

# SEAMAP Fall 2011 Groundfish Survey Cruise Report

Prepared by  
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R/V Alabama Discovery, Cruise 1104

## 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

Six stations were sampled in gulf statistical zone 10 aboard R/V Alabama Discovery on November 1 and 12, 2011. A 40-foot trawl with 1.63 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 around 2.5 kn, 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 six Groundfish stations in Alabama's and Florida's territorial sea as well as the adjacent EEZ. Stations located north of 30° 05.75' latitude, south of 30° 16.95' latitude, east of -87° 46.70' longitude, and west of -87° 16.00' longitude were sampled according to SEAMAP Groundfish protocols (Table 1). Stations E1003, E1002, E1001, E1004, E1006, and E1005 were sampled between 09:24 on November 1, 2011 and 16:14 on November 12, 2011. Environmental variables, effort, station locations and catch by station are summarized (Table 1).

## Deviations

Atmospheric conditions during each leg of the Fall Groundfish cruise, 2011 were not ideal for processing catch data aboard R/V Alabama Discovery. The first leg of the cruise was cancelled after sampling E1003 due to 15 to 20 kn sustained southeasterly winds. The second leg of the cruise was also cancelled due to deteriorating weather. Marginal atmospheric conditions (i.e. 10-15 kn southeast winds) occurred throughout the morning and early afternoon, but the southeast winds increased to 15-20 kn in the afternoon. Therefore, the cruise was cancelled prior to sampling E1007.

Due to the marine conditions that resulted from the southeasterly wind, the R/V Alabama Discovery was pitching and rolling in a manner that was not conducive for optimal usage of the Marel M-1100 scales. The magnitude of pitch and roll did not prevent the proper usage of the scales, but the quick, abrupt manner in which the vessel was pitching and rolling resulted in calibration fit values near the threshold of fit = 20. Calibration fit values of 18-20 were only achievable when the vessel was traveling in the same direction as the seas. Proper calibration of the scales when traveling in a beam or head sea was not possible. Calibration fit values near the acceptable threshold was most likely the cause of multiple errors identified by "Station\_Check8.exe". The errors identified inconsistencies where the individual species weight was significantly different from the total weight of the particular species. The errors frequently occurred when species-specific abundance and/or species-specific weight was relatively low.

## Cruise participants:

Alabama Marine Resources Division personnel.

Submitted By:



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**Table 1. AMRD SEAMAP 2011 fall groundfish cruise report summary.**

77 R/V Alabama Discovery

STA#	DATE	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						
77001	11/1/2011	0924	30 11.54	87 47.35	10	6.1	20.80	20.81	20.81	6.83	6.82	6.84	32.96	32.96	32.95	52.90	0.07	36.29	2.62	30	16
77002	11/12/2011	0943	30 08.92	88 21.19	10	6.8	19.27	19.31	19.43	7.10	7.15	7.23	34.21	34.24	34.29	0.00	0.00	189.57	1.92	30	1
77003	11/12/2011	1134	30 07.84	88 22.63	10	7.9	19.09	19.05	19.02	7.06	7.15	7.22	33.77	33.89	34.00	5.48	0.04	26.64	1.94	30	13
77004	11/12/2011	1258	30 06.67	87 52.10	10	11.1	20.83	20.81	20.82	6.85	6.89	6.91	35.10	35.10	35.12	2.80	0.00	13.88	2.35	30	15
77005	11/12/2011	1421	30 07.66	87 55.71	10	16.8	20.92	20.99	21.47	6.55	6.90	6.81	35.08	35.16	35.44	20.52	0.07	0.44	2.33	30	22
77007	11/12/2011	1544	30 05.52	88 01.80	10	13.8	21.98	22.00	22.00	7.00	6.71	6.76	35.59	35.60	35.62	8.28	0.00	0.81	2.48	30	14

\* 100% of the catch at Station 77002 consisted of *Aurelia aurita*

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**Submitted by: D. Craig Newton**  
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