

SEAMAP Summer 2007 Groundfish Survey Cruise Report

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Introduction

SEAMAP Summer 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/NMFS Data Manager.

Methods

Vessels that participated in the Texas Summer Groundfish Survey were: Sabine (40), San Jacinto (69), Matagorda Bay (32), Nueces Bay (67), and R.J. Kemp (31). 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. Data was entered and checked with the Texas SEAMAP Data Entry Database.

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 Groundfish survey samples in Texas Territorial Seas (between latitudes 00° and 29° 44' and longitudes -93° 00' and - 59') (Table 1). Samples were collected between June , 2007 and June , 2007.

A total of 1241 biological and 9189 length frequency records were reported (Table 1)

Deviations

There were no significant deviations.

Cruise participants:

Texas Parks and Wildlife Staff collected samples. Sample summary and data entry completed by Fernando Martinez-Andrade, Mark Lingo and Domingo Sanchez.

Submitted By:

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SEAMAP Subcommittee member

Table 1. TPWD SEAMAP 2007 Summer 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	OP	
31 R.J. KEMP																							
31001	05-Jun-07	817	26 02.92	-97 08.47	21	4.0	4.9	4.7	4.4	33.6	34.1	34.3	25.3	25.2	25.0	0.567	0.000	0.241	10	7	25		
31002	05-Jun-07	847	26 01.33	-97 08.48	21	4.2	4.7	4.2	4.0	33.7	34.6	34.5	25.1	24.8	24.4	1.157	0.546	0.137	10	15	54		
31003	05-Jun-07	921	26 02.88	-97 06.45	21	9.2	5.6	5.6	4.7	34.3	34.5	35.2	25.0	25.1	24.5	6.411	0.173	0.191	10	14	119		
31004	05-Jun-07	1014	26 00.50	-97 01.53	21	13.3	6.1	5.9	5.7	33.9	34.0	35.4	25.9	25.8	25.1	0.298	0.025	0.569	10	10	46		
31005	05-Jun-07	1109	26 07.85	-97 00.47	21	14.2	6.3	6.2	4.8	33.3	33.4	35.1	26.7	26.5	25.9	0.153	0.127	0.098	10	12	27		
31006	05-Jun-07	1200	26 07.37	-97 06.57	21	9.7	6.0	6.2	4.7	34.1	35.6	35.2	26.0	24.1	24.6	0.322	0.000	0.533	10	12	42		
31007	05-Jun-07	1233	26 06.65	-97 07.47	21	9.2	5.7	5.2	4.2	33.8	34.7	35.2	26.6	25.3	24.5	0.464	0.058	0.673	10	15	69		
31008	05-Jun-07	1304	26 05.30	-97 09.52	21	8.3	5.4	5.4	4.1	33.6	34.5	35.1	26.7	25.3	24.6	6.093	0.341	1.512	10	17	151		
32009	16-Jun-07	846	26 08.47	-97 05.45	21	10.0	6.4	7.3	6.1	34.2	34.1	34.6	25.3	24.0	22.6	0.099	0.054	0.083	10	4	12		
32010	16-Jun-07	931	26 10.80	-97 06.47	21	9.7	6.1	6.3	6.6	34.5	34.2	34.7	24.3	23.7	22.3	0.364	0.129	1.187	10	12	54		
32011	16-Jun-07	1014	26 16.45	-97 05.48	21	10.2	6.5	6.5	6.2	34.1	34.4	34.7	25.5	24.8	22.8	0.302	0.120	0.467	10	13	51		
32012	16-Jun-07	1053	26 16.83	-97 02.48	21	11.7	6.6	6.9	7.4	34.0	33.9	34.6	26.6	26.4	23.0	0.141	0.222	0.133	10	14	33		
32013	16-Jun-07	1133	26 18.48	-97 02.52	21	12.2	6.6	6.7	7.0	34.0	34.3	34.3	26.5	26.2	22.9	0.040	0.000	0.118	10	5	3		
32014	16-Jun-07	1217	26 21.78	-97 04.45	21	11.2	6.3	6.7	5.5	34.1	34.0	34.7	25.8	25.5	23.0	0.043	0.086	0.352	10	7	24		
32015	16-Jun-07	1330	26 20.42	-97 10.52	21	7.8	6.1	6.5	6.7	34.7	34.7	34.7	24.6	23.1	23.1	0.182	0.010	0.254	10	7	17		
32016	23-Jun-07	1035	26 17.98	-97 07.48	21	9.5	6.6	6.5	6.4	34.7	34.8	35.0	26.1	26.1	25.0	0.058	0.114	0.376	10	9	39		
32 MATAGORDA BAY																							
32001	04-Jun-07	957	28 25.58	-96 17.47	19	5.1	7.1	4.6	3.3	22.5	27.0	31.6	27.8	26.4	26.0	16.894	0.483	0.560	10	21	134		
32002	04-Jun-07	1058	28 21.42	-96 16.47	19	8.5	7.5	4.6	4.5	24.7	31.6	32.9	27.0	26.1	25.9	7.568	0.065	1.138	10	16	118		
32003	04-Jun-07	1209	28 22.53	-96 08.42	19	9.8	7.8	6.3	5.7	23.7	32.4	32.8	27.5	26.0	25.9	6.076	0.052	2.921	10	16	117		
32004	04-Jun-07	1303	28 25.52	-96 10.42	19	7.8	7.8	5.5	5.6	24.2	30.8	32.7	27.6	26.3	25.9	1.488	0.097	1.608	10	11	105		
32005	04-Jun-07	1355	28 28.52	-96 09.40	19	6.1	7.1	5.0	3.3	25.4	30.7	31.8	27.9	26.4	26.0	3.991	0.026	1.518	10	14	104		
32006	04-Jun-07	1435	28 29.50	-96 10.53	19	4.6	6.1	4.3	3.7	26.3	30.8	30.6	27.6	26.4	26.3	1.798	0.008	0.298	10	12	42		
32007	04-Jun-07	1549	28 28.52	-96 06.40	19	7.0	7.5	5.3	4.6	25.4	30.8	32.2	28.6	26.3	26.2	9.583	0.028	1.254	10	14	98		
32008	04-Jun-07	1658	28 24.47	-96 03.48	19	9.8	7.8	5.6	5.3	25.1	32.6	32.6	27.8	26.0	26.1	4.708	0.226	5.646	10	21	90		
32009	20-Jun-07	952	28 22.52	-96 20.60	19	4.6	5.6	5.7	5.5	31.1	31.1	31.1	29.3	29.3	29.2	0.236	0.000	0.027	10	5	9		
32010	20-Jun-07	1022	28 22.55	-96 19.48	19	5.1	6.0	5.7	5.6	29.6	30.9	31.0	29.4	29.2	29.1	9.609	0.292	0.241	10	18	143		
32011	20-Jun-07	1131	28 15.48	-96 16.60	19	11.6	5.9	5.8	3.6	31.1	31.5	33.3	28.7	28.4	26.1	3.878	2.080	0.814	10	25	218		
32012	20-Jun-07	1244	28 14.50	-96 24.45	19	9.5	5.9	5.8	5.6	31.1	31.3	31.8	29.3	28.9	28.4	14.771	1.053	0.422	10	22	204		
32013	20-Jun-07	1331	28 13.47	-96 28.62	19	7.8	5.9	5.7	4.6	31.2	31.4	31.6	29.4	29.1	29.1	13.896	0.408	0.000	10	21	170		
32014	20-Jun-07	1413	28 12.57	-96 26.57	19	6.3	5.9	5.9	5.8	31.2	31.6	31.6	29.3	28.7	28.5	14.159	1.745	1.207	10	23	217		
32015	20-Jun-07	1501	28 10.42	-96 24.63	19	11.6	5.9	5.9	3.5	31.7	32.1	33.4	28.9	28.3	26.2	5.997	1.255	0.579	10	24	222		
32016	20-Jun-07	1529	28 10.53	-96 23.45	19	12.1	5.8	5.9	2.4	31.6	32.2	33.6	28.9	28.3	26.1	5.900	2.822	0.473	10	23	254		

Table 1. (cont.)

STA#	DATE	TIME	LAT	LONG	STAT ZONE	MAX			DO			SALINITY			TEMPERATURE			FIN CATCH	CRUS CATCH	OTHER CATCH	MIN FISHED	BIO COUNT	LENGTH COUNT	OP
						DEPTH	SUR	MID	MAX	SUR	MID	MAX	SUR	MID	MAX	SUR	MID							
40 SABINE																								
40001	05-Jun-07	743	29 40.30	-93 52.23	17	1.1	6.2	5.6	1.9	21.5	24.8	27.5	27.2	27.6	26.9	5.82	2.02	0.03	10	14	169			
40002	05-Jun-07	824	29 40.37	-93 55.82	17	1.5	5.6	3.7	2.7	26.6	28.7	29.0	27.1	27.0	26.5	5.58	2.17	0.05	10	13	143			
40003	05-Jun-07	920	29 38.57	-93 00.27	17	5.5	6.8	4.4	4.3	27.9	30.1	31.1	26.7	26.5	26.4	8.69	1.06	0.00	10	13	125			
40004	05-Jun-07	1020	29 36.43	-93 57.83	17	3.8	6.7	5.5	5.0	28.1	30.3	31.2	26.8	26.7	26.5	13.12	0.51	0.12	10	19	147			
40005	05-Jun-07	1111	29 35.52	-93 57.20	17	4.3	7.0	5.9	5.0	28.0	30.0	31.3	27.3	26.8	26.5	46.51	1.17	0.09	10	22	136			
40006	05-Jun-07	1219	29 33.55	-93 52.85	17	6.2	7.6	6.8	5.6	22.7	27.5	29.0	28.0	27.2	26.6	29.83	0.75	0.05	10	19	179			
40007	05-Jun-07	1419	29 32.63	-93 51.25	17	6.7	8.9	6.7	5.7	22.8	27.8	31.8	29.4	27.1	26.5	12.27	0.33	0.42	10	16	173			
40008	05-Jun-07	1525	29 32.53	-93 48.72	17	6.7	9.0	6.2	5.0	23.6	28.2	31.5	29.1	26.9	26.3	11.72	0.14	0.53	10	15	116			
40009	21-Jun-07	746	29 34.42	-93 48.88	17	6.3	6.2	6.0	5.9	24.0	26.9	27.5	28.5	28.6	28.6	6.55	0.95	0.00	10	11	165			
40010	21-Jun-07	903	29 40.47	-93 45.30	17	4.2	5.8	5.7	5.5	27.4	27.3	27.2	28.9	28.9	28.8	4.92	0.15	0.06	10	12	60			
40011	21-Jun-07	1054	29 44.43	-93 37.83	17	2.5	7.3	6.5	6.1	23.8	23.9	24.1	29.3	29.1	29.0	1.16	0.13	0.00	10	11	53			
40012	21-Jun-07	1142	29 41.57	-93 37.30	17	4.3	7.2	6.1	6.0	23.9	25.4	26.3	29.4	28.0	29.0	8.32	0.28	0.02	10	14	71			
40013	21-Jun-07	1223	29 39.70	-93 40.82	17	4.8	6.6	5.8	5.5	27.2	27.6	27.6	29.3	28.6	28.5	6.22	0.59	0.01	10	11	99			
40014	21-Jun-07	1305	29 37.55	-93 39.25	17	5.7	6.5	5.8	5.6	27.9	28.0	28.1	29.9	28.6	28.6	6.10	0.77	0.07	10	15	92			
40015	21-Jun-07	1348	29 37.53	-93 36.80	17	5.7	6.7	6.0	4.9	28.1	27.9	28.1	29.7	28.9	28.5	12.42	0.32	0.01	10	14	104			
40016	21-Jun-07	1443	29 36.53	-93 34.18	17	5.8	8.0	6.3	5.4	28.1	28.2	28.2	30.5	28.8	28.4	14.07	0.45	0.19	10	16	74			
67 NUECES																								
67001	04-Jun-07	810	27 46.78	-97 01.33	20	7.7	8.00	7.8	6.5	25.9	26.1	27.3	27.3	27.3	27.4	8.62	0.33	0.25	10	20	116			
67002	04-Jun-07	952	27 45.15	-97 05.52	20	5.5	7.60	7.7	7.5	27.4	27.3	27.3	27.9	27.8	27.8	0.12	0.00	0.08	10	15	74			
67003	04-Jun-07	928	27 44.85	-97 05.32	20	5.5	7.60	7.8	7.6	27.2	27.2	27.3	27.6	27.6	27.8	0.64	0.03	0.80	10	4	6			
67004	04-Jun-07	1013	27 41.03	-97 08.47	20	5.0	7.10	7.2	7.1	28.1	28.1	28.1	28.2	28.1	28.1	0.07	0.00	0.70	10	3	9			
67005	04-Jun-07	1206	27 39.87	-97 00.55	20	11.8	8.10	6.9	6.7	26.5	35.0	35.2	27.9	26.5	26.2	0.92	0.09	0.94	10	14	102			
67006	04-Jun-07	1418	27 44.17	-96 59.40	20	10.7	8.60	6.8	6.5	25.2	32.8	34.9	28.5	27.3	26.3	0.34	0.13	1.51	10	14	88			
67007	04-Jun-07	1445	27 44.67	-96 58.52	20	11.0	9.00	7.0	6.7	25.2	32.3	34.9	28.1	27.1	26.3	0.22	0.19	0.59	10	14	73			
67008	04-Jun-07	1517	27 46.10	-96 56.85	20	11.0	9.00	6.9	6.7	25.3	32.1	34.6	28.8	27.3	26.2	0.84	0.21	0.40	10	19	95			
67009	21-Jun-07	831	27 59.12	-96 55.28	20	3.8	6.90	7.0	7.0	33.6	33.6	33.6	29.0	29.0	29.0	0.48	0.00	0.09	10	6	32			
67010	21-Jun-07	914	27 59.95	-96 52.52	20	6.0	6.90	6.9	6.9	33.1	33.1	33.2	28.3	28.3	28.3	3.93	0.13	0.11	10	13	97			
67011	21-Jun-07	1004	27 55.03	-96 53.40	20	8.3	6.90	6.8	5.6	33.4	33.4	33.6	28.3	28.3	28.1	4.02	0.07	0.71	10	18	137			
67012	21-Jun-07	1052	27 53.83	-96 50.55	20	10.2	6.90	6.8	6.1	33.9	34.0	34.1	28.1	28.1	28.0	4.57	1.07	1.18	10	22	192			
67013	21-Jun-07	1131	27 52.20	-96 49.38	20	11.3	6.90	6.8	6.1	34.1	34.0	34.2	28.1	28.0	27.3	3.43	0.60	0.72	10	23	175			
67014	21-Jun-07	1211	27 50.77	-96 51.47	20	11.3	7.00	6.8	4.6	33.9	40.0	34.6	28.3	28.1	26.5	5.16	1.62	0.35	10	23	236			

Table 1. (cont.)

STA#	DATE	TIME	LAT	LONG	STAT ZONE	MAX			DO			SALINITY			TEMPERATURE			FIN CATCH	CRUS CATCH	OTHER CATCH	MIN FISHED	BIO COUNT	LENGTH COUNT	OP
						DEPTH	SUR	MID	MAX	SUR	MID	MAX	SUR	MID	MAX									
67 NUECES (cont.)																								
67015	21-Jun-07	1247	27 49.13	-96 52.68	20	11.3	6.90	6.7	4.9	33.7	34.1	34.6	28.3	28.0	26.7	5.12	0.70	0.26	10	18	159			
67016	21-Jun-07	1324	27 47.82	-96 54.20	20	11.5	6.90	6.7	5.0	33.7	34.1	34.6	28.3	28.1	26.9	5.13	1.72	0.21	10	24	236			
69 SAN JACINTO																								
69001	05-Jun-07	1000	29 16.70	-94 43.15	18	4.3	5.3	4.2	4.2	28.9	32.3	32.7	26.8	25.9	25.9	7.87	0.04	0.07	10	13	79			
69002	05-Jun-07	1032	29 16.38	-94 44.72	18	4.1	5.4	4.1	3.9	29.0	32.0	32.7	26.8	26.0	26.0	10.90	0.12	0.23	10	17	94			
69003	05-Jun-07	1105	29 16.67	-94 46.25	18	3.3	4.8	3.1	3.3	29.7	32.2	32.4	26.5	25.9	25.9	11.43	0.39	0.13	10	14	103			
69004	05-Jun-07	1145	29 11.22	-94 47.77	18	6.6	5.6	4.6	3.5	29.0	30.2	32.0	26.7	26.3	26.0	14.18	0.20	0.51	10	14	147			
69005	05-Jun-07	1217	29 11.72	-94 46.13	18	6.6	5.9	5.1	3.5	29.1	30.1	32.5	26.9	26.4	25.9	9.83	0.21	0.47	10	16	129			
69006	05-Jun-07	1247	29 10.30	-94 45.62	18	7.7	6.6	5.3	4.0	29.3	29.5	32.4	26.9	26.5	26.0	13.97	0.25	0.91	10	22	189			
69007	05-Jun-07	1326	29 08.85	-94 43.05	18	8.7	6.8	5.9	4.3	29.0	29.2	32.9	27.1	26.4	25.8	4.21	0.69	2.01	10	22	201			
69008	05-Jun-07	1422	29 07.47	-94 50.55	18	7.7	6.1	5.9	4.7	29.2	29.6	32.2	26.7	26.4	25.9	17.30	0.28	0.64	10	18	146			
69009	21-Jun-07	1120	29 16.87	-94 42.40	18	4.4	6.8	6.2	5.4	20.0	26.2	27.2	29.4	29.1	29.0	11.02	0.68	0.11	10	18	151			
69010	21-Jun-07	1157	29 14.25	-94 41.83	18	6.6	6.5	5.5	5.7	25.1	27.8	28.1	29.2	28.8	29.1	18.40	1.87	0.26	10	16	213			
69011	21-Jun-07	1246	29 18.90	-94 37.40	18	6.0	6.7	6.1	5.4	22.6	27.2	28.2	30.3	29.2	29.3	7.30	0.79	0.17	10	22	178			
69012	21-Jun-07	1322	29 17.10	-94 35.95	18	7.1	6.9	5.6	5.6	24.8	27.7	27.9	29.6	29.1	29.2	13.82	0.79	0.38	10	23	204			
69013	21-Jun-07	1421	29 23.88	-94 29.30	18	6.0	7.1	6.4	4.2	26.5	27.6	27.7	29.7	28.9	28.6	16.91	0.49	0.27	10	24	183			
69014	21-Jun-07	1459	29 25.38	-94 33.85	18	4.4	7.5	5.7	5.9	26.6	26.7	26.9	29.8	29.0	29.1	4.21	0.29	0.06	10	18	102			
69015	21-Jun-07	1529	29 26.82	-94 32.35	18	4.4	7.7	6.1	3.0	26.2	26.2	26.8	29.7	29.0	28.9	8.23	0.44	0.11	10	14	145			
69016	21-Jun-07	1603	29 27.33	-94 36.68	18	1.6	8.0	7.4	7.1	25.2	26.1	26.0	30.6	30.5	29.7	1.26	0.27	0.10	10	26	181			