

U. S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Fisheries Science Center
P. O. Drawer 1207 Pascagoula, MS 39568-1207

SEAMAP Reef Fish Survey

NOAA Ship OREGON II Cruise 07-02 (275)
04/20/2007-05/31/2007

Introduction

The NOAA Ship OREGON II departed Pascagoula, MS on April 20, 2007 to conduct the annual SEAMAP Reef Fish Survey along the continental shelf of the western Gulf of Mexico. The cruise was divided into three legs: Leg 1) 4/20/07 to 5/2/06; Leg 2) 5/4/06 to 5/08/07 and Leg 3) 5/22/07 to 5/31/07, for a total of 28 sea days.

Thirteen sea days were lost due to mechanical problems on the OREGON II. On the first leg one sea day was lost to vessel repairs/maintenance due to the generator and replacement of a hydraulic hose. On the second and third leg 12 days were lost due to a bad reduction gear.

Objectives

- 1) Assess relative abundance of reef fish on Gulf of Mexico shelf-edge banks.
- 2) Estimate length frequency distributions of reef fish.
- 3) Collect otoliths from select fish for ageing.
- 4) Collect temperature, salinity, and dissolved oxygen profile data at each station.

Methods

A two-stage procedure was used to select sample sites. Sample blocks were first selected using stratified random sampling, with strata defined by region of the Gulf of Mexico and size. Thirty-one blocks were selected to be sampled for this year's survey (Figure 1). Reef sites within each selected block were then selected randomly from previously collected bathymetric data. The Flower Garden Bank National Marine Sanctuary (FGBNMS) also requested 6 sites where marbled grouper aggregations have been seen in previous years. Each site selected was sampled with a four camera array and the Seabird SBE911 CTD profiler. Additionally, one or two sites each day were randomly chosen to be sampled with the chevron fish trap after being sampled with the four camera array.

A camera array with four digital camcorders and eight laser measuring devices was used to estimate fish abundance, collect measurements of fish lengths, and to classify habitat and substrate types at each selected site. Video gear consisted of four Sony PD-170 DCR digital camcorders in Gates 'Diego' underwater housings mounted orthogonally at a height of 30 cm above the bottom

inside of a custom aluminum camera array frame. Two sets of lasers were mounted with each horizontally-mounted video camera, one above each camera and one below. Each laser measuring device consisted of two red laser diodes spaced 10 cm apart in a waterproof housing. These lasers were placed to obtain fish lengths. A chevron fish trap, that measured 1.83 x 1.83 x 0.75 meters with 3.81-cm mesh, was used to capture fish for ageing and other life history studies. Both the fish trap and camera array were baited with squid. The camera array was allowed to soak on the bottom for 30 minutes, and the fish trap soaked for 1 hour.

A Seabird SBE911 CTD profiler was deployed near each camera array site to collect hydrographic profiles of the water column. The CTD profiler collected measurements of temperature, salinity, dissolved oxygen, fluorescence and turbidity. A Seabird SBE25 CTD was also mounted within the camera array to provide measurements of depth, temperature, salinity, dissolved oxygen and turbidity as the camera array soaked on the bottom.

Results

Due to a loss of sea days because of mechanical problems on the OREGON II, only nineteen of the thirty-one blocks selected were sampled (Figure 2). A total of 185 video stations and 27 chevron fish trap sets were completed during the survey. Only four of the six sites requested by FGBNMS sampled (Figure 2, Table 1). Block 94 was mapped at night using the reef bathymetry event to obtain better resolution bathymetric data.

Seabird SBE911 CTD casts of the water column were collected at 164 stations (Table 1). The CTD was not deployed at 22 stations due to a bad cable. The cable had to be re-terminated several times. Video tapes and CTD data from each station were returned to the NMFS Pascagoula Laboratory for viewing and analysis. The Seabird SBE25 CTD only collected data from 36 stations because of a bad magnetic switch.

Fish were captured in 10 of the 27 deployments of the chevron fish trap. A total of 132 individual fish of 10 different species weighing a total weight of 117.806 kg were captured in the traps (Table 2). Red snapper (*Lutjanus campechanus*) dominated the catch in weight followed by scamp (*Mycteroperca phenax*) and vermilion snapper (*Rhomboplites aurorubens*). Red snapper was the most numerous species followed by vermilion snapper and gray triggerfish. Otoliths were collected from all snapper and grouper species which included red, lane (*Lutjanus synagris*), vermilion and blackfin snapper (*Lutjanus buccanella*), rock hind (*Epinephelus adscensionis*) and scamp. All otoliths were sent to the NMFS Panama City Laboratory for processing.

Cruise participants:

Leg 1: 04/20/07 - 05/02/07 (13 sea days)

Pascagoula-Galveston

<u>Name</u>	<u>Title</u>	<u>Organization</u>
Brandi Trigg	Chief Scientist	IAP Pascagoula, MS
Kevin Rademacher	Fisheries Biologist	NMFS Pascagoula, MS
Andre' Debose	Fisheries Biologist	NMFS Pascagoula, MS
Dean Landi	Fisheries Biologist	IAP Pascagoula, MS

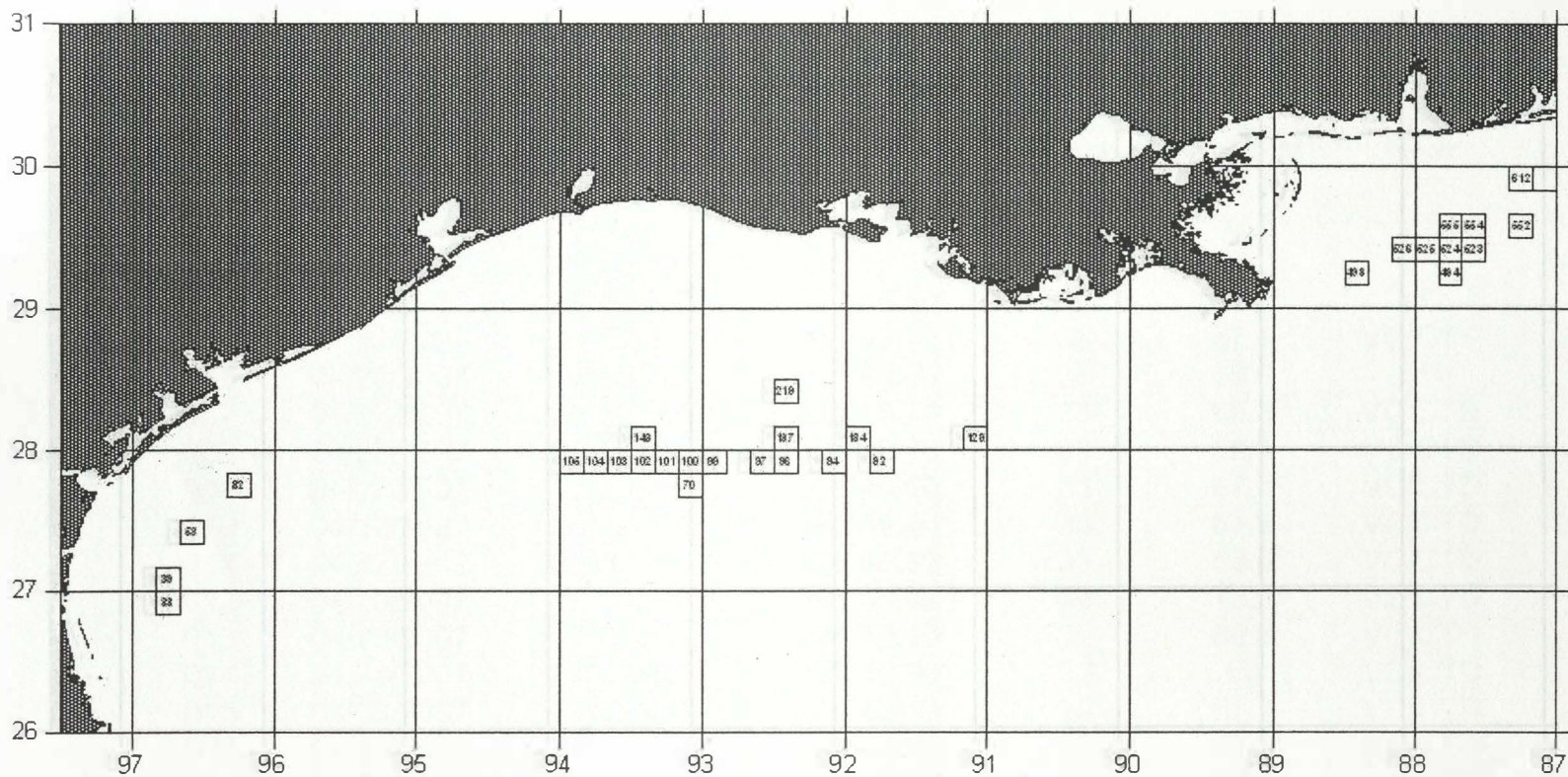


Figure 1. Location of blocks selected for sampling during SEAMAP 2007 reef fish survey.

Figure 2. Location of blocks sampled during SEAMAP 2007 reef fish survey.

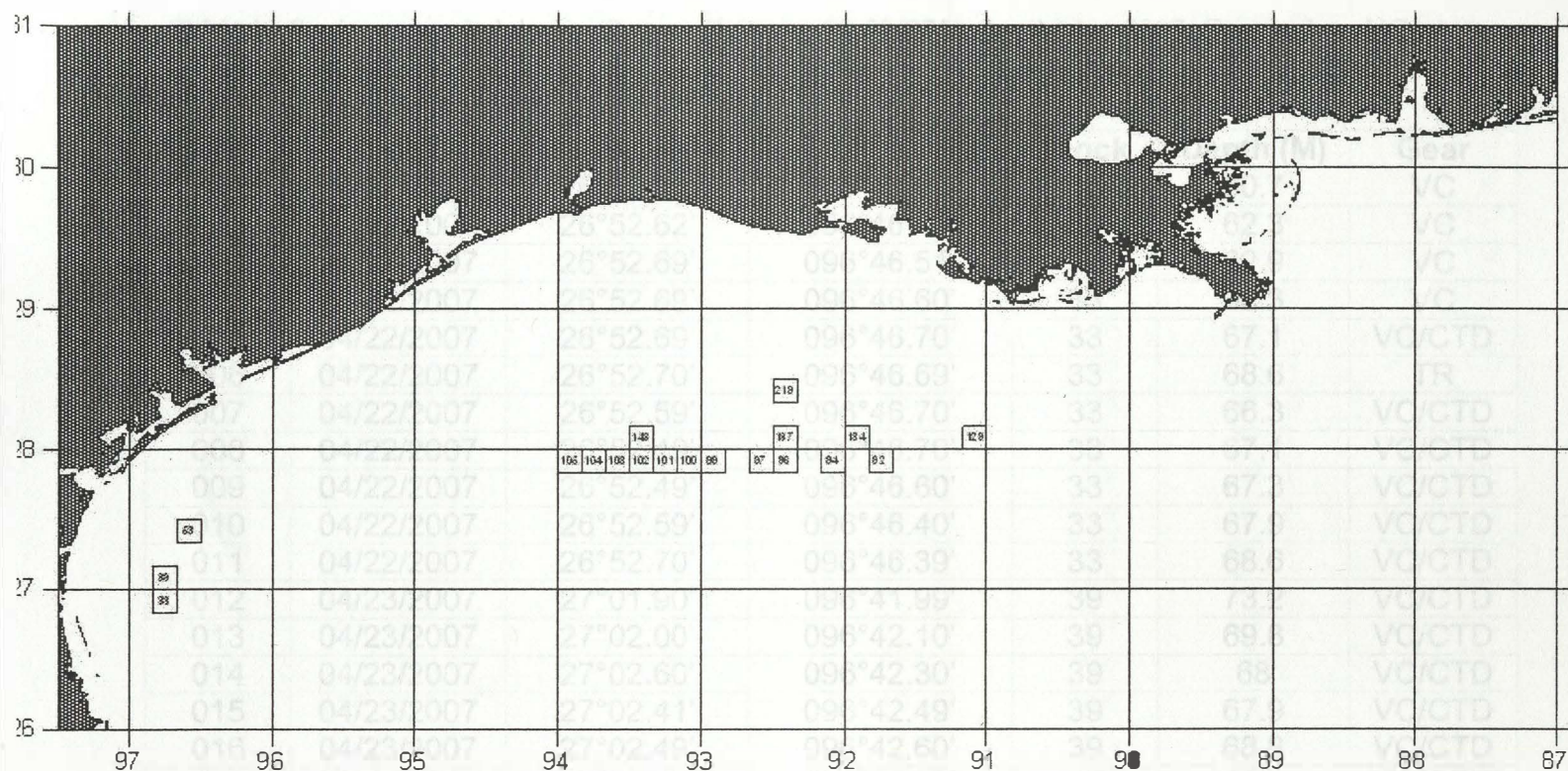


Figure 2. Location of blocks sampled during SEAMAP 2007 reef fish survey.

Table 1. Stations sampled during Oregon II Cruise 07-02(275), April-May 2007. Gear codes: VC-video camera; TR-chevron fish trap; CTD-CTD cast deployed

Station	Date	Latitude (N)	Longitude (W)	Block	Depth (M)	Gear
001	04/22/2007	26°52.60'	096°46.60'	33	60.7	VC
002	04/22/2007	26°52.62'	096°46.48'	33	62.3	VC
003	04/22/2007	26°52.69'	096°46.51'	33	62.9	VC
004	04/22/2007	26°52.69'	096°46.60'	33	62.3	VC
005	04/22/2007	26°52.69'	096°46.70'	33	67.1	VC/CTD
006	04/22/2007	26°52.70'	096°46.69'	33	68.6	TR
007	04/22/2007	26°52.59'	096°46.70'	33	66.3	VC/CTD
008	04/22/2007	26°52.49'	096°46.70'	33	67.1	VC/CTD
009	04/22/2007	26°52.49'	096°46.60'	33	67.3	VC/CTD
010	04/22/2007	26°52.59'	096°46.40'	33	67.9	VC/CTD
011	04/22/2007	26°52.70'	096°46.39'	33	68.6	VC/CTD
012	04/23/2007	27°01.90'	096°41.99'	39	73.2	VC/CTD
013	04/23/2007	27°02.00'	096°42.10'	39	69.8	VC/CTD
014	04/23/2007	27°02.60'	096°42.30'	39	68	VC/CTD
015	04/23/2007	27°02.41'	096°42.49'	39	67.9	VC/CTD
016	04/23/2007	27°02.49'	096°42.60'	39	68.8	VC/CTD
017	04/23/2007	27°02.49'	096°42.79'	39	72.6	VC/CTD
018	04/23/2007	27°02.49'	096°42.80'	39	72.5	TR
019	04/23/2007	27°02.69'	096°42.90'	39	73.4	VC/CTD
020	04/23/2007	27°02.59'	096°42.79'	39	72.6	VC/CTD
021	04/23/2007	27°02.49'	096°42.91'	39	72.8	VC/CTD
022	04/23/2007	27°02.90'	096°42.49'	39	73.1	VC/CTD
023	04/24/2007	27°26.20'	096°31.39'	53	68.7	VC/CTD
024	04/24/2007	27°26.29'	096°31.30'	53	71.8	VC/CTD
025	04/24/2007	27°26.40'	096°31.50'	53	60.3	VC/CTD
026	04/24/2007	27°26.39'	096°31.50'	53	60.3	TR
027	04/24/2007	27°26.59'	096°31.61'	53	69.5	VC/CTD
028	04/24/2007	27°26.59'	096°31.50'	53	71.5	VC/CTD
029	04/24/2007	27°26.50'	096°31.39'	53	69	VC/CTD
030	04/24/2007	27°26.49'	096°31.20'	53	70.1	VC/CTD
031	04/24/2007	27°26.60'	096°31.20'	53	67	VC/CTD
032	04/24/2007	27°26.69'	096°31.29'	53	71.3	VC/CTD
033	04/25/2007	27°44.39'	096°14.60'	82	75.2	VC/CTD
034	04/26/2007	27°53.09'	093°50.19'	105	86.3	VC/CTD
035	04/26/2007	27°53.29'	093°50.90'	105	100.2	VC/CTD
036	04/26/2007	27°51.49'	093°51.99'	105	82.7	VC/CTD
037	04/26/2007	27°51.11'	093°51.99'	105	85.7	VC/CTD
038	04/26/2007	27°51.03'	093°51.66'	105	71.7	VC/CTD
039	04/26/2007	27°51.29'	093°51.19'	105	87.2	VC/CTD
040	04/26/2007	27°51.09'	093°51.10'	105	89.7	VC/CTD

Station	Date	Latitude (N)	Longitude (W)	Block	Depth (M)	Gear
041	04/26/2007	27°51.09'	093°51.10'	105	90.1	TR
042	04/26/2007	27°50.59'	093°50.70'	105	85.9	VC/CTD
043	04/26/2007	27°50.10'0	093°50.09'	105	96	VC/CTD
044	04/26/2007	27°50.89'	093°50.09'	105	81.8	VC/CTD
045	04/27/2007	27°51.79'	093°50.29'	105	97.4	VC/CTD
0460	04/27/2007	27°51.60'	093°50.49'	105	89.4	VC/CTD
0470	04/27/2007	27°51.18'	093°50.17'	105	65.1	VC/CTD
0480	04/27/2007	27°50.19'	093°49.89'	104	99.2	VC/CTD
0490	04/27/2007	27°51.05'	093°47.97'	104	103.1	VC/CTD
0500	04/27/2007	27°51.04'	093°48.00'	104	101.8	TR
0510	04/27/2007	27°51.90'	093°48.29'	104	83.6	VC/CTD0
0520	04/27/2007	27°51.60'	093°49.20'	104	76.6	VC/CTD
0530	04/27/2007	27°51.90'	093°49.89'	104	91.2	VC/CTD
054	04/27/2007	27°52.70'	093°49.30'	104	62.3	VC/CTD
055	04/27/2007	27°52.99'	093°48.79'	104	72.4	VC/CTD
056	04/28/2007	27°53.80'	093°47.00'	104	97.6	VC/CTD
057	04/28/2007	27°53.80'	093°48.89'	104	65	VC/CTD
058	04/28/2007	27°53.50'	093°48.90'	104	91.2	VC/CTD
059	04/28/2007	27°53.50'	093°48.90'	104	91.9	TR
060	04/28/2007	27°53.39'	093°49.20'	104	91.7	VC/CTD
061	04/28/2007	27°52.90'	093°47.80'	104	100.7	VC/CTD
062	04/28/2007	27°53.10'	093°39.69'	103	106.3	VC/CTD0
063	04/28/2007	27°53.39'	093°37.39'	103	88	VC/CTD
0640	04/28/2007	27°55.00'	093°38.09'0	103	89.6	VC/CTD
065	04/28/2007	27°55.69'	093°37.80'	103	83.5	VC/CTD0
066	04/28/2007	27°56.10'	093°37.68'	103 0	70.1	VC/CTD
067	04/29/2007	27°58.30'	093°38.29'	103	94.6	VC/CTD0
068	04/29/2007	27°58.10'	093°37.39'	103	90.5	VC/CTD
0690	04/29/2007	27°58.30'	093°36.99'	103	97.1	VC/CTD
070	04/29/2007	27°57.09'	093°36.69'	103	82.4	VC/CTD
071	04/29/2007	27°56.40'	093°36.69'	1030	60.3	VC/CTD
072	04/29/2007	27°55.90'	093°36.90'	103	63.6	VC/CTD
073	04/29/2007	27°55.60'	093°35.50'	103	55.2	VC/CTD
074	04/29/2007	27°54.49'	093°35.50'	1030	52.7	VC/CTD
075	04/29/2007	27°56.20'	093°26.69'	102	95.3	VC/CTD
076	04/29/2007	27°56.19'	093°26.69'	102	94.7	TR
077	04/29/2007	27°54.79'0	093°27.20'	102	86.7	VC/CTD
078	04/30/2007	27°51.20'	093°26.30'	102	113	VC/CTD
0790	04/30/20070	27°51.90'	093°26.29'	102	105.3	VC/CTD
0800	04/30/2007	27°52.00'	093°26.10'	102	107.8	VC/CTD
0810	04/30/2007	27°54.50'	093°26.79'	102	59.5	VC/CTD
0820	04/30/2007	27°54.49'	093°26.79'	102	59.5	TR
0830	04/30/2007	27°54.70'	093°25.60'	102	92.2	VC/CTD
0840	04/30/2007	27°54.30'	093°26.60'	102	89.1	VC/CTD

Station	Date	Latitude (N)	Longitude (W)	Block	Depth (M)	Gear
085	04/30/2007	27°53.00'	093°20.59'	102	107.7	VC/CTD
086	04/30/2007	27°54.82'	093°21.29'	102	90.4	VC/CTD
087	04/30/2007	27°55.20'	093°21.59'	102	134.7	VC/CTD
088	05/01/2007	28°00.82'	093°29.73'	143	81.2	VC/CTD
089	05/01/2007	28°07.50'	093°28.70'	143	72.4	VC/CTD
090	05/01/2007	28°07.70'	093°28.89'	143	66.5	VC/CTD
091	05/01/2007	28°08.00'	093°28.79'	143	66.3	VC/CTD
092	05/01/2007	28°07.89'	093°29.10'	143	61.8	VC/CTD
093	05/01/2007	28°07.90'	093°29.10'	143	61.5	TR
094	05/01/2007	28°07.71'	093°29.49'	143	64.7	VC/CTD
095	05/01/2007	28°07.89'	093°29.69'	143	59	VC/CTD
096	05/01/2007	28°08.20'	093°29.99'	143	59.1	VC/CTD
097	05/01/2007	28°08.29'	093°29.41'	143	54.4	VC/CTD
098	05/05/2007	27°54.89'	093°18.10'	101	58.9	VC/CTD
099	05/05/2007	27°54.80'	093°18.29'	101	94.1	VC/CTD
100	05/05/2007	27°53.79'	093°17.49'	101	49.4	VC/CTD
101	05/05/2007	27°53.69'	093°18.29'	101	39.8	VC/CTD
102	05/05/2007	27°53.70'	093°18.29'	101	44.6	TR
103	05/05/2007	27°53.20'	093°18.10'	101	42.7	VC/CTD
104	05/05/2007	27°52.60'	093°18.09'	101	45.8	VC/CTD
105	05/05/2007	27°51.80'	093°18.60'	101	111	VC/CTD
106	05/05/2007	27°51.80'	093°18.60'	101	111	TR
107	05/05/2007	27°52.09'	093°17.71'	101	68.1	VC/CTD
108	05/06/2007	27°50.39'	093°03.60'	100	88.6	VC/CTD
109	05/06/2007	27°51.19'	093°03.49'	100	99.3	VC/CTD
110	05/06/2007	27°51.39'	093°03.70'	100	74.2	VC/CTD
111	05/06/2007	27°51.39'	093°03.69'	100	74.3	TR
112	05/06/2007	27°51.09'	093°03.99'	100	66.8	VC/CTD
113	05/06/2007	27°51.29'	093°04.19'	100	65.3	VC/CTD
114	05/06/2007	27°51.49'	093°04.49'	100	79.8	VC/CTD
115	05/06/2007	27°50.79'	093°04.59'	100	83.2	VC/CTD
116	05/06/2007	27°50.79'	093°04.59'	100	83.8	TR
117	05/06/2007	27°50.48'	093°04.59'	100	91.1	VC/CTD
118	05/06/2007	27°50.29'	093°04.40'	100	71	VC/CTD
119	05/07/2007	27°58.00'	092°37.00'	97	94.4	VC/CTD
120	05/07/2007	27°58.40'	092°36.90'	97	61.6	VC/CTD
121	05/07/2007	27°58.10'	092°35.90'	97	65.8	VC/CTD
1220	05/07/2007	27°57.60'	092°35.90'	97	67.8	VC/CTD
123	05/07/2007	27°57.70'	092°35.20'	97	90.5	VC/CTD
124	05/07/2007	27°57.70'	092°35.20'	97	90.2	TR
125	05/07/2007	27°57.50'	092°35.00'	97	87.7	VC/CTD
126	05/07/2007	27°58.60'	092°35.40'	97	83.8	VC/CTD
127	05/07/2007	27°58.17'	092°34.71'	97	91	VC
128	05/07/2007	27°57.63'	092°33.10'	97	106.3	VC/CTD

Station	Date	Latitude (N)	Longitude (W)	Block	Depth (M)	Gear
129	05/07/2007	27°57.62'	092°33.00'	970	110.6	VC/CTD
130	05/23/2007	28°07.50'	091°00.79'	129	94.1	VC/CTD
131	05/23/2007 ⁰	28°05.58'	091°01.40'	129	55.9	VC/CTD
132	05/23/2007	28°05.63'	091°01.49'	129	55.8	TR
133	05/23/2007	28°06.19'	091°01.80'	129	74.30	VC/CTD
134	05/23/2007	28°06.00'	091°02.29'	129	56.50	VC/CTD
135	05/23/2007	28°05.69'	091°02.10'	129	57.80	VC/CTD
136	05/23/2007	28°05.19'	091°01.50'	129	66.8	VC/CTD
137	05/23/2007	28°05.60'	091°01.20'	1290	59.9	VC/CTD
138	05/24/2007 ⁰	27°58.93'	091°40.09'	92	108.3	VC/CTD
139	05/24/2007	27°51.40'	091°48.79'	92	126.3	VC/CTD
140	05/24/2007	27°51.10'	091°48.99'	92	102.4	VC/CTD
141	05/24/2007	27°51.10'	091°48.99'	92	101.8	TR
⁰ 142	05/24/2007 ⁰	27°50.89'	091°48.60'	92	101.50	VC/CTD
143	05/24/2007	27°50.19'	091°48.29'	92	107.8	VC/CTD
144	05/24/2007 ⁰	27°50.20'	091°48.59'	92	115.5	VC/CTD
145	05/24/2007 ⁰	27°50.19'	091°48.59'	92	115	TR
146	05/24/2007	27°50.30'	091°49.09'	92	113.5	VC/CTD
147	05/24/2007	27°50.19'	091°49.22'	92	114.5	VC/CTD
148	05/24/2007	27°50.59'	091°49.61'	92	105.9	VC/CTD
149	05/25/2007 ⁰	27°56.99'	092°01.50'	94	67.8	VC/CTD
150	05/25/2007	27°57.10'	092°00.49'	94	55.90	VC/CTD
151	05/25/2007	27°57.10'	092°00.49'	94	56.7	TR
152	05/25/2007	27°58.00''	092°00.19'	94	86.70	VC/CTD
153	05/25/2007	27°56.20' ⁰	092°00.09'	94	67.4	VC/CTD
154	05/25/2007	27°56.09'	092°00.50'	94	78.8	VC/CTD
155	05/25/2007	27°56.10'	092°00.49'	⁰ 94	790	TR ⁰
156	05/25/2007	27°56.39'	092°01.29'	94	69.8	VC/CTD
157	05/25/2007	27°55.99'	092°01.70'	94	86.4	VC/CTD
158	05/25/2007	27°55.79'	092°02.80'	94	95.1	VC/CTD
159	05/25/2007	27°56.59'	092°02.80'	94	80.4	VC/CTD
160	05/25/2007	27°57.71'	092°03.58'	94	102.9	VC/CTD
⁰ 161	05/26/2007 ⁰	27°59.60'	092°23.09'	96	87.1	VC/CTD
162	05/26/2007	27°58.49'	092°22.40'	96	74.7	VC/CTD
163	05/26/2007	27°57.70'	092°22.19'	96	93.3	VC/CTD
164	05/26/2007	27°57.69' ⁰	092°22.20'	96	93.9	TR
165	05/26/2007	27°57.90'	092°21.70'	96	115.3	VC/CTD
166	05/26/2007	27°56.89 ⁰	092°22.80'	96	93.7	VC/CTD
167	05/26/2007	27°56.10'	092°22.49'	96	74.7	VC/CTD
168	05/26/2007	27°56.09'	092°22.50'	96	73.2	TR
169	05/26/2007	27°56.20' ⁰	092°22.89'	96	87.5	VC/CTD
170	05/26/2007	27°55.70'	092°23.09'	96	87.8	VC/CTD
171	05/26/2007	27°55.30'	092°23.09'	96	82.2	VC/CTD
172	05/26/2007	27°55.19'	092°22.60'	96	58.3	VC/CTD

Station	Date	Latitude (N)	Longitude (W)	Block	Depth (M)	Gear
173	05/27/2007	27°50.78'	092°51.90'	99	114.7	VC/CTD
174	05/27/2007	27°50.59'	092°52.30'	99	128.1	VC/CTD
175	05/27/2007	27°50.59'	092°53.09'	99	110.6	VC/CTD
176	05/27/2007	27°50.59'	092°53.09'	99	113	TR
177	05/27/2007	27°50.50'	092°52.59'	99	117.9	VC/CTD
178	05/27/2007	27°50.20'	092°53.29'	99	106.6	VC/CTD
179	05/27/2007	27°50.20'	092°53.49'	99	110.4	VC/CTD
180	05/27/2007	27°50.20'	092°53.49'	99	110.3	TR
181	05/27/2007	27°50.09'	092°53.70'	99	107	VC/CTD
182	05/27/2007	27°50.58'	092°54.00'	99	123.3	VC/CTD
183	05/27/2007	27°50.50'	092°54.19'	99	109.8	VC/CTD
184	05/27/2007	27°51.01'	092°55.19'	99	105.5	VC/CTD
185	05/28/2007	28°01.30'	092°27.79'	137	92.3	VC/CTD
186	05/28/2007	28°01.36'	092°27.09'	137	114.5	VC/CTD
187	05/28/2007	28°01.36'	092°27.08'	137	114.7	TR
188	05/28/2007	28°00.80'	092°26.89'	137	114.6	VC/CTD
189	05/28/2007	28°02.88'	092°26.90'	137	82.3	VC/CTD
190	05/28/2007	28°02.79'	092°26.00'	137	91.9	VC/CTD
191	05/28/2007	28°03.59'	092°26.21'	137	80.7	VC/CTD
192	05/28/2007	28°03.59'	092°26.20'	137	81	TR
193	05/28/2007	28°03.49'	092°27.40'	137	64.9	VC
194	05/28/2007	28°03.70'	092°26.29'	137	74.8	VC
195	05/28/2007	28°03.99'	092°27.60'	137	65.1	VC
196	05/29/2007	28°21.00'	092°28.04'	219	56.9	VC
197	05/29/2007	28°20.52'	092°26.98'	219	41.50	VC
198	05/29/2007	28°20.53'	092°26.98'	219	42.1	TR
199	05/29/2007	28°20.59'	092°26.70'	219	44.8	VC
200	05/29/2007	28°20.23'	092°26.89'	219	59.3	VC
201	05/29/2007	28°20.20'	092°26.99'	219	40.3	VC/CTD
202	05/29/2007	28°19.78'	092°27.20'	219	61.5	VC
203	05/29/2007	28°19.74'	092°27.32'	219	61.50	VC
204	05/29/2007	28°19.73'	092°27.33'	219	61.1	TR
205	05/29/2007	28°19.53'	092°27.40'	219	59.2	VC
206	05/29/2007	28°19.69'	092°27.90'	219	47.6	VC
207	05/29/2007	28°19.79'	092°28.00'	219	51.6	VC
208	05/30/2007	28°04.70'	091°59.99'	134	83.5	VC
209	05/30/2007	28°04.29'	091°59.80'	134	87.1	VC
210	05/30/2007	28°04.50'	091°59.59'	134	83.5	VC/CTD
211	05/30/2007	28°05.00'	091°59.29'	134	80.7	VC
212	05/30/2007	28°05.20'	091°59.39'	134	80.2	VC

Table 2. Fish caught in the chevron fish trap during Oregon II 07-02(275) April-May 2007.

Common name	Species	Frequency of Occurrence (N=27)	Total number	Total weight (kg)
Red snapper	<i>Lutjanus campechanus</i>	8	65	69.859
Scamp	<i>Mycteroperca phenax</i>	3	8	13.196
Vermilion snapper	<i>Rhomboplites aurorubens</i>	5	27	10.976
Red porgy	<i>Pagrus pagrus</i>	4	7	10.195
Gray triggerfish	<i>Balistes capriscus</i>	2	14	8.872
Lane snapper	<i>Lutjanus synagris</i>	1	4	2.473
Rock hind	<i>Epinephelus adscensionis</i>	1	1	0.83
Tomtate	<i>Haemulon aurolineatum</i>	1	3	0.661
Blackfin snapper	<i>Lutjanus buccanella</i>	1	2	0.426
Whitebone porgy	<i>Calamus leucosteus</i>	1	1	0.318
		Sum =	132	117.806

Submitted by:

David J. Ruge

Research Log:

Chart 2007-05-01

Approved:

Dr. Scott F. Smith

Dr. Scott F. Smith, Director

Marine Fisheries Laboratory

Alfred C. Smith

Alfred C. Smith, Assistant Director

Southwest Fisheries Science Center

Leg 2: 05/04/07 - 05/08/07 (5 sea days)

Galveston-Galveston

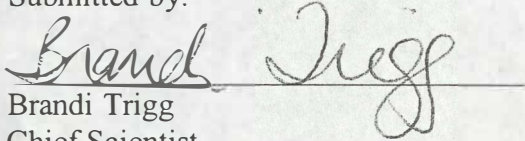
<u>Name</u>	<u>Title</u>	<u>Organization</u>
Paul Felts	Chief Scientist	NMFS Pascagoula, MS
Carolyn Burks	Fisheries Biologist	NMFS Pascagoula, MS
Michael Felts	Fisheries Biologist	IAP Pascagoula, MS
Carrie Horton	Fisheries Biologist	IAP Pascagoula, MS

Leg 3: 05/22/07 - 05/31/07 (10 sea days)

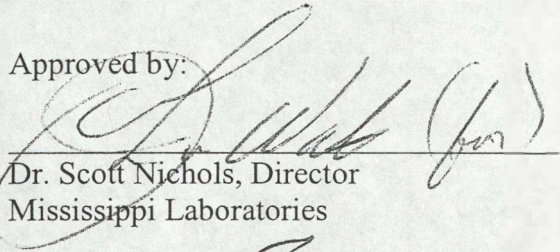
Pascagoula-Pascagoula

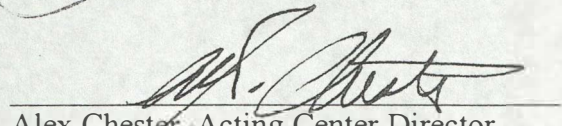
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