31	429	3586

Submitted by: Marsha Strong
Date submitted: Tuesday, November 13, 2007