

SEAMAP Fall 2008 Shrimp/Groundfish Survey Cruise Report

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Introduction

SEAMAP Fall Shrimp/Groundfish cruises are conducted to provide fishery-independent monitoring and assessment information essential to management of Texas 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 TPWD 20-ft trawls.
2. Select 80 stations for random sampling. All species are identified, measured, weighed, and counted, and selected species are sexed with their maturity stage recorded according to the Texas SEAMAP Operations Manual.
3. Collect information on environmental parameters (salinity, temperature, dissolved oxygen, wind speed, wind direction, barometric pressure, wave height, water color, and cloud cover) in conjunction with trawl sampling.
4. Code all data according to approved Texas SEAMAP Operations Manual guidelines, and enter data on the Texas SEAMAP data entry system.
5. Submit data to the Gulf States Marine Fisheries Commission.

Methods

Vessels that participated in the Texas Summer Shrimp/Groundfish Survey were: R.J. Kemp (31), Matagorda Bay (32), Sabine (40), Nueces Bay (67), and San Jacinto (69). All Texas Territorial Seas was sectioned into 1-minute latitude by 1-minute longitude grids. Grids at least 1/3 of which is within the territorial sea equal to or greater than 1.8 m (1 fm) deep and at least 1/3 of which is free from known obstructions, were selected at random by computer programs. Sampling was conducted in 16 grids from each of the five gulf areas (Sabine Pass, Bolivar Pass, Matagorda Pass, Aransas Pass, and Brazos Santiago Pass). Eight trawls samples were collected in each gulf area between the 1st and 15th of the month and 8 between the 16th and the last day of the month. A 20 ft trawl with 1.5 inch stretched mesh was lowered into position at the selected site and towline was set at

a 5:1 cable length water depth ratio. Trawl towing was conducted at or near 3 mph for 10 minutes after lockdown and towed parallel to fathom curve. Direction of first tow was randomly selected. Subsequent tows alternated tow direction. Sample workup and data processing was conducted in accordance with the Texas SEAMAP Operations Manual guidelines.

Environmental data were collected in conjunction with each trawl. Temperature and dissolved oxygen values were measured with either a YSI 6600 meter (Aransas Pass) or a YSI 85 meter (all others) at each trawl station. Three water bottles samples (surface, mid, and bottom) were collected at each station for in lab salinity measurements using a YSI 610DM.

Results

Texas vessels collected 80 Summer Shrimp/Groundfish survey samples in Texas Territorial Seas (between latitudes $25^{\circ} 59'$ and $29^{\circ} 41'$ and longitudes $-93^{\circ} 34'$ and $-97^{\circ} 10'$) (Table 1). Samples were collected between November 3, 2008 and November 20, 2008 (Table 1).

Deviations

There were no significant deviations.

Cruise participants:

Texas Parks and Wildlife Department staff collected samples, processed catch and entered information on data sheets. Cruise report summary completed by Fernando Martinez-Andrade.

Submitted By:

Fernando Martinez-Andrade
SEAMAP Coordinator

Table 1. TPWD SEAMAP 2008 Fall Shrimp/Groundfish cruise report summary.

STA#	DATE	TIME	LAT	LONG	STAT	MAX	DO		SALINITY			TEMPERATURE			FIN	CRUS	OTHER	MIN	BIO	LENGTH	
					ZONE	DEPTH	SUR	MID	MAX	SUR	MID	MAX	SUR	MID	MAX	CATCH	CATCH	CATCH	FISHED	COUNT	COUNT
31 R.J. KEMP																					
31001	11/03/2008	747	2612.37	-9706.48	21	17.4	6.4	6.5	5.1	30.4	30.5	32.7	24.3	24.4	25.1	0.000	0.085	0.198	10	4	14
31002	11/03/2008	827	2615.40	-9704.68	21	19.8	6.3	6.5	5.2	30.0	30.0	32.8	24.0	24.1	25.6	0.049	0.585	0.752	10	7	33
31003	11/03/2008	910	2618.23	-9701.43	21	26.5	6.6	6.6	4.6	30.2	30.1	32.8	24.2	24.2	25.4	0.098	0.042	2.412	10	13	100
31004	11/03/2008	996	2621.82	-9704.55	21	20.4	6.4	6.5	5.5	30.2	30.2	32.0	24.3	24.3	24.7	0.000	0.117	1.256	10	12	43
31005	11/03/2008	1025	2621.27	-9705.50	21	19.2	6.5	6.4	5.6	31.2	30.2	32.2	24.3	24.3	24.8	0.000	0.000	1.012	10	6	25
31006	11/03/2008	1107	2619.77	-9709.53	21	16.2	6.4	6.3	5.3	30.1	30.7	32.1	24.5	24.5	24.9	0.004	0.001	0.000	10	2	3
31007	11/03/2008	1138	2618.37	-9710.57	21	12.8	6.3	5.6	5.3	30.3	31.9	32.0	24.9	25.0	24.9	0.000	0.055	2.026	10	9	36
31008	11/03/2008	1218	2616.73	-9707.52	21	16.8	6.9	6.1	5.5	30.5	30.5	32.3	24.8	24.5	25.0	0.013	0.007	0.680	10	7	32
31009	11/18/2008	792	2601.10	-9708.48	21	7.6	6.7	6.8	6.8	30.5	30.4	30.4	20.6	20.6	20.5	0.000	3.560	0.060	10	6	6
31010	11/18/2008	820	2559.72	-9708.47	21	7.6	6.7	6.6	6.5	30.7	30.7	30.8	20.9	20.9	20.9	0.224	0.964	0.048	10	6	7
31011	11/18/2008	927	2603.27	-9659.48	21	26.6	6.4	6.2	5.6	31.4	31.4	32.2	22.9	22.9	23.7	0.034	0.016	1.711	10	12	59
31012	11/18/2008	1006	2605.75	-9701.45	21	23.8	6.2	6.3	5.1	31.4	31.4	32.8	22.8	22.8	23.7	0.153	0.311	0.614	10	10	33
31013	11/18/2008	1093	2606.22	-9706.50	21	17.7	6.4	6.6	6.3	31.2	31.2	31.4	22.3	22.3	22.4	0.000	0.071	0.196	10	6	22
31014	11/18/2008	1191	2612.72	-9709.47	21	11.9	6.9	6.7	6.2	30.4	30.3	31.7	21.6	21.6	22.0	0.000	0.578	0.000	10	4	4
31015	11/18/2008	1242	2606.17	-9708.40	21	13.7	6.7	6.9	6.5	30.8	30.9	30.6	21.9	21.9	22.1	0.000	1.597	0.007	10	7	8
31016	11/18/2008	1305	2605.68	-9708.47	21	10.4	6.9	6.9	6.9	30.6	30.8	30.8	21.8	21.8	21.8	0.009	0.180	0.117	10	8	20
32 MATAGORDA BAY																					
32001	11/03/2008	936	2825.47	-9616.57	19	9.4	6.7	6.8	5.5	27.9	27.6	30.0	22.8	22.8	23.3	0.001	0.015	0.305	10	7	22
32002	11/03/2008	1016	2823.40	-9615.50	19	13.7	6.5	5.6	5.9	28.8	30.6	31.3	22.6	23.0	23.4	0.002	0.454	1.796	10	14	85
32003	11/03/2008	1108	2824.60	-9611.60	19	14.6	6.1	6.4	6.3	30.9	31.2	31.4	23.1	23.1	23.0	0.082	0.220	1.977	10	17	75
32004	11/03/2008	1190	2825.50	-9609.52	19	14.3	6.7	6.3	6.1	31.0	31.2	31.3	22.9	23.0	23.0	0.021	0.542	2.463	10	15	71
32005	11/03/2008	1221	2826.55	-9610.60	19	13.1	6.5	6.6	6.5	30.9	31.0	31.3	23.0	22.9	23.0	0.002	0.513	0.337	10	9	39
32006	11/03/2008	1310	2830.55	-9608.43	19	8.2	6.9	6.7	5.9	27.6	28.8	29.5	23.1	23.0	23.2	0.000	27.088	1.121	10	11	77
32007	11/03/2008	1433	2824.52	-9604.70	19	17.9	6.6	6.6	6.5	30.8	31.0	31.1	23.1	22.9	22.9	0.112	0.291	5.618	10	20	149
32008	11/03/2008	1539	2820.55	-9611.50	19	18.5	6.3	6.4	5.6	31.9	33.6	33.8	23.6	23.8	23.8	0.078	0.758	6.225	10	17	91
32009	11/20/2008	713	2820.38	-9620.42	19	12.1	7.3	6.6	5.2	30.3	31.0	33.2	20.1	20.3	21.4	0.062	2.896	0.713	10	24	102
32010	11/20/2008	803	2818.52	-9626.33	19	5.1	7.3	7.3	6.3	30.2	30.2	31.0	19.9	19.8	20.5	0.163	1.140	0.368	10	16	68
32011	11/20/2008	892	2813.43	-9626.57	19	16.4	7.1	6.1	5.5	30.9	33.2	34.1	20.7	21.5	22.0	0.008	0.227	1.409	10	14	98
32012	11/20/2008	936	2812.33	-9622.30	19	21.3	7.3	6.7	5.9	30.7	33.0	34.6	20.5	21.2	22.3	0.001	0.323	4.778	10	15	92
32013	11/20/2008	1020	2813.35	-9619.48	19	21.6	7.3	6.9	6.2	30.7	32.7	34.1	20.5	21.1	22.2	0.032	0.049	0.602	10	15	75
32014	11/20/2008	1103	2816.57	-9617.33	19	19.8	7.1	6.3	5.9	30.5	33.5	34.5	20.5	21.5	22.0	0.030	1.054	0.361	10	13	44
32015	11/20/2008	1139	2817.47	-9619.67	19	17.9	7.5	6.2	5.7	30.5	33.0	34.0	20.7	21.7	21.8	0.024	0.123	0.348	10	17	66
32016	11/20/2008	1231	2819.58	-9613.42	19	18.5	7.3	6.2	5.5	30.7	32.8	34.1	20.4	21.4	21.8	0.015	1.731	0.325	10	14	64

Table 1. (cont.)

STA#	DATE	TIME	LAT	LONG	STAT	MAX	DO			SALINITY			TEMPERATURE			FIN	CRUS	OTHER	MIN	BIO	LENGTH
					ZONE	DEPTH	SUR	MID	MAX	SUR	MID	MAX	SUR	MID	MAX	CATCH	CATCH	CATCH	FISHED	COUNT	COUNT
40 SABINE																					
40001	11/13/2008	801	2936.37	-9346.12	17	9.4	6.7	6.6	6.4	28.1	28.7	29.5	20.2	20.5	20.7	0.280	0.636	0.916	10	16	128
40002	11/13/2008	849	2932.38	-9349.80	17	11.6	6.3	6.3	5.9	29.5	29.6	29.9	20.7	20.8	21.1	0.131	10.080	0.982	10	8	43
40003	11/13/2008	990	2936.37	-9352.27	17	6.1	6.8	6.4	6.2	24.5	25.3	26.3	20.0	20.2	20.2	0.780	0.287	0.714	10	18	147
40004	11/13/2008	1035	2937.35	-9355.72	17	5.5	6.2	6.1	5.6	26.7	26.7	27.3	20.1	20.2	20.4	0.864	1.861	1.424	10	15	150
40005	11/13/2008	1125	2939.45	-9358.08	17	4.6	6.3	6.2	6.1	27.1	27.2	27.1	20.2	20.3	20.3	0.229	0.437	0.081	10	9	45
40006	11/13/2008	1206	2936.62	-9358.83	17	6.7	6.5	6.4	6.2	26.6	26.6	26.6	20.1	20.1	20.2	0.430	15.460	0.467	10	11	76
40007	11/13/2008	1246	2936.63	-9401.07	17	7.3	6.3	6.2	6.2	26.7	26.7	26.6	20.1	20.1	20.1	1.288	10.150	0.195	10	12	108
40008	11/13/2008	1324	2937.48	-9402.80	17	7.0	6.6	6.4	6.3	26.5	26.5	26.5	20.0	20.0	20.1	0.709	16.991	0.141	10	10	86
40009	11/17/2008	797	2937.38	-9347.70	17	7.9	8.3	7.9	7.6	25.6	26.4	28.3	17.0	17.8	18.6	0.038	2.927	0.620	10	20	53
40010	11/17/2008	839	2937.52	-9346.22	17	8.5	7.7	7.2	6.8	25.8	28.1	28.6	17.4	18.9	19.0	0.136	0.316	0.390	10	14	45
40011	11/17/2008	930	2941.55	-9346.82	17	4.9	7.3	6.7	6.9	26.8	27.9	26.9	17.2	18.9	19.2	0.038	0.390	0.293	10	17	42
40012	11/17/2008	998	2941.45	-9345.10	17	5.8	7.5	7.7	7.2	26.9	27.1	27.9	17.5	18.1	18.7	0.073	0.295	0.650	10	14	53
40013	11/17/2008	1036	2941.35	-9341.78	17	6.7	8.2	7.5	8.2	26.9	27.8	27.7	17.8	18.8	18.9	0.014	0.412	0.472	10	11	21
40014	11/17/2008	1128	2940.57	-9334.20	17	8.2	8.0	7.2	7.1	26.3	27.8	28.4	17.8	17.7	19.0	0.044	5.283	0.664	10	15	46
40015	11/17/2008	1203	2939.57	-9334.80	17	8.8	8.5	7.6	7.1	26.5	28.6	28.0	17.7	18.9	19.2	0.000	0.139	6.110	10	10	24
40016	11/17/2008	1415	2936.45	-9341.15	17	10.1	8.9	7.5	7.2	27.4	28.4	30.7	19.2	19.3	19.6	0.003	0.149	0.336	10	12	60
67 NUECES																					
67001	11/08/2008	800	2750.80	-9702.05	20	5.8	5.8	5.7	5.5	28.5	28.5	28.6	22.7	22.7	22.2	0.000	0.082	1.949	10	11	59
67002	11/08/2008	915	2742.07	-9707.82	20	10.1	5.7	5.8	5.7	28.5	28.7	28.8	22.8	22.8	22.9	0.000	6.706	1.010	10	12	60
67003	11/08/2008	1003	2743.43	-9704.77	20	12.8	5.7	5.9	5.6	28.3	28.3	28.7	23.0	22.9	23.0	0.018	1.139	0.931	10	24	134
67004	11/08/2008	1038	2742.32	-9703.37	20	15.5	5.6	5.8	5.6	28.5	28.6	29.1	23.2	23.2	23.3	0.035	15.450	1.302	10	19	67
67005	11/08/2008	1121	2740.63	-9702.72	20	17.4	5.7	5.9	4.3	28.6	29.1	31.2	23.0	23.2	23.7	0.110	0.427	3.419	10	21	100
67006	11/08/2008	1223	2745.32	-9659.43	20	17.1	5.8	6.0	5.5	28.4	28.5	29.6	23.1	23.0	23.3	0.002	5.771	0.850	10	15	46
67007	11/08/2008	1312	2745.60	-9655.98	20	20.4	6.0	5.7	4.8	29.0	30.0	31.3	23.1	23.2	23.7	0.040	0.415	2.301	10	28	115
67008	11/08/2008	1393	2747.18	-9655.48	20	19.8	7.3	9.2	8.8	28.9	30.3	31.2	23.1	23.2	23.6	0.010	13.257	2.862	10	16	93
67009	11/17/2008	825	2751.13	-9701.47	20	9.3	5.8	6.0	5.9	29.4	29.5	29.6	20.5	20.5	20.1	0.015	14.891	0.331	10	11	67
67010	11/17/2008	917	2754.82	-9659.03	20	6.9	5.9	6.2	6.1	29.5	29.5	29.5	20.3	20.2	20.0	0.018	2.846	0.334	10	12	66
67011	11/17/2008	945	2754.32	-9658.42	20	9.8	5.9	6.1	6.0	29.5	29.5	29.5	20.2	20.2	20.1	0.000	12.926	0.250	10	8	43
67012	11/17/2008	1026	2756.88	-9656.32	20	9.8	5.9	6.1	6.1	29.4	29.4	29.4	20.4	20.3	20.2	0.000	0.232	0.328	10	6	46
67013	11/17/2008	1102	2758.13	-9655.67	20	8.7	6.0	6.2	6.1	29.4	29.4	29.4	20.5	20.3	20.2	0.000	0.413	0.259	10	8	48
67014	11/17/2008	1130	2757.68	-9654.53	20	11.1	6.1	6.1	5.6	29.4	29.4	29.3	20.4	20.3	20.6	0.008	0.289	0.591	10	14	36
67015	11/17/2008	1222	2754.58	-9652.57	20	16.2	6.1	5.9	5.5	30.1	30.6	31.6	20.8	20.6	21.2	0.000	12.931	0.250	10	13	64
67016	11/17/2008	1310	2752.78	-9657.42	20	12.0	5.7	6.0	5.7	29.6	29.8	30.4	21.2	20.5	21.0	0.000	2.767	0.043	10	9	25

Table 1. (cont.)

STA#	DATE	TIME	LAT	LONG	STAT	MAX	DO		SALINITY			TEMPERATURE			FIN	CRUS	OTHER	MIN	BIO	LENGTH	
					ZONE	DEPTH	SUR	MID	MAX	SUR	MID	MAX	SUR	MID	MAX	CATCH	CATCH	CATCH	FISHED	COUNT	COUNT
69 SAN JACINTO																					
69001	11/08/2008	923	2918.65	-9439.17	18	11.0	6.9	6.8	6.3	27.1	27.6	28.2	21.4	21.5	21.7	0.020	0.384	1.777	10	8	59
69002	11/08/2008	1000	2917.10	-9438.73	18	11.0	6.6	6.8	6.6	28.0	28.2	28.8	21.5	21.5	21.9	0.000	38.000	0.092	10	5	7
69003	11/08/2008	1093	2918.73	-9435.32	18	13.0	6.8	6.5	6.1	28.8	29.1	29.7	21.7	21.8	22.2	0.129	0.133	2.046	10	20	127
69004	11/08/2008	1129	2917.20	-9436.67	18	14.0	6.8	6.7	6.5	28.5	29.0	29.2	21.8	21.7	21.8	0.127	0.586	1.614	10	18	110
69005	11/08/2008	1206	2915.78	-9438.30	18	13.0	6.7	6.4	5.7	28.4	28.9	30.8	21.9	21.9	22.6	0.004	0.126	0.754	10	11	39
69006	11/08/2008	1299	2916.42	-9442.63	18	9.0	7.0	6.1	6.2	26.7	27.8	28.2	22.0	21.9	21.9	0.060	0.041	0.066	10	11	17
69007	11/08/2008	1395	2912.78	-9443.38	18	13.5	7.6	6.4	5.1	27.2	28.7	31.5	22.0	21.9	22.8	0.021	0.167	0.301	10	14	55
69008	11/08/2008	1491	2912.43	-9449.88	18	11.0	7.8	6.7	6.4	26.7	27.3	27.6	22.0	21.5	21.8	0.007	0.105	0.245	10	9	39
69009	11/19/2008	841	2920.88	-9439.28	18	10.0	8.7	8.8	8.6	28.3	28.3	28.6	18.7	18.7	19.0	0.050	2.626	0.191	10	14	51
69010	11/19/2008	914	2921.13	-9437.83	18	10.0	8.9	8.8	8.1	28.3	28.3	28.8	18.7	18.8	19.4	0.037	10.022	1.608	10	15	60
69011	11/19/2008	994	2921.68	-9436.48	18	10.0	8.6	8.8	8.6	28.5	28.5	28.5	18.9	18.9	19.0	0.055	10.539	1.242	10	18	64
69012	11/19/2008	1037	2922.15	-9433.88	18	11.0	8.8	8.6	6.8	28.6	28.5	30.8	19.1	19.0	20.8	0.000	9.089	2.445	10	10	54
69013	11/19/2008	1111	2921.82	-9433.25	18	11.5	8.6	8.7	6.9	28.5	28.5	30.8	19.1	19.0	20.9	0.032	2.548	1.230	10	17	75
69014	11/19/2008	1200	2921.10	-9429.92	18	12.5	8.6	8.8	8.8	29.2	29.2	29.3	19.3	18.8	19.1	0.030	0.151	0.957	10	12	63
69015	11/19/2008	1242	2924.98	-9431.28	18	10.0	8.7	8.8	8.6	29.2	29.2	29.2	19.3	19.2	19.2	0.023	0.238	1.045	10	15	77
69016	11/19/2008	1317	2926.37	-9433.93	18	8.0	8.8	8.8	8.4	28.4	28.9	28.9	19.4	19.0	19.1	0.050	0.152	0.206	10	15	30