

# **SEAMAP Winter 2007 Groundfish and Shrimp Survey Cruise Report**

Prepared by  
Jaimie David  
Louisiana Department of Wildlife and Fisheries  
2000 Quail Drive  
Baton Rouge, LA 70816

## **Introduction**

SEAMAP Winter 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 winter 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 Winter Groundfish/Shrimp Survey was the R/V Pelican on December 4-7, 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 Winter Groundfish stations in Louisiana's territorial sea and the adjacent FEZ (between latitudes 28° 30' and 29° 5' and longitudes -89° 32' and -91° 23') (Table 1). A total of 532 biological and 5389 length frequency records were recorded (Table 1).

### **Deviations**

There were no significant deviations.

### **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 Winter 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						
35004	12/4/2007	1605	28	52.41	91	22.48	15.0	11	8.3	7.6	7.5	33.49	33.49	33.48	19.58	19.16	19.14	23.5	4.4	0.3	30
35005	12/4/2007	1818	28	52.43	91	22.39	15.0	11	8.1	7.6	7.4	33.49	33.48	33.47	19.31	19.17	19.14	31.7	2.2	0.1	30
35006	12/4/2007	2001	28	47.38	91	18.70	15.0	14	7.4	7.3	7.0	33.92	33.92	33.90	20.69	20.69	20.59	95.2	3.8	0.0	30
35007	12/4/2007	2135	28	42.80	91	15.43	15.0	15	7.2	7.2	6.7	33.71	33.71	34.18	20.64	20.64	21.16	33.4	1.6	0.0	30
35008	12/4/2007	2347	28	33.15	91	16.14	15.0	33	7.1	7.1	6.6	35.06	35.42	35.64	21.35	21.80	22.04	49.7	3.3	0.0	30
35009	12/5/2007	0147	28	32.79	91	8.90	15.0	32	6.8	6.9	6.8	35.63	35.64	35.81	21.87	21.92	22.23	23.0	1.0	0.0	24
35010	12/5/2007	0750	28	46.63	91	18.60	15.0	14	7.1	7.2	7.2	33.93	33.93	33.93	20.42	20.42	20.42	10.7	1.3	0.4	30
35011	12/5/2007	0903	28	42.90	91	15.50	15.0	16	7.2	7.1	6.6	33.86	33.86	34.16	20.67	20.67	21.12	21.3	0.8	0.5	28
35012	12/5/2007	1052	28	32.79	91	15.88	15.0	33	7.1	7.0	6.8	35.06	35.50	35.58	21.33	21.68	21.82	26.3	0.4	0.0	30
35013	12/5/2007	1224	28	31.38	91	9.55	15.0	32	7.5	6.9	6.6	35.30	35.58	36.05	21.46	21.83	22.52	23.0	0.2	0.0	26
35015	12/5/2007	1559	28	34.26	90	46.34	14.0	21	7.4	7.3	7.2	35.90	35.91	35.92	22.88	22.87	22.84	12.0	0.1	0.4	22
35016	12/5/2007	1815	28	34.38	90	46.29	14.0	19	7.4	7.4	7.2	35.92	35.92	35.92	22.77	22.78	22.77	38.4	0.7	0.9	23
35017	12/5/2007	1955	28	33.58	90	37.29	14.0	26	7.0	7.0	6.5	35.87	35.87	36.07	23.16	23.18	23.29	28.7	0.9	0.4	15
35018	12/5/2007	2109	28	31.14	90	32.36	14.0	33	6.9	6.8	6.7	35.74	36.32	36.34	22.88	23.22	23.12	34.0	5.0	0.0	22
35019	12/5/2007	2245	28	36.30	90	30.77	14.0	23	7.4	7.3	6.4	35.45	35.47	35.93	22.70	22.77	23.38	58.3	0.7	0.0	15
35021	12/6/2007	0805	28	30.93	90	32.75	14.0	33	6.8	6.8	6.5	35.74	35.81	36.34	22.75	22.86	23.18	8.8	0.1	0.0	27
35022	12/6/2007	0951	28	33.32	90	37.71	14.0	25	7.0	6.9	6.4	35.64	35.64	35.93	22.69	22.69	23.06	8.0	0.3	0.0	17
35023	12/6/2007	1134	28	36.46	90	31.13	14.0	23	7.1	7.0	6.4	35.25	35.25	35.58	22.45	22.46	22.93	16.2	0.3	0.0	15
35025	12/6/2007	1853	29	4.42	89	44.99	13.0	27	7.3	7.3	4.7	32.86	32.89	36.23	20.94	20.98	24.42	7.7	1.4	0.0	21
35026	12/6/2007	2033	29	2.10	89	36.89	13.0	23	3.4	3.7	3.5	30.45	30.17	27.70	22.56	23.97	24.41	3.5	1.1	0.2	11
35027	12/6/2007	2143	29	0.11	89	32.26	13.0	16	7.0	7.3	4.8	30.60	32.05	35.38	21.37	20.92	23.63	7.9	2.1	0.0	11
35029	12/7/2007	0745	29	0.30	89	32.47	13.0	16	7.2	7.3	4.8	30.18	31.75	35.79	20.90	20.72	23.84	8.8	1.7	0.4	21
35030	12/7/2007	0859	29	2.32	89	37.40	13.0	21	7.4	6.0	5.1	32.61	33.93	36.39	20.67	21.69	24.23	6.8	0.7	0.3	10
35031	12/7/2007	1015	29	4.42	89	44.83	13.0	27	7.3	7.2	4.6	32.85	32.86	36.32	21.06	20.92	24.32	9.4	1.3	0.0	17

**Data transfer summary: number of observations in each table.**

Station Card	Environmental	Biological Index	General Length Freq.	<b>Submitted by:</b> Marsha Strong
31	31	532	5389	<b>Date submitted:</b> Wednesday, January 23, 2008