

SEAMAP Fall 2010 Groundfish Survey Cruise Report

Prepared by
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R/V Alabama Discovery, Cruise 1004

Introduction

Southeast Area Monitoring and Assessment Program (SEAMAP) Groundfish cruises are annually conducted during October and November. The goal of SEAMAP Groundfish cruises is to produce fishery-independent monitoring and assessment of species-specific distributions and abundances which are essential for management of Alabama and nearshore FMZ Gulf of Mexico fisheries resources. State and federal agencies collaboratively coordinate the scheduling of cruise dates and the selection of stations to be sampled by each agency, which results in a coordinated and cost-efficient program.

Objectives

1. Conduct a Fall trawl survey to generate invertebrate and groundfish abundance and distribution data with a standard SEAMAP 40-ft trawl.
2. Sample at stations located east of the Mississippi River that are randomly selected from NMFS generated charts of SEAMAP station locations. Identify, enumerate, and determine taxon-specific weight of all organisms collected during trawl sampling as well as determine length and weight of selected individuals according to NMFS SEAMAP Operations Manual.
3. Collect information on environmental parameters (salinity, temperature, dissolved oxygen, wind speed, wind direction, and wave height) in conjunction with trawl sampling.
4. Code all data according to approved NMFS SEAMAP Operations Manual guidelines, and enter data through the NMFS SEAMAP data entry system.
5. Submit data to the Gulf States Marine Fisheries Commission.

Methods

Seven stations were sampled in gulf statistical zones 10 and 11 aboard R/V Alabama Discovery on October 17 and 18, 2010. A 40-foot trawl with 1.58 inch stretched mesh was lowered to depth at each site and the towline was set at a 5:1 cable length water depth ratio. Desired vessel speed while towing was 2.5 - 3 knots, and the trawl was towed for 30 minutes at each station.

Sample and data processing was conducted in accordance with the NMFS SEAMAP Operations Manual guidelines, and data were entered and checked with the NMFS

SEAMAP Data Entry Database. Atmospheric and hydrologic data were collected prior to each trawl.

Results

Alabama Marine Resources Division collected samples at seven Groundfish stations in Alabama's territorial sea and the adjacent EEZ. Stations located north of 29° 39.950' latitude, south of 30° 13.280' latitude, east of -88° 08.020' longitude, and west of -87° 19.050' longitude were sampled according to SEAMAP Groundfish protocols (Table 1). Stations E1001, E1002, E1003, E1004, E1005, E1007, and E1101 were sampled between 09:12 on October 17, 2010 and 00:40 on October 18, 2010. Stations E1005, E1007, E1101 were sampled after sunset, while the remaining four stations were sampled during daylight hours. Station E1007 was moved approximately 1.4 nautical miles northeast from the designated station location due to the presence of a highly structured seabed. The designated station location of E1007 was sited in an area containing pinnacle-like structures up to 4.5 meters in vertical relief. In order to prevent damaging the seabed and/or gear, the surrounding area was investigated to find a suitable seabed for sampling. Therefore, the area 1.4 nm northeast of the designated location of E1007 was selected for sampling. Environmental variables, effort, station locations and catch by station are summarized (Table 1).

Deviations

The R/V Alabama Discovery has been issued the vessel code "77"; however, data collections during the SEAMAP Summer Shrimp and Groundfish cruise were conducted using vessel code "23". The update has not been implemented in the NMFS SEAMAP data entry system. Data, therefore, will subsequently be ingested using vessel code "23".

Station E1007 was sited upon a seabed characterized as a vertically complex seabed, up to 4.5 meters of vertical relief producing pinnacle-like structures. The surrounding area was sonar surveyed to find the closest safe substrate for sampling. Therefore, the sample was collected in an adjacent stratum that was less likely to result in damage to the complex habitat and/or the trawl.

Cruise participants:

Alabama Marine Resources Division personnel.

Submitted By:



D. Craig Newton
SEAMAP Field Party Chief

Table 1. AMRD SEAMAP 2010 fall groundfish cruise report summary.

23 R/V Alabama Discovery

STA#	DATE MM/DD/YY	TIME	LAT	LONG	STAT ZONE	MAX DEPTH	D.O.			SALINITY			TEMPERATURE			FIN CATCH	CRUS CATCH	OTHER CATCH	TOW SPEED	MINUTES FISHED	TAXON COUNT
							SUR	MID	MAX	SUR	MID	MAX	SUR	MID	MAX						
23001	10/17/2010	0912	30 07.65	87 50.31	10	8.3	6.52	6.52	5.61	32.8	32.8	33.6	24.2	24.2	25.0	14.306	0.001	1.174	2.62	30	13
23002	10/17/2010	1056	30 05.97	87 38.35	10	13.1	6.51	6.46	2.93	32.1	32.4	35.8	24.1	24.2	24.4	9.959	0.118	86.008	2.2	30	16
23003	10/17/2010	1323	29 58.70	87 19.05	10	17.2	6.43	6.47	5.35	32.7	32.7	35.7	24.7	24.6	24.8	13.743	0.019	0.107	2.41	30	14
23004	10/17/2010	1550	29 51.73	87 25.13	10	18.5	6.45	6.46	5.46	33.0	33.1	36.3	25.2	24.7	23.6	3.78	0.107	0.428	2.25	32	22
23005	10/17/2010	1825	29 43.46	87 29.14	10	25.2	6.49	5.98	4.96	32.9	34.5	36.2	25.1	26.0	23.6	8.272	0.113	4.043	2.43	31	23
23006	10/17/2010	2010	29 39.95	87 29.88	10	28.9	6.37	6.12	4.61	33.9	36.3	36.4	25.7	27.4	20.7	10.969	0.176	2.026	2.64	30	40
23007	10/18/2010	0010	30 13.28	88 08.02	11	4.8	6.94	6.51	4.96	29.0	32.6	34.1	23.6	24.3	25.3	68.968	0.859	0.41	2.69	30	22

Submitted by: D. Craig Newton

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