

SEAMAP Fall 2012 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, turbidity, wind speed, wind direction, barometric pressure, wave height, water color, cloud cover, etc.) 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 SEAMAP Coordinator.

Methods

Vessels that participated in the 2012 Texas Fall Shrimp/Groundfish Survey were: R.J. Kemp (31), Matagorda Bay (32), Sabine (40), San Jacinto (69) and San Antonio (87). All Texas Territorial Sea areas were sectioned into 1-minute latitude by 1-minute longitude grids. Grids within the Texas territorial sea with at least 1/3 of their area 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 a computer program. Sampling was conducted in 16 grids from each one of the following 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 (38 mm) 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 work and data processing was conducted in accordance with the Texas SEAMAP Operations Manual guidelines.

Environmental data were collected in conjunction with each trawl. Temperature salinity and dissolved oxygen were measured with a YSI 6600 datasonde.

Results

Texas vessels collected 80 Fall Shrimp/Groundfish survey samples in Texas Territorial Seas (between latitudes 25° 58' and 29° 44' and longitudes -93° 40' and -97° 11') (Table 1). Samples were collected between November 1, 2012 and November 26, 2012 (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
Texas Parks & Wildlife Department
Texas SEAMAP Coordinator

Table 1. TPWD SEAMAP 2012 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	11/02/2012	922	2615.50	-9705.37	21	18.9	6.7	6.7	7.5	36.9	36.8	36.9	25.5	25.5	25.5	0.237	0.019	0.002	10	6	10
31002	11/02/2012	952	2615.72	-9704.52	21	19.9	6.8	6.6	6.4	36.8	36.7	37.1	25.5	25.5	25.3	0.297	0.038	0.016	10	11	27
31003	11/02/2012	1026	2614.33	-9703.35	21	20.2	6.7	6.6	6.4	37.2	37.1	37.2	25.4	25.4	25.4	0.131	0	0.051	10	6	5
31004	11/02/2012	1130	2621.83	-9702.52	21	25.2	6.9	6.9	6.8	36.8	36.8	36.9	25.6	25.6	25.6	0.359	0	0.001	10	5	14
31005	11/02/2012	1220	2619.47	-9704.37	21	20.4	6.8	6.7	6.0	36.8	36.8	37.2	25.6	25.6	25.8	0.206	0	0	10	4	8
31006	11/02/2012	1249	2619.80	-9706.43	21	19.2	6.7	6.6	6.6	36.7	36.8	36.8	25.8	25.6	25.6	0.566	0.015	0.018	10	6	13
31007	11/02/2012	1337	2621.30	-9711.57	21	11.2	6.9	6.9	6.9	37.0	37.0	37.0	25.5	25.4	25.2	0.002	0	0.031	10	6	6
31008	11/02/2012	1412	2618.87	-9711.47	21	7.1	7.0	7.1	7.1	37.1	37.1	37.1	25.6	25.5	25.5	0	0	0.429	10	3	15
31009	11/20/2012	830	2559.70	-9704.52	21	21.9	18.6	18.7	8.5	32.5	32.4	32.4	22.3	22.9	22.9	0.086	0	0.173	10	8	24
31010	11/20/2012	907	2558.32	-9703.40	21	23.6	18.1	18.3	11.6	32.5	32.5	32.6	23.7	23.5	22.5	1.480	0.001	0.247	10	11	21
31011	11/20/2012	947	2600.78	-9701.53	21	25.1	17.6	16.8	13.7	32.4	32.4	32.6	23.2	23.1	23.6	0.842	0.010	0.091	10	13	23
31012	11/20/2012	1034	2604.30	-9659.50	21	27.7	13.7	17.0	15.4	32.4	32.7	32.5	23.3	23.4	22.7	0.311	0.020	0.544	10	12	26
31013	11/20/2012	1124	2606.77	-9703.52	21	21.9	18.7	17.8	14.7	32.4	32.4	32.4	23.3	23.1	22.9	0.113	0.017	0.081	10	9	21
31014	11/20/2012	1206	2609.28	-9704.63	21	19.1	17.8	17.3	15.8	32.3	32.3	32.1	23.3	23.9	23.6	0	0	0.036	10	2	3
31015	11/20/2012	1253	2613.72	-9703.50	21	20.0	18.7	18.7	16.2	32.0	32.0	32.0	23.0	22.4	22.3	0.078	0	0.053	10	6	6
31016	11/20/2012	1328	2614.15	-9701.45	21	24.6	18.4	17.7	14.9	32.0	32.0	32.1	23.0	22.7	22.5	0.135	0.069	0.060	10	10	23
32 MATAGORDA BAY																					
32001	11/01/2012	1046	2823.37	-9617.55	19	11.5	7.7	7.6	7.5	31.5	31.5	31.5	22.8	22.8	22.8	0	0.039	0.281	10	9	16
32002	11/01/2012	1121	2822.57	-9617.33	19	13.7	7.8	6.8	6.1	31.5	31.7	32.9	23.4	22.7	23.4	0.007	0.011	0.295	10	9	14
32003	11/01/2012	1152	2821.37	-9618.58	19	14.0	7.8	7.2	6.5	31.5	31.5	33.3	23.6	22.7	23.8	0.064	0.012	0.705	10	11	19
32004	11/01/2012	1223	2820.55	-9618.37	19	15.8	7.9	7.3	6.5	31.5	31.6	33.8	23.8	23.0	24.3	0.007	0.002	0.105	10	6	13
32005	11/01/2012	1337	2826.42	-9613.55	19	12.1	7.9	7.8	7.3	31.1	31.4	31.6	23.8	23.0	22.7	0.192	0.001	1.032	10	12	40
32006	11/01/2012	1429	2829.57	-9607.38	19	12.1	7.8	7.3	6.2	31.1	31.0	32.5	24.1	22.9	23.7	0.059	0	1.884	10	7	23
32007	11/01/2012	1509	2826.47	-9606.50	19	16.1	7.9	7.5	6.4	31.7	31.7	33.9	24.6	23.6	24.2	1.342	0.017	0.203	10	14	34
32008	11/01/2012	1603	2824.55	-9604.35	19	18.8	7.9	7.4	5.9	31.5	31.5	35.2	24.5	23.4	24.7	0.601	0.019	0.292	10	13	23
32009	11/19/2012	959	2818.53	-9620.40	19	17.3	8.0	7.8	7.7	31.1	31.1	31.4	20.0	19.9	20.1	0.194	0.012	0.196	10	14	34
32010	11/19/2012	1031	2817.37	-9620.60	19	18.2	8.1	7.8	7.6	31.2	31.9	31.9	20.2	20.1	20.5	0.412	0.073	1.619	10	20	66
32011	11/19/2012	1110	2818.53	-9623.40	19	13.1	8.1	8.0	7.9	30.6	30.6	30.8	19.5	19.2	19.3	0.216	0.032	0.291	10	13	33
32012	11/19/2012	1153	2816.40	-9627.57	19	10.0	8.2	8.0	7.9	30.6	30.7	31.3	19.6	19.4	20.1	0.737	0	0.185	10	13	47
32013	11/19/2012	1243	2811.50	-9626.42	19	20.1	8.0	7.8	7.5	31.8	31.9	32.8	20.6	20.4	20.9	1.247	0	0.156	10	9	21
32014	11/19/2012	1326	2810.38	-9623.62	19	23.4	8.2	7.7	7.3	31.6	32.5	33.0	20.5	20.5	20.9	1.258	0.124	0.609	10	23	55
32015	11/19/2012	1423	2814.48	-9618.43	19	22.5	8.0	7.6	7.5	30.9	32.1	34.5	20.3	20.6	21.8	0.882	0.001	0.166	10	13	36
32016	11/19/2012	1508	2816.38	-9615.58	19	22.2	8.2	7.5	7.4	30.6	32.9	34.4	19.9	20.8	21.8	2.097	0.081	0.332	10	18	44

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	11/01/2012	837	2940.18	-9351.17	17	1.5	7.7	7.7	7.7	26.7	26.7	26.7	20.1	20.1	20.1	0.120	0.371	1.545	10	9	30
40002	11/01/2012	927	2939.50	-9355.87	17	4.0	7.8	7.8	7.8	27.7	27.6	27.6	21.0	20.9	20.9	0.001	0.045	0.386	10	10	3
40003	11/01/2012	1032	2936.40	-9402.05	17	6.7	7.7	7.6	7.3	28.8	29.4	29.7	21.5	21.9	21.9	0.001	0	0.075	10	4	21
40004	11/01/2012	1112	2936.45	-9357.98	17	6.4	7.3	7.7	6.0	28.6	28.6	31.1	21.9	21.4	22.3	0.365	0.004	0.203	10	6	22
40005	11/01/2012	1203	2932.50	-9354.20	17	11.3	7.7	7.6	6.2	28.9	29.7	31.9	22.3	22.2	21.8	0.005	0.027	0.864	10	13	20
40006	11/01/2012	1243	2931.50	-9353.78	17	11.5	7.7	7.7	6.4	29.0	29.5	32.0	22.6	22.0	21.9	0.002	0.045	0.449	10	11	25
40007	11/01/2012	1316	2932.53	-9352.13	17	11.5	7.7	7.7	6.6	29.1	29.5	32.0	22.6	22.1	21.7	0.271	0.014	0.634	10	10	23
40008	11/01/2012	1351	2933.52	-9352.77	17	11.0	7.7	7.7	6.2	28.9	29.6	31.8	22.7	22.2	21.9	0.568	0.012	0.371	10	10	46
40009	11/18/2012	813	2940.37	-9348.78	17	5.2	8.4	8.5	8.6	29.4	29.4	29.4	16.4	16.4	16.4	0.270	0.072	0.462	10	16	30
40010	11/18/2012	859	2942.50	-9347.07	17	3.3	8.7	8.9	9.0	29.1	29.1	29.1	16.3	16.3	16.3	0.411	0.784	0.133	10	15	51
40011	11/18/2012	957	2944.38	-9340.87	17	3.0	9.2	9.5	9.5	28.6	28.6	28.6	16.0	16.0	15.9	0.131	0.402	0.282	10	14	56
40012	11/18/2012	1052	2940.50	-9342.27	17	7.6	8.4	8.4	8.3	30.0	30.0	30.1	17.5	17.4	17.4	0.920	0.012	1.846	10	12	40
40013	11/18/2012	1129	2939.50	-9344.90	17	7.9	8.4	8.4	8.3	29.9	29.9	30.1	17.5	17.3	17.3	0.895	0.004	2.851	10	13	29
40014	11/18/2012	1213	2937.58	-9347.17	17	7.8	8.2	8.4	8.3	30.1	30.1	30.4	17.6	17.3	17.3	0.357	0.002	2.220	10	11	31
40015	11/18/2012	1302	2934.40	-9345.03	17	11.0	8.2	8.1	7.9	31.3	31.5	31.9	18.3	18.0	18.3	0.903	0.018	0.435	10	9	34
40016	11/18/2012	1343	2934.45	-9349.42	17	11.3	7.9	8.3	8.0	31.3	31.3	32.0	18.3	18.0	18.3	0.253	0.018	0.377	10	10	31
69 SAN JACINTO																					
69001	11/07/2012	838	2919.10	-9439.73	18	11.4	7.7	7.7	7.7	31.8	31.8	31.8	22.7	22.7	22.7	0.928	0.058	0.130	10	17	38
69002	11/07/2012	914	2917.77	-9442.22	18	8.2	8.0	8.0	7.9	31.6	31.6	32.0	22.4	22.4	22.6	0.001	0.003	0.086	10	7	23
69003	11/07/2012	1025	2918.03	-9437.77	18	12.2	7.7	7.6	7.0	31.5	31.5	32.4	22.6	22.5	23.0	4.056	0.088	0.226	10	23	134
69004	11/07/2012	1114	2919.27	-9433.70	18	12.8	8.0	7.4	6.3	31.2	31.9	34.8	22.2	22.5	23.6	0.093	0.019	0.168	10	13	31
69005	11/07/2012	1154	2922.85	-9432.28	18	11.8	8.2	7.9	7.3	30.8	31.5	33.2	22.3	22.6	22.9	0.021	0.034	0.223	10	12	28
69006	11/07/2012	1234	2924.32	-9428.73	18	11.8	8.2	7.9	5.9	30.8	30.8	33.1	22.5	22.2	22.9	0.009	0.090	0.172	10	11	35
69007	11/07/2012	1338	2922.33	-9438.68	18	8.8	8.3	7.9	6.0	31.9	31.9	33.0	22.9	22.3	23.0	0.030	0.026	0.114	10	15	73
69008	11/07/2012	1406	2923.75	-9439.33	18	7.6	8.4	8.5	8.9	31.5	31.6	32.6	22.8	22.4	23.2	0.007	0.022	0.054	10	11	38
69009	11/19/2012	920	2913.80	-9444.33	18	11.0	8.1	8.0	7.9	31.8	32.0	32.8	18.0	18.2	18.7	0.257	0.096	0.005	10	9	24
69010	11/19/2012	952	2912.12	-9447.80	18	12.0	8.1	8.0	7.8	32.2	32.4	33.1	18.4	18.4	18.7	0.554	0.054	0.112	10	11	45
69011	11/19/2012	1033	2911.83	-9453.27	18	9.7	8.0	8.0	7.9	31.4	31.4	31.4	18.4	18.2	18.2	1.512	0.274	0.001	10	12	71
69012	11/19/2012	1103	2910.10	-9452.73	18	12.2	8.1	7.9	7.7	31.6	31.7	31.8	18.5	18.3	18.5	3.671	0.116	0.017	10	11	49
69013	11/19/2012	1143	2907.80	-9449.40	18	15.2	7.7	7.5	7.4	33.7	33.9	34.1	19.6	19.4	19.5	0.398	0.075	0.274	10	10	40
69014	11/19/2012	1216	2906.20	-9448.85	18	16.5	7.8	7.6	7.5	34.0	34.2	34.6	19.7	19.2	19.6	0.484	0.021	0.077	10	16	46
69015	11/19/2012	1318	2912.75	-9442.35	18	13.7	8.4	8.0	7.7	32.4	33.5	33.9	18.8	18.9	18.9	1.286	0.149	0.121	10	15	56
69016	11/19/2012	1402	2915.25	-9438.77	18	12.8	8.9	7.8	7.6	31.8	32.4	33.7	18.4	18.4	19.0	0.187	0.025	0.052	10	7	14

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
87 SAN ANTONIO																					
87001	11/01/2012	802	2753.12	-9659.80	20	9.7	6.0	5.4	5.0	30.1	30.2	30.4	23.4	23.1	23.3	0.257	0	0.034	10	7	10
87002	11/01/2012	838	2755.62	-9658.22	20	7.9	5.5	5.6	4.9	30.1	30.1	30.1	23.5	23.4	23.5	0	0	0.096	10	3	2
87003	11/01/2012	913	2753.25	-9654.40	20	15.2	5.7	5.7	5.6	30.2	30.3	30.9	23.6	23.6	24.0	0.269	0.003	0.426	10	11	34
87004	11/01/2012	941	2752.77	-9654.40	20	15.9	7.7	7.5	6.4	33.8	33.8	30.8	19.0	19.0	19.1	0.001	0.006	0.375	10	7	17
87005	11/01/2012	1016	2752.47	-9650.40	20	19.7	5.7	5.7	4.7	30.6	30.9	31.7	24.0	24.1	24.5	0.218	0.025	0.100	10	14	36
87006	11/01/2012	1048	2751.73	-9651.48	20	20.0	6.4	5.8	4.4	30.4	30.6	31.4	23.8	23.8	24.7	0.242	0.004	0.157	10	11	40
87007	11/01/2012	1117	2750.10	-9651.40	20	21.0	5.5	5.6	4.5	30.5	30.9	31.6	24.3	23.9	24.7	0.417	0.01	0.110	10	13	23
87008	11/01/2012	1147	2748.85	-9652.17	20	22.0	5.7	5.6	4.6	30.6	30.9	32.6	24.3	24.1	24.7	0.364	0.01	0.226	10	12	27
87009	11/26/2012	755	2748.80	-9702.33	20	8.5	5.7	5.7	5.7	29.3	29.3	29.3	20.3	20.3	20.3	0.652	0.004	0.345	10	11	35
87010	11/26/2012	841	2741.15	-9704.45	20	15.6	6.4	5.6	5.6	29.7	29.7	29.7	20.6	20.4	20.4	0.521	0.013	0.175	10	15	35
87011	11/26/2012	907	2742.80	-9706.37	20	12.8	5.8	5.8	5.8	29.6	29.6	29.6	20.5	20.4	20.4	0.644	0	0.829	10	8	47
87012	11/26/2012	1002	2740.08	-9709.58	20	7.5	5.7	5.8	5.7	29.6	29.6	29.6	20.8	20.6	20.6	0.722	0	0.237	10	11	66
87013	11/26/2012	1041	2738.80	-9703.40	20	19.6	6.0	5.7	5.7	29.8	29.8	29.8	20.8	20.5	20.6	0.775	0.027	0.263	10	27	74
87014	11/26/2012	1300	2740.22	-9658.42	20	22.5	5.8	5.9	6.0	29.6	29.6	29.6	21.2	20.6	20.6	2.204	0.051	0.131	10	18	81
87015	11/26/2012	1330	2742.78	-9659.53	20	20.5	5.7	5.7	5.8	29.7	29.7	29.7	21.4	20.7	20.5	0.259	0.008	0.446	10	18	86
87016	11/26/2012	1511	2746.18	-9658.47	20	19.4	6.1	5.6	5.7	29.6	29.6	29.6	21.0	20.9	20.5	0.346	0.368	0.081	10	16	59