

U. S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Fisheries Science Center
Beaufort Laboratory
101 Pivers Island Road
Beaufort, NC 28516-9722

NOAA Ship ALBATROSS IV Cruise AL-92-01

INTRODUCTION

The NOAA Ship Albatross IV departed Woods Hole, MA, 06 January 1992 en route Morehead City, NC to support fisheries research objectives of the NMFS, Beaufort Laboratory (Legs 1 & 3) and the FWS, South Atlantic Fisheries Coordination Office (Legs 2 & 4) in the U. S. Atlantic between Virginia and Florida. The vessel arrived Morehead City on 09 January and research operations began on the 10th. Unscheduled engine repairs kept the vessel in port from 19 - 29 January, and resulted in reduced ship time for research objectives. However, most objectives were satisfactorily met.

OBJECTIVES

Legs 1 & 3 (10 - 17 Jan.; 30 Jan. - 2 Feb. 1992)

- 1) Collect ichthyoplankton, zooplankton, phytoplankton, water chemistry samples, and hydrographic data for the South Atlantic Recruitment Experiment (SABRE) at established stations off North and South Carolina.
- 2) Survey the early life history stages of fishes associated with pelagic Sargassum on the North Carolina continental shelf and adjacent Gulf Stream.
- 3) Collect ichthyoplankton samples over live bottom habitats along the middle shelf in Onslow Bay.

Legs 2 & 4 (17 - 19 Jan.; 2 - 5 Feb. 1992)

- 1) Tag and release striped bass, Morone saxatilis, summer flounder, Paralichthys dentatus, and Atlantic sturgeon, Acipenser oxyrinchus, in coastal waters from Cape Hatteras to Cape Henry. Tag and release sea turtles if encountered. Collect hydrographic data.

MATERIALS AND METHODS

SABRE operations

Leg 1 (10 - 17 Jan. 1992)

Surface and oblique bongo (0.333 mm mesh) tows and oblique 1m ring net (0.100 mm mesh) tows were conducted at fixed stations along four transects in the South Atlantic Bight from Cape Lookout, NC to Charleston, SC. MOCNESS operations were conducted near the Gulf Stream front in Onslow Bay. All ichthyoplankton samples were preserved in ethynol. Surface and 10 m water samples were collected at all stations for analysis of extracted Chl_a and phytoplankton taxonomy. Hydrographic data were collected with a STD.

Leg 3 (30 Jan. - 2 Feb. 1992)

Surface and oblique bongo (0.333 mm mesh) tows were conducted along a transect from Cape Henry, VA southward to Cape Hatteras, NC and from the Gulf Stream to Beaufort Inlet, NC. MOCNESS collections were made along the outer continental shelf off Cape Hatteras and at two mid-shelf stations in Onslow Bay. A V-fin equipped with a dual-beam acoustic transducer/receiver was deployed at all MOCNESS stations and at two bongo stations. All ichthyoplankton samples were preserved in ethynol.

Sargassum operations

Leg 1 & 3 (10 - 17 Jan.; 30 Jan. - 2 Feb. 1992)

During daylight hours, observers scanned the sea surface for aggregations of Sargassum. Samples were collected with a standard 1 x 2 m neuston net (0.947 mm mesh) and dip nets. Stations were a minimum of 10 nmi apart. All fishes were removed from the algae and preserved in ethynol. Algae was identified, weighed, and discarded overboard. Sea surface temperature and salinity were recorded at each station.

Live bottom operations

Leg 3 (30 Jan. - 2 Feb. 1992)

MOCNESS collections were made during daylight and at night over a live bottom habitat. All samples were preserved in ethynol.

Tagging operations

Leg 2 & 4 (17 - 19 Jan.; 2 - 5 Feb. 1992)

A 36 m high open bottom trawl was utilized to collect striped bass, summer flounder, and Atlantic sturgeon in coastal waters from Cape Hatteras, NC northward to Cape Henry, VA. Fish were weighed, measured, and tagged with either a standard internal anchor tag and/or the American Littoral Society loop tag. Temperature data were collected with XBT's.

RESULTS

SABRE operations

Leg 1 (10 - 17 Jan. 1992)

Thirty-three ichthyoplankton stations along four transects were completed. Several additional stations were aborted due to heavy weather. A total of 34 surface bongo tows, 33 oblique bongo tows, 20 1 m ring net tows, 3 MOCNESS tows, 28 hydrocasts, and 30 STD casts were completed. All samples are being processed at the Beaufort Lab.

Leg 3 (30 Jan. - 2 Feb. 1992)

Fifteen ichthyoplankton stations along 2 transects were occupied. A total of 9 surface bongo tows, 8 oblique bongo tows, 7 MOCNESS tows, 9 V-fin deployments, and 8 STD casts were completed. All samples are being processed at the Beaufort Lab.

Sargassum operations

Legs 1 & 3 (10 - 17 Jan.; 30 Jan. - 2 Feb. 1992)

Eighteen Sargassum collections (8 neuston; 10 dip net) totaling 343 kg of algae were processed. Thirty-nine percent of the collections were taken on the continental shelf, with the remainder taken from the Gulf Stream and offshore to the EEZ. Identification of fishes is in progress.

Live bottom operations

Leg 3 (30 Jan. - 2 Feb. 1992)

Two (1 day and 1 night) MOCNESS tows and 2 V-fin deployments were completed. All samples are being processed at the Beaufort Lab.

Tagging operations

Legs 2 & 4 (17 - 19 Jan.; 2 - 5 Feb. 1992)

Fifty-three trawl stations were occupied in coastal waters from Cape Hatteras to Cape Henry in water temperatures of 5.9 - 15 °C. A total of 1062 striped bass caught and 1017 were tagged. Most (93 %) were caught in the Virginia Territorial Seas south of Cape Henry where bottom temperatures were < 8 °C. Seventy-three summer flounder and 6 Atlantic sturgeon were also caught, with 44 and 6 tagged, respectfully.

CRUISE PARTICIPANTS

Leg 1 (10 - 17 Jan. 1992)

NAME	TITLE	ORGANIZATION
Donald Hoss	Chief Scientist	NMFS, Beaufort
Lawrence Settle	Field Party Chief	" "
David Peters	Biologist	" "
Jeff Govoni	Ecologist	" "
Stan Warlen	Biologist	" "
Valerie Comparretta	Biol. Technician	" "
Marilyn Buzzell	Biol. Technician	" "
Harvey Walsh	Biol. Technician	" "
Elizabeth Laban	Biol. Technician	" "
Elizabeth Clark	Cooperator	U. of Miami
Christen Baier	Cooperator	U. of Maryland
David Nemazie	Cooperator	U. of Maryland

Leg 2 (17 - 19 Jan. 1992)

NAME	TITLE	ORGANIZATION
Mike LaCroix	Field Party Chief	NMFS, Beaufort
Jim Benton	Cruise Coordinator	FWS, Morehead City
Wilson Laney	Ecologist	FWS, Raleigh
Jorgon Skjeveland	Biologist	FWS, Annapolis
Sara Winslow	Biologist	NCDMF, Elizabeth City
Kathy Rawls	Biologist	" "
Steve Taylor	Biologist	" "
Beth Burns	Biologist	NCDMF, Manteo
Jack Guthrie	Biologist	NCDMF, Morehead City
Carol McCollough	Biologist	MDDNR, Annapolis
Anthony Jarzynski	Biologist	" "
Ken Booth	Biologist	" "
Ken Sprankle	Cooperator	U. of Mass.

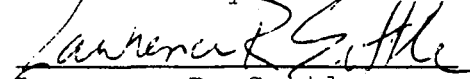
Leg 3 (30 Jan. - 2 Feb. 1992)

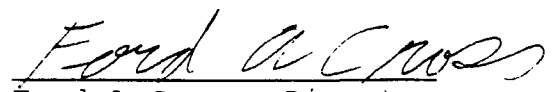
NAME	TITLE	ORGANIZATION
Donald Hoss	Chief Scientist	NMFS, Beaufort
Lawrence Settle	Field Party Chief	" "
David Peters	Biologist	" "
Allyn Powell	Biologist	" "
Valerie Comparretta	Biol. Technician	" "
Marilyn Buzzell	Biol. Technician	" "
Harvey Walsh	Biol. Technician	" "
Elizabeth Laban	Biol. Technician	" "
Don Field	Biologist	" "
Roxanne Dorman	Cooperator	Cape Fear C. C.
Doug Dorman	Cooperator	" "
Sharron Powell	Cooperator	" "
Eddie Kadera	Cooperator	BioSonics, Inc., Seattle


Leg 4 (2 - 5 Feb. 1992)

NAME	TITLE	ORGANIZATION
Mike LaCroix	Field Party Chief	NMFS, Beaufort
Jim Benton	Cruise Coordinator	FWS, Morehead City
Wilson Laney	Ecologist	FWS, Raleigh
Mike Mangold	Biologist	FWS, Annapolis
Sara Winslow	Biologist	NCDMF, Elizabeth City
Kathy Rawls	Biologist	" "
Steve Taylor	Biologist	" "
Beth Burns	Biologist	NCDMF, Manteo
Carol Teague	Biologist	" "
Don Cosden	Biologist	MDDNR, Annapolis
Anthony Jarzynski	Biologist	" "
Ken Booth	Biologist	" "
Ken Sprankle	Cooperator	U. of Mass.

Submitted By:


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