

SEAMAP Summer 2008 Shrimp/Groundfish Survey Cruise Report

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Introduction

SEAMAP Summer 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 summer 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, weighed and counted, and selected species are sexed and measured according to the Texas SEAMAP Operations Manual.
3. Collect information on environmental parameters (salinity, temperature, dissolved oxygen, wind speed and direction, wave height, cloud cover and water color) 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 58' and 29° 43' and longitudes -93° 37' and -10') (Table 1). Samples were collected between June , 2008 and June , 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:

FernandoMartinez-Andrade
SEAMAP Coordinator

Table 1. TPWD SEAMAP 2008 Summer 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-Jun-08	829	26.1355	-97.1010	21	5.3	6.3	6.1	6.1	32.0	31.4	30.9	26.3	25.9	25.6	0.601	0.684	0.350	10		
31002	11-Jun-08	952	26.1307	-97.0829	21	8.6	5.9	6.1	5.5	33.6	33.8	33.5	25.8	25.1	23.4	1.974	0.639	0.114	10		
31003	11-Jun-08	916	26.1338	-97.0724	21	9.2	6.8	5.4	5.1	33.6	31.0	33.7	25.7	23.2	23.2	0.825	0.752	0.057	10		
31004	11-Jun-08	945	26.1314	-97.0628	21	9.5	5.9	6.0	4.9	33.5	33.8	33.7	25.6	24.4	22.7	0.823	0.288	0.113	10		
31005	11-Jun-08	1016	26.1444	-97.0525	21	10.0	5.9	6.2	4.6	34.0	33.9	33.6	25.8	24.9	24.3	0.828	0.550	0.079	10		
31006	11-Jun-08	1101	26.1613	-97.0130	21	12.5	5.9	5.6	4.6	33.7	33.8	33.7	25.8	24.0	23.0	0.118	0.281	0.101	10		
31007	11-Jun-08	1155	26.1845	-97.0729	21	9.2	5.8	5.8	5.3	33.9	34.1	33.7	26.3	24.5	24.0	0.200	1.109	0.172	10		
31008	11-Jun-08	1225	26.1713	-97.0930	21	8.2	5.9	6.1	5.9	33.7	33.7	33.8	26.1	24.5	24.1	3.008	0.273	0.077	10		
31009	23-Jun-08	825	26.0247	-97.0524	21	10.3	5.9	6.4	6.6	36.5	36.4	36.3	26.5	24.1	23.8	0.159	0.040	0.109	10		
31010	23-Jun-08	915	25.5821	-97.0227	21	12.8	5.6	6.2	6.3	36.6	36.5	36.3	27.6	26.9	23.6	0.010	0.000	0.060	10		
31011	23-Jun-08	1017	26.0647	-97.0331	21	11.5	6.1	6.2	6.4	36.6	36.5	36.4	27.2	24.9	24.0	0.046	0.107	0.052	10		
31012	23-Jun-08	1055	26.0720	-97.0030	21	13.9	5.5	6.4	6.6	36.7	36.5	36.4	27.2	25.2	23.7	0.025	0.041	0.222	10		
31013	23-Jun-08	1140	26.1147	-97.0131	21	13.0	5.6	6.1	6.1	36.7	36.6	36.3	27.4	26.6	23.9	0.279	0.147	0.041	10		
31014	23-Jun-08	1231	26.1219	-97.0634	21	9.5	5.9	6.1	6.4	36.7	36.6	36.4	27.4	26.4	24.5	0.016	0.053	0.000	10		
31015	23-Jun-08	1315	26.0847	-97.0932	21	4.7	6.0	6.0	5.2	36.9	36.5	36.4	27.7	25.7	24.4	0.000	0.000	0.045	10		
31016	23-Jun-08	1345	26.0718	-97.0830	21	6.9	5.9	6.3	6.3	36.7	36.7	36.4	27.6	26.3	24.2	0.002	0.007	0.021	10		
31001	11-Jun-08	829	26.1355	-97.1010	21	5.3	6.3	6.1	6.1	32.0	31.4	30.9	26.3	25.9	25.6	0.601	0.684	0.350	10		
32 MATAGORDA BAY																					
32001	02-Jun-08	927	28.2730	-96.1601	19	3.3	6.4	6.3	6.3	28.5	28.5	28.5	28.5	28.4	28.4	1.415	0.050	0.173	10		
32002	02-Jun-08	954	28.2745	-96.1535	19	3.7	6.0	6.2	6.1	28.5	28.5	28.5	28.5	28.5	28.4	1.647	0.673	0.488	10		
32003	02-Jun-08	1045	28.2758	-96.0938	19	7.0	6.4	6.4	4.9	28.5	28.5	29.0	28.7	28.5	27.6	10.657	2.616	0.395	10		
32004	02-Jun-08	1124	28.2645	-96.0852	19	7.7	6.4	6.7	5.6	28.5	28.6	29.0	28.6	28.4	27.7	8.320	0.562	0.636	10		
32005	02-Jun-08	1205	28.2957	-96.0740	19	6.0	6.6	6.5	4.9	28.6	28.7	29.0	28.8	28.4	27.9	9.485	0.358	0.479	10		
32006	02-Jun-08	1237	28.3047	-96.0652	19	5.6	6.4	6.5	5.8	28.7	28.7	28.8	28.8	28.7	28.4	10.782	0.250	0.402	10		
32007	02-Jun-08	1415	28.2060	-96.1348	19	10.0	6.5	6.5	1.8	29.0	29.1	30.9	28.6	28.1	25.8	0.959	1.553	0.078	10		
32008	02-Jun-08	1450	28.2155	-96.1555	19	8.6	6.8	6.8	2.3	29.0	29.1	30.7	28.4	28.0	26.1	2.531	0.397	0.516	10		
32009	16-Jun-08	1054	28.2133	-96.1623	19	8.5	6.1	6.0	4.4	31.0	31.2	31.4	29.5	29.3	28.3	3.138	0.395	0.464	10		
32010	16-Jun-08	1138	28.2022	-96.1532	19	9.3	6.2	5.9	4.2	31.1	31.4	31.4	29.6	29.0	28.1	8.406	0.108	0.231	10		
32011	16-Jun-08	1227	28.2034	-96.1822	19	8.2	6.2	6.1	3.5	31.0	31.0	31.5	29.5	29.2	28.2	3.041	0.035	0.372	10		
32012	16-Jun-08	1311	28.1924	-96.2137	19	6.8	6.3	5.2	3.5	31.0	31.3	31.6	29.7	28.9	28.4	7.539	0.021	0.580	10		
32013	16-Jun-08	1429	28.1732	-96.2719	19	3.3	5.8	5.9	5.5	31.4	31.3	31.3	30.2	30.0	29.4	0.478	0.067	0.258	10		
32014	16-Jun-08	1503	28.1528	-96.2837	19	5.8	6.4	6.3	6.1	31.5	31.5	31.5	29.2	29.1	28.9	4.587	0.070	0.083	10		
32015	16-Jun-08	1612	28.1034	-96.2625	19	10.7	6.4	6.4	4.1	30.3	30.4	30.9	29.2	28.8	28.2	0.008	0.123	0.121	10		
32016	16-Jun-08	1710	28.1528	-96.1636	19	11.3	6.4	6.4	5.9	30.6	30.6	31.5	29.2	28.8	28.3	0.003	0.069	0.029	10		

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-Jun-08	735	29.3637	-93.4338	17	5.8	7.0	6.4	5.3	12.9	18.0	19.3	29.0	29.3	29.0	16.689	0.889	0.000	10		
40002	11-Jun-08	827	29.3822	-93.4306	17	5.2	7.2	6.8	5.9	13.0	17.5	17.6	28.8	29.3	29.1	8.509	0.338	0.003	10		
40003	11-Jun-08	907	29.4018	-93.4348	17	4.3	6.6	6.4	3.8	10.0	14.5	18.7	28.8	29.1	28.9	2.234	0.153	0.014	10		
40004	11-Jun-08	946	29.4036	-93.4417	17	4.3	6.6	6.3	3.3	10.1	13.3	18.6	29.0	29.2	29.0	5.044	0.264	0.006	10		
40005	11-Jun-08	1020	29.4127	-93.4554	17	3.5	6.3	5.9	3.9	10.2	11.2	16.8	29.2	29.2	29.1	3.367	0.368	0.000	10		
40006	11-Jun-08	1050	29.4222	-93.4554	17	2.8	6.2	6.2	4.5	10.1	10.3	13.6	29.0	29.0	29.1	2.860	0.399	0.003	10		
40007	11-Jun-08	1153	29.4323	-93.3743	17	3.5	6.5	6.3	3.5	9.4	9.4	16.0	29.4	29.2	28.9	5.587	0.135	0.006	10		
40008	11-Jun-08	1238	29.4024	-93.3805	17	5.0	7.6	5.4	3.8	9.8	16.1	19.4	29.5	29.0	29.0	7.981	0.184	0.002	10		
40009	17-Jun-08	748	29.3627	-93.4405	17	5.7	5.4	3.4	1.5	16.0	22.1	24.1	29.5	29.5	28.8	1.942	0.057	0.185	10		
40010	17-Jun-08	830	29.3534	-93.4645	17	6.0	6.0	4.7	1.3	16.4	19.4	24.6	29.5	29.7	28.5	2.053	0.007	0.208	10		
40011	17-Jun-08	923	29.3327	-93.5015	17	6.5	6.0	5.8	2.1	20.5	21.2	24.9	29.7	29.8	28.7	4.028	0.017	0.290	10		
40012	17-Jun-08	1015	29.3726	-93.5149	17	3.0	7.3	4.7	3.6	15.1	21.8	21.8	30.3	29.8	29.5	6.153	0.899	0.946	10		
40013	17-Jun-08	1125	29.4014	-93.5117	17	1.0	1.8	0.9	0.3	15.3	18.6	18.7	30.0	29.5	29.3	25.321	0.965	0.000	10		
40014	17-Jun-08	1243	29.3926	-93.5850	17	2.5	7.1	3.0	1.8	22.8	22.1	23.5	30.9	30.0	29.1	10.352	0.535	0.000	10		
40015	17-Jun-08	1340	29.3930	-94.0108	17	2.2	5.7	1.4	1.3	23.3	23.8	23.9	30.6	29.0	29.0	6.568	2.145	0.006	10		
40016	17-Jun-08	1911	29.3435	-93.5229	17	4.8	5.1	5.0	4.7	22.3	22.8	22.4	29.7	29.7	29.7	15.405	0.271	0.061	10		
67 NUECES																					
67001	09-Jun-08	812	27.5635	-96.5646	20	2.9	5.7	5.8	5.8	31.4	31.5	31.5	28.8	28.8	28.7	1.313	0.989	0.476	10		
67002	09-Jun-08	835	27.5723	-96.5704	20	1.5	5.8	5.7	5.9	31.1	31.1	31.1	28.8	28.8	28.7	1.412	0.225	0.342	10		
67003	09-Jun-08	908	27.5825	-96.5533	20	2.6	5.5	5.7	5.7	30.8	30.8	30.8	28.9	28.9	28.8	2.211	5.496	0.707	10		
67004	09-Jun-08	948	27.5737	-96.5433	20	3.6	6.0	6.0	5.8	31.4	31.4	31.4	28.6	28.7	28.8	2.547	1.230	3.220	10		
67005	09-Jun-08	1044	27.5627	-96.5130	20	4.5	6.0	6.1	6.1	32.3	32.4	32.5	28.7	28.7	28.4	2.784	0.809	0.456	10		
67006	09-Jun-08	1123	27.5634	-96.5038	20	4.7	6.2	6.2	6.2	31.8	31.8	31.8	28.2	28.2	28.1	0.626	1.502	0.416	10		
67007	09-Jun-08	1220	27.5127	-96.5134	20	6.0	6.1	6.4	6.2	31.4	31.3	31.3	28.3	28.3	28.5	0.308	0.465	0.067	10		
67008	09-Jun-08	1312	27.5431	-96.5429	20	4.3	6.1	6.2	6.1	31.9	31.9	31.8	28.4	28.5	28.6	0.849	0.477	0.486	10		
67009	16-Jun-08	815	27.4747	-97.0224	20	5.5	5.9	6.0	5.8	31.6	31.7	31.8	28.4	28.4	28.3	1.948	0.127	0.871	10		
67010	16-Jun-08	909	27.4528	-97.0215	20	8.2	5.9	6.0	6.0	31.6	31.6	31.6	28.5	28.5	28.5	0.115	0.031	0.416	10		
67011	16-Jun-08	1026	27.3944	-97.0927	20	5.5	6.0	6.0	5.9	32.3	32.3	32.3	28.9	28.9	28.8	0.086	0.015	0.112	10		
67012	16-Jun-08	1059	27.3828	-97.0829	20	7.1	5.9	6.0	5.7	32.2	32.2	32.3	28.7	28.6	28.3	1.005	0.857	0.300	10		
67013	16-Jun-08	1156	27.4137	-97.0030	20	10.9	5.9	6.1	6.1	32.3	32.3	33.3	28.0	28.0	28.0	0.084	0.137	0.087	10		
67014	16-Jun-08	1249	27.4423	-96.5527	20	12.6	6.3	6.3	6.2	31.6	31.6	31.7	28.5	28.5	28.2	0.052	0.042	0.072	10		
67015	16-Jun-08	1332	27.4746	-96.5910	20	8.8	6.1	6.2	6.3	31.5	31.5	31.5	28.9	29.0	28.9	0.585	0.179	0.371	10		
67016	16-Jun-08	1423	27.4927	-96.5725	20	9.3	6.3	6.5	6.3	31.6	31.6	31.7	29.0	28.9	28.6	0.390	0.257	1.314	10		

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	02-Jun-08	957	29.1885	-94.4118	18	5.4	6.2	6.1	6.2	22.5	22.3	22.4	28.9	28.8	28.8	1.197	0.085	0.437	10		
69002	02-Jun-08	1117	29.1325	-94.4070	18	7.1	6.4	5.5	5.1	24.1	26.2	26.5	28.4	27.6	27.5	5.433	0.159	0.450	10		
69003	02-Jun-08	1234	29.1088	-94.4530	18	7.1	6.5	6.5	5.3	24.7	24.8	26.8	29.0	28.6	27.6	15.025	0.232	0.432	10		
69004	02-Jun-08	1323	29.0722	-94.4882	18	8.2	6.5	6.3	5.3	24.9	25.4	26.6	28.8	28.3	27.6	0.032	0.023	1.004	10		
69005	02-Jun-08	1357	29.0995	-94.5020	18	6.5	6.4	6.4	6.2	24.9	24.8	24.9	28.8	28.7	28.2	0.342	0.022	0.109	10		
69006	02-Jun-08	1435	29.1140	-94.5290	18	5.4	6.4	6.4	6.1	25.1	25.1	25.2	29.1	29.1	28.8	3.365	0.081	0.539	10		
69007	02-Jun-08	1548	29.1327	-94.4678	18	5.4	6.6	6.6	6.3	24.2	24.2	25.3	29.6	21.7	29.1	0.643	0.127	1.479	10		
69008	02-Jun-08	1508	29.1386	-94.5116	18	3.8	6.8	6.8	6.7	25.0	25.0	25.0	29.5	29.4	29.2	1.821	0.060	0.985	10		
69009	24-Jun-08	1134	29.1850	-94.3912	18	5.5	5.7	4.7	4.6	25.4	26.9	29.0	30.3	29.8	29.3	14.418	0.268	0.052	10		
69010	24-Jun-08	1225	29.1716	-94.3757	18	6.6	5.5	3.4	5.8	25.5	26.4	28.2	29.9	29.9	29.9	0.000	0.000	0.001	10		
69011	24-Jun-08	1304	29.1647	-94.3629	18	7.7	5.6	5.6	5.8	25.8	28.5	29.0	29.6	29.8	29.7	0.000	0.000	0.434	10		
69012	24-Jun-08	1413	29.2215	-94.2857	18	6.6	6.3	6.1	6.2	25.9	25.9	26.0	29.8	29.8	29.6	4.533	0.069	0.149	10		
69013	24-Jun-08	1516	29.2637	-94.3802	18	1.6	5.2	4.9	4.9	24.9	24.9	24.9	30.1	30.1	30.0	1.996	0.919	0.203	10		
69014	24-Jun-08	1557	29.2312	-94.3757	18	4.5	6.6	6.8	6.2	25.8	26.0	26.4	29.5	39.7	29.8	0.000	0.004	0.098	10		
69015	24-Jun-08	1635	29.2148	-94.3617	18	5.3	6.1	6.2	6.1	26.5	26.5	26.6	29.9	29.8	29.7	0.000	0.002	0.379	10		
69016	24-Jun-08	1710	29.2022	-94.3753	18	5.2	6.1	5.4	5.5	25.8	26.2	27.3	29.6	29.9	30.0	0.000	0.015	0.512	10		