

# **SEAMAP Fall 2009 Groundfish and Shrimp Survey Cruise Report**

Prepared by  
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## **Introduction**

SEAMAP 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 trawl survey to collect information on shrimp and groundfish abundance and distribution with standard SEAMAP 42ft trawls.
2. Select stations 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 Groundfish Survey was the R/V Pelican on 22-25 September 2009. A 42ft trawl with 1.58 inch stretched mesh was lowered into position at the selected sites 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.

Plankton sampling was conducted at fixed-coordinate stations, using 60cm, 0.333mm-mesh bongo and 1m x 2m, 0.947mm-mesh neuston nets. 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 Groundfish stations in Louisiana's territorial sea and the adjacent FEZ (between latitudes 28° 29' and 29° 8' and longitudes -89° 29' and -91° 30') (Table 1). A total of 392 biological and 5138 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:

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*Kym Walsh*  
SEAMAP Chief Scientist

**Table 1. LDWF SEAMAP 2009 Fall groundfish cruise report summary.**

STA #	DATE	TIME	LAT	LONG	STAT ZONE	MAX DEPTH	DO			SALINITY			TEMPERATURE			FIN CATCH	CRUS CATCH	OTHR CATCH	MIN FISH		
	MM/DD/YYYY						SUR	MID	MAX	SUR	MID	MAX	SUR	MID	MAX						
35004	9/22/1909	1602	28	49.97	91	16.40	15.0	10	6.6	6.7	7.1	29.800	31.470	32.420	29.31	29.30	29.55	1.9	0.4	0.1	30
35005	9/22/1909	2018	28	49.84	91	16.50	15.0	10	6.6	6.7	7.1	29.800	31.470	32.420	29.31	29.30	29.55	49.6	1.4	0.0	30
35006	9/22/1909	2247	28	38.80	91	9.53	15.0	19	6.4	6.0	5.4	30.170	34.850	35.610	29.10	29.40	29.36	79.5	1.0	0.0	27
35007	9/23/1909	0000	28	37.17	91	9.16	15.0	22	6.3	6.2	5.3	31.620	34.990	35.750	29.13	29.55	29.38	137.5	1.5	0.0	21
35008	9/23/1909	0158	28	32.47	91	0.66	15.0	27	6.2	6.1	4.0	33.170	34.580	36.430	29.60	29.35	29.00	121.5	3.5	0.0	27
35009	9/23/1909	0434	28	34.69	90	46.73	14.0	20	6.5	6.3	5.7	31.350	33.420	34.590	29.53	29.60	29.39	31.5	0.5	0.0	20
35010	9/23/1909	0756	28	38.53	91	9.87	15.0	19	6.4	6.0	5.4	30.170	34.850	35.610	29.10	29.40	29.36	37.7	0.3	0.0	25
35011	9/23/1909	0856	28	37.08	91	9.63	15.0	22	6.3	6.2	5.3	31.620	34.990	35.750	29.13	29.55	29.38	29.9	0.1	0.0	23
35012	9/23/1909	1056	28	32.40	91	1.03	15.0	27	6.2	6.1	4.0	33.170	34.580	36.430	29.60	29.35	29.00	39.4	0.2	0.5	30
35014	9/23/1909	1528	28	34.43	90	46.44	14.0	20	6.5	6.3	5.7	31.350	33.420	34.590	29.53	29.60	29.39	0.3	0.1	0.0	25
35015	9/23/1909	1732	28	33.01	90	35.31	14.0	29	6.7	6.2	2.6	29.930	33.580	36.020	29.38	29.45	27.37	7.8	0.1	0.1	20
35017	9/23/1909	2023	28	33.00	90	35.17	14.0	30	6.7	6.1	2.3	29.580	33.550	35.980	29.43	29.47	27.57	74.7	1.3	0.0	21
35018	9/24/1909	0039	28	58.86	90	19.42	14.0	13	6.7	5.7	2.3	24.770	29.560	32.930	29.29	29.19	29.14	87.0	1.5	0.0	30
35019	9/24/1909	0220	29	0.50	90	18.14	14.0	11	7.0	4.7	1.6	22.330	29.540	32.490	29.37	29.07	29.09	0.0	0.0	0.0	22
35020	9/24/1909	0337	28	57.34	90	14.08	14.0	17	6.4	5.7	2.9	28.820	32.240	33.340	29.14	29.36	29.23	39.4	2.0	0.1	30
35021	9/24/1909	0758	28	57.11	90	14.65	14.0	16	6.4	5.5	3.0	29.260	31.230	33.300	29.05	29.24	29.22	15.3	0.1	0.2	30
35022	9/24/1909	0923	29	0.48	90	18.18	14.0	11	6.8	5.7	1.5	22.410	28.600	32.720	29.01	29.09	29.10	91.6	0.4	0.0	30
35023	9/24/1909	1016	28	59.05	90	19.75	14.0	12	6.8	5.3	2.3	25.400	29.580	32.980	28.96	29.19	29.15	98.8	0.2	0.0	30
35024	9/24/1909	1328	29	5.68	90	1.17	13.0	14	6.8	6.7	3.0	28.490	28.650	32.760	29.53	29.32	29.13	12.2	0.0	0.0	30
35025	9/24/1909	1535	29	4.10	89	49.62	13.0	26	9.1	6.2	1.0	27.390	31.040	34.010	29.92	28.75	28.35	5.1	0.2	0.0	23
35026	9/24/1909	1642	29	0.89	89	48.97	13.0	33	8.6	5.6	2.4	27.060	32.360	34.520	29.92	28.93	27.86	42.6	0.3	0.0	15
35028	9/24/1909	2124	29	0.99	89	48.98	13.0	34	7.4	5.9	2.2	28.570	31.530	34.480	29.39	28.71	27.87	44.0	3.0	0.0	20

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

Station Card	Environmental	Biological Index	General Length Freq.
24	24	478	3565

**Submitted by:** Kym Walsh  
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