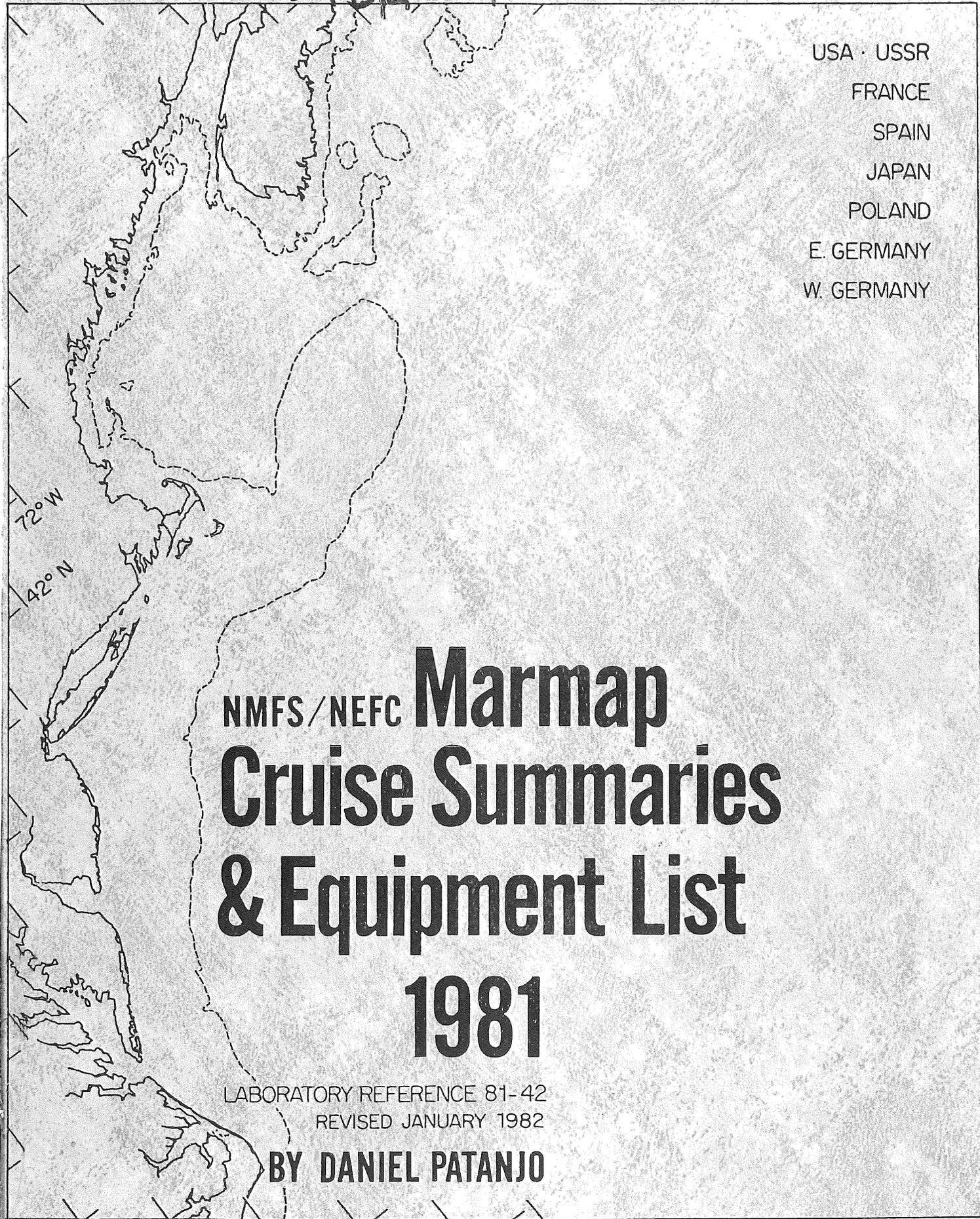


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- W. GERMANY



NMFS/NEFC **Marmap**  
**Cruise Summaries**  
**& Equipment List**  
**1981**

LABORATORY REFERENCE 81-42  
REVISED JANUARY 1982

**BY DANIEL PATANJO**



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Northeast Fisheries Center  
Woods Hole Laboratory  
Woods Hole, Massachusetts 02543

January 29, 1982

F/NEC1:DP

TO: Distribution

FROM: Daniel Patanjo

SUBJECT: NMFS/NEFC MARMAP Cruise Summaries and Equipment List 1980

This report is a 1981 update to the 1976-1980 four part summary of the operations of all vessels used by NMFS/NEFC.

Please contact me about any errors or missing information you may be aware of, also let me know if you wish more copies.

As you will notice, the equipment list is just about null - if you wish or know of some equipment that should be listed, please let me know.

The 1976-1980 summary and equipment list is still available.



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WIECZNO

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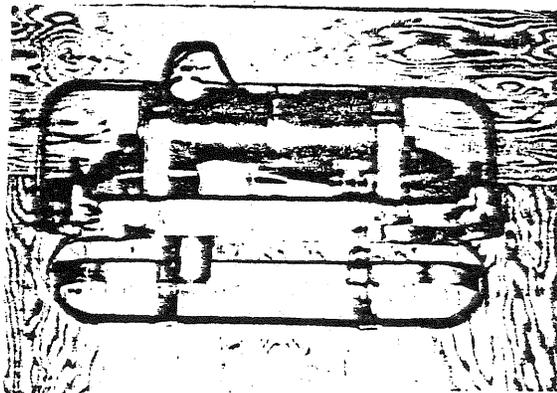
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81-03. . . . . A0289

## PRESSURE ACTIVATED WATER SAMPLER

The sampler is constructed using a 1.7 Liter Nisken bottle that has been shortened and its "plunger" mechanism made to work in reverse. The bottle is activated by a Benthos Hydrostatic-Shear Pin Release originally designed for their core samplers. A stainless steel protective chafing cage completes the unit.

In operation, the bottle is cocked in the normal manner, and a calibrated shear pin corresponding to a depth just shallower than the station (allowing for headrope height), is inserted into the release. The bottle is then put into its chafing cage which in turn is mounted to the headrope by means of a bridle. During trawl deployment, once the selected depth is reached, the pressure of the water on the release's piston shears the pin. The piston abruptly retracts, freeing the plunger, activating the Nisken bottle and the sample is captured. The bottle then rides out the rest of the tow. Back on deck the bottle is removed from the cage, the sample drawn, and the release serviced if necessary.



VESSEL ALBATROSS IV CRUISE 81-01  
DATES February 17-March 26, 1981 PART I, II, III  
DAYS AT SEA 10; 12; 11 STATIONS 50; 46; 57

Cruise Objective

This cruise is one of an annually conducted series of surveys to monitor seasonal changes in distribution and abundance of fish eggs and larvae, zooplankton and phytoplankton, and to collect oceanographic and primary productivity data.

Scientific Personnel

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

John Sibunka, Chief Scientist	Part I, II
Peter Berrien, Chief Scientist	Part III
Doris Finan	Part I, III
Ralph Bruno	Part I, II, III
Albert Matte	Part I, III
Henry Rota	Part I, II, III
James Duggan	Part I
Kathleen Workman	Part I, II
Robert Fitzgerald	Part I, III
Ingro Desvouges	Part II

National Marine Fisheries Service, NEFC, Woods Hole, MA

Dana Densmore	Part I, II, III
Thomas Laughton	Part I, II
Daniel Patanjo	Part III
Christine Nadeau	Part III

National Marine Fisheries Service, NEFC, Narragansett, RI

Carolyn Griswold	Part II
Jacqueline Frisella	Part III

Darien High School, Darien, CT

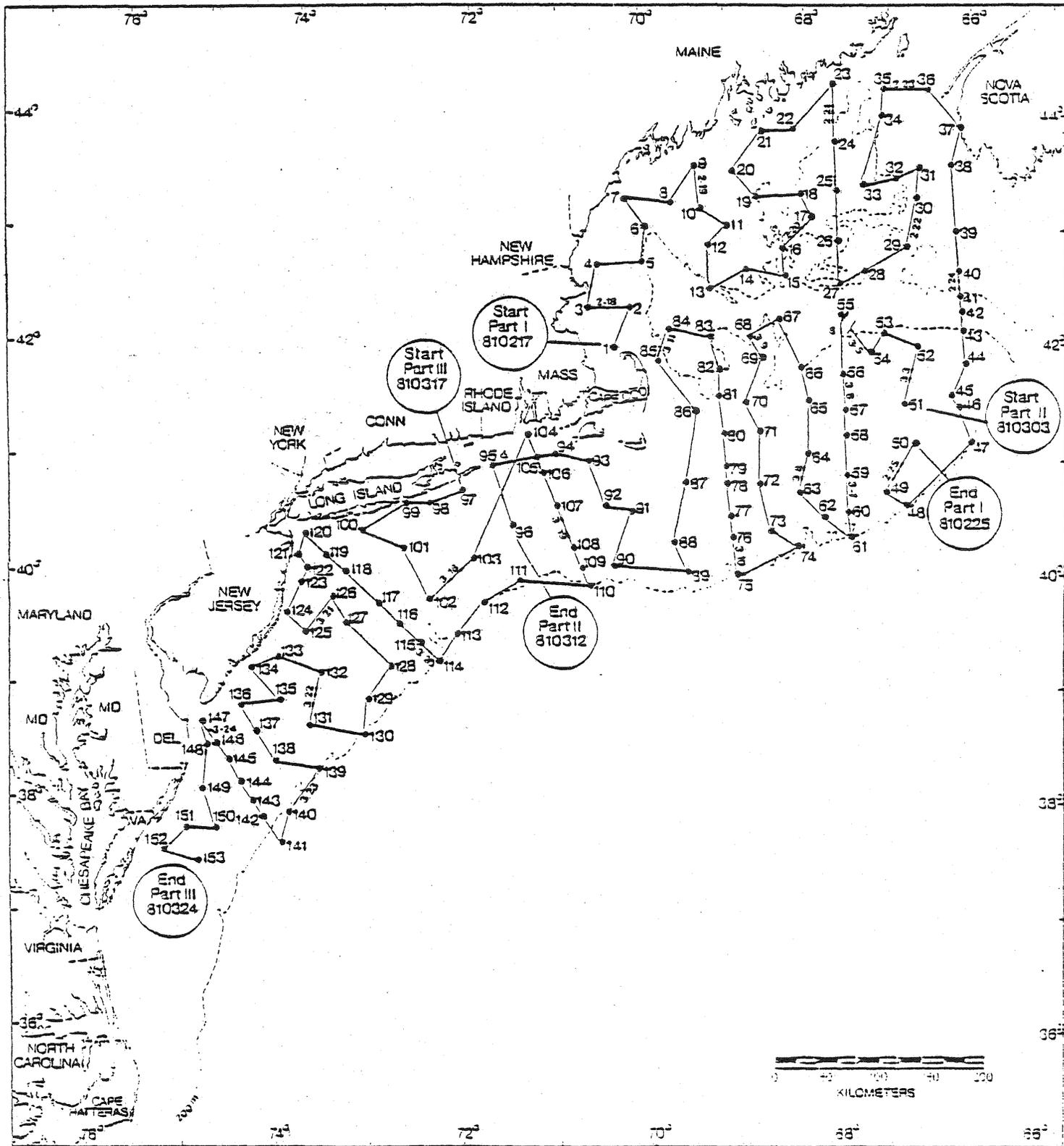
Edward Tregurtha	Part I
Maura Keating	Part I
Craig Dobbs	Part II
Christopher Ramming	Part III

Manomet Bird Observatory, Manomet, MA

Edward Backus	Part I, III
Michael Payne	Part II

Data Collected

	I PT	II PT	III PT
.61 cm BONGO	50	47	56
.20 cm BONGO	21	25	23
.61 cm NEUSTON	50	46	56
.20 cm NEUSTON			
HAEDRICH	15	10	18
XBT	0	7	14
BOTTLE CAST	50	47	53
CTD CAST			
CURRENT METERS			
SALINITY SAMPLES	590	508	479
OXYGEN SAMPLES	228	242	185
NUTRIENT SAMPLES	156	179	229
CHLOROPHYLL SAMPLES	500	455	438
PRIMARY PRODUCTIVITY	14	13	12
DROGUES			
SECCHI DISC	23	21	19
TRAWLS			
FISH SAMPLES			



Station locations numbered consecutively for R/V ALBATROSS IV Cruise 81-01 (I-III), Ichthyoplankton-Zooplankton, Oceanographic, and Primary Productivity Survey, during 17 February-26 March 1981.

VESSEL ALBATROSS IV CRUISE 81-02  
 DATES April 1-10, 1981 STATIONS 68  
 DAYS AT SEA 10

Cruise Objective

The purpose of the cruise was to investigate the performance of the NEFC standardized number 36 Yankee survey otter trawl relative to that of a representative commercially used trawl.

Scientific Personnel

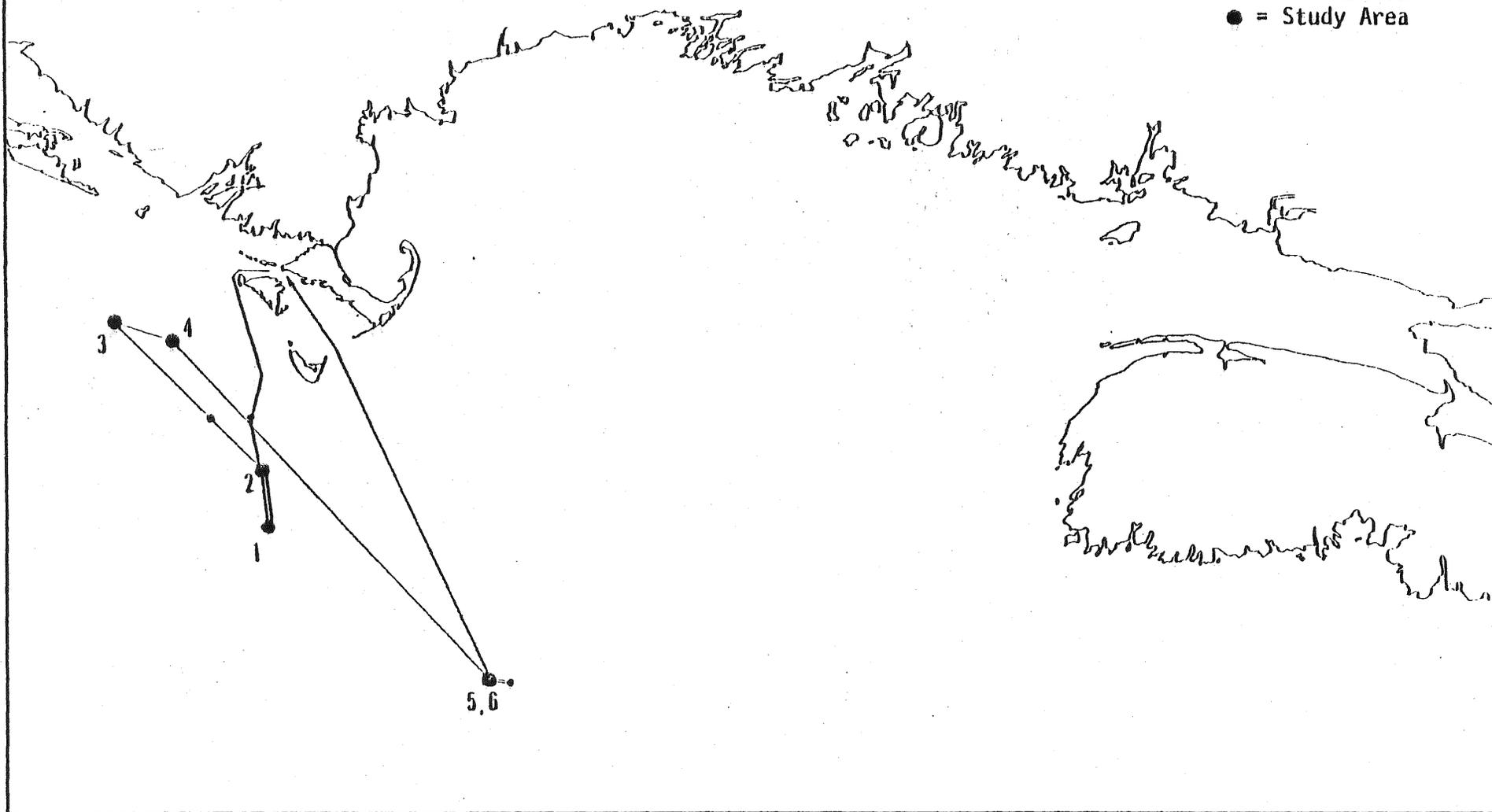
National Marine Fisheries Service, NEFC, Woods Hole, MA

Charles Byrne, Chief Scientist	Ruth Gutjahr
Malcolm Silverman	David Pyoas
John Nicolas	Thornton Williams
Andrew Thoms	Jeffrey Floyd
Loretta O'Brien	

	<u>Data Collected</u>	
	Total	Total
.61 cm BONGO	_____	_____
.20 cm BONGO	_____	_____
.61 cm NEUSTON	_____	_____
.20 cm NEUSTON	_____	_____
HAEDRICH	_____	_____
XBT	_____	_____
BOTTLE CAST	_____	_____
CTD CAST	_____	_____
CURRENT METERS	_____	_____
		68
		_____

Gear Testing  
ALBATROSS IV  
1-10 April 1981

- = Exploratory Station
- = Study Area



Location of study areas, exploratory stations and approximate cruise track of R/V ALBATROSS IV Cruise 81-02, Gear Testing, during 1-10 April 1981.

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VESSEL ALBATROSS IV

CRUISE 81-03

DATES April 15-22; 23 - May 1, 1981

DAYS AT SEA 16

Cruise Objective

The objectives of the cruise were to determine the fine-scale vertical and horizontal distribution of larval haddock and cod and their prey organisms and investigate the physical and biological processes responsible for their distribution.

Scientific Personnel

National Marine Fisheries Service, NEFC, Woods Hole, MA

R. Gregory Lough, Chief Scientist  
David Potter  
George Bolz  
Peter Donnelly  
Randy Goodlett

Harold Merry  
David Mountain  
Ronald Schlitz  
Gilbert Dering  
Arthur Allen

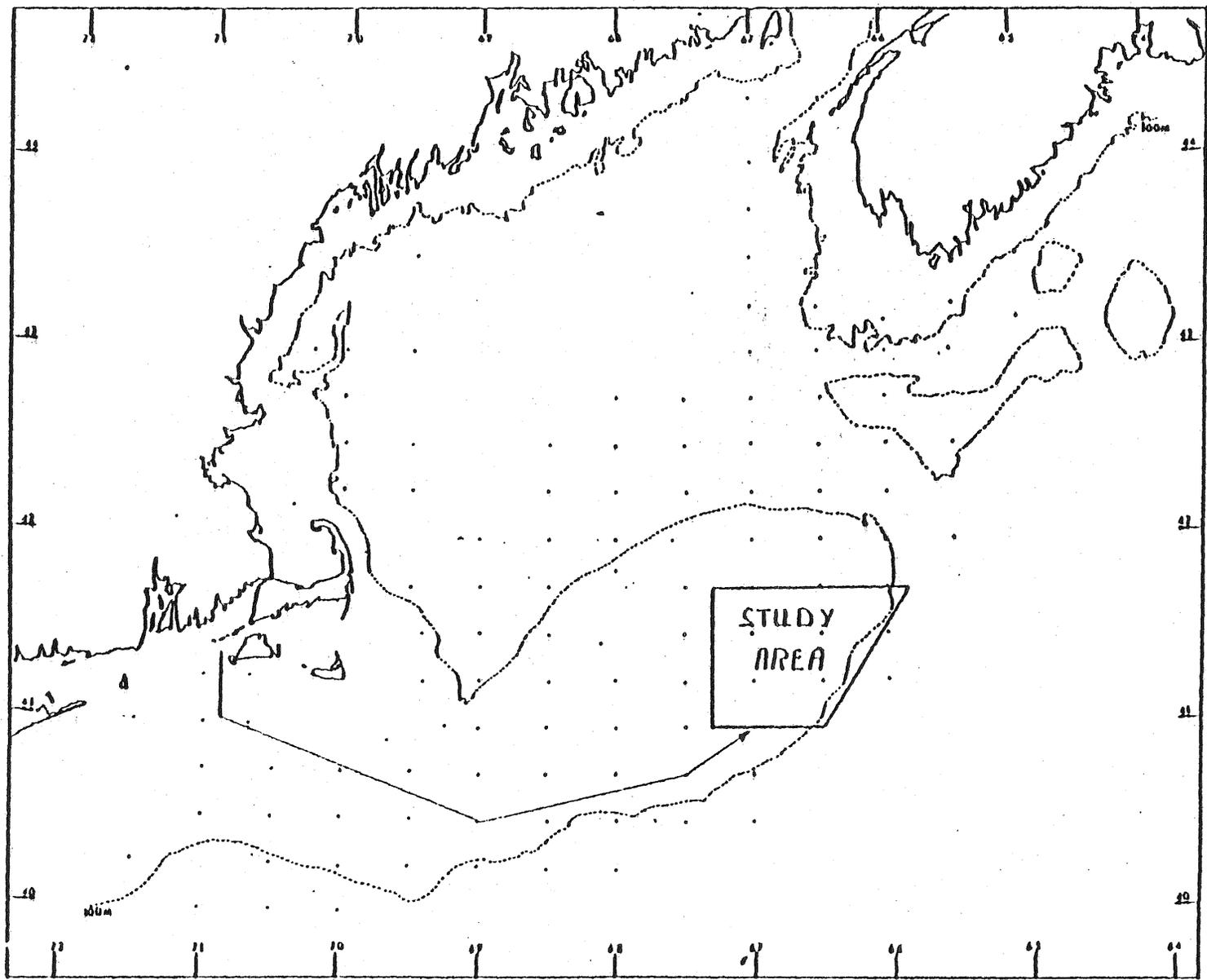
National Marine Fisheries Service, NEFC, Narragansett, RI

Geoffrey Laurence  
John Green  
Donna Busch

Data Collected

	Total		Total
.61 cm BONGO	<u>66</u>	SALINITY SAMPLES	<u>        </u>
.20 cm BONGO	<u>66</u>	OXYGEN SAMPLES	<u>        </u>
.61 cm NEUSTON	<u>66</u>	NUTRIENT SAMPLES	<u>        </u>
.20 cm NEUSTON	<u>66</u>	CHLOROPHYLL SAMPLES	<u>446</u>
HAEDRICH	<u>        </u>	PRIMARY PRODUCTIVITY	<u>        </u>
XBT	<u>47</u>	DROGUES	<u>3</u>
BOTTLE CAST	<u>        </u>	SECCHI DISC	<u>        </u>
CTD CAST	<u>48</u>	TRAWLS	<u>        </u>
CURRENT METERS	<u>67 hrs</u>	FISH SAMPLES	<u>        </u>
PLANKTON PUMP	<u>23</u>	MOCNESS ONE-METER	<u>        </u>
LIGHT METER CAST	<u>19</u>	HAULS	<u>25</u>
		½-METER HAULS	<u>20</u>
		UNDERWATER TV	<u>2</u>

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Initial cruise track and study area on Southeast Georges Bank for ALBATROSS IV Cruise 81-03, Interdisciplinary Sampling Studies of Larval Fish and Prey Micro-distribution and Associated Processes, during 15 April-1 May 1981.

VESSEL ALBATROSS IV

CRUISE 81-04

DATES May 5-16, 1981

DAYS AT SEA 12

Cruise Objective

Collect water samples, continuous underway data, and vertical profiles for: 1) hydrography; 2) phytoplankton pigments; 3) primary productivity; 4) nutrients; 5) bio-optical properties; 6) phytoplankton species composition; 7) nitrate uptake; 8) zooplankton respiration; 9) total plankton respiration; 10) zooplankton; and 11) neuston to examine the influence of upwelling from the Gulf of Maine on the productivity of Nantucket Shoals and the use of aircraft remote sensing to facilitate the gathering of synoptic information over the shoals and surrounding area. This cruise was part of the Ocean Pulse/Northeast Monitoring Program (OP/NEMP). As such, it had the objective to advance the development and transfer of improved remote sensing systems and techniques for monitoring environmental quality and effects on living marine resources.

Scientific Personnel

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

James Thomas, Chief Scientist  
Craig Robertson

Pamela Nesby  
William Copeland

National Marine Fisheries Service, NEFC, Narragansett, RI

John Green  
Janet Hess  
Amy Friedlander

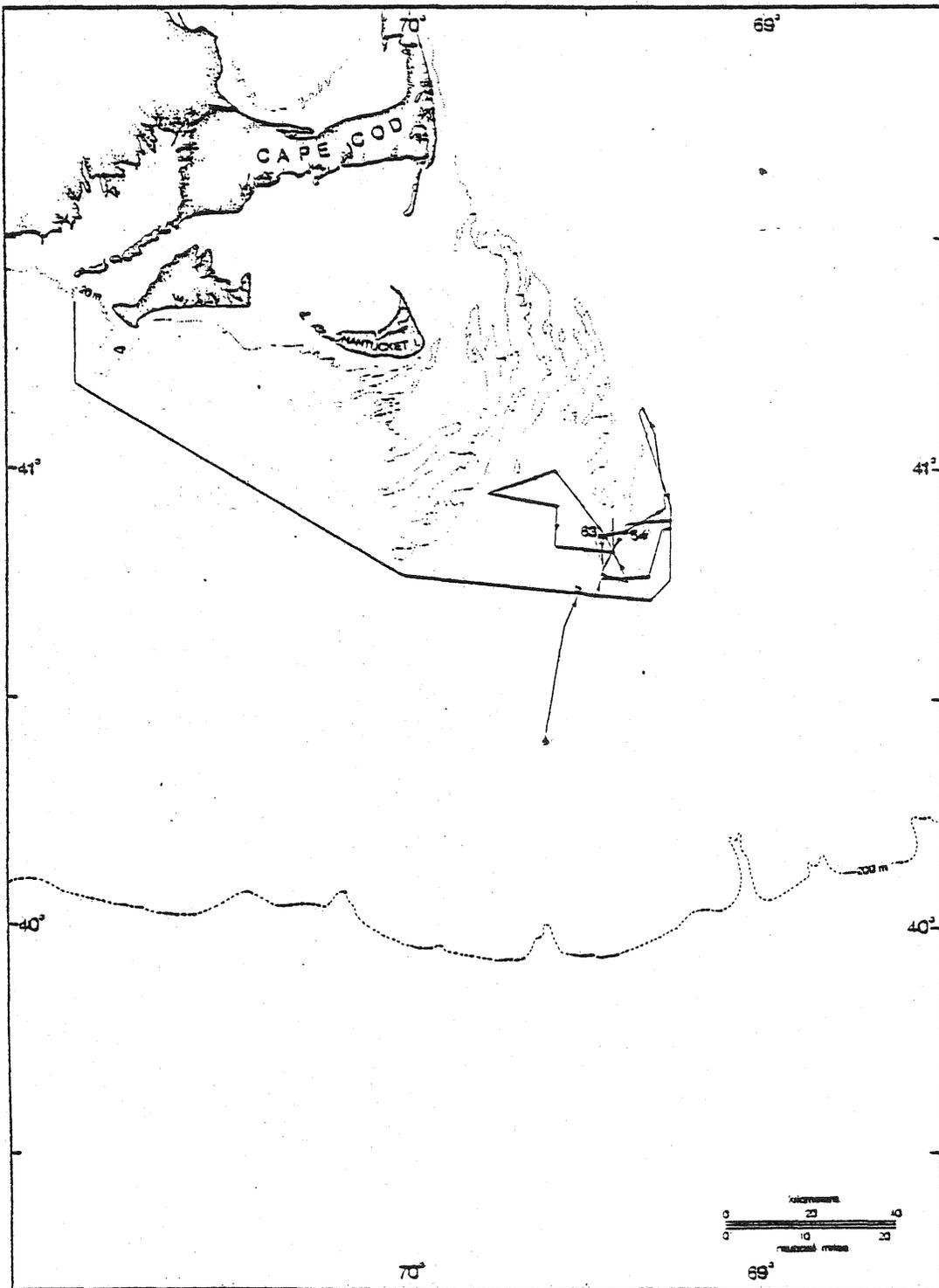
Bigelow Laboratory for Ocean Sciences, W. Boothbay Harbor, ME

Charles Yentsch  
Christopher Garside  
Frank Farmer  
Randolph King

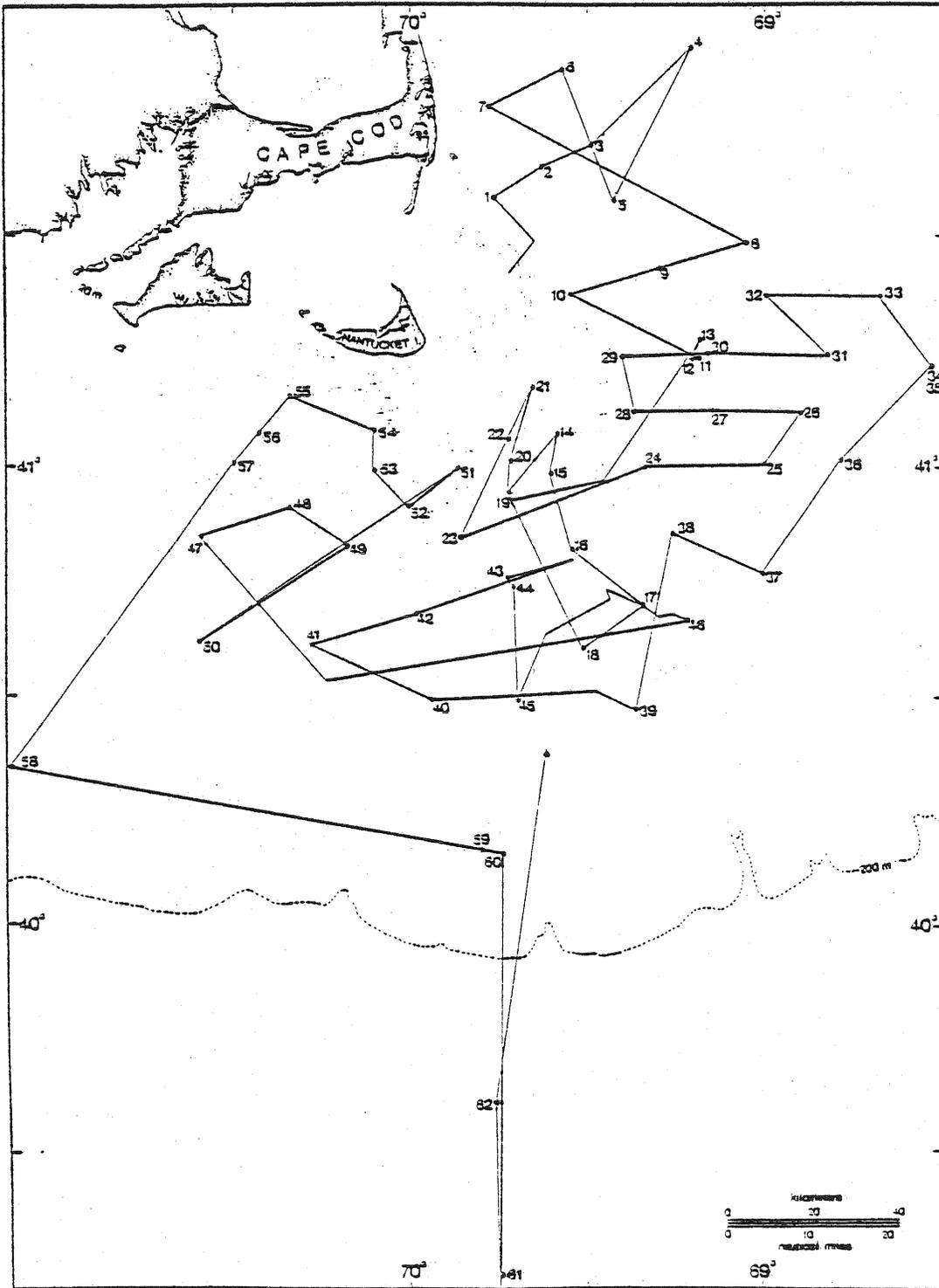
David Phinney  
Andrew Smith  
John Laird

Data Collected

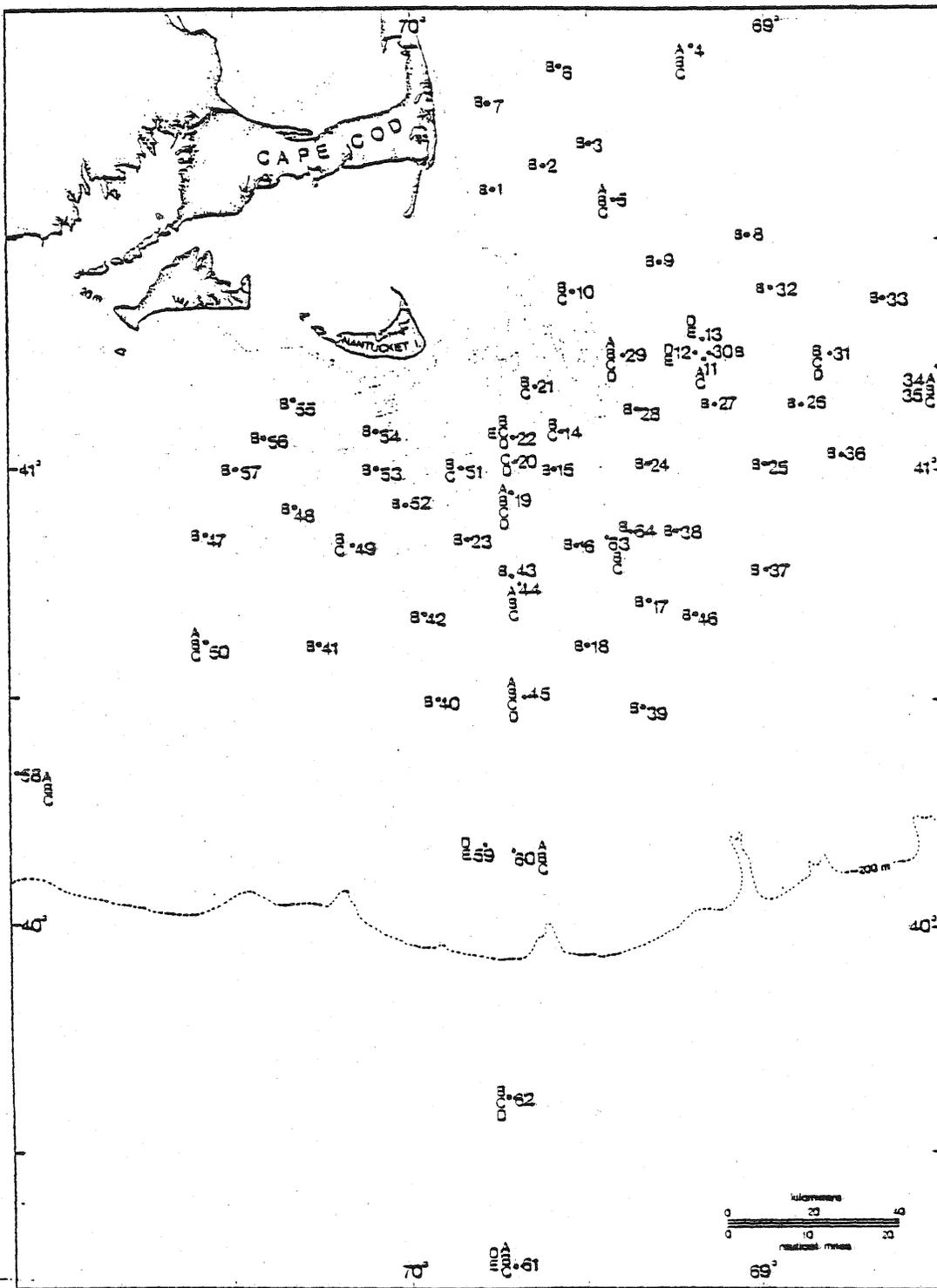
	Total		Total
.61 cm BONGO	59	SALINITY SAMPLES	140
.20 cm BONGO	59	OXYGEN SAMPLES	293
.61 cm NEUSTON	59	NUTRIENT SAMPLES	171
.20 cm NEUSTON	59	CHLOROPHYLL SAMPLES	250
HAEDRICH	_____	PRIMARY PRODUCTIVITY	25
XBT	35	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	15
CTD CAST	15	TRAWLS	_____
CURRENT METERS	_____	FISH SAMPLES	_____



Cruise track for R/V ALBATROSS IV  
 Cruise AL 81-04, Nantucket Shoals  
 Upwelling Studies (First Cruise),  
 during 5-16 May 1981.



Cruise track for R/V ALBATROSS IV Cruise 81-04,  
Nantucket Shoals Upwelling Studies (First Cruise),  
during 5-16 May 1981.



Station locations for R/V ALBATROSS IV Cruise 81-04, Nantucket Shoals Upwelling Studies (First Cruise), during 5-16 May 1981. Vertical profiles for temperature, salinity, and chlorophyll taken at A; zooplankton tows taken at B; hydrocasts taken at B; C; NASA overflights occurred at D; and surface bucket samples taken at E.

VESSEL ALBATROSS IV

CRUISE 81-05

DATES May 18-30, 1981

DAYS AT SEA 13

Cruise Objectives

The objectives of the cruise were to determine the fine-scale vertical and horizontal distribution of larval haddock and cod and their prey organisms and investigate the physical and biological processes responsible for their distribution.

Scientific Personnel

National Marine Fisheries Service, NEFC, Woods Hole, MA

R. Gregory Lough, Chief Scientist	Peter Donnelly
David Potter	Randolph Goodlett
George Bolz	William Michaels
Rosalind Cohen	Philip LeBlanc
Harold Merry	Roger Clifford

National Marine Fisheries Service, NEFC, Narragansett, RI

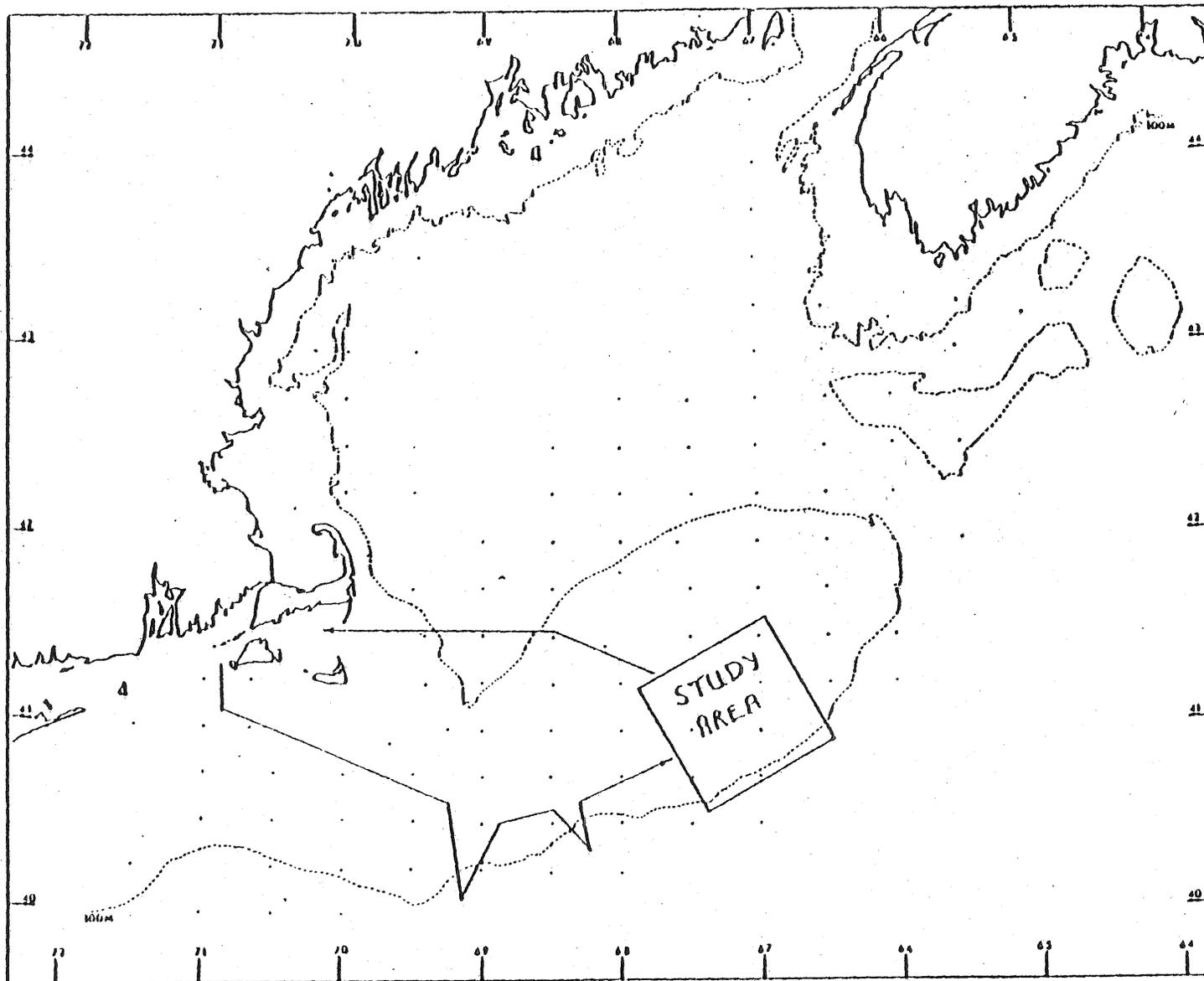
Donna Busch  
Joseph Kane  
Jacquelyn Frisella

Manomet Bird Observatory, Manomet, MA

Kevin Powers

Data Collected

	Total		Total
.61 cm BONGO	<u>79</u>	SALINITY SAMPLES	<u>      </u>
.20 cm BONGO	<u>79</u>	OXYGEN SAMPLES	<u>      </u>
.61 cm NEUSTON	<u>79</u>	NUTRIENT SAMPLES	<u>      </u>
.20 cm NEUSTON	<u>79</u>	CHLOROPHYLL SAMPLES	<u>362</u>
HAEDRICH	<u>      </u>	PRIMARY PRODUCTIVITY	<u>      </u>
XBT	<u>79</u>	DROGUES	<u>3</u>
BOTTLE CAST	<u>191</u>	SECCHI DISC	<u>      </u>
CTD CAST	<u>30</u>	TRAWLS	<u>      </u>
CURRENT METERS	<u>      </u>	FISH SAMPLES	<u>      </u>
PLANKTON PUMP	<u>      </u>	MOCNESS ONE-METER	<u>18</u>
PROFILES	<u>12</u>	MOCNESS 1/2-METER	<u>13</u>
		MOCNESS 10-METER	<u>5</u>



Cruise track and intensive study area on Southeast Georges Bank for ALBATROSS IV Cruise 81-05, Interdisciplinary Sampling Studies of Larval Fish and Prey Microdistribution and Associated Processes, during 18-30 May 1981.

VESSEL ALBATROSS IV

CRUISE 81-06

DATES June 9-19, 1981

PART I

DAYS AT SEA 10

STATIONS 181

CRUISE OBJECTIVE

The objectives of the cruise were to: (1) determine the distribution and relative abundance of the sea scallop (Placopecten magellanicus); (2) collect biological samples; and (3) develop fishing and catch handling techniques of towing two dredges simultaneously (for future gear testing experiments), and (4) test the feasibility of using an electronic measuring device (AIM) on shellfish.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Linda Despres-Patanjo, Chief Scientist  
Paul Wood  
Andrew Thoms  
Phillip Chase

National Marine Fisheries Service, NEFC, Hampton, VA

Richard Denzler

University of Rhode Island, Kingston, RI

Karen Marti

University of Idaho, Moscow, ID

Ann Foster

Hampton Institute, Hampton, VA

Medaris Banks

Edgartown High School, Edgartown, MA

Thomas Durawa

Manomet Bird Observatory, Manomet, MA

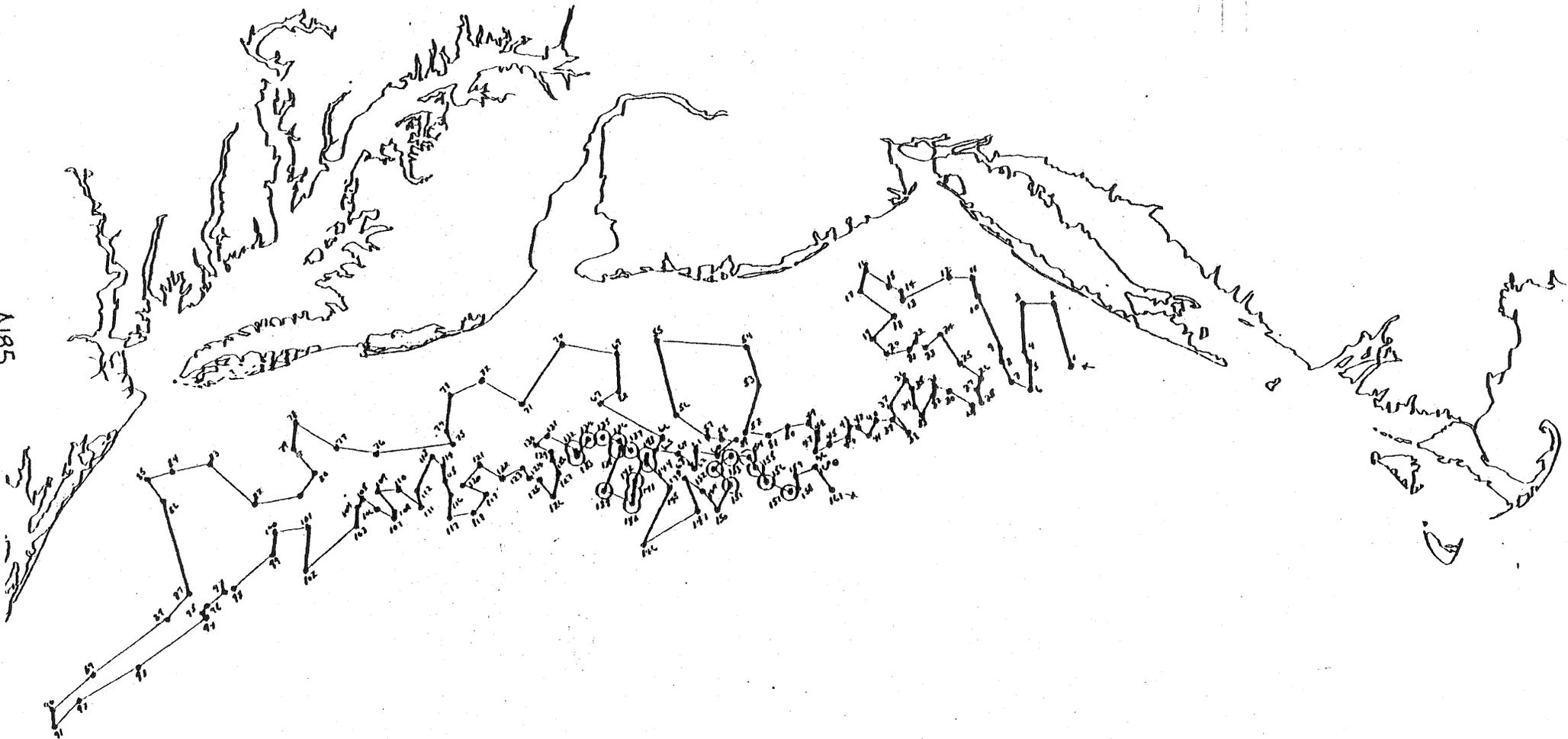
Douglas Burn

DATA COLLECTED

	<u>I PART</u>
.61 cm BONGO	_____
.20 cm BONGO	_____
.61 cm NEUSTON	_____
.20 cm NEUSTON	_____
HAEDRICH	_____
XBT	_____ 38
BOTTLE CAST	_____
CTD CAST	_____
CURRENT METERS	_____
SALINITY SAMPLES	_____ 38

	<u>I PART</u>
OXYGEN SAMPLES	_____
NUTRIENT SAMPLES	_____
CHLOROPHYLL SAMPLES	_____
PRIMARY PRODUCTIVITY	_____
DROGUES	_____
SECCHI DISC	_____
TRAWLS	_____
FISH SAMPLES	_____
SCALLOP DREDGE	_____ 181

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Station locations and cruise track for R/V ALBATROSS IV Cruise 81-06 (I) Sea Scallop Survey, during 9-19 June 1981. Station samples ● with stern dredge, and ○ with side dredge.

VESSEL ALBATROSS IV

CRUISE 81-06

DATES June 23-July 2, 1981

PART II

DAYS AT SEA 9

STATIONS 173

CRUISE OBJECTIVE

The objectives of the cruise were to: (1) determine the distribution and relative abundance of the sea scallops (Placopecten magellanicus); (2) collect biological samples; and (3) develop fishing and catch handling techniques of towing two dredges simultaneously (for future gear testing experiments).

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Charles Byrne, Chief Scientist  
Eva Montiero  
John Nicolas

Maurice Crawford  
Dennis Hansford  
Mark Costa  
Thornton Williams

National Marine Fisheries Service, NEFC, Milford, CT

Todd Welch

Boston University, Boston, MA

Margaret Carriero

Government of Canada Fisheries and Oceans, Halifax, Nova Scotia

Mary Ann Etter

Hampton Institute, Hampton, VA

Medaris Banks

Lincoln-Sudbury Regional High School, Sudbury, MA

Linda Davis

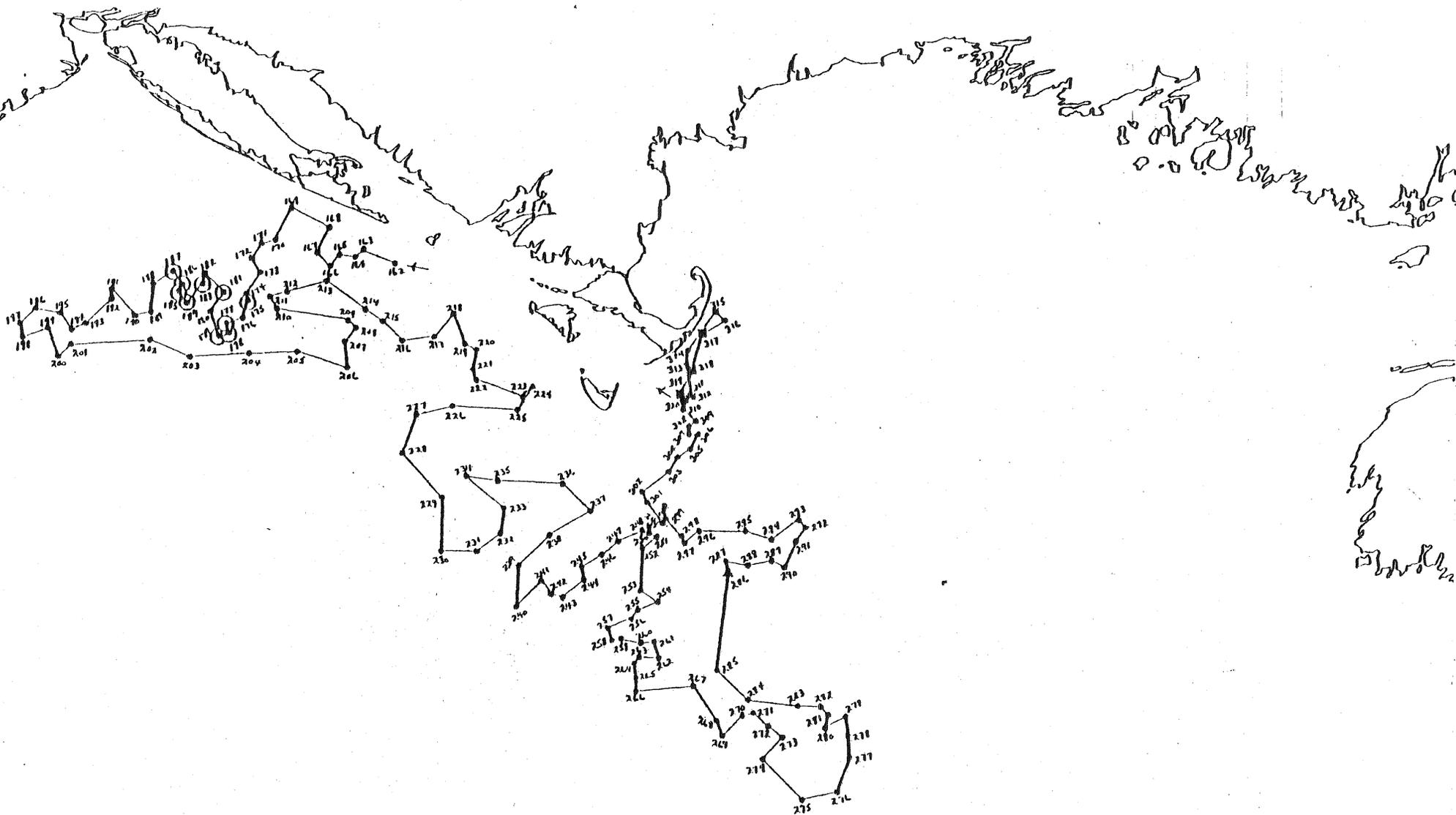
Manomet Bird Observatory, Manomet, MA

Susan Fitch

DATA COLLECTED

	<u>II Part</u>		<u>II Part</u>
.61 cm BONGO	_____	SALINITY SAMPLES	<u>37</u>
.20 cm BONGO	_____	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	<u>37</u>	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	_____
CURRENT METERS	_____	FISH SAMPLES	_____
		SCALLOP DREDGE	<u>173</u>

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Station locations and cruise track for R/V ALBATROSS IV Cruise 81-06 (II) Sea Scallop Survey, during 23 June-2 July 1981. Station samples • with stern dredge, and ○ with side dredge, ■ non-random paired tows, ▲ hangups.

VESSEL Albatross IV CRUISE 81-07  
DATES July 7-21, 1981  
DAYS AT SEA 14 STATIONS 91

Cruise Objective

The survey is part of a continuing series that makes collection and measurements relative to assessing the health of the ocean's biota, especially fishery resources. Specific objectives were: 1) to collect select indicator species for examination of certain biochemical, physiological, pathological and chemical contamination variables that are related to the organisms' health; 2) to collect water samples from a wide range of locations to monitor nutrients, chlorophyll concentration, phytoplankton community structure, and standard hydrographic variables (salinity, dissolved oxygen, temperature); and 3) to collect benthic samples for pathology monitoring, sediment analysis (physical and chemical), the presence of certain types of bacteria (Vibrio sp. and Clostridium sp.), benthic respiration, and nutrient flux.

Scientific Personnel

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Andrew Daxler, Chief Scientist  
Thomas Kienzel  
David Radosh  
Steven Spina  
William Phoel  
Vincent Zdanowicz  
Ralph Bruno  
Robert Fitzgerald

National Marine Fisheries Service, NEFC, Milford, CT

Jose Pereira  
Andrew Hebert  
Susan Schurman

National Marine Fisheries Service, NEFC, Oxford, MD

Gretchen Roe

Manomet Bird Observatory, Manomet, MA

Michael Chick

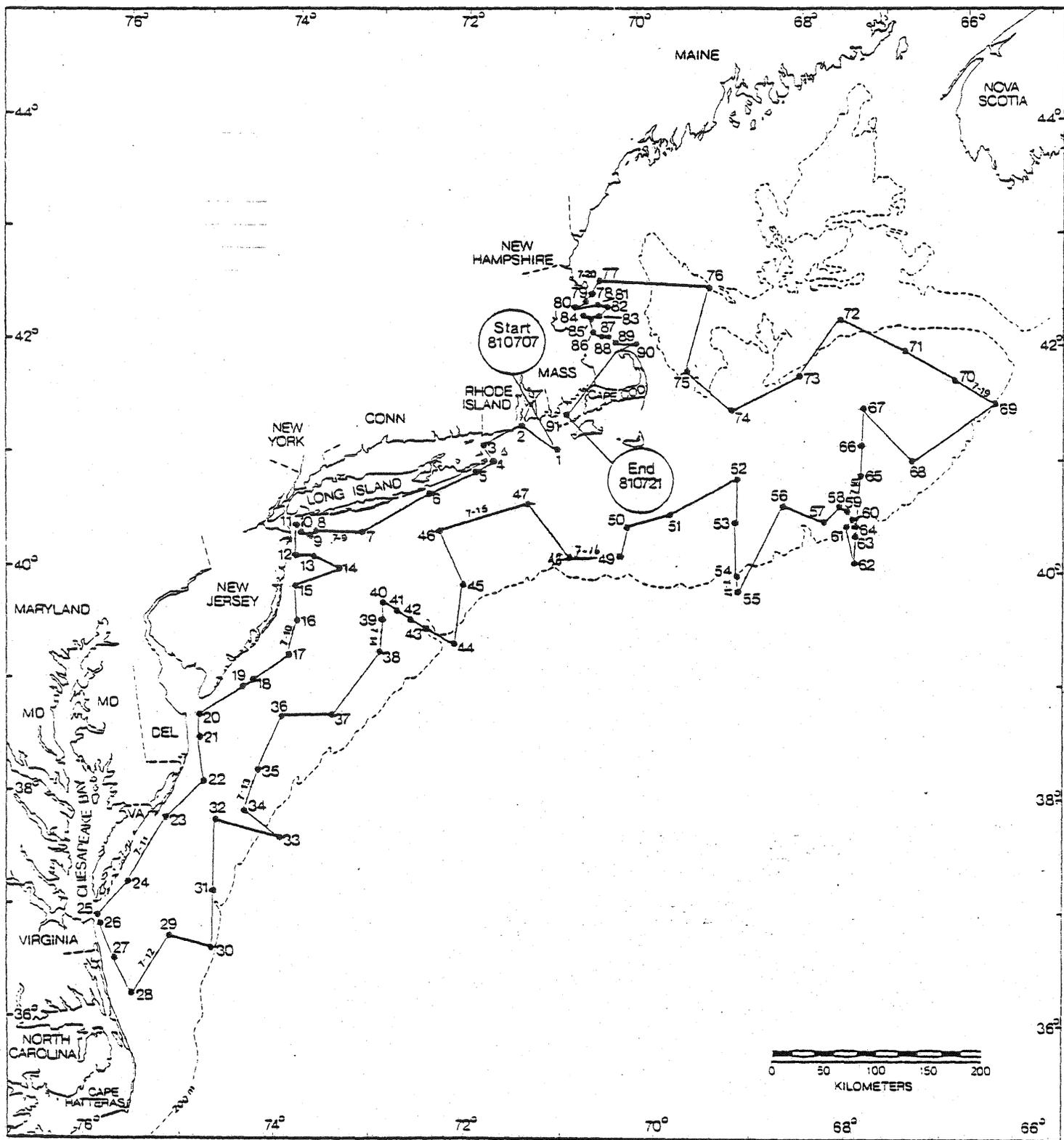
New York University, Sterling Forest, NY

Gail Driscoll

Data Collected

.61 cm BONGO	<u>YES</u>
.20 cm BONGO	<u>YES</u>
.61 cm NEUSTON	<u>YES</u>
.20 cm NEUSTON	<u>YES</u>
HAEDRICH	<u>      </u>
XBT	<u>74</u>
BOTTLE CAST	<u>91</u>
CTD CAST	<u>      </u>
CURRENT METERS	<u>      </u>

SALINITY SAMPLES	<u>589</u>
OXYGEN SAMPLES	<u>435</u>
NUTRIENT SAMPLES	<u>424</u>
CHLOROPHYLL SAMPLES	<u>542</u>
PRIMARY PRODUCTIVITY	<u>28</u>
DROGUES	<u>      </u>
SECCHI DISC	<u>      </u>
TRAWLS	<u>25</u>
FISH SAMPLES	<u>YES</u>
MULTIPLE CORER	<u>54</u>



Cruise track and station locations for ALBATROSS IV Cruise 81-07, Northeast Monitoring Program (NEMP 81-07), Biological Effects Survey, during 7-21 July 1981.

VESSEL Albatross IV CRUISE 81-08

DATES July 31 - August 7, 1981

DAYS AT SEA 7 STATIONS 51

Cruise Objective

The objectives of the cruise were to monitor the annual cycle of pycnocline development and associated reduction of dissolved oxygen levels in the bottom waters of the New York Bight and to establish a water quality monitoring program for the Northeast region covering the Mid-Atlantic Bight.

Scientific Personnel

National Ocean Survey, Rockville, MD

Catherine Warsh, Chief Scientist  
Bernard Gottholm  
Carole Moore  
James Bell

National Marine Fisheries Service, NEFC, Woods Hole, MA

Judith Scanlon  
Karen Lennon

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Albert Matte

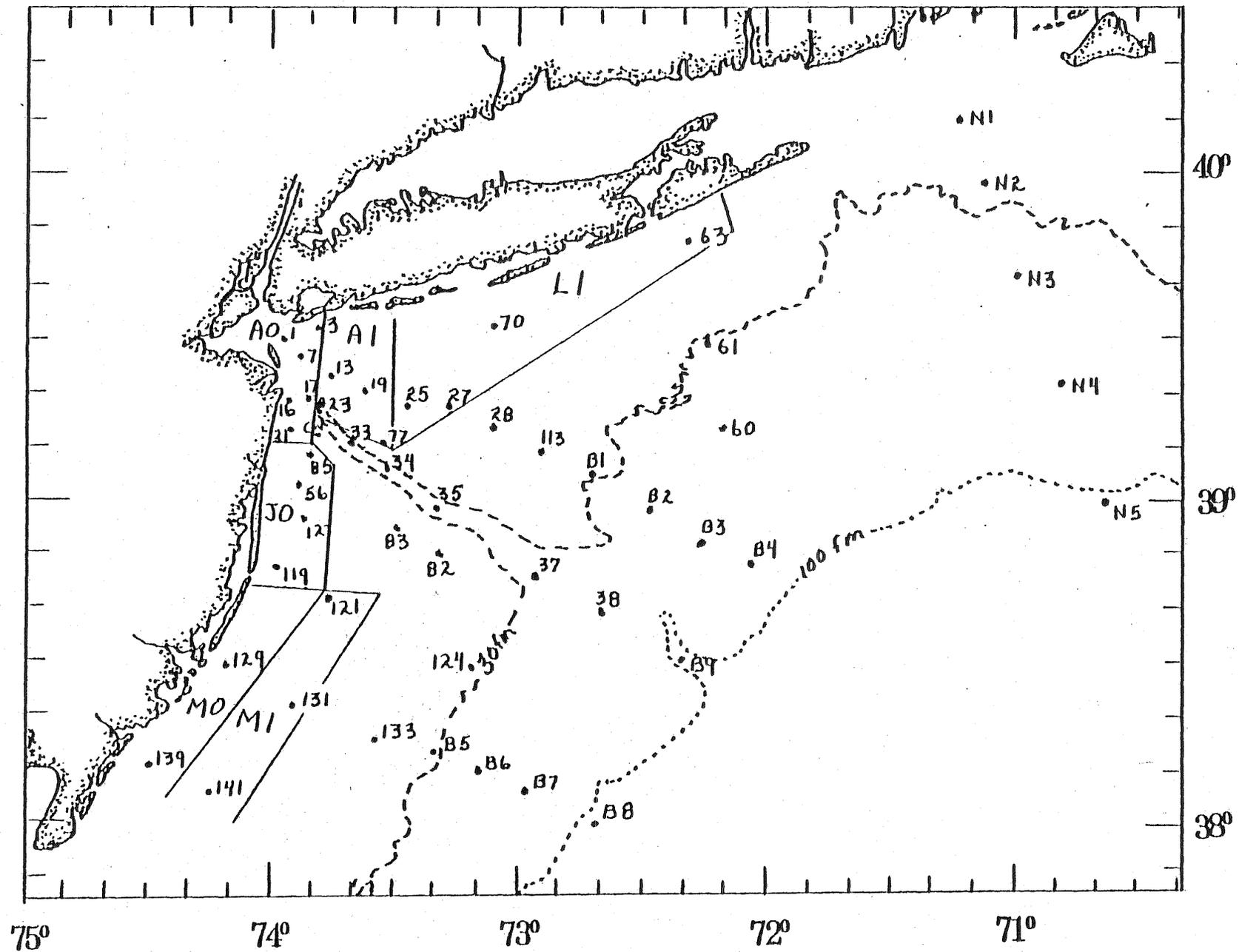
Brookhaven National Laboratory, Upton, NY

Karl von Bock  
Edward Divis  
Dennis Carlson  
John Short  
McHarrell Thomas  
Sue Oakley  
William Beherns

Data Collected

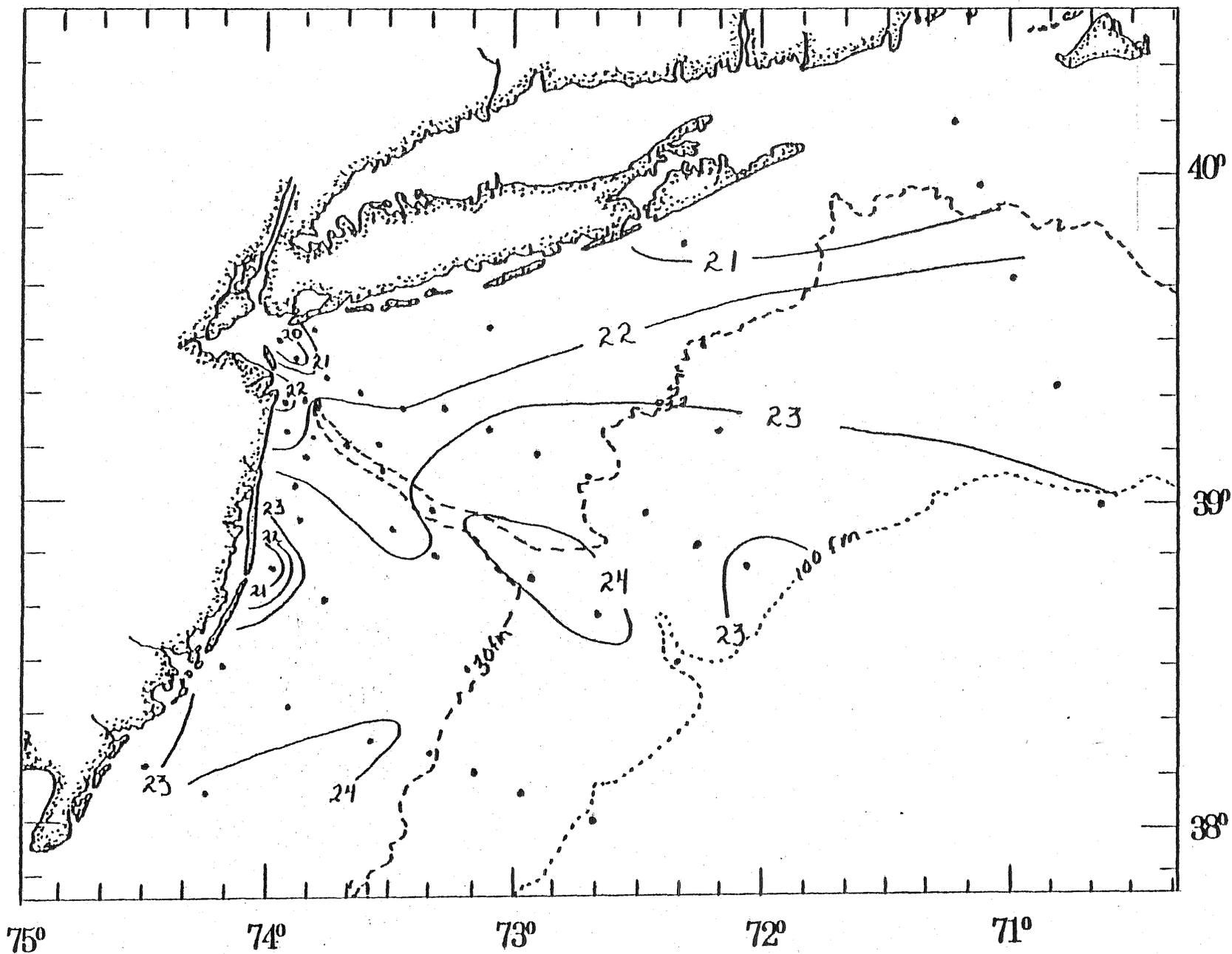
.61 cm BONGO	_____	SALINITY SAMPLES	32
.20 cm BONGO	_____	OXYGEN SAMPLES	300
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	917
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	380
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	40	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	_____
CURRENT METERS	_____	FISH SAMPLES	_____
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Station locations for R/V ALBATROSS IV Cruise 81-08, Northeast Monitoring Program (NEMP 81-09), Water Column Monitoring Survey, during 31 July-7 August 1981.

Surface temperature distribution (from uncorrected CSTD results) obtained on R/V ALBATROSS IV  
Cruise 81-08, Northeast Monitoring Program (NEMP 81-09), Water Column Monitoring Survey,  
during 31 July-7 August 1981.



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VESSEL Albatross IV

CRUISE 81-09

DATES August

DAYS AT SEA 9

STATIONS 129

Cruise Objective

The objectives of the cruise were to monitor the sediment quality in the New York Bight, and the organisms that live in and on the sediment as part of a long term program, the Northeast Monitoring Program (NEMP).

Scientific Personnel

National Ocean Survey, NOAA, Rockville, MD

Harris White, Chief Scientist

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Robert Reid  
David Radosh  
William Phoel  
Steven Fromm  
Steven Spina  
Anthony Ruiz  
Vincent Zdanowicz

National Marine Fisheries Service, NEFC, Milford, CT

John Graikoski  
Jennifer Hauser  
Donna Luedke

Borough of Manhattan Community College, New York, NY

Clifton Banks

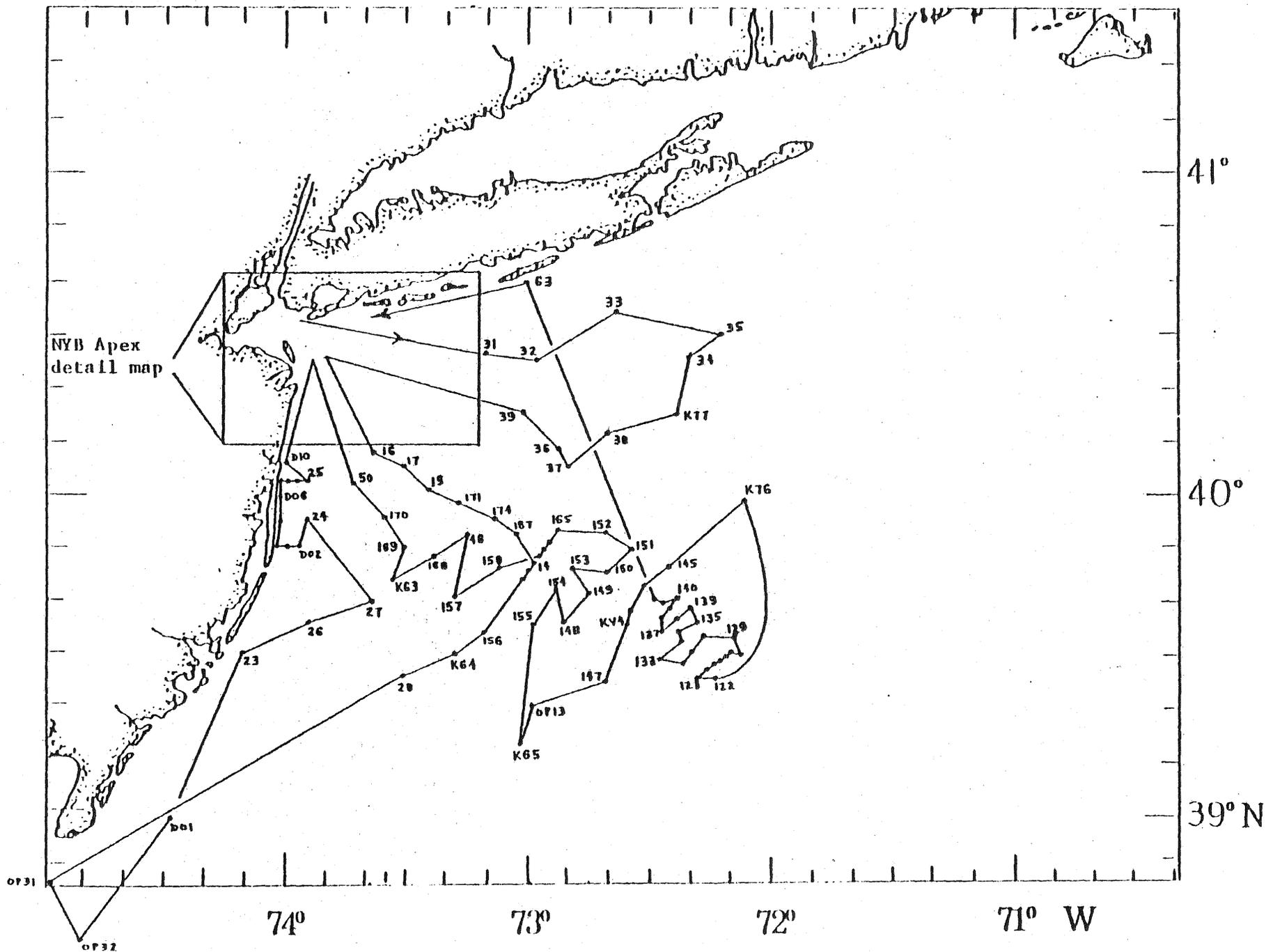
Cook College, New Brunswick, NJ

Christa Facciola

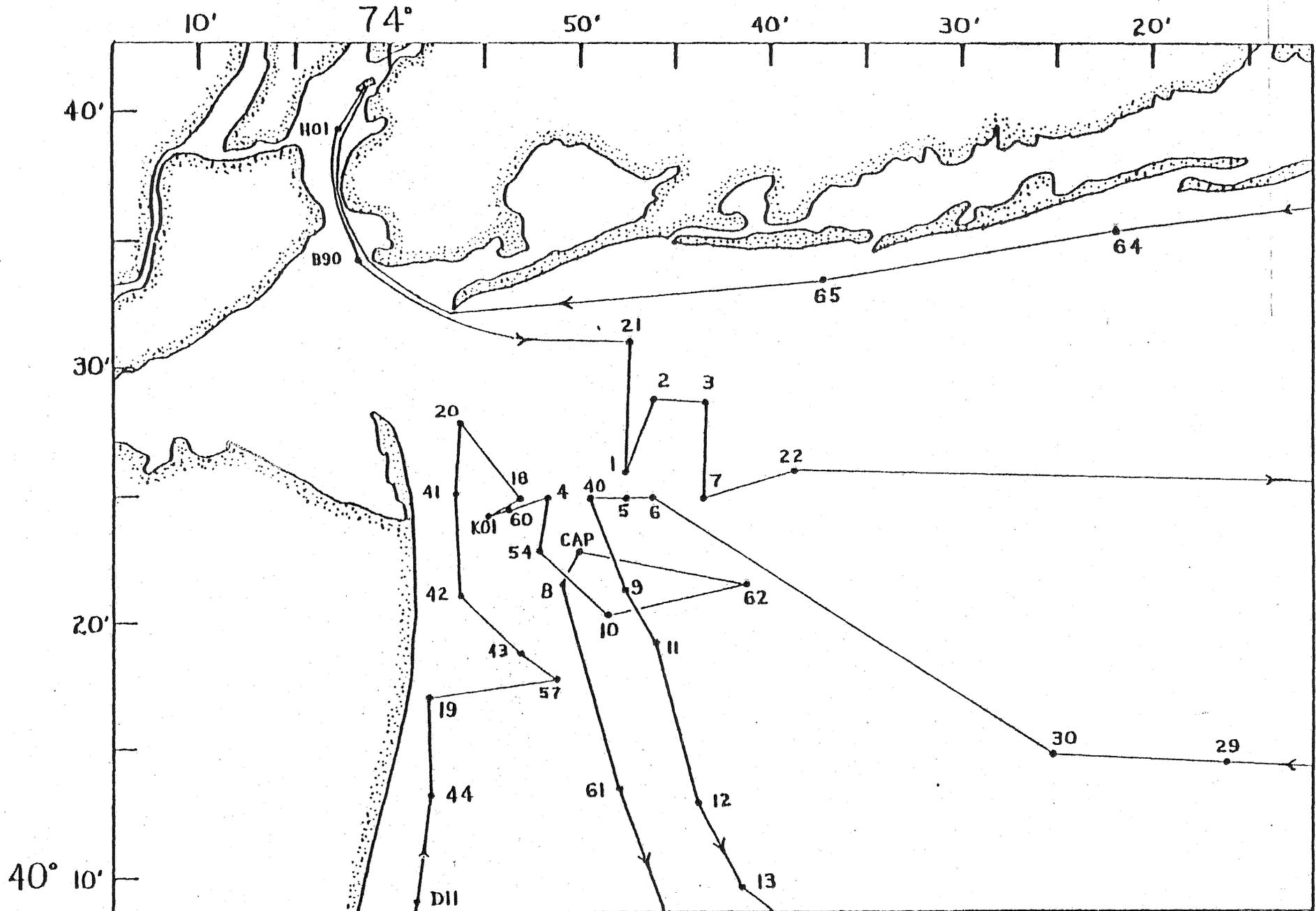
Data Collected

.61 cm BONGO	_____	SALINITY SAMPLES	74
.20 cm BONGO	_____	OXYGEN SAMPLES	74
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	_____	DROGUES	_____
BOTTLE CAST	129	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	21
CURRENT METERS	_____	FISH SAMPLES	YES
		SMITH-MCINTYRE GRAB	YES

Station locations and cruise track for R/V ALBATROSS IV Cruise 81-09, Northeast Monitoring Program (NEMP 81-10), Sediment Quality Monitoring Survey, during 10-19 August 1981.



Station locations and cruise track for R/V ALBATROSS IV Cruise 81-09, Northeast Monitoring Program (NEMP 81-10), Sediment Quality Monitoring Survey, during 10-19 August 1981.



A197

VESSEL Albatross IV CRUISE 81-10  
 DATES August 26 - September 4;  
 September 9-17, 1981 PART I, II  
 STATIONS 80  
 DAYS AT SEA 9; 8

Cruise Objective

The survey is part of a continuing series that makes collection and measurements relative to assessing the health of the ocean's biota, especially fishery resources. Specific objectives were: 1) to collect select indicator species for examination of certain biochemical, physiological, pathological and chemical contamination variables that are related to the organisms' health; 2) to collect water samples from a wide range of locations to monitor nutrients, chlorophyll concentration, phytoplankton community structure, and standard hydrographic variables (salinity, dissolved oxygen, temperature); and 3) to collect benthic samples for pathology monitoring, sediment analysis (physical and chemical), the presence of certain types of bacteria (Vibrio sp. and Clostridium sp.), benthic respiration, and nutrient flux.

Scientific Personnel

National Marine Fisheries Service, NEFC, Milford, CT

Anthony Calabrese, Chief Scientist	Parts I and II
Frederick Thurberg	Part I
Diane Rusanowsky	Part I
Robert Alex	Part I
James Hughes	Part I
Richard Greig	Part II
Laure Devine	Part II
Jennifer Houser	Part II
Dean Perry	Part II

National Marine Fisheries Service, NEFC, Sandy Hook, N.J.

William Phoel	Parts I and II
Peter Kube	Parts I and II
Robert Fitzgerald	Parts I and II
James Nickels	Parts I and II
Stephen Spina	Part I
Anthony Ruiz	Part II
Vincent Zdanowicz	Part II
Ingro Desvougues	Part II

National Marine Fisheries Service, NEFC, Woods Hole, MA

Wendy Stephenson	Part I
Rene Eppi	Part II

National Marine Fisheries Service, NEFC, Oxford, MD

Gretchen Roe	Parts I and II
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Data Collected

.61 cm BONGO	_____
.20 cm BONGO	_____
.61 cm NEUSTON	_____
.20 cm NEUSTON	_____
HAEDRICH	_____
XBT	_____
BOTTLE CAST	_____
CTD CAST	_____

SALINITY SAMPLES	_____	391
OXYGEN SAMPLES	_____	391
NUTRIENT SAMPLES	_____	384
CHLOROPHYLL SAMPLES	_____	572
PRIMARY PRODUCTIVITY	_____	28
DROGUES	_____	
SECCHI DISC	_____	
TRAWLS	_____	25
FISH SAMPLES	_____	YES
CORE SAMPLES	_____	217
ZOOPLANKTON SAMPLES	_____	105
PHYTOPLANKTON SAMPLES	_____	144

VESSEL ALBATROSS IV

CRUISE 81-11

DATES SEPT. 22-OCT. 6

PART I

DAYS AT SEA 16

STATIONS 68

CRUISE OBJECTIVE

The major scientific purpose of this cruise was a survey of the hydrographic and biological characteristics in the shelf water entrained by the ring. In addition, communications via the Applications Technology Satellite (ATS) were tested to allow data and voice transmission between ALBATROSS IV and other ships involved in the National Science Foundation (NSF) project.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Ronald Schlitz, Chief Scientist  
David Mountain  
Gilbert Dering  
Arthur Allen  
Thomas Laughton  
Harold Merry  
David Potter  
Derek Sutton

National Marine Fisheries Service, NEFC, Narragansett, RI

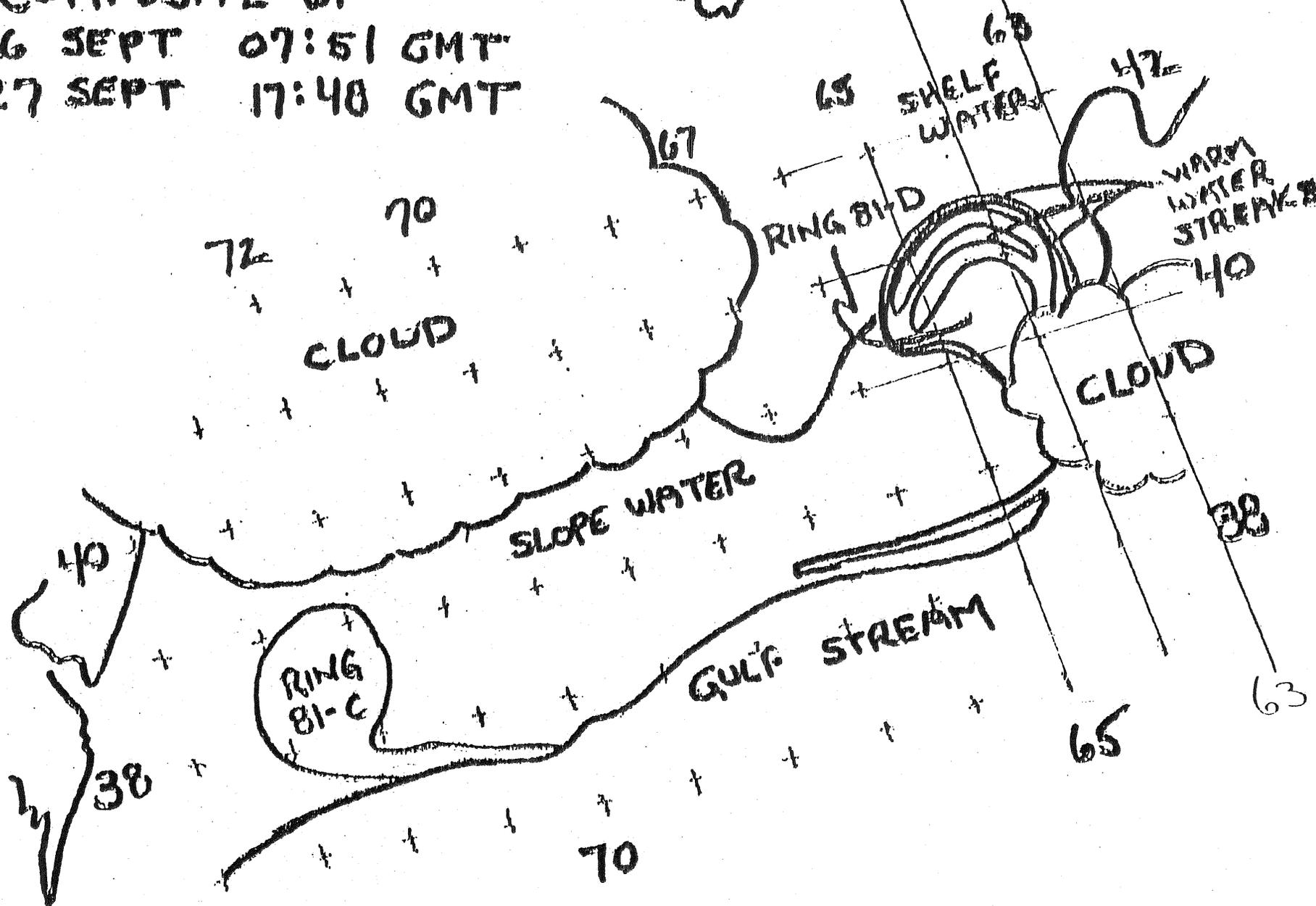
John Colton, Jr.  
Jacquelyn Frisella  
Amy Friedlander  
Joseph Kane

DATA COLLECTED

	<u>I</u> <u>PT</u>		<u>I</u> <u>PT</u>
.61 cm BONGO	_____	SALINITY SAMPLES	600
.20 cm BONGO	_____	OXYGEN SAMPLES	600
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	500
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	124	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	68	TRAWLS	_____
CURRENT METERS	_____	FISH SAMPLES	_____
		MOCNESS	50
		ROSETTE CAST	61

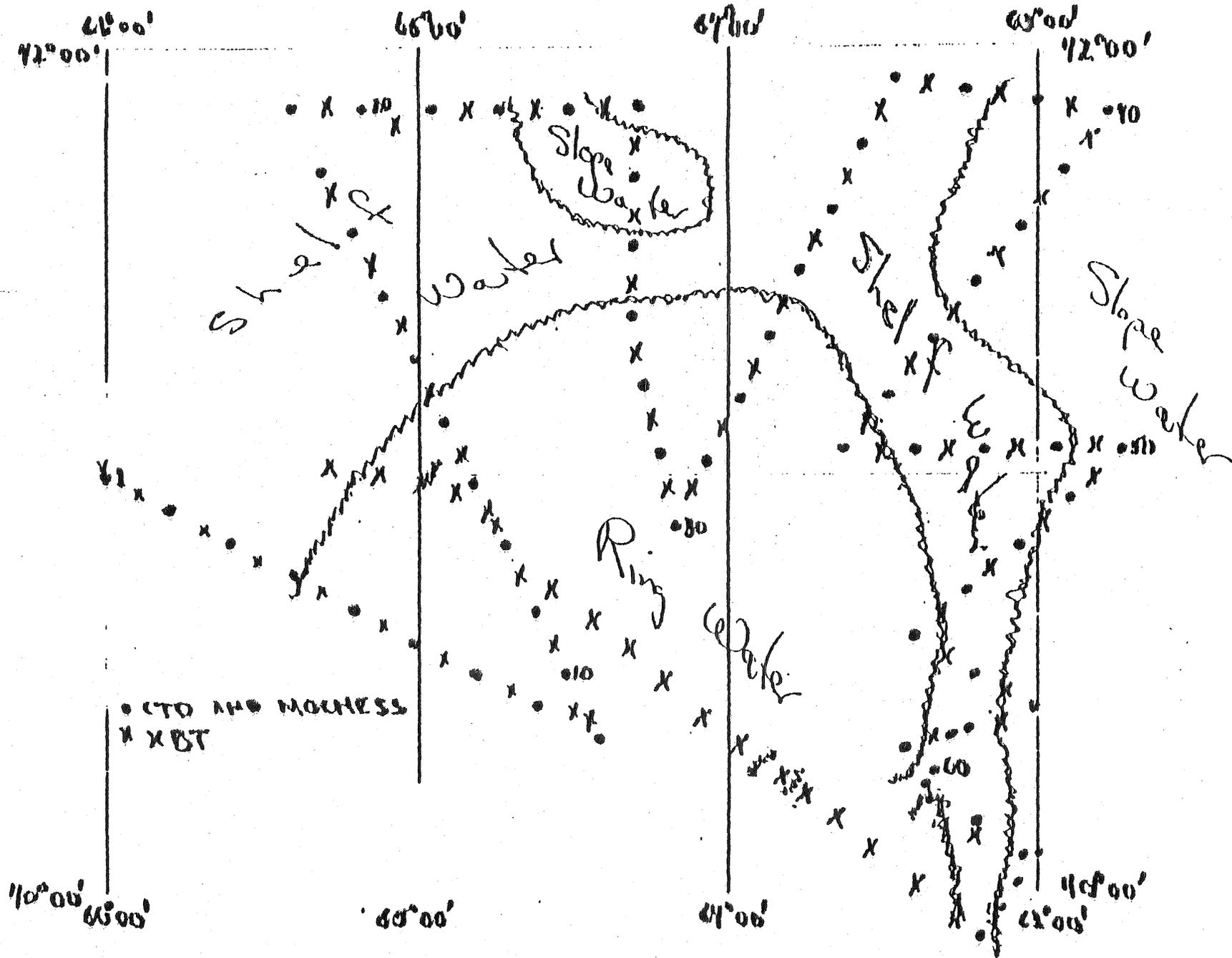
COMPOSITE OF  
26 SEPT 07:51 GMT  
27 SEPT 17:48 GMT

NOVA  
SCOTIA



Example of interpretation of satellite imagery received via satellite by ALBATROSS IV  
Cruise 81-11 Warm-Core Ring Study (Cruise #1), during 22 September-6 October 1981.

A201



Station locations and cruise track for ALBATROSS IV Cruise 81-11  
 Warm-Core Ring Study (Cruise #1), during 22 September-6 October 1981.

VESSEL Albatross IV CRUISE 81-12

DATES October 12-23, 1981

DAYS AT SEA 12 STATIONS 79

Cruise Objective

The objective of the cruise was to describe changes in the ichthyo-plankton and zooplankton assemblages across the shelf/slope front and in the environs of warm-core ring 81-D.

Scientific Personnel

National Marine Fisheries Service, NEFC, Narragansett, RI

John B. Colton, Jr., Chief Scientist  
Joseph Kane  
Jerome Presioso  
Bruce Burns  
Alphonse Smigielski  
Jacquelyn Frisella  
Mary Grojean

National Marine Fisheries Service, NEFC, Woods Hole, MA

Arthur Allen  
Thomas Laughton

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

John Sibunka

Old Dominion University, Norfolk, VA

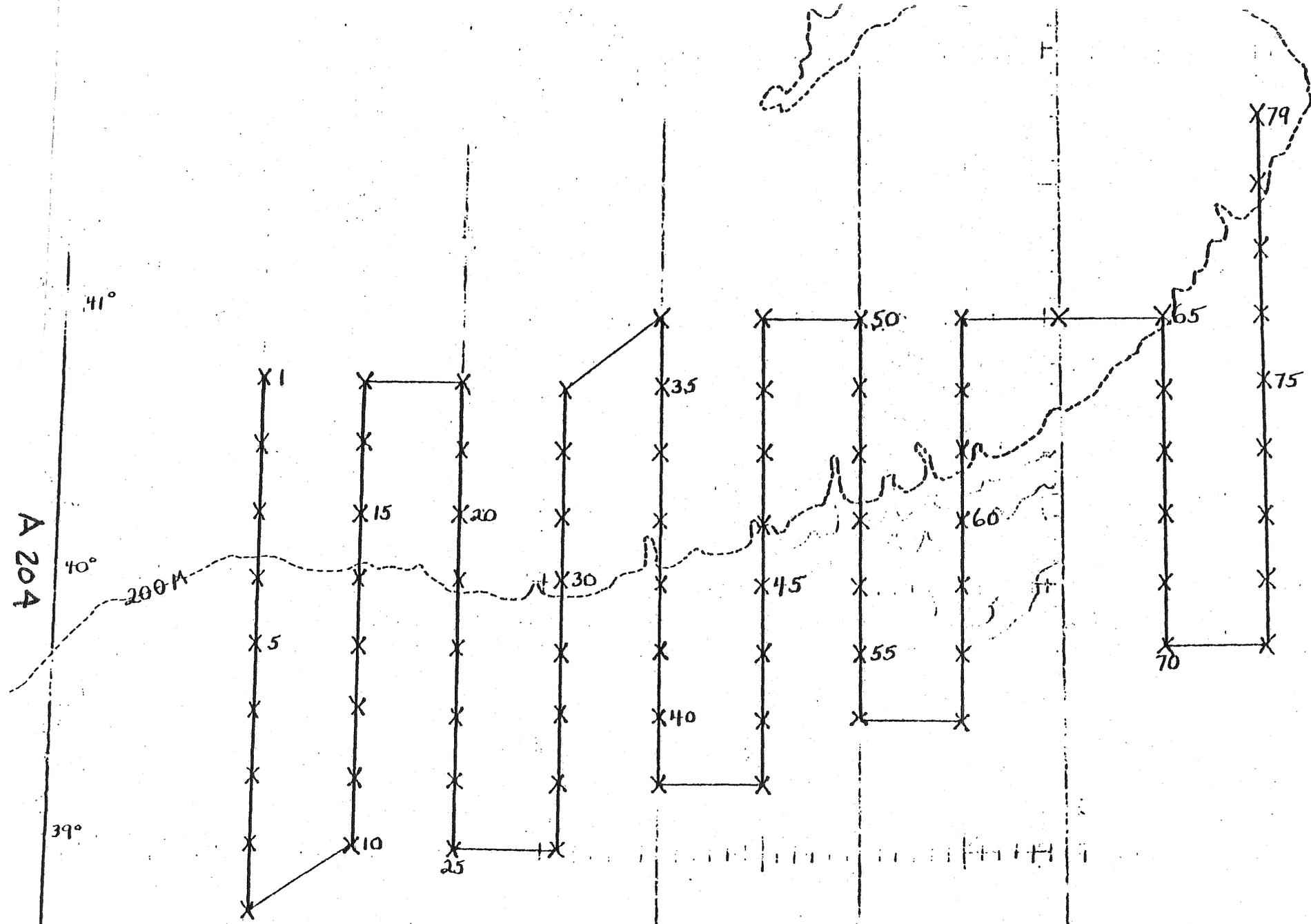
Richard Lacatour

Cape Elizabeth High School, Cape Elizabeth, ME

David Hilse

Data Collected

.61 cm BONGO	<u>79</u>	SALINITY SAMPLES	_____
.20 cm BONGO	<u>79</u>	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	<u>96</u>	DROGUES	_____
BOTTLE CAST	<u>39</u>	SECCHI DISC	_____
CTD CAST	<u>40</u>	TRAWLS	_____
CURRENT METERS	_____	FISH SAMPLES	_____



Station locations and cruise track for ALBATROSS IV Cruise 81-12  
 Warm-Core Ring Study (Cruise #2), during 12-23 October 1981.

VESSEL ALBATROSS IV

CRUISE 81-13

DATES NOV. 2-13

DAYS AT SEA 11

STATIONS 89

CRUISE OBJECTIVE

The objectives of the cruise were originally to: (1) test the effects of towing speed on trawl performance and catch rates, and (2) conduct a fishing power experiment with the DELAWARE II. The cruise was redesigned to: (1) determine the fall distribution and relative abundance of fish species, (2) collect biological samples for studies of age and growth relationships, fecundity, maturity, and food habits, (3) make pathological observations on various species of fish, (4) collect hydrographic and meteorological samples and data, and (5) collect samples of ichthyoplankton and zooplankton.

In addition, a series of paired tows was made, as originally planned, with DELAWARE II at 46 randomly preselected stations on Georges Bank and Southern New England (Figure 2).

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Ralph Mayo, Chief Scientist  
John Nicolas  
Eva Montiero  
Dennis Hansford  
Eileen Klopfer  
Cynthia Demo  
Danielle Winborne  
Denise Brown  
Annette Mitchell  
James Fletcher  
Susan Rockwell

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Donald McMillan

Manomet Bird Observatory, Manomet, MA

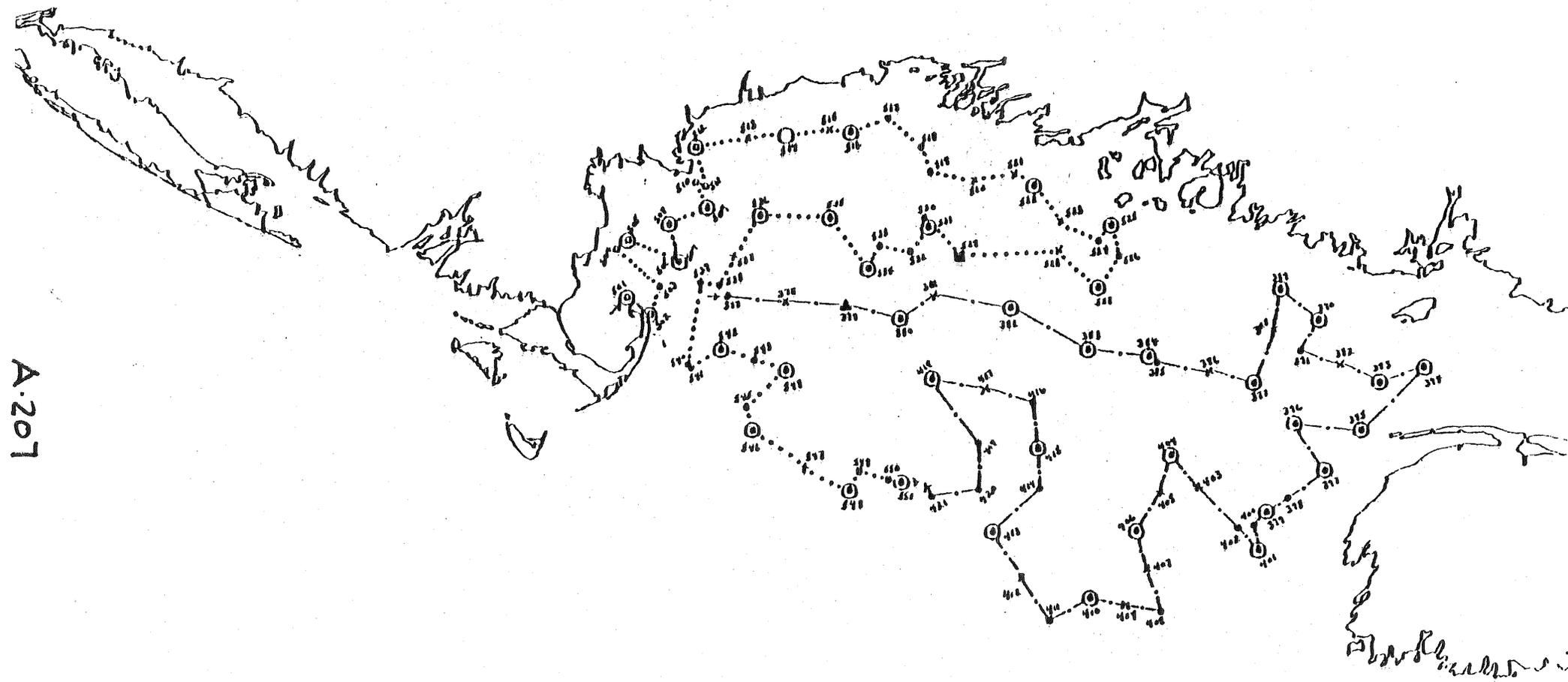
Michael Payne

DATA COLLECTED

	<u>Total</u>		<u>Total</u>
.61 cm BONGO	26	SALINITY SAMPLES	97
.20 cm BONGO	26	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	97	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	89
CURRENT METERS	_____	FISH SAMPLES	YES



- ..... = AL IV 81-13
- = offshore
- = inshore
- = plankton
- x = XBT's other than on station
- ▲ = tearups
- = non-survey station



A.207

Station locations and cruise track for ALBATROSS IV Cruise 81-13 Gear Testing, during 2-13 November 1981.

VESSEL ALBATROSS IV

CRUISE 81-14

DATES 16 November - 22 December

PARTS I, II, III

DAYS AT SEA 10; 12; 9

STATIONS 96

CRUISE OBJECTIVE

This cruise is one of a series of surveys conducted annually to monitor seasonal changes in distribution and abundance of fish eggs and larvae, zooplankton and phytoplankton, and to collect oceanographic and primary productivity data. In addition, several special bottom trawl tows were made in an attempt to collect adult Atlantic herring, Clupea harengus harengus.

SCIENTIFIC PERSONNEL

Part I: 16-25 November 1981  
Part II: 30 November 11-December 1981  
Part III: 14-22 December 1981

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

John Sibunka, Chief Scientist	Part I
Peter Berrien, Chief Scientist	Part II
Robert Fitzgerald	Parts I, II, III
David Burdick	Parts I, II, III
James Nickels	Parts I, II, III
Thomas Finneran	Parts I, II, III
Doris Finan	Part II
Albert Matte	Part III

National Marine Fisheries Service, NEFC, Woods Hole, MA

Daniel Patanjo	Parts I, II
Christine Nadeau	Parts I, III
Dana Densmore	Parts II, III
Thomas Laughton	Part II
David Mountain	Part III

National Marine Fisheries Service, NEFC, Narragansett, RI

Joseph Kane, Chief Scientist	Part III
Carolyn Griswold	Part I
Raymond Maurer	Part II
Jerome Prezioso	Part III
Jacqueline Frisella	Part III

Manomet Bird Observatory, Manomet, MA

Peter Stangel Part I  
Steven Mullane Parts II, III

Lamont-Doherty Geological Observatory, Palisades, NY

Theodore Baker Part I

Suffolk University, Boston, MA

Todd Tedesco Part I  
Cheril Wilson Part I

Darien High School, Darien, CT

Cecilia Barnett Part II

DATA COLLECTED

	<u>TOTAL</u>		<u>TOTAL</u>
.61 cm BONGO	<u>97</u>	SALINITY SAMPLES	<u>1049</u>
.20 cm BONGO	<u>59</u>	OXYGEN SAMPLES	<u>524</u>
NEUSTON	<u>89</u>	NUTRIENT SAMPLES	<u>306</u>
HAEDRICH	<u>30</u>	CHLOROPHYLL SAMPLES	<u>922</u>
XBT	<u>31</u>	PRIMARY PRODUCTIVITY	<u>29</u>
BOTTLE CAST	<u>89</u>	DROGUES	<u>        </u>
CTD CAST	<u>        </u>	SECCHI DISC	<u>31</u>
CURRENT METERS	<u>        </u>	TRAWLS	<u>6</u>
		FISH SAMPLES	<u>YES</u>
		<sup>18</sup> OXYGEN	<u>1049</u>

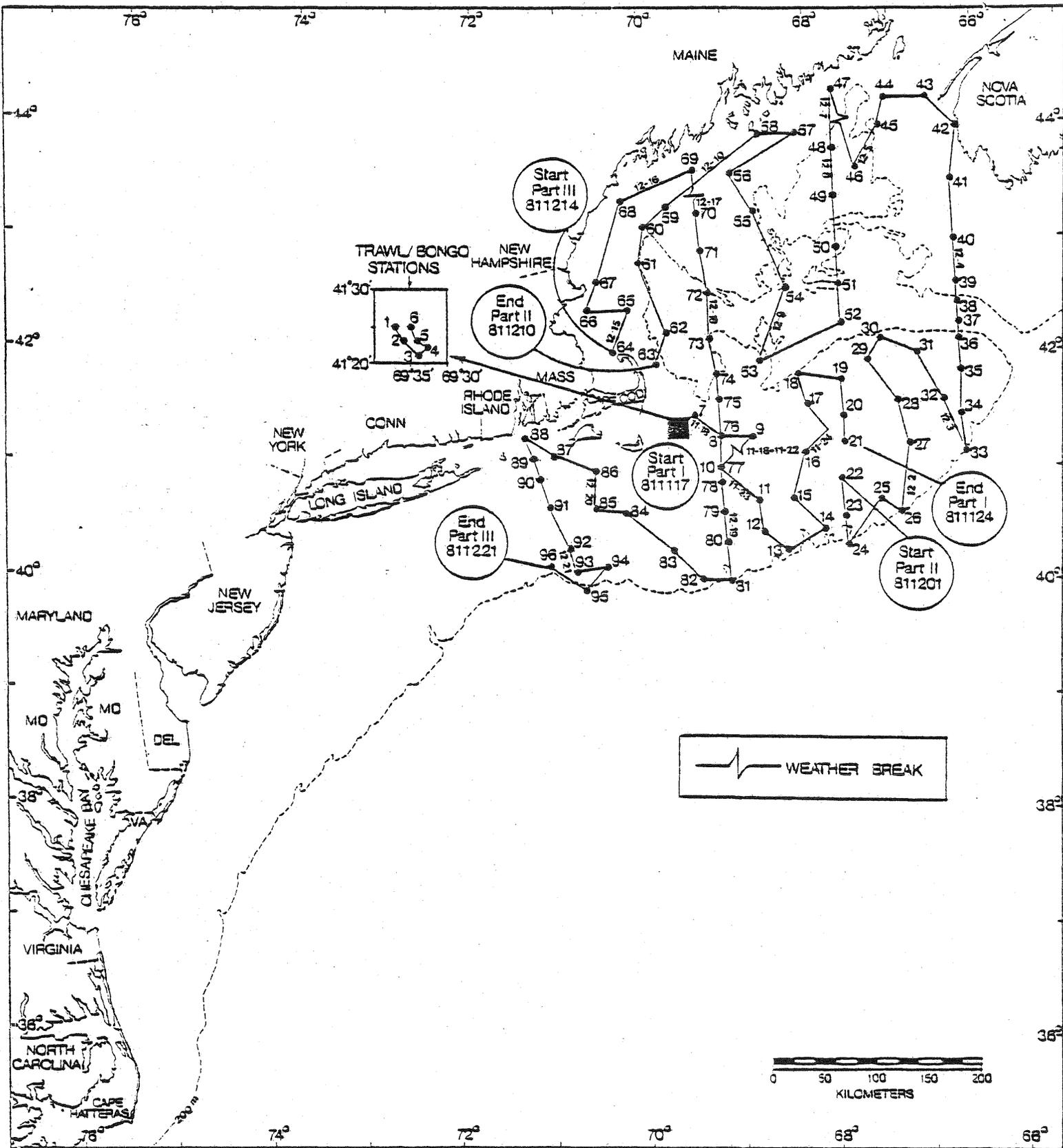


Figure 1. Station locations numbered consecutively for R/V Albatross IV Cruise 81-14 (I-III), Ichthyoplankton-Zooplankton, Oceanographic, Primary Productivity Survey, during 16 November-22 December 1981.

VESSEL DELAWARE II

CRUISE 81-01

DATES January 6-16;  
January 19-21/24-28, 1981

PART I, II

STATIONS 88

DAYS AT SEA 10; 6

Cruise Objective

The objectives of the cruise were: (1) to determine the autumn distribution and relative abundance of fish species; (2) to collect biological samples for studies of age and growth relationships, fecundity, maturity and food habits; (3) to make pathological observations; and (4) to collect hydrographic and meteorological samples and data.

Scientific Personnel

National Marine Fisheries Service, NEFC, Woods Hole, MA

Henry Jensen, Chief Scientist	Part I and II
Mark Costa	Part I
Ray Bowman	Part I
Thomas Morris	Part I and II
Andrew Thoms	Part I
Dennis Hansford	Part I and II
Eva Montiero	Part I
Elizabeth Bevacqua	Part I
Evelyn Howe	Part II
John Nicolas	Part II
William Michaels	Part II
Dave Pyoas	Part II (24-28 January only)

National Marine Fisheries Service, NEFC, Milford, CT

Andrew Hebert	Part I and II (19-21 January only)
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Colgate University, Hamilton, NY

James Leather	Part I and II
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University of New Hampshire, Durham, NH

Paul Andrews	Part II
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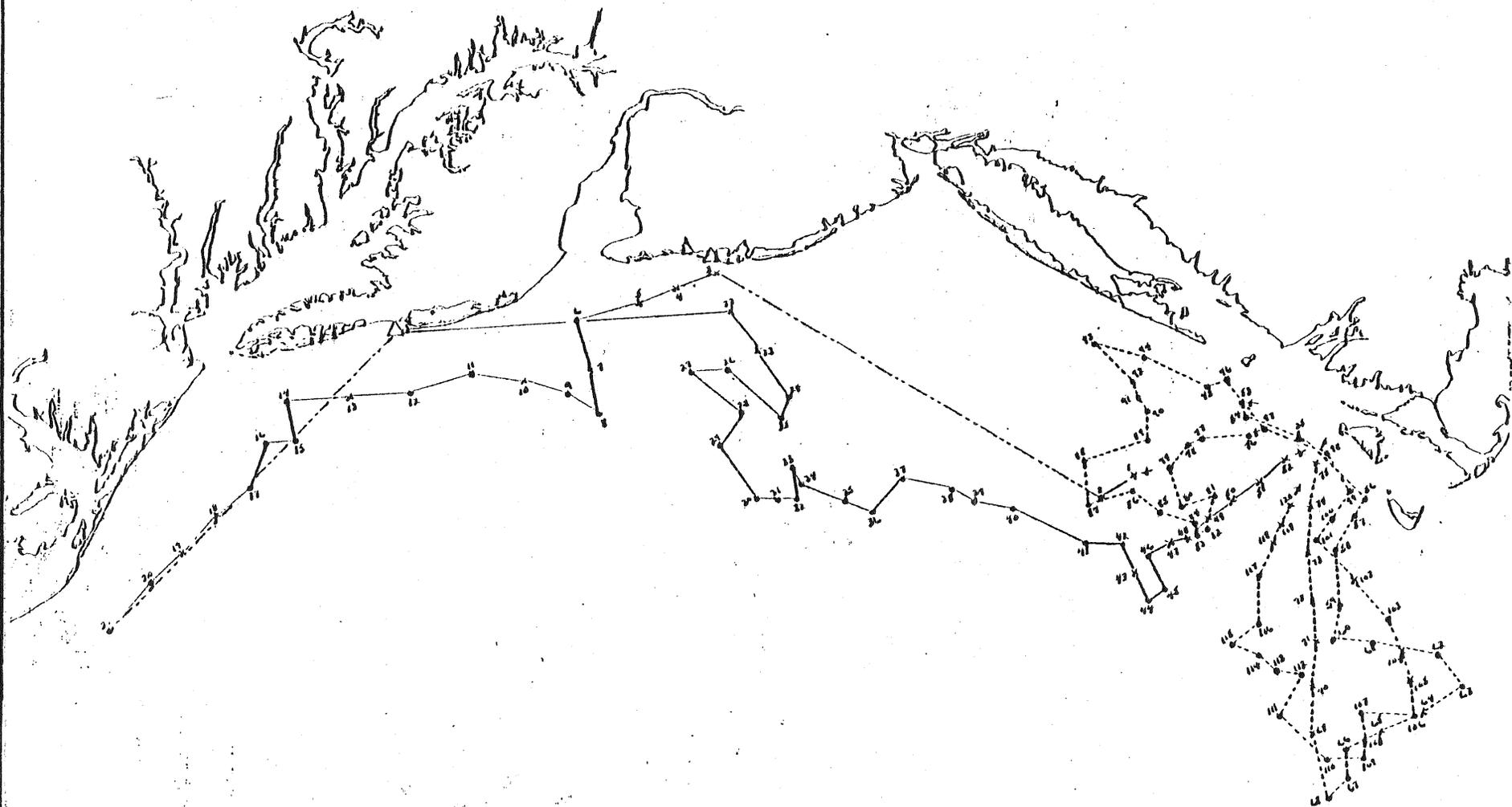
Hunter College, New York, NY

Deneene Whitehead	Part II
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Data Collected

	Total		Total
.61 cm BONGO	_____	SALINITY SAMPLES	_____
.20 cm BONGO	_____	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	<u>120</u>	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	<u>80</u>
CURRENT METERS	_____	FISH SAMPLES	<u>YES</u>

DISC



Station locations of DELAWARE II Cruise 81-01 (T-II) Winter Bottom Trawl Survey, during 6-28 January 1981.

VESSEL DELAWARE II CRUISE 81-02

DATES March 17 - April 3, 1981 PART I

DAYS AT SEA STATIONS 139

Cruise Objective

The objectives of the cruise were: (1) to determine the spring distribution and relative abundance of fish species; (2) to collect biological samples for studies of age and growth relationships, fecundity, maturity and food habits; (3) to make pathological observations; (4) to collect hydrographic and meteorological samples and data; and (5) to collect ichthyoplankton and zooplankton.

Scientific Personnel

National Marine Fisheries Service, NEFC, Woods Hole, MA

Thomas Azarovitz, Chief Scientist	Marcella Greene
Donald Flescher	William Michaels
Linda Despres-Patanjo	John Antonellis
Elizabeth Bevacqua	Melinda Grace

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

John Sibunka

Virginia Institute of Marine Science, Gloucester Point, Virginia

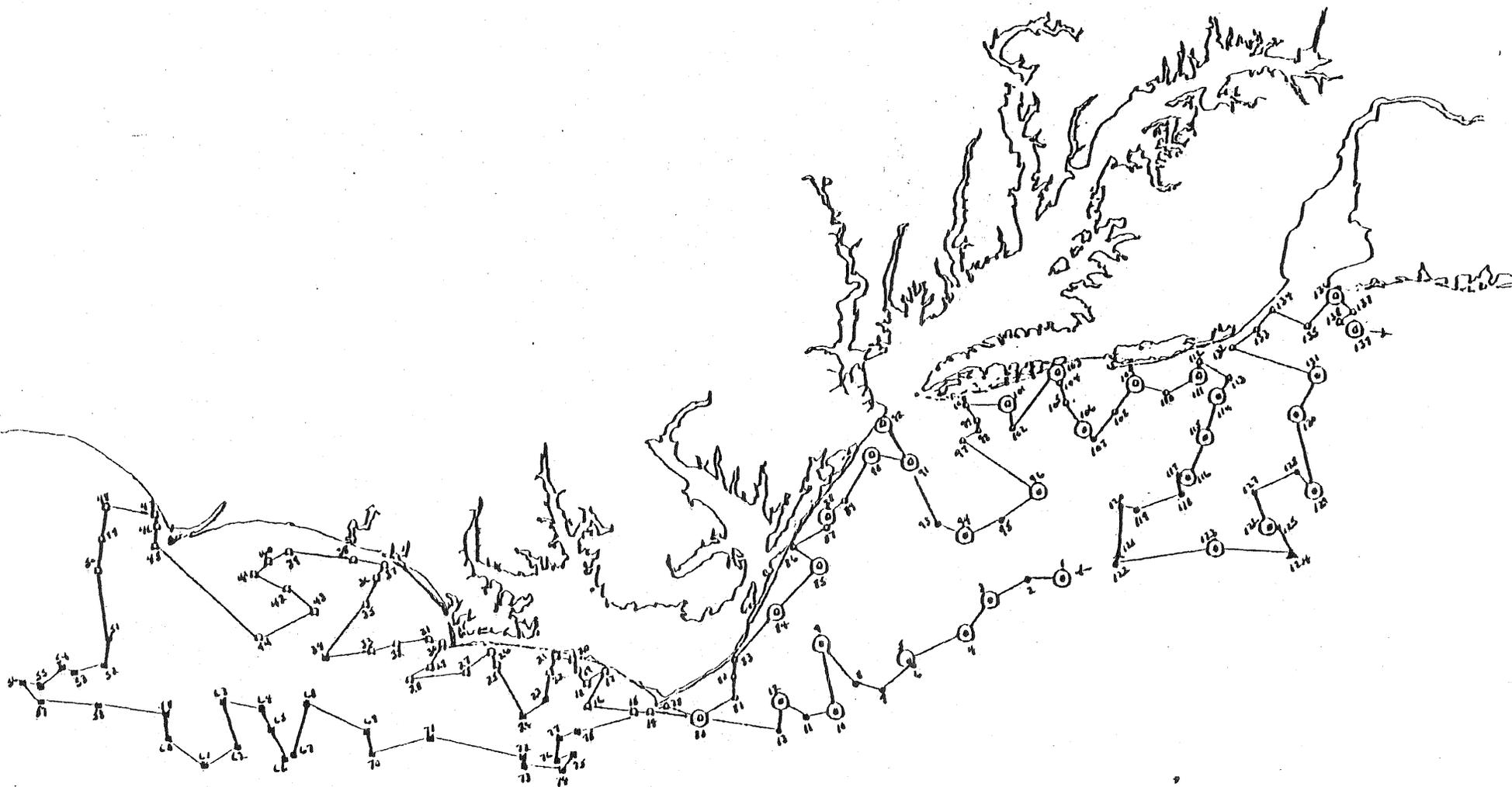
Eugene Burreson (17-28 March)  
Joseph Sypek (28 March-3 April)

Data Collected

	Total		Total
.61 cm BONGO	31	SALINITY SAMPLES*	139
.20 cm BONGO	31	OXYGEN SAMPLES	_____
.61 cm NEUSTON	31	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	31	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	139	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	139
CURRENT METERS	_____	FISH SAMPLES	YES

\*Surface samples only 139

- = offshore south of Cape Hatteras
- ◻ = inshore south of Cape Hatteras
- = offshore north of Cape Hatteras
- ◉ = inshore north of Cape Hatteras
- = plankton stations
- ▲ = tearups



Station locations for DELAWARE II Cruise B1-02 (I) Spring Bottom Trawl Survey, during 17 March-3 April 1981.

VESSEL DELAWARE II

CRUISE 81-02

DATES April 6-17, 1981

PART II

DAYS AT SEA 11

STATIONS 97

Cruise Objective

The objectives of the cruise were: (1) to determine the spring distribution and relative abundance of fish species; (2) to collect biological samples for studies of age and growth relationships, fecundity, maturity and food habits; (3) to make pathological observations; (4) to collect hydrographic and meteorological samples and data; and (5) to collect ichthyoplankton and zooplankton.

Scientific Personnel

National Marine Fisheries Service, NEFC, Woods Hole, MA

Henry Jensen, Chief Scientist  
Harold Foster  
Maurice Crawford  
Eva Montiero

Dennis Hansford  
John Antonellis  
Barbara Gustafson

National Marine Fisheries Service, NEFC, Milford, CT

James Hughes

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Alice Wells

Virginia Institute of Marine Science, Gloucester Point, VA

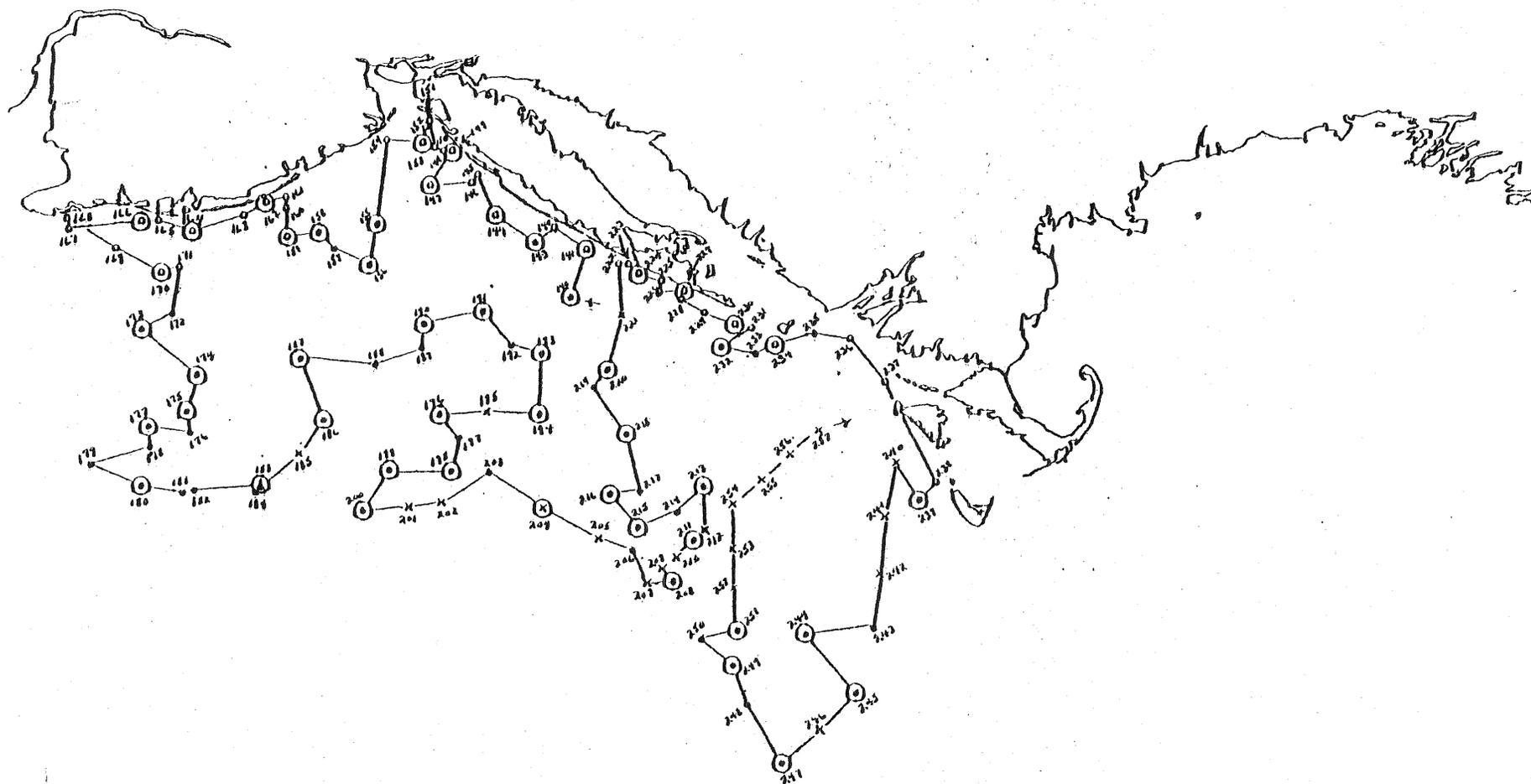
Marta Nammack

Data Collected

	Total		Total
.61 cm BONGO	50	SALINITY SAMPLES*	118
.20 cm BONGO	50	OXYGEN SAMPLES	_____
.61 cm NEUSTON	50	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	50	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	118	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	97
CURRENT METERS	_____	FISH SAMPLES	YES

\*Surface only.

- = offshore
- = inshore
- = plankton stations
- x = XBT's other than on station
- ▲ = tearups



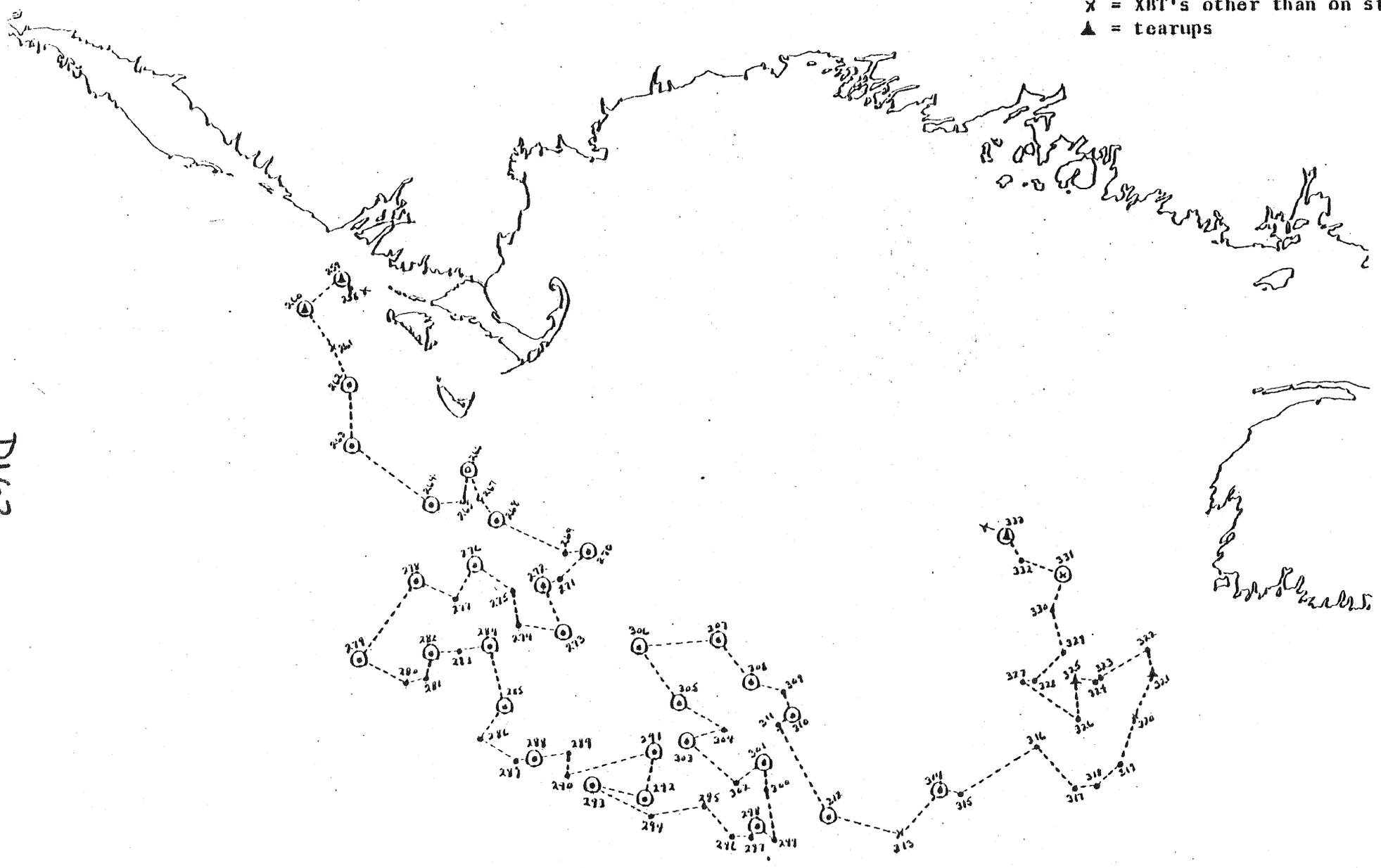
Station locations and cruise track for DELAWARE II Cruise 81-02 (II) Spring Bottom Trawl Survey, during 6-17 April, 1981.

D160



- = offshore
- = inshore
- = plankton stations
- x = XBT's other than on station
- ▲ = tearups

D162



Station locations and cruise track for DELAWARE II Cruise 81-02 (III) Spring Bottom Trawl Survey, during 20-29 April 1981.

VESSEL DELAWARE II

CRUISE 81-02

DATES May 5-14, 1981

PART IV

DAYS AT SEA 9

STATIONS 65

Cruise Objective

The objectives of the cruise were: (1) to determine the spring distribution and relative abundance of fish species, (2) to collect biological samples for studies of age and growth relationships, fecundity, maturity and food habits, (3) to make pathological observations on various species of fish, (4) to collect hydrographic and meteorological samples and data, and (5) to collect samples of ichthyoplankton and zooplankton.

Scientific Personnel

National Marine Fisheries Service, NEFC, Woods Hole, MA

Henry Jensen, Chief Scientist  
Charles Byrne  
Harold Foster  
Ralph Mayo  
Gordon Waring  
Sherry Sass  
Elizabeth Bevacqua

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Alice Wells  
Donald McMillan  
Marcia Butler

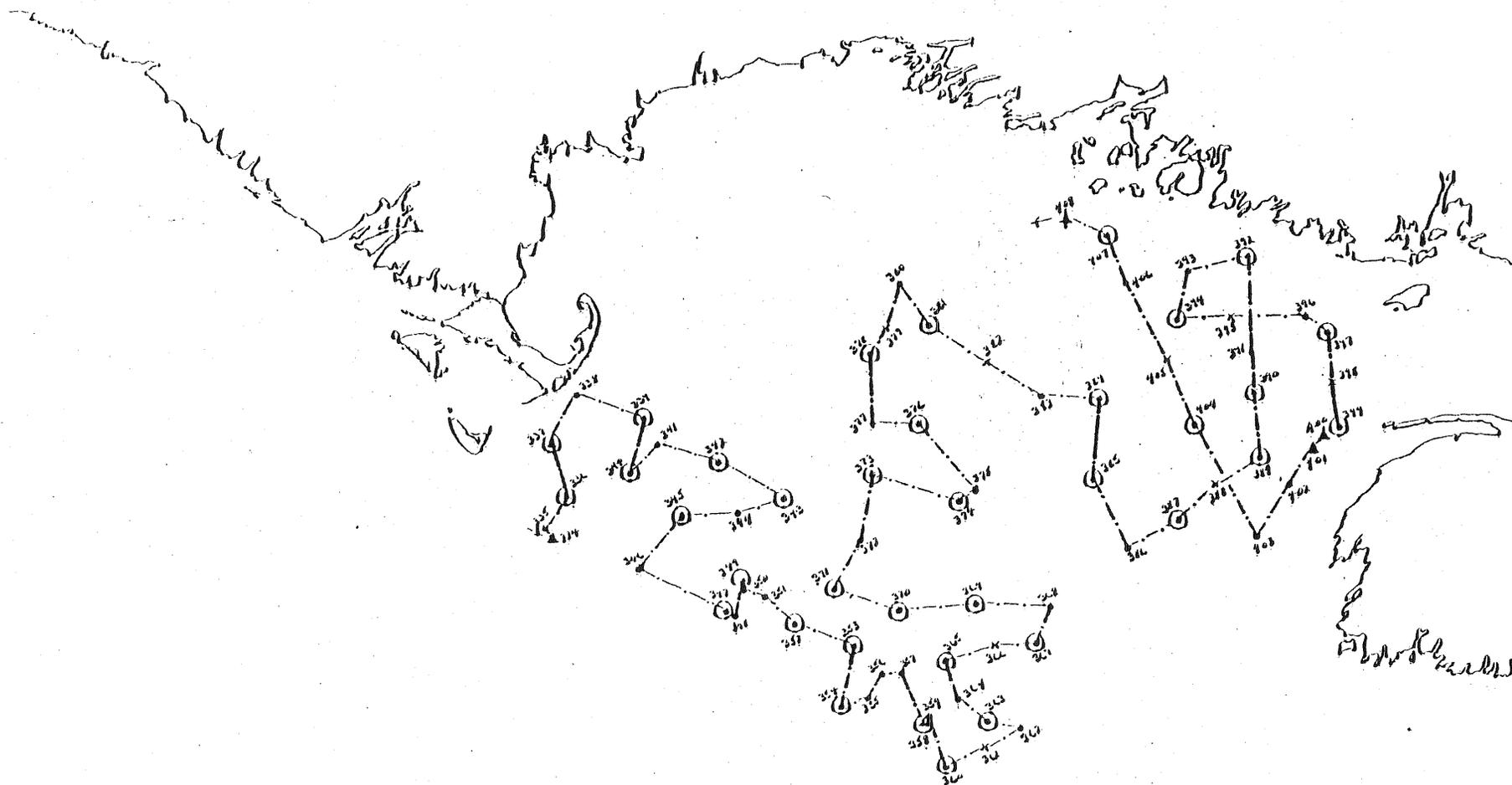
Data Collected

	Total		Total
.61 cm BONGO	36	SALINITY SAMPLES*	75
.20 cm BONGO	36	OXYGEN SAMPLES	_____
.61 cm NEUSTON	36	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	36	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	75	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	65
CURRENT METERS	_____	FISH SAMPLES	YES

\*Surface only

- = regular survey stations
- = plankton stations
- x = XBT other than on station

Trawl



Station locations for DELAWARE II Cruise 81-02 (IV) Spring Bottom Trawl Survey, during 5-14 May 1981.

VESSEL DELAWARE II

CRUISE 81-03

DATES May 20-29; June 2-18, 1981

PARTS I, II

DAYS AT SEA 10; 17

STATIONS - MARMAP: 43; 104  
GROUND FISH: 35; 0

CRUISE OBJECTIVE

This cruise is one of a series of surveys conducted annually to monitor seasonal changes in distribution and abundance of fish eggs and larvae, zooplankton and phytoplankton, and to collect oceanographic and primary productivity data. In addition, the spring bottom trawl survey (R/V DELAWARE II Cruise No. 81-02, I-IV), was continued in order to determine the distribution and relative abundance of fish species; to collect biological samples for studies of age and growth relationships, fecundity, maturity and food habits; and to make pathological observations on various species of fish. Marine birds were also collected for food habits analysis and morphological and physiological studies.

SCIENTIFIC PERSONNEL

Part I: 20-29 May 1981

Part II: 2-18 June 1981

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

John Sibunka, Chief Scientist	Part I, II
Kathleen Workman	Part I
Robert Fitzgerald	Part I, II
James Duggan	Part II
James Nickels	Part II
Thomas Kienzle	Part II
Ralph Bruno*	Part II

\*Ralph Bruno was replaced by William Carillo on 10 June

National Marine Fisheries Service, NEFC, Woods Hole, MA

John Antonellis	Part I, II
Robert Beckman	Part I, II
Thomas Laughton	Part I
Linda Despres-Patanjo	Part I
Joan Palmer	Part I
Ruth Gutjahr	Part I
Malcolm Silverman	Part I
Daniel Patanjo	Part II

Manomet Bird Observatory, Manomet, MA

Edward Backus	Part II
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Darien High School, Darien, CT

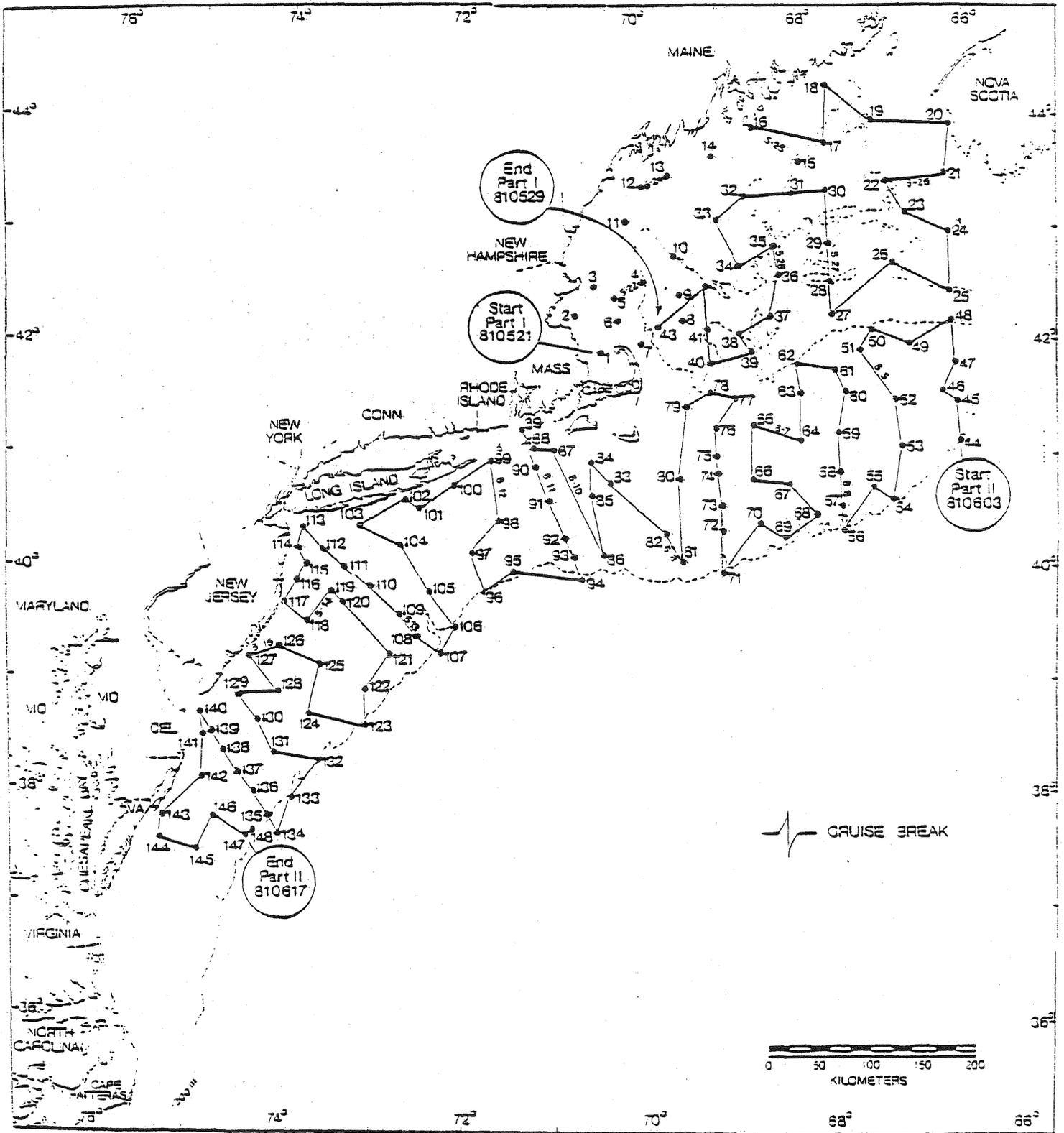
William Carillo\*\*

Part II

\*\*Departed vessel on 10 June

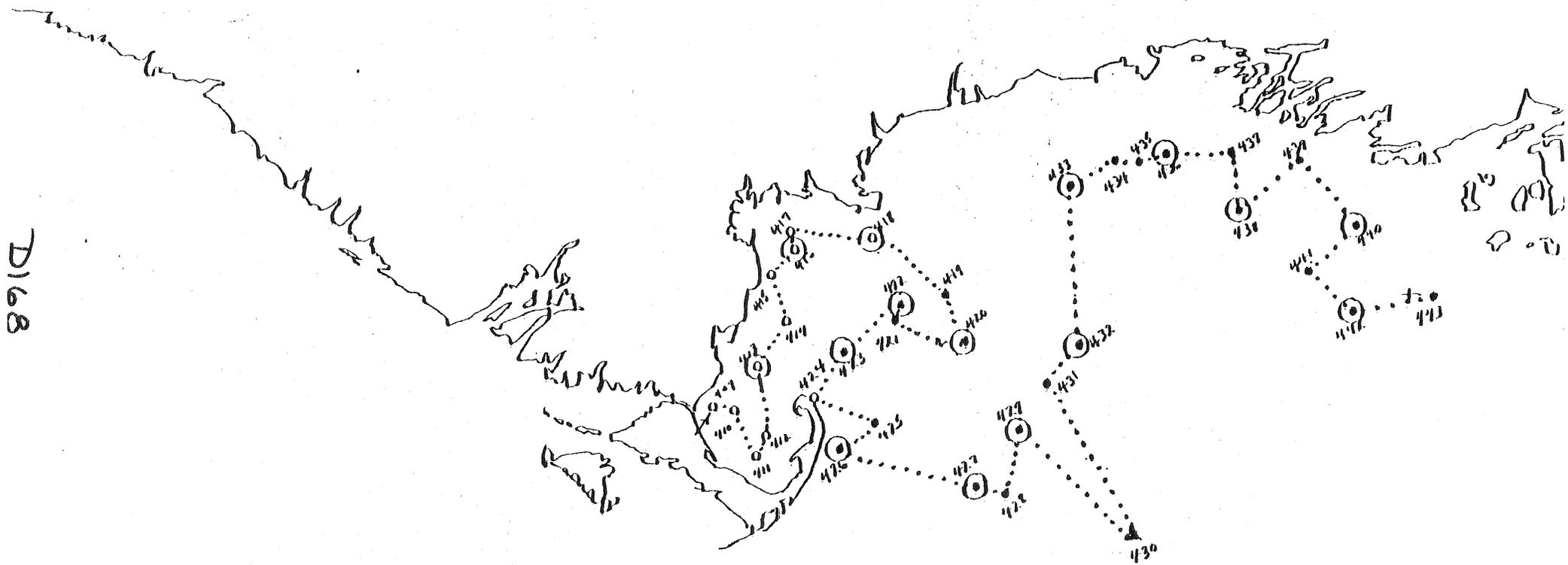
DATA COLLECTED

	<u>I PT</u>	<u>II PT</u>	<u>TOTAL</u>		<u>I PT</u>	<u>II PT</u>	<u>TOTAL</u>
.61 cm BONGO	43	102	145	SALINITY SAMPLES	552	1051	1603
.20 cm BONGO	0	45	45	OXYGEN SAMPLES	0	433	433
.61 cm NEUSTON	43	102	145	NUTRIENT SAMPLES	0	407	407
.20 cm NEUSTON				CHLOROPHYLL SAMPLES	456	985	1441
HAEDRICH	0	31		PRIMARY PRODUCTIVITY	-	25	25
XBT	35	22	57	DROGUES			
BOTTLE CAST	43	104	147	SECCHI DISC	25	58	83
CTD CAST				TRAWLS			
CURRENT METERS				FISH SAMPLES			



Station locations numbered consecutively for R/V DELAWARE II Cruise 81-03 (I-II), Ichthyoplankton-Zooplankton, Oceanographic, Primary Productivity and Spring Bottom Trawl Survey, during 20 May-18 June 1981. Consecutive station numbers 1-15 were done in conjunction with the Spring 1981 Trawl Survey

D168



Station locations of plankton and bottom trawl tows done on R/V DELAWARE II Cruise 81-03 (I) Ichthyoplankton-Zooplankton, Oceanographic, Primary Productivity and Spring Bottom Trawl Survey, during 20-24 May 1981. • = bottom trawl offshore stations; ○ = bottom trawl inshore stations; ○ = plankton stations; ▲ = tearup of bottom trawl.

VESSEL DELAWARE II CRUISE 81-04  
 DATES June 27-July 2; July 7-24, 1981 PART I, II  
 DAYS AT SEA 5; 17 STATIONS 49; 122

CRUISE OBJECTIVE

The objectives of the cruise were: (1) to determine the summer distribution and relative abundance of fish species; (2) to collect biological samples for studies of age and growth relationships, fecundity, maturity and food habits; (3) to make pathological observations on various species of fish; (4) to collect hydrographic and meteorological samples and data; (5) to collect samples of ichthyoplankton and zooplankton; and (6) to collect data and samples from a shrimp diel availability study.

SCIENTIFIC PERSONNEL

Part I: 27 June-2 July 1981 Part I Part IIa Part IIb

National Marine Fisheries Service, NEFC,  
Sandy Hook, NJ

Darryl Christensen, Chief Scientist	X		
Donald McMillan	X		
Doris Finan	X		
Antonia Morris	X		

National Marine Fisheries Service, NEFC,  
Woods Hole, MA

Frank Almeida	X		
Michael Fogarty	X		
William Michaels	X		
Loretta O'Brien	X		
James Fletcher	X		

National Marine Fisheries Service, NEFC,  
Gloucester, MA

Patricia Kirkul	X		
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Part IIa: 7-17 July and Part IIb: 18-24 July 1981.

National Marine Fisheries Service, NEFC  
Woods Hole, MA

Malcolm Silverman, Chief Scientist		X	X
Thurston Burns		X	X
Harold Foster		X	X
Elizabeth Bevacqua		X	X
Detra Green		X	
Susan Wigley			X
Amy Tuttle			X
Melinda Davis			X
Carl Harrison			X

National Marine Fisheries Service, NEFC,  
Sandy Hook, NJ

Myron Silverman  
Thomas McKenny

X  
X

National Marine Fisheries Service, NEFC,  
Gloucester, MA

Bruce Higgins

X                      X

Manomet Bird Observatory, Manomet, MA

Craig McLean

X                      X

Hampton Institute, Hampton, VA

Gregory Brown

X

DATA COLLECTED

	<u>I</u>	<u>PT</u>	<u>II</u>	<u>PT</u>	<u>Total</u>		<u>I</u>	<u>PT</u>	<u>II</u>	<u>PT</u>	<u>Total</u>
.61 cm BONGO	19		59		78	SALINITY SAMPLES	49		118		167
.20 cm BONGO						OXYGEN SAMPLES					
.61 cm NEUSTON						NUTRIENT SAMPLES					
.20 cm NEUSTON						CHLOROPHYLL SAMPLES					
HAEDRICH						PRIMARY PRODUCTIVITY					
XBT	49		118		167	DROGUES					
BOTTLE CAST						SECCHI DISC					
CTD CAST						TRAWLS	49		122		171
CURRENT METERS						FISH SAMPLES	YES		YES		
						SPECIES SHRIMP					
						STATIONS			11		11

National Marine Fisheries Service, NEFC,  
Sandy Hook, NJ

Myron Silverman  
Thomas McKenny

X  
X

National Marine Fisheries Service, NEFC,  
Gloucester, MA

Bruce Higgins

X                      X

Manomet Bird Observatory, Manomet, MA

Craig McLean

X                      X

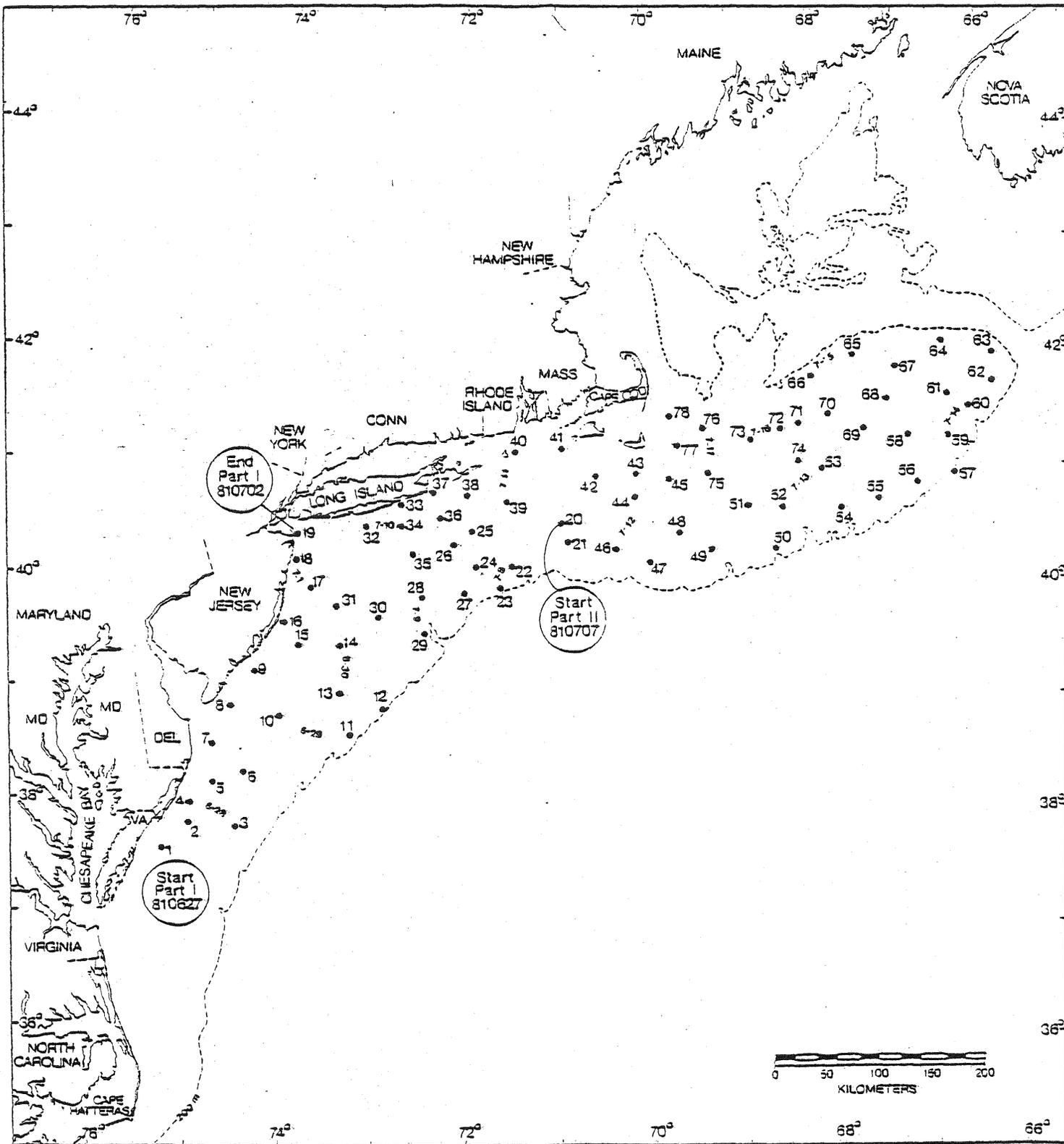
Hampton Institute, Hampton, VA

Gregory Brown

X

DATA COLLECTED

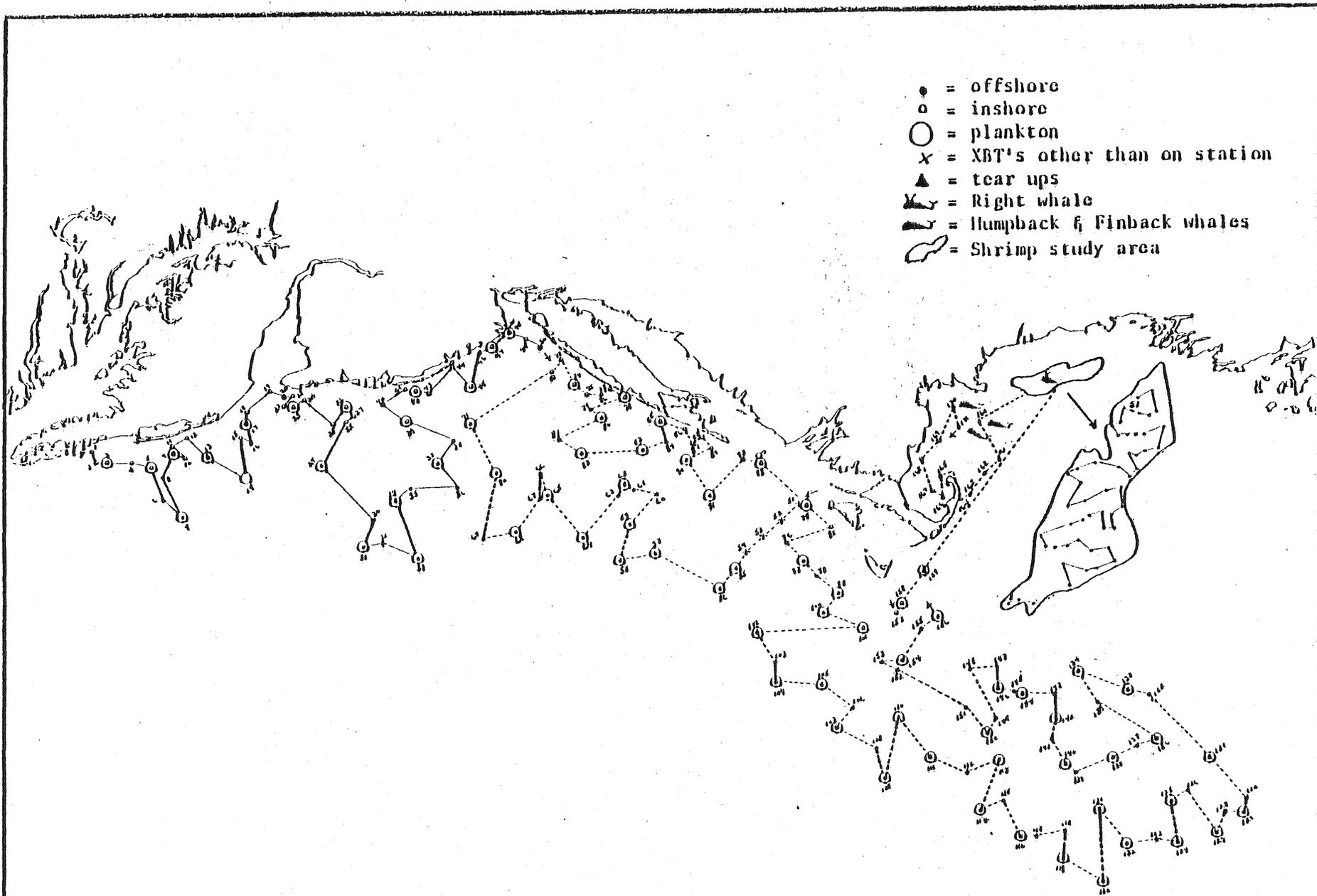
	<u>I PT</u>	<u>II PT</u>	<u>Total</u>		<u>I PT</u>	<u>II PT</u>	<u>Total</u>
.61 cm BONGO	19	59	78	SALINITY SAMPLES	49	118	167
.20 cm BONGO				OXYGEN SAMPLES			
.61 cm NEUSTON				NUTRIENT SAMPLES			
.20 cm NEUSTON				CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT	49	118	167	DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS	49	122	171
CURRENT METERS				FISH SAMPLES	YES	YES	
				SPECIES SHRIMP			
				STATIONS		11	11



Ichthyoplankton-Zooplankton station locations numbered consecutively for DELAWARE II Cruise 81-04 (I-II), Summer Bottom Trawl Survey, during 27 June-24 July 1981.

D171

D172



Station information for DELAWARE II Cruise 81-04 (I-II), Summer Bottom Trawl Survey and Shrimp Survey Area (Insert) during 27 June-24 July 1981.

VESSEL DELAWARE II

CRUISE 81-05

DATES AUG. 3-21; Aug. 24-Sept. 11

PART I, II

DAYS AT SEA

STATIONS 324, 194

CRUISE OBJECTIVE

The objectives of the cruise were to: (1) investigate the distribution and relative abundance of the surf clam (Spisula solidissima), ocean quahog (Arctica islandica), and other mollusks; (2) collect biological samples and data relative to assessment needs; (3) make collections for interested scientists from other institutions and NMFS laboratories; and (4) monitor meteorological and hydrographical conditions during the survey.

SCIENTIFIC PERSONNEL

Part I: 3-21 August 1981

National Marine Fisheries Service, NEFC, Woods Hole, MA

Charles Byrne, Chief Scientist  
Andrew Thoms  
Roger Clifford  
David Pyoas  
Jeffrey Knox  
Uvetta Dozier  
Patricia Chew

National Marine Fisheries Service, NEFC, Narragansett, RI

\*Joseph Kane  
\*Bruce Burns  
\*\*Jacquelyn Frizella  
\*\*Carolyn Griswold

Hampton Institute, Hampton, VA

Gerald Bond

\*Departed vessel at Norfolk, VA on 13 August 1981  
\*\*Boarded vessel at Norfolk, VA on 14 August 1981

Part II: 24 August-11 September 1981

National Marine Fisheries Service, NEFC, Woods Hole, MA

Thomas Azarovitz, Chief Scientist  
Charles Byrne  
Andrew Thoms  
Roger Clifford  
James Crossen  
John Ropes

Fisheries and Oceans Canada, Halifax, Nova Scotia, Canada

- \*Terrance Rowell, Canadian Chief of Party
- \*Jamie Young
- \*Thomas MacLean
- \*David Chaison

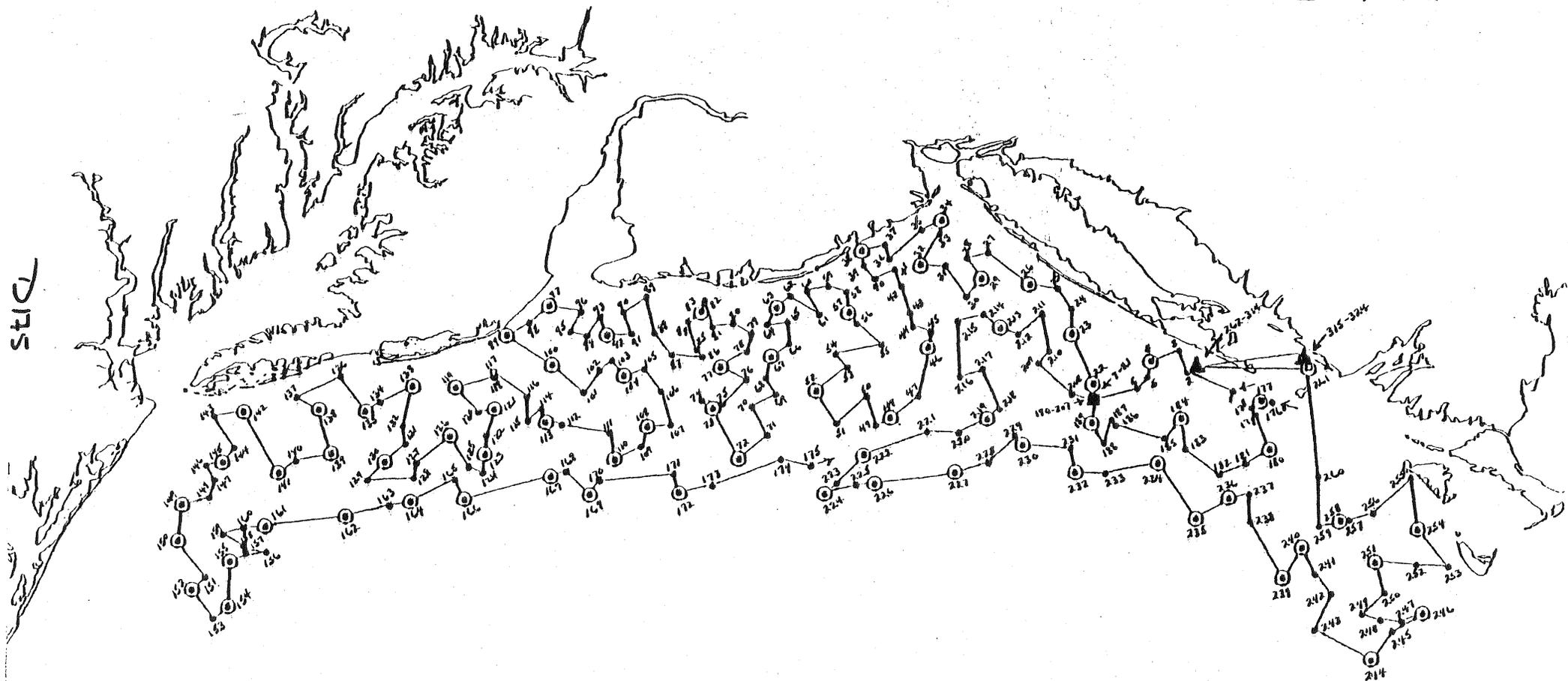
\*Departed vessel at Halifax, Nova Scotia on 4 September 1981

DATA COLLECTED

			<u>TOTAL</u>				<u>TOTAL</u>
.61 cm BONGO	74		74	SALINITY SAMPLES			
.20 cm BONGO	74		74	OXYGEN SAMPLES			
.61 cm NEUSTON				NUTRIENT SAMPLES			
.20 cm NEUSTON				CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT	74	15	89	DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS	324	194	518
CURRENT METERS				FISH SAMPLES	YES	YES	

Part I - 3-21 Aug

- = plankton
- = marked area
- ◻ = non-survey
- ▲ = exploratory area



Station locations and cruise track for R/V DELAWARE II Cruise 81-05 (I-II) Shellfish Resource Assessment Survey, during 3 August-11 September 1981.

VESSEL Delaware II CRUISE 81-06  
 DATES September 15 - October 2, 1981 PART I  
 DAYS AT SEA 17 STATIONS 168

Cruise Objective

The objectives of the cruise were: (1) to determine the autumn distribution of fish species; (2) to collect biological samples for studies of age and growth relationships, fecundity, maturity and food habits; (3) to make pathological observations; (4) to collect hydrographic and meteorological samples and data; and (5) to collect ichthyoplankton and zooplankton.

Scientific Personnel

National Marine Fisheries Service, NEFC, Woods Hole, MA

Linda Despres-Patanjo, Chief Scientist  
 Donald Flescher  
 Ray Bowman  
 Dennis Hansford  
 James Fletcher  
 John Antonellis 2/

National Marine Fisheries Service, NEFC, Narragansett, RI

Carolyn Griswold

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

John Sibunka 1/  
 Doris Finan 1/

Hunter College, New York, NY

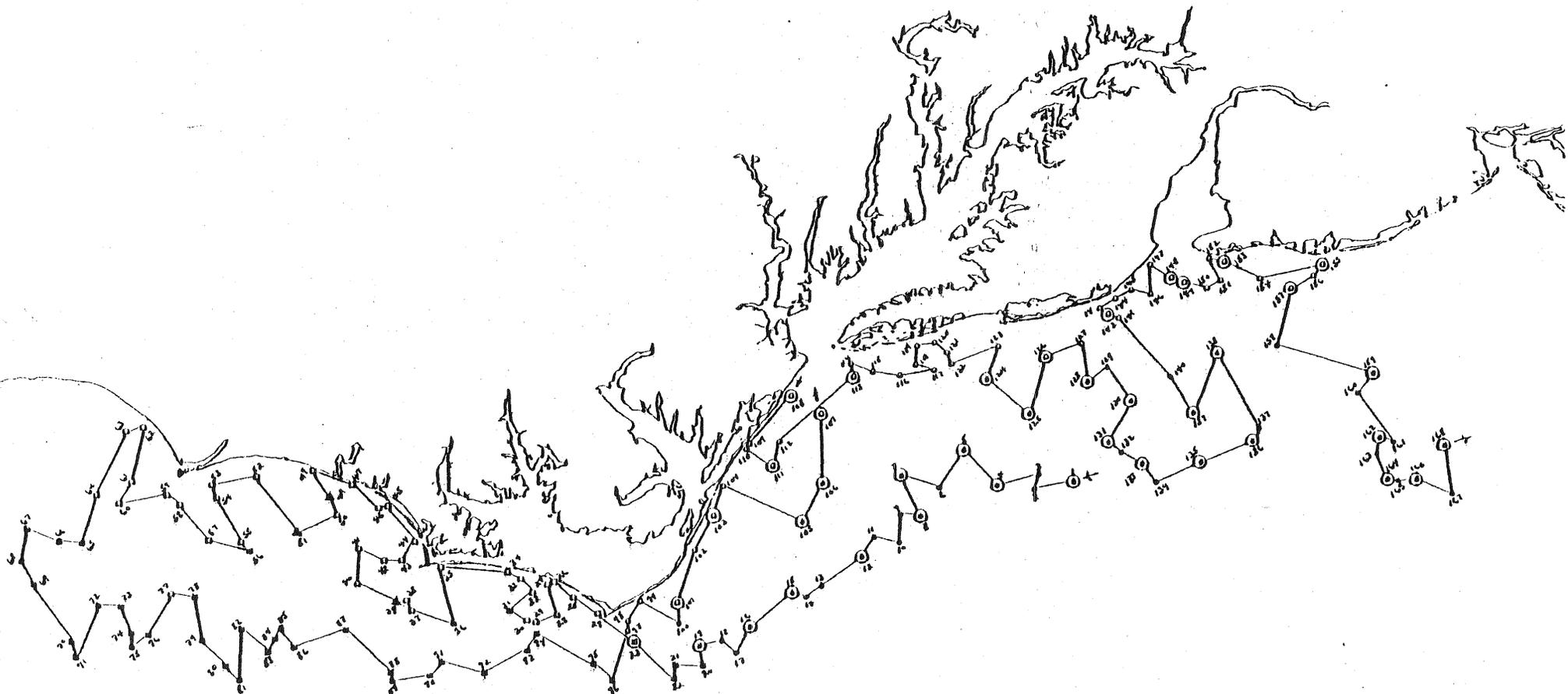
Deneene Whitehead

Data Collected

.61 cm BONGO	<u>42</u>	SALINITY SAMPLES	<u>168*</u>
.20 cm BONGO	<u>42</u>	OXYGEN SAMPLES	<u>      </u>
.61 cm NEUSTON	<u>      </u>	NUTRIENT SAMPLES	<u>      </u>
.20 cm NEUSTON	<u>      </u>	CHLOROPHYLL SAMPLES	<u>      </u>
HAEDRICH	<u>      </u>	PRIMARY PRODUCTIVITY	<u>      </u>
XBT	<u>168</u>	DROGUES	<u>      </u>
BOTTLE CAST	<u>      </u>	SECCHI DISC	<u>      </u>
CTD CAST	<u>      </u>	TRAWLS	<u>168</u>
CURRENT METERS	<u>      </u>	FISH SAMPLES	<u>YES</u>

\* Surface Only

- = offshore north of Cape Hatteras
- = inshore north of Cape Hatteras
- = offshore south of Cape Hatteras
- = inshore south of Cape Hatteras
- = plankton
- ▲ = tearups



Station information for DELAWARE II Cruise 81-06 (I), Autumn Bottom Trawl Survey, during 15 September-2 October 1981.

VESSEL DELAWARE II

CRUISE 81-06

DATES OCT 5-16

PART II

DAYS AT SEA 11

STATIONS 102

CRUISE OBJECTIVE

The objectives of the cruise were: (1) to determine the fall distribution and relative abundance of fish species; (2) to collect biological samples for studies of age and growth relationships, fecundity, maturity and food habits; (3) to make pathological observations on various species of fish; (4) to collect hydrographic and meteorological samples and data; and (5) to collect samples of ichthyoplankton and zooplankton.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Henry Jensen, Chief Scientist  
Gordon Waring  
Eva Montiero  
Ira Palmer

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Doris Finan  
John Ziskowski  
Donald McMillan

Manomet Bird Observatory, Manomet, MA

Michael Payne

State University of New York, Stony Brook, NY

Shawn McAfferty

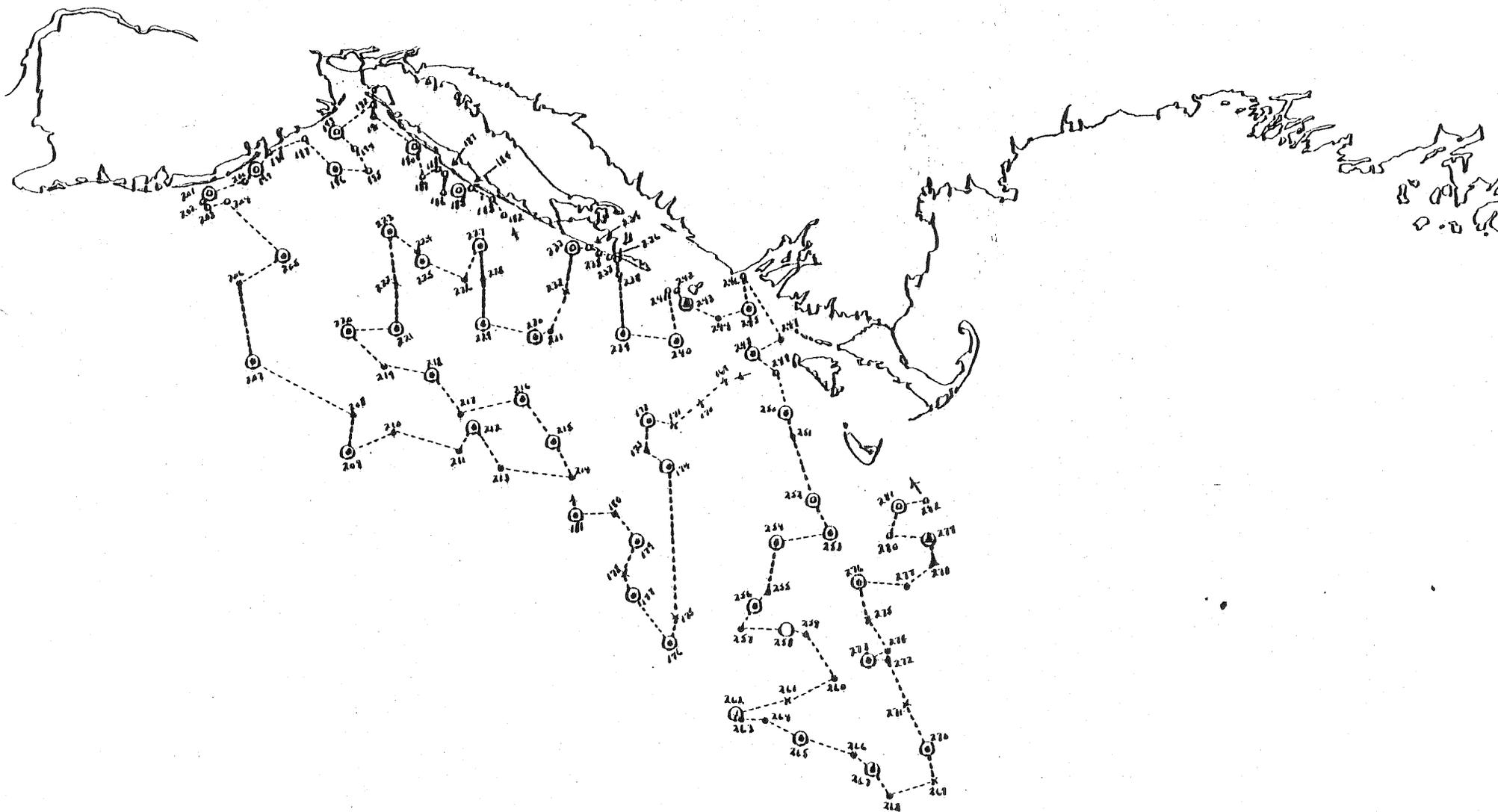
University of Massachusetts, Amherst, MA

Mark Lussier

DATA COLLECTED

	<u>TOTAL</u>		<u>TOTAL</u>
.61 cm BONGO	46	SALINITY SAMPLES	113
.20 cm BONGO	46	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	113	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	102
CURRENT METERS	_____	FISH SAMPLES	YES

- = offshore
- = inshore
- ⊙ = plankton
- ▲ = tearups
- x = XBT's other than on station



Station locations and cruise track for DELAWARE II Cruise 81-06 (II) Autumn Bottom Trawl Survey, during 5-16 October 1981.

D179

VESSEL DELAWARE II

CRUISE 81-06

DATES OCT 19-30

PART III

DAYS AT SEA 11

STATIONS 81

CRUISE OBJECTIVE

The objectives of the cruise were: (1) to determine the autumn distribution of fish species; (2) to collect biological samples for studies of age and growth relationships, fecundity, maturity, and food habits; (3) to make pathological observations; (4) to collect hydrographic and meteorological samples and data; and (5) to collect ichthyoplankton and zooplankton.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Malcolm Silverman, Chief Scientist  
Steven Murawski  
Frank Almeida  
William Michaels  
Andrew Thoms

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Myron Silverman  
John Ziskowski

National Marine Fisheries Service, NEFC, Narragansett, RI

Raymond Maurer

National Marine Fisheries Service, NEFC, Milford, CT

Andrew Hebert

Manomet Bird Observatory, Manomet, MA

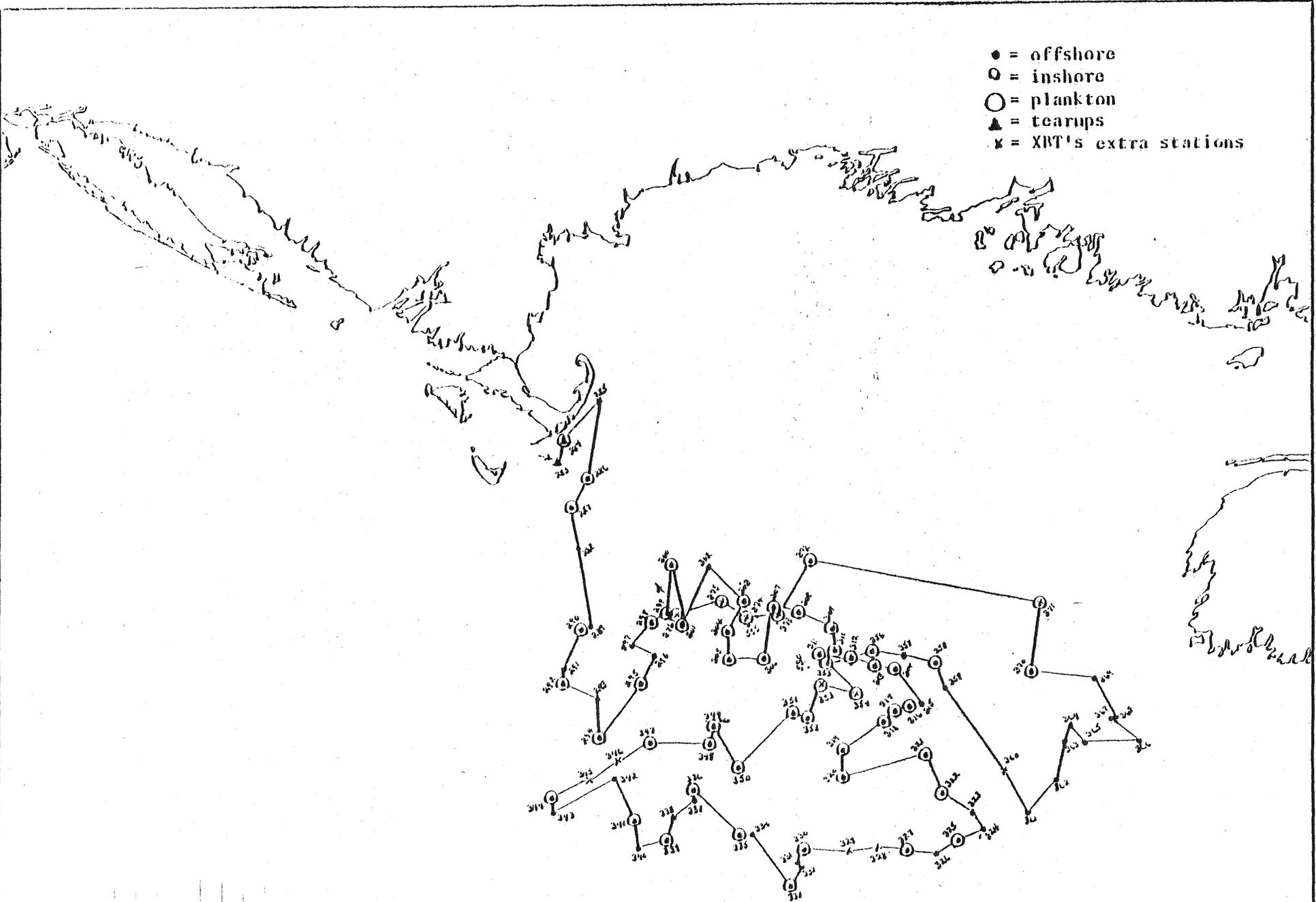
David Wiley

DATA COLLECTED

	<u>Part III</u>		<u>Part III</u>
.61 cm BONGO	<u>58</u>	SALINITY SAMPLES*	<u>94</u>
.20 cm BONGO	<u>58</u>	OXYGEN SAMPLES	<u>          </u>
.61 cm NEUSTON	<u>          </u>	NUTRIENT SAMPLES	<u>          </u>
.20 cm NEUSTON	<u>          </u>	CHLOROPHYLL SAMPLES	<u>          </u>
HAEDRICH	<u>          </u>	PRIMARY PRODUCTIVITY	<u>          </u>
XBT	<u>94</u>	DROGUES	<u>          </u>
BOTTLE CAST	<u>          </u>	SECCHI DISC	<u>          </u>
CTD CAST	<u>          </u>	TRAWLS	<u>81</u>
CURRENT METERS	<u>          </u>	FISH SAMPLES	<u>YES</u>

\*SURFACE SALINITY ONLY.

D181



Station locations and cruise track for DELAWARE II Cruise 81-06 (III) Autumn Bottom Trawl Survey, during 19-30 October 1981.

VESSEL DELAWARE II

CRUISE 81-06

DATES NOV. 2-13

PART IV

DAYS AT SEA 11

STATIONS 79

CRUISE OBJECTIVE

The original objective of the cruise was to: (1) determine the fall distribution and relative abundance of fish species; (2) collect biological samples for studies of age and growth relationships, fecundity, maturity, and food habits; (3) make pathological observations on various species of fish; (4) collect hydrographic and meteorological samples and data; and (5) collect samples of ichthyoplankton and zooplankton. An additional objective, i.e., a Fishing Power Experiment was designed to compare the fishing power of the DELAWARE II and the ALBATROSS IV during paired tows.

Scientific Personnel

National Marine Fisheries Service, NEFC, Woods Hole, MA

Henry Jensen, Chief Scientist	Margaret McBride
Harold Foster	John Ropes
Ambrose Jearld	Alfonza Thrower
Thurston Burns	Robert Rak

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

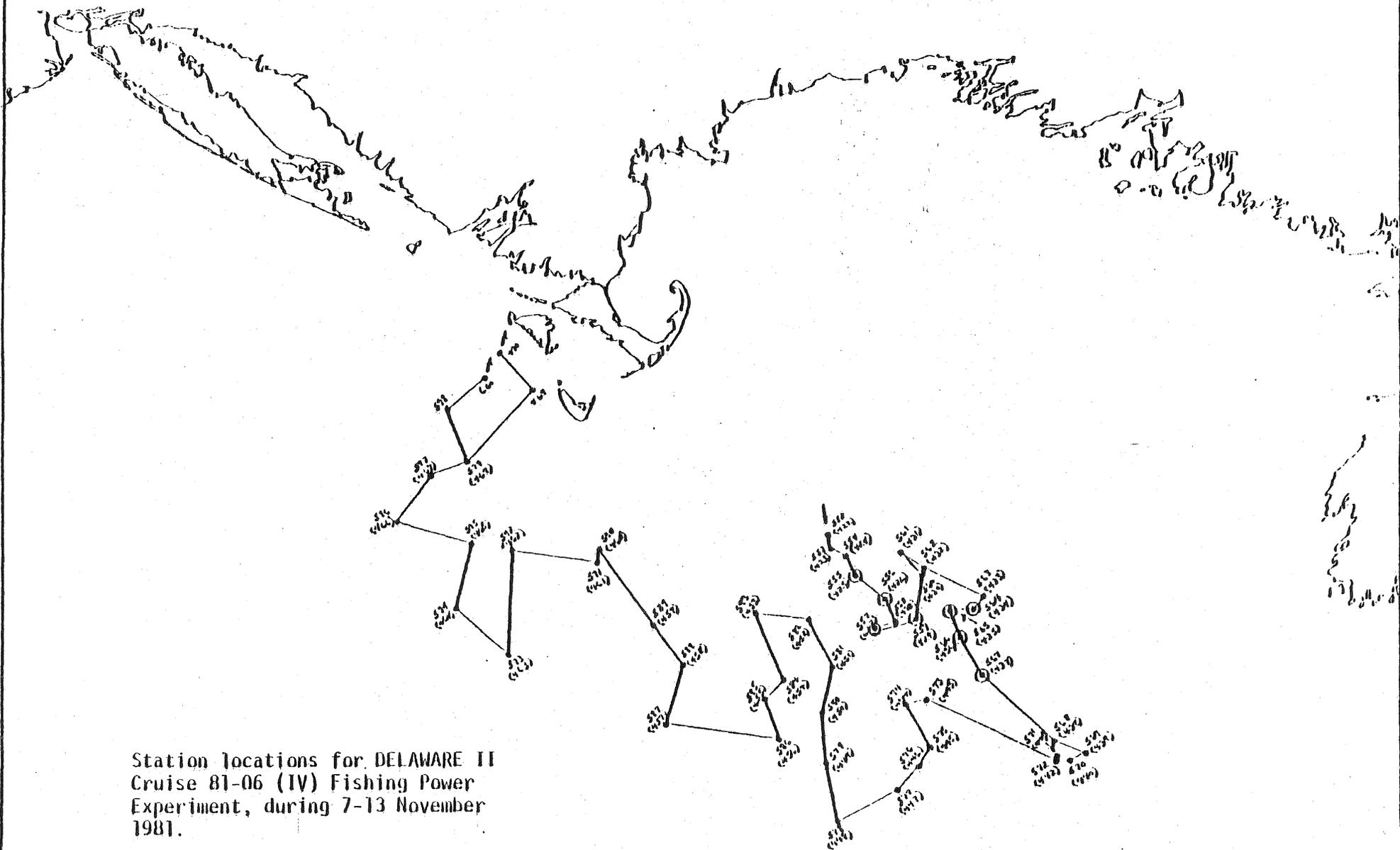
John Ziskowski  
Doris Finan

DATA COLLECTED

	<u>Total</u>		<u>Total</u>
.61 cm BONGO	<u>24</u>	SALINITY SAMPLES	<u>94 surface; 20 bottom</u>
.20 cm BONGO	<u>24</u>	OXYGEN SAMPLES	<u>          </u>
.61 cm NEUSTON	<u>          </u>	NUTRIENT SAMPLES	<u>          </u>
.20 cm NEUSTON	<u>          </u>	CHLOROPHYLL SAMPLES	<u>          </u>
HAEDRICH	<u>          </u>	PRIMARY PRODUCTIVITY	<u>          </u>
XBT	<u>94</u>	DROGUES	<u>          </u>
BOTTLE CAST	<u>          </u>	SECCHI DISC	<u>          </u>
CTD CAST	<u>          </u>	TRAWLS	<u>79</u>
CURRENT METERS	<u>          </u>	FISH SAMPLES	<u>YES</u>

1981 Fall Gear Comparison  
Delaware II 81-06 ( )  
Albatross IV 81-13

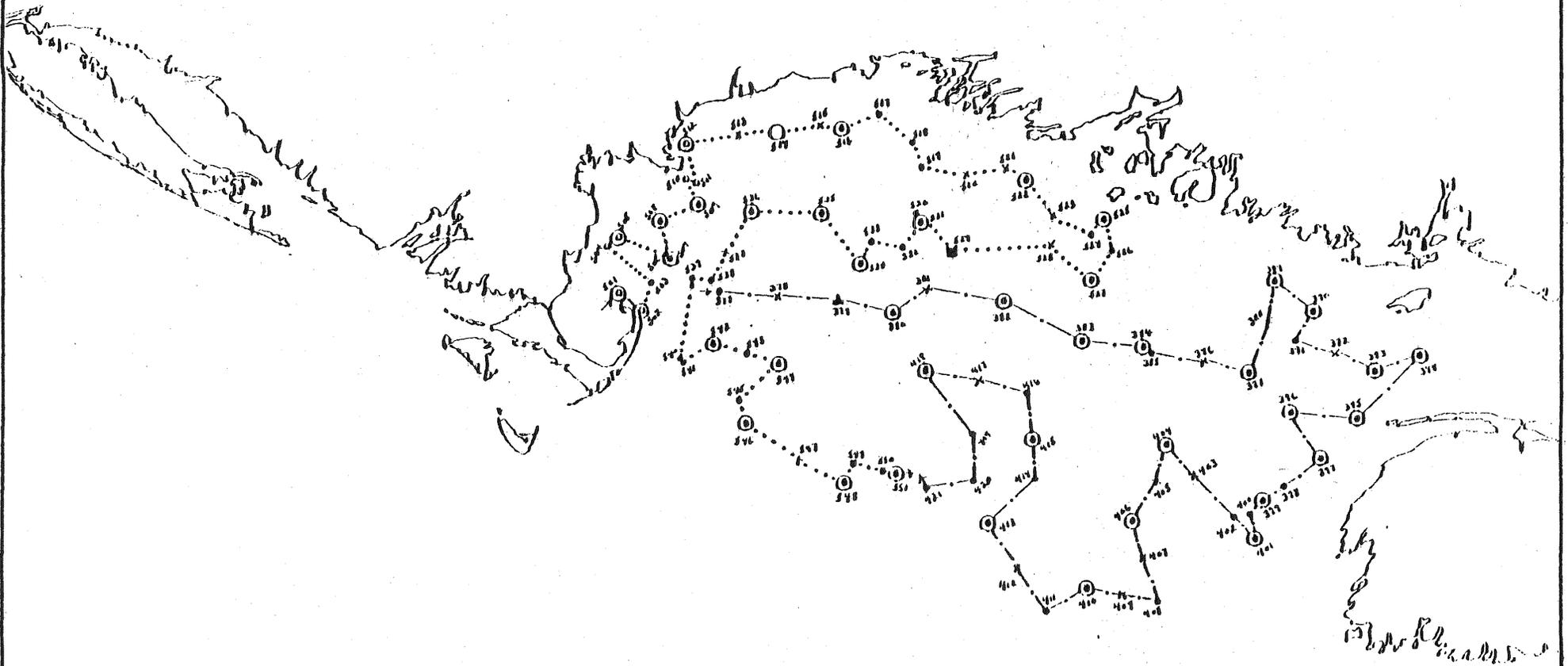
O = plankton



Station locations for DELAWARE II  
Cruise 81-06 (IV) Fishing Power  
Experiment, during 7-13 November  
1981.

D183

- — — = DE II 81-06
- ..... = AL IV 81-13
- = offshore
- = inshore
- = plankton
- x = XBT's other than on station
- ▲ = tearups
- = non-survey station



Station locations for DELAWARE II Cruise 81-06(IV) Autumn Bottom Trawl Survey, during 2-6 November 1981.

DIRA

VESSEL DELAWARE II

CRUISE 81-07

DATES NOV. 16-25

DAYS AT SEA 9

STATIONS 46

CRUISE OBJECTIVE

The survey is part of a continuing series that makes collections and measurements relative to assessing the health of the ocean's biota, especially fishery resources. Specific objectives were: 1) to collect select indicator species for examinations of certain biochemical, physiological, pathological and chemical contamination variables that are related to the organisms' health; 2) to collect water samples from a wide range of locations for the presence of certain types of bacteria (coliforms and Clostridium sp.); and 3) to collect benthic samples for pathology monitoring, sediment analysis (physical and chemical), and the presence of specific bacteria.

Scientific Personnel

National Ocean Survey, Oceans and Atmospheres, NEFC, Sandy Hook, NJ

Denise Hollomon, Chief Scientist

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Frank Steimle

Anthony Ruiz

National Marine Fisheries Service, NEFC, Milford, CT

Jose Pereira

Todd Welch

Patricia Boyd

University of Rhode Island, Kingston, RI

Garry Gulka

United States Public Health Service, Food and Drug Administration,  
Davisville, RI

Newton Adams

Environmental Protection Agency, Narragansett, RI

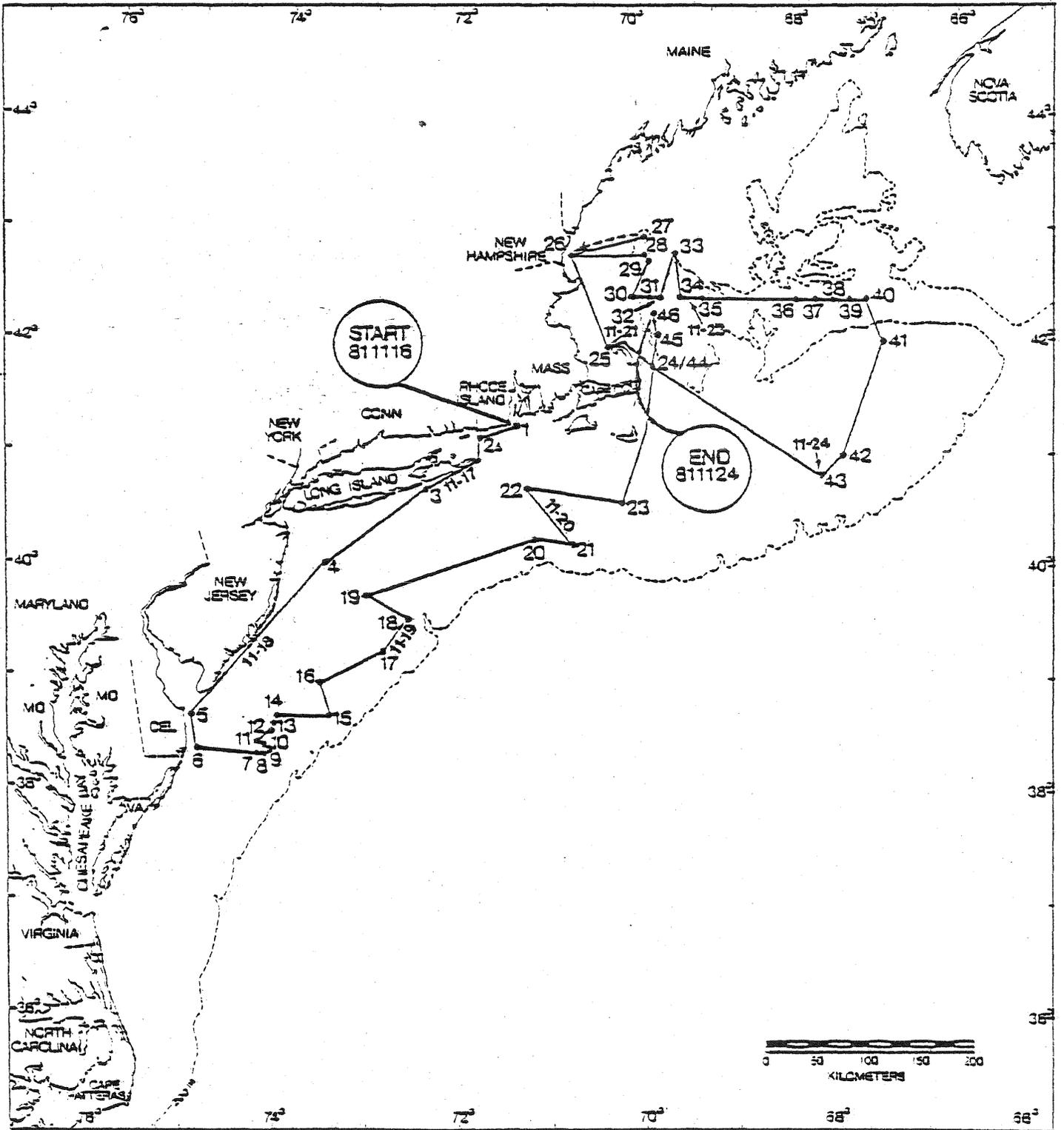
Bruce Reynolds

Darien High School, Darien, CT

Edward Monahan

DATA COLLECTED

	<u>Total</u>		<u>Total</u>
.61 cm BONGO	_____	SALINITY SAMPLES	_____
.20 cm BONGO	_____	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	<u>11</u>	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	<u>16</u>
CURRENT METERS	_____	FISH SAMPLES	_____
		SMITH-MCINTYRE GRAB	<u>YES</u>



Cruise track and station locations for DELAWARE II Cruise 81-07, Northeast Monitoring Program (NEMP 81-16), Biological Effects Survey, during 16-25 November 1981.

VESSEL DELAWARE II

CRUISE 81-08

DATES December 7-17

DAYS AT SEA 10

STATIONS 61

CRUISE OBJECTIVE

The primary objective of the cruise was to test the catchability of the Yankee Number 36 bottom trawl within three 250-square kilometers (KM<sup>2</sup>) study areas and to obtain information on diurnal variation in feeding intensity of predominant fish species. The feeding of spiny dogfish and silver hake was of particular interest. In addition, the trophic feeding interactions of as many species as practical were to be examined. A secondary objective was to compare qualitative and quantitative sampling methods from spiny dogfish and silver hake. The third and final objective was to determine the effects of depth on the stomach contents of spiny dogfish and silver hake; particular emphasis to be on the number of fish which regurgitated their food.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Ray Bowman, Chief Scientist  
William Michaels  
Thomas Morris  
Malcolm Silverman  
Alfonza Thrower

Cornell University, Ithaca, NY

Michael Sigler  
Richard Ready

Eastern Nazarene College, Wollaston, MA

Timothy Hughes  
Terrance Cianci  
Edward Stinchcomb

DATA COLLECTED

	<u>TOTAL</u>		<u>TOTAL</u>
.61 cm BONGO	_____	SALINITY SAMPLES	<u>34</u>
.20 cm BONGO	_____	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	<u>34</u>	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	<u>61</u>
CURRENT METERS	_____	FISH SAMPLES	<u>YES</u>

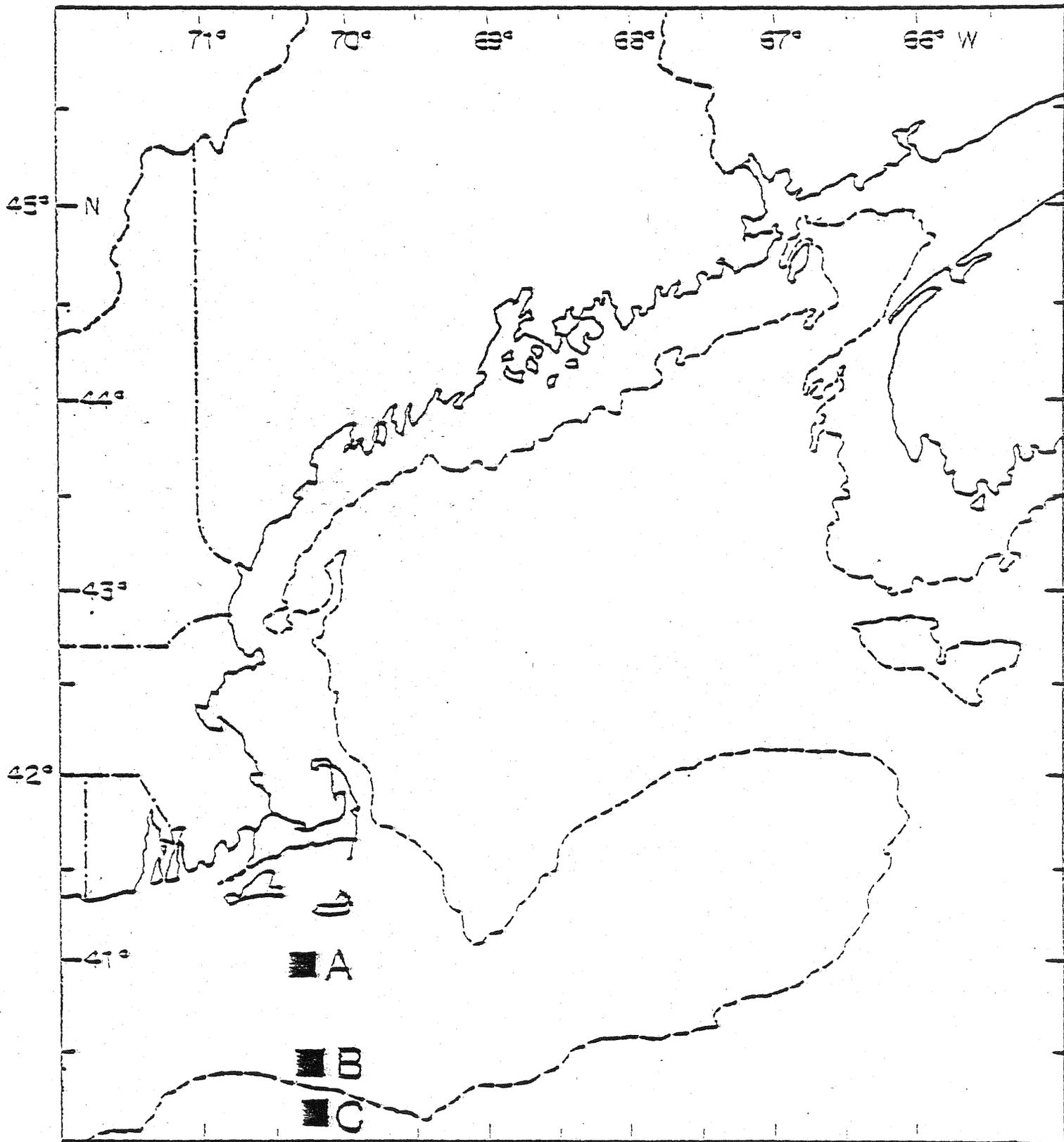


Figure 1. Locations (A, B, C) of fish feeding and catchability study conducted on the R/V DELAWARE II Cruise 81-08 Gear Testing, during 7-17 December 1981.

VESSEL BOGUSLAV

CRUISE 81-01

DATES OCT 28-NOV 17

DAYS AT SEA 20

STATIONS 1

CRUISE OBJECTIVE

The objectives of the cruise were to obtain a description of the hydrographic and biological conditions in the slope-shelf front in the area of study with special reference to the distribution and abundance of Atlantic saury.

SCIENTIFIC PERSONNEL

PINRO, Murmansk, USSR

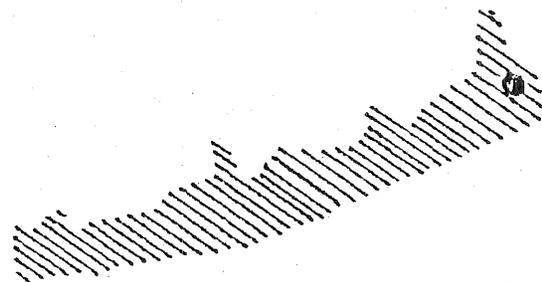
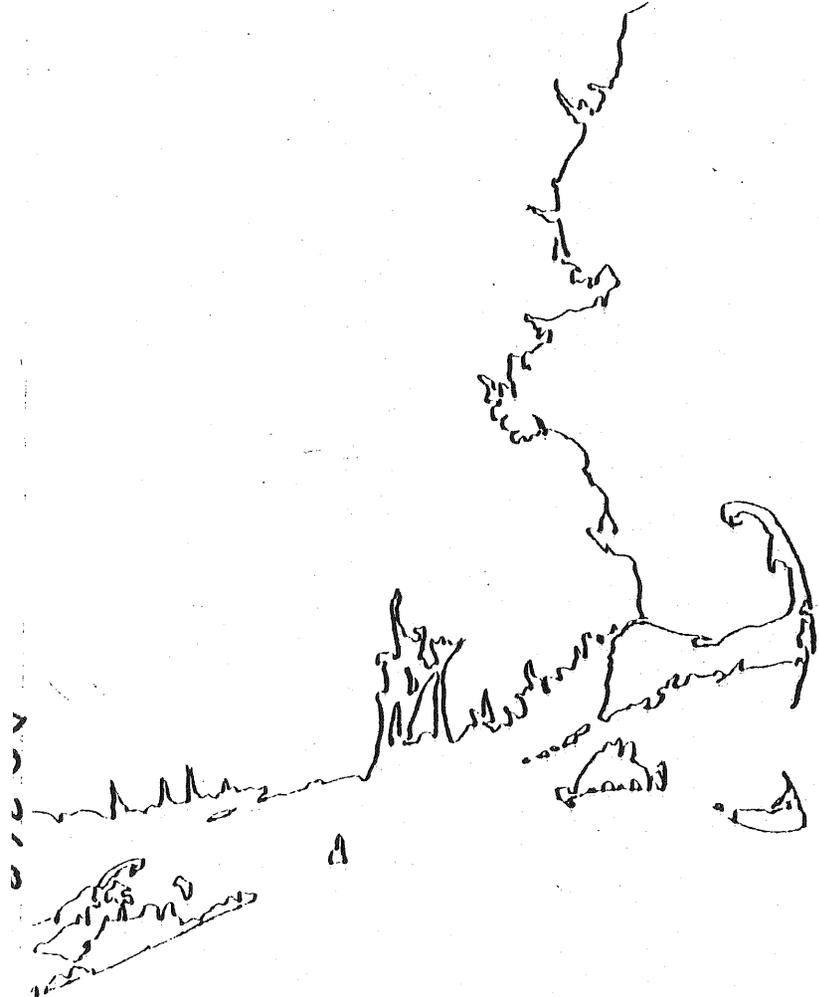
Vladimir Medvedev, Chief Scientist  
Alexsander Nesheheretov  
Vladimir Popov

National Marine Fisheries Service, NEFC, Woods Hole, MA

Charles Byrne  
Ira Palmer

DATA COLLECTED

	<u>I</u> <u>PT</u>		<u>I</u> <u>PT</u>
.61 cm BONGO	_____	SALINITY SAMPLES	_____
.20 cm BONGO	_____	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	_____	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	_____
CURRENT METERS	_____	FISH SAMPLES	_____
			1
			YES



Area of study (////) on USSR R/V DOGUSLAV Cruise 81-01 Warm Core Ring Study with Special Reference to the Distribution and Abundance of Atlantic Saury, during 28 October-17 November 1981. The area where the trawl tow(s) was made is indicated by the dot (●).

VESSEL BOGUSLAV

CRUISE 81-02

DATES Nov. 19-Dec. 2

DAYS AT SEA 13

STATIONS 1

CRUISE OBJECTIVE

The objectives of the cruise were to obtain a description of the hydrographic and biological conditions in the area of study with special reference to the distribution and abundance of Atlantic saury.

SCIENTIFIC PERSONNEL

PINRO, Murmansk, USSR

Vladimir Medvedev, Chief Scientist  
Alexander Nesheheretov  
Vladimir Popov

National Marine Fisheries Service, NEFC, Woods Hole, MA

Peter Donnelly

DATA COLLECTED

	<u>Total</u>		<u>Total</u>
.61 cm BONGO	_____	SALINITY SAMPLES	_____
.20 cm BONGO	_____	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	_____ 30	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	_____ 1
CURRENT METERS	_____	FISH SAMPLES	_____

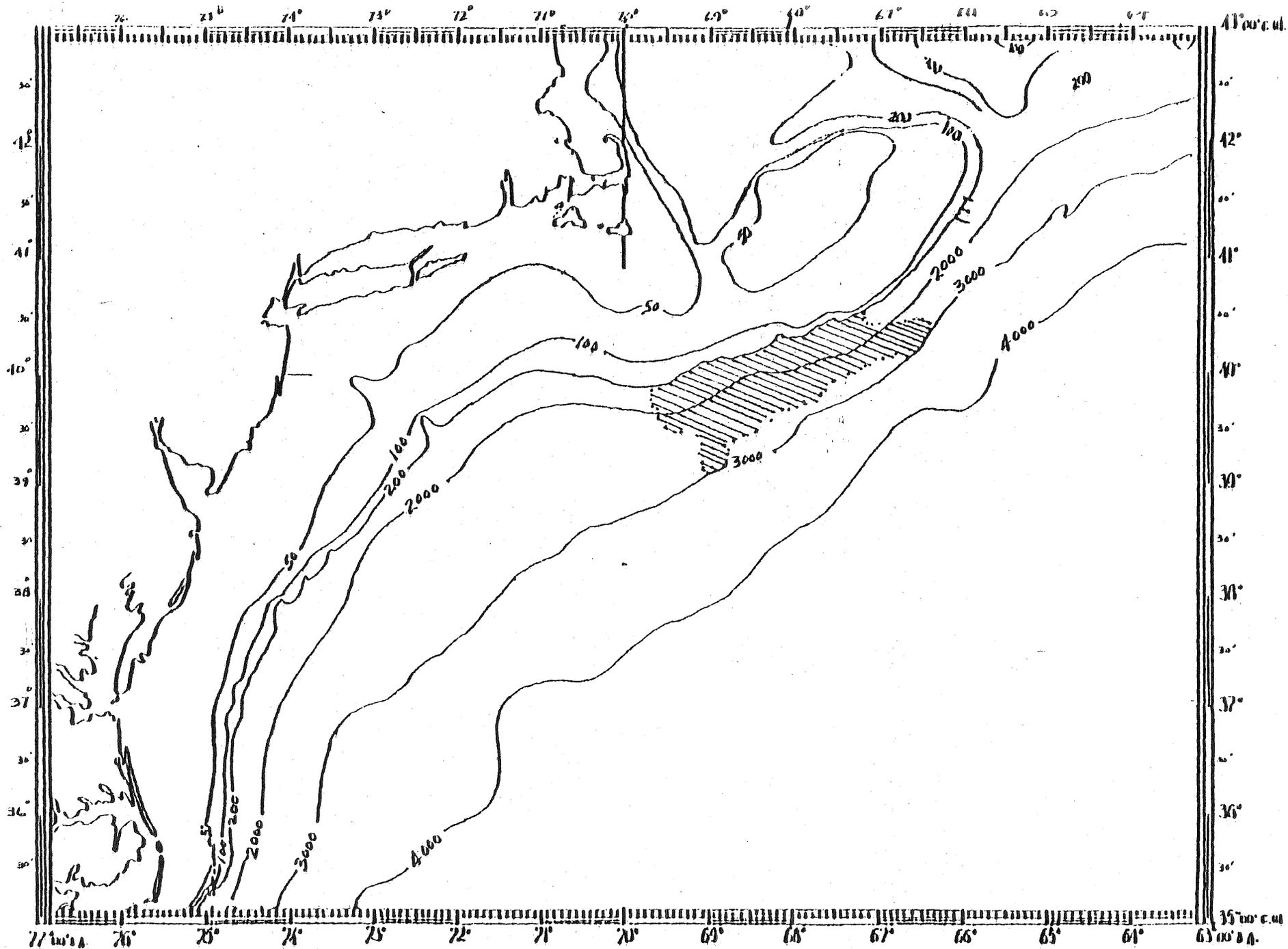


Figure 1. General area of study (▨) for USSR R/V *BOGUSLAV* Cruise 01-02, Warm Core Ring Study with Special Reference to the Distribution and Abundance of Atlantic Saury, during 19 November-2 December 1981.

VESSEL KELEZ

CRUISE 81-03/04

DATES March 18 - April 9, 1981

PART I, II

DAYS AT SEA 10; 9

STATIONS 55; 44

Cruise Objective

This cruise is one of a series of surveys conducted annually by the NEFC to monitor seasonal changes in distribution and abundance of fish eggs and larvae, zooplankton and phytoplankton, and to collect oceanographic and primary productivity data.

Scientific Personnel

National Marine Fisheries Service, NEFC, Woods Hole, MA

Derek Sutton	Part I, II
Thomas Laughton	Part I
Daniel Patanjo	Part II

National Marine Fisheries Service, NEFC, Narragansett, RI

Joseph Kane, Chief Scientist	Part II
Jerome Prezioso	Part I, II
Jacquelin Frisella	Part II

Darien High School, Darien, CT

Rowena Rossenberry	Part II
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National Marine Fisheries Service, NEFC, Sandy Hook, NJ

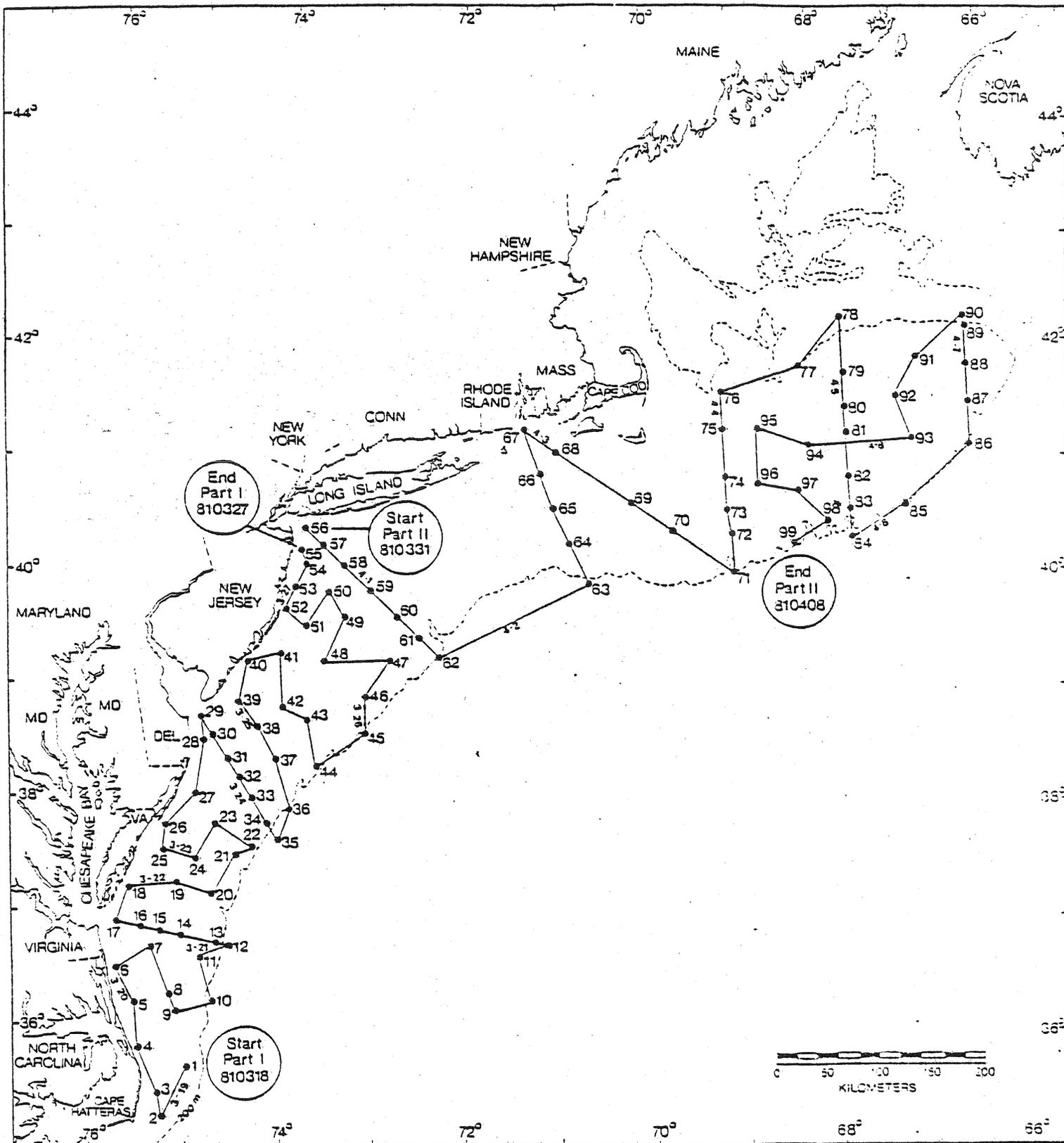
Myron Silverman, Chief Scientist	Part I
James Duggan	Part I, II
Thomas Kienzle	Part I, II
Annette Pratt	Part I, II
Kathleen Workman	Part I
Robert Fitzgerald	Part II

Drew University, Madison, NJ

Toni Gahn	Part I
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Data Collected

	I PT	II PT	TOTAL
.61 cm BONGO	<u>55</u>	<u>45</u>	<u>100</u>
.20 cm BONGO	<u>20</u>	<u>24</u>	<u>44</u>
.61 cm NEUSTON	<u>54</u>	<u>44</u>	<u>98</u>
.20 cm NEUSTON	<u>    </u>	<u>    </u>	<u>    </u>
HAEDRICH	<u>14</u>	<u>10</u>	<u>24</u>
XBT	<u>10</u>	<u>15</u>	<u>25</u>
BOTTLE CAST	<u>54</u>	<u>43</u>	<u>97</u>
CTD CAST	<u>    </u>	<u>    </u>	<u>    </u>
CURRENT METERS	<u>    </u>	<u>    </u>	<u>    </u>
SALINITY SAMPLES	<u>443</u>	<u>466</u>	<u>909</u>
OXYGEN SAMPLES	<u>165</u>	<u>254</u>	<u>419</u>
NUTRIENT SAMPLES	<u>531</u>	<u>567</u>	<u>1098</u>
CHLOROPHYLL SAMPLES	<u>370</u>	<u>398</u>	<u>769</u>
PRIMARY PRODUCTIVITY	<u>    </u>	<u>    </u>	<u>    </u>
DROGUES	<u>    </u>	<u>    </u>	<u>    </u>
SECCHI DISC	<u>19</u>	<u>22</u>	<u>41</u>
TRAWLS	<u>    </u>	<u>    </u>	<u>    </u>
FISH SAMPLES	<u>    </u>	<u>    </u>	<u>    </u>



Station locations numbered consecutively for R/V GEORGE B. KELEZ Cruise 03/04-81 (I-II), Ichthyoplankton-Zooplankton, Oceanographic, and Primary Productivity Survey, during 18 March-9 April 1981.

VESSEL KELEZ

CRUISE 81-04/05

DATES April 23-30; May 2-8, 1981

PARTS I, II

DAYS AT SEA 7; 6

STATIONS TOTAL 56

Cruise Objective

The survey is part of a continuing series that makes collections and measurements relative to assessing the health of the ocean's biota, especially fishery resources. Specific objectives were: 1) to collect select indicator species for examination of certain biochemical, physiological, pathological and chemical contamination variables that are related to the organisms' health; 2) to collect water samples from a wide range of locations to monitor nutrients, chlorophyll concentration, phytoplankton community structure, presence of certain type of bacteria associated with human pollution, standard hydrographic variables (salinity, dissolved oxygen, temperature) and for algal bioassay studies; and 3) to collect benthic samples for pathology monitoring, sediment analysis (physical and chemical) and for the presence of certain types of bacteria (Vibrio sp. and Clostridium sp.).

Scientific Personnel

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Frank Steimle, Chief Scientist	Part I, II
Anthony Ruiz	Part I, II
James Duggan	Part I, II
James Nickels	Part I
Ralph Bruno	Part II

National Marine Fisheries Service, NEFC, Milford, CT

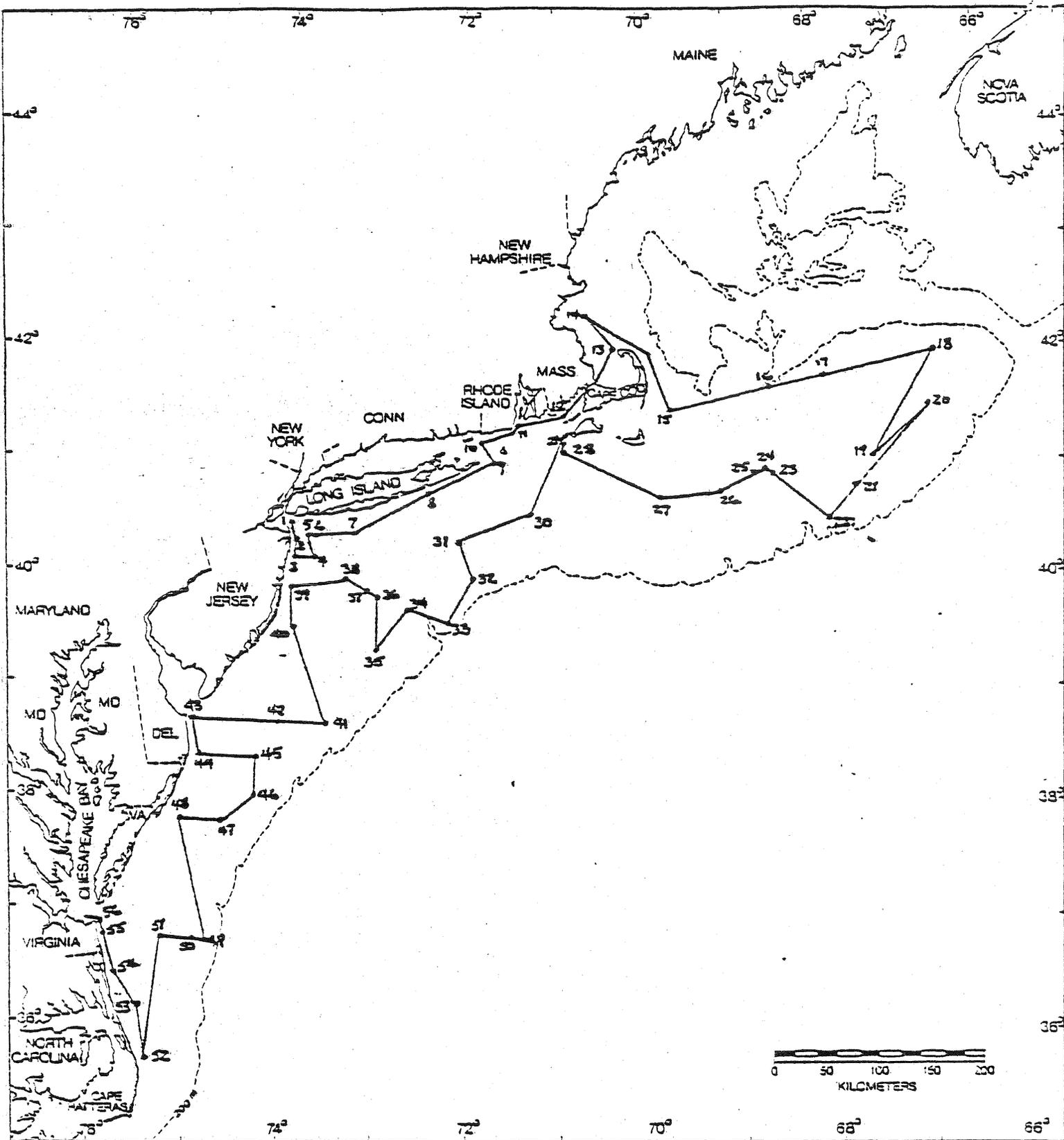
Jose Pereira	Part I, II
Laurie Devine	Part I, II
John Graikoski	Part I
Jennifer Houser	Part II
Dean Perry	Part I, II

National Marine Fisheries Service, NEFC, Oxford, MD

Gretchen Roe	Part I, II
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Data Collected

	Total		Total
.61 cm BONGO	<u>40</u>	SALINITY SAMPLES	<u>420</u>
.20 cm BONGO	<u>40</u>	OXYGEN SAMPLES	<u>190</u>
.61 cm NEUSTON	<u>40</u>	NUTRIENT SAMPLES	<u>      </u>
.20 cm NEUSTON	<u>40</u>	CHLOROPHYLL SAMPLES	<u>      </u>
HAEDRICH	<u>      </u>	PRIMARY PRODUCTIVITY	<u>      </u>
XBT	<u>56</u>	DROGUES	<u>      </u>
BOTTLE CAST	<u>      </u>	SECCHI DISC	<u>      </u>
CTD CAST	<u>      </u>	TRAWLS	<u>      </u>
CURRENT METERS	<u>      </u>	FISH SAMPLES	<u>YES</u>
		SCALLOP DREDGE	<u>56</u>



Cruise track and station locations for GEORGE B. KELEZ cruise KE-FRC 04/05-81, Northeast Monitoring Program (NEMP 81-02), Biological Effects Survey, during 23 April-8 May 1981.

VESSEL Stvor

CRUISE 81-01

DATES August 28 - September 23, 1981

DAYS AT SEA 25

STATIONS 95

Cruise Objective

The cruise was the first in a series of Warm Core Ring Studies to be conducted by Northeast Fisheries Center during September and October. The objective of the study was to obtain some data on the hydrographic and biological conditions of a warm core ring. A special effort was made to obtain data on the distribution and abundance of specific marine species; namely, Atlantic saury, and squid.

Scientific Personnel

AtlantNIRO, Kaliningrad, USSR

Anatoliy Bendik  
Valeriy Balkovoy  
Aleksandor Remeslo

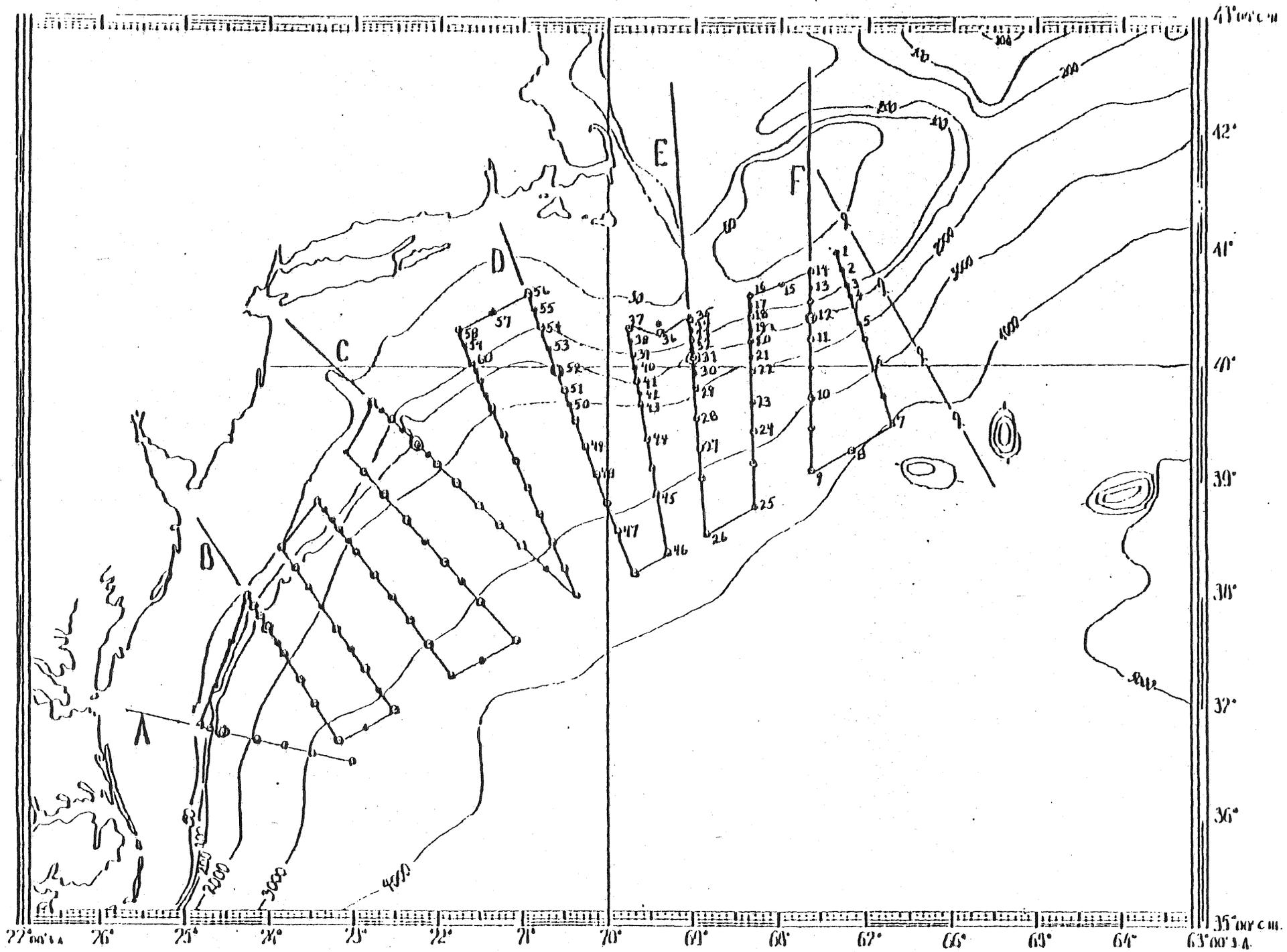
National Marine Fisheries Service, NEFC, Woods Hole, MA

William Michaels  
Philip LeBlanc

Data Collected

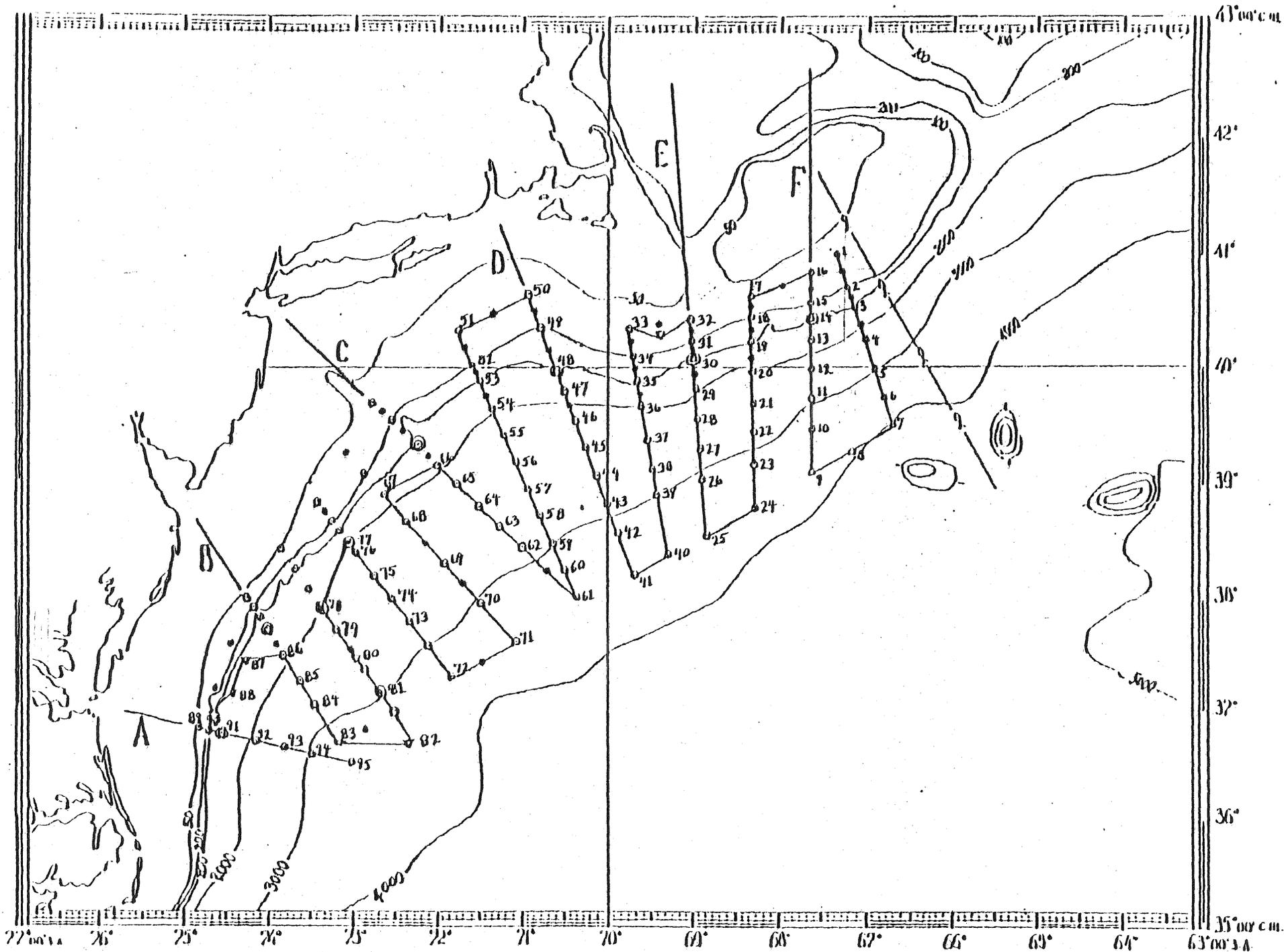
.61 cm BONGO	<u>80</u>	SALINITY SAMPLES	<u>YES</u>
.20 cm BONGO	<u>80</u>	OXYGEN SAMPLES	<u>YES</u>
.61 cm NEUSTON	<u>80</u>	NUTRIENT SAMPLES	<u>      </u>
.20 cm NEUSTON	<u>80</u>	CHLOROPHYLL SAMPLES	<u>      </u>
HAEDRICH	<u>      </u>	PRIMARY PRODUCTIVITY	<u>      </u>
XBT	<u>60</u>	DROGUES	<u>      </u>
BOTTLE CAST	<u>95</u>	SECCHI DISC	<u>      </u>
CTD CAST	<u>      </u>	TRAWLS	<u>      </u>
CURRENT METERS	<u>      </u>	FISH SAMPLES	<u>      </u>

AO 276



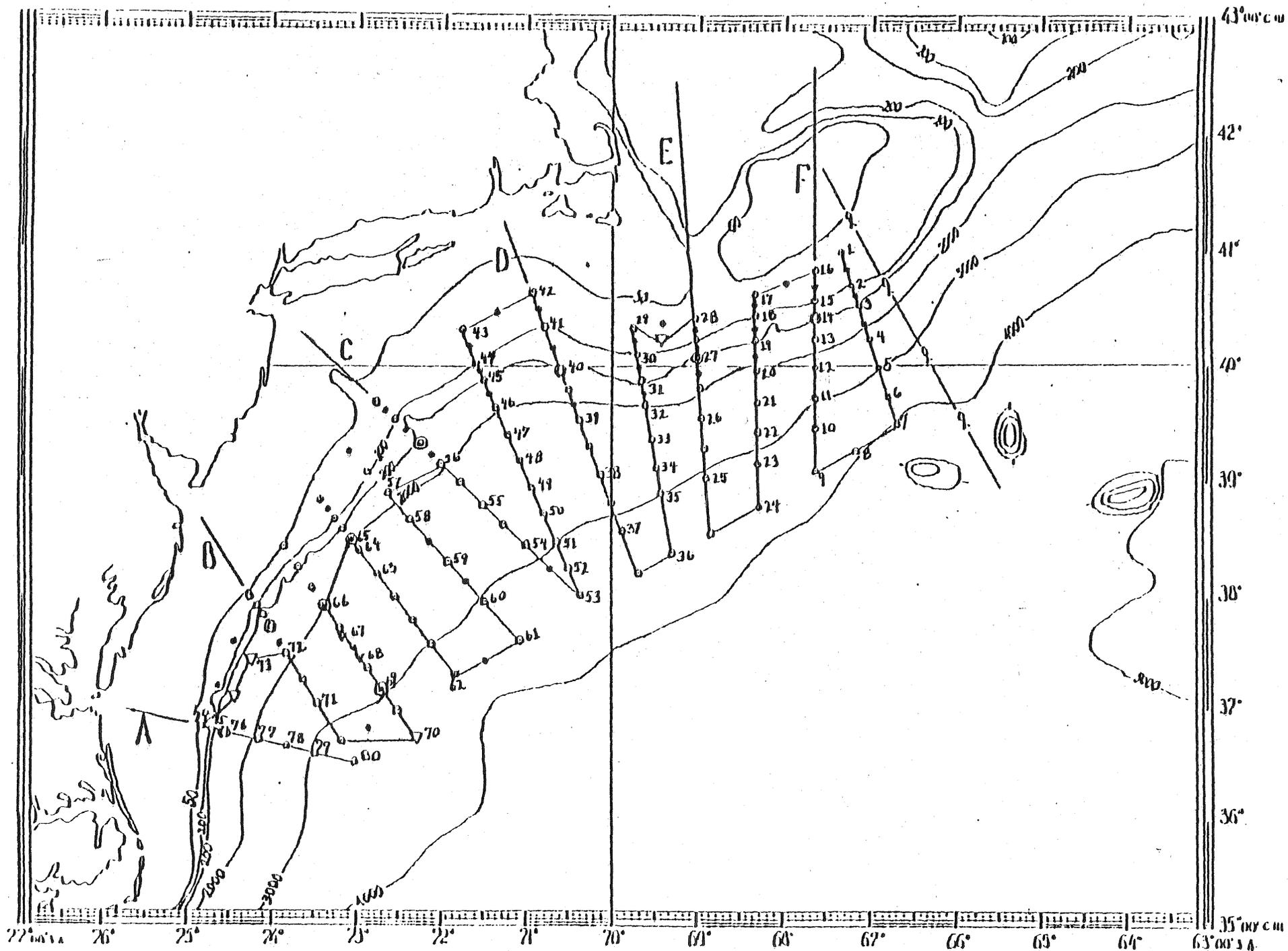
Consecutive stations for the XBT's completed on the USSR R/V STVOR Cruise 81-01, Warm Core Ring Study, during 28 August-23 September 1981.

AO2177



Consecutive stations for the hydro-casts completed on the USSR R/V STVOR Cruise 81-01, Warm Core Ring Study, during 28 August-23 September 1981.

012078



Consecutive stations for the bongo and neuston hauls completed on the USSR R/V STVOR  
Cruise 81-01, Warm Core Ring Study, during 28 August-23 September 1981.

VESSEL STVOR

CRUISE 81-02

DATES Sept. 24-Oct. 9; Oct. 10-26

PART I, II

DAYS AT SEA 33

STATIONS 101

CRUISE OBJECTIVE

The cruise was the second in a series of warm core ring studies to be conducted jointly with the Northeast Fisheries Center during October and November 1981. The objective of the study was to obtain data on the hydrographic and biological conditions of the slope-shelf front and warm core rings. A special effort was made to obtain data on the distribution and abundance of specific marine species; namely, euphausiids, Atlantic saury, and squid.

SCIENTIFIC PERSONNEL

AtlantNIRO, Kaliningrad, USSR

Anatoliy Bendik, Chief Scientist  
Valerey Balkovoy  
Aleksandor Remeslo

National Marine Fisheries Service, NEFC, Narragansett, RI

Raymond Maurer (Part I)  
Jerome Prezioso

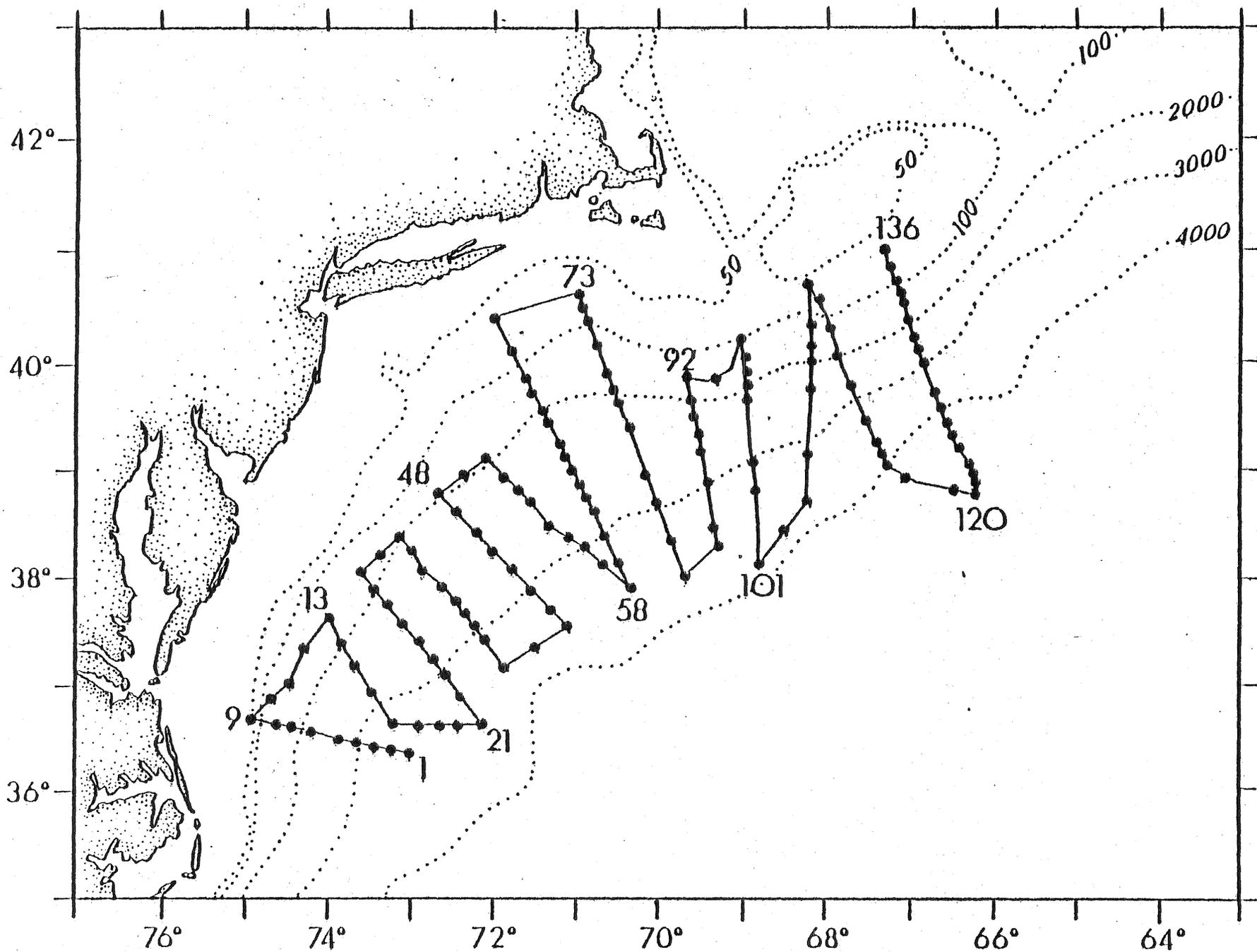
National Marine Fisheries Service, NEFC, Woods Hole, MA

Peter Donnelly (Part II)  
Randy Goodlet

DATA COLLECTED

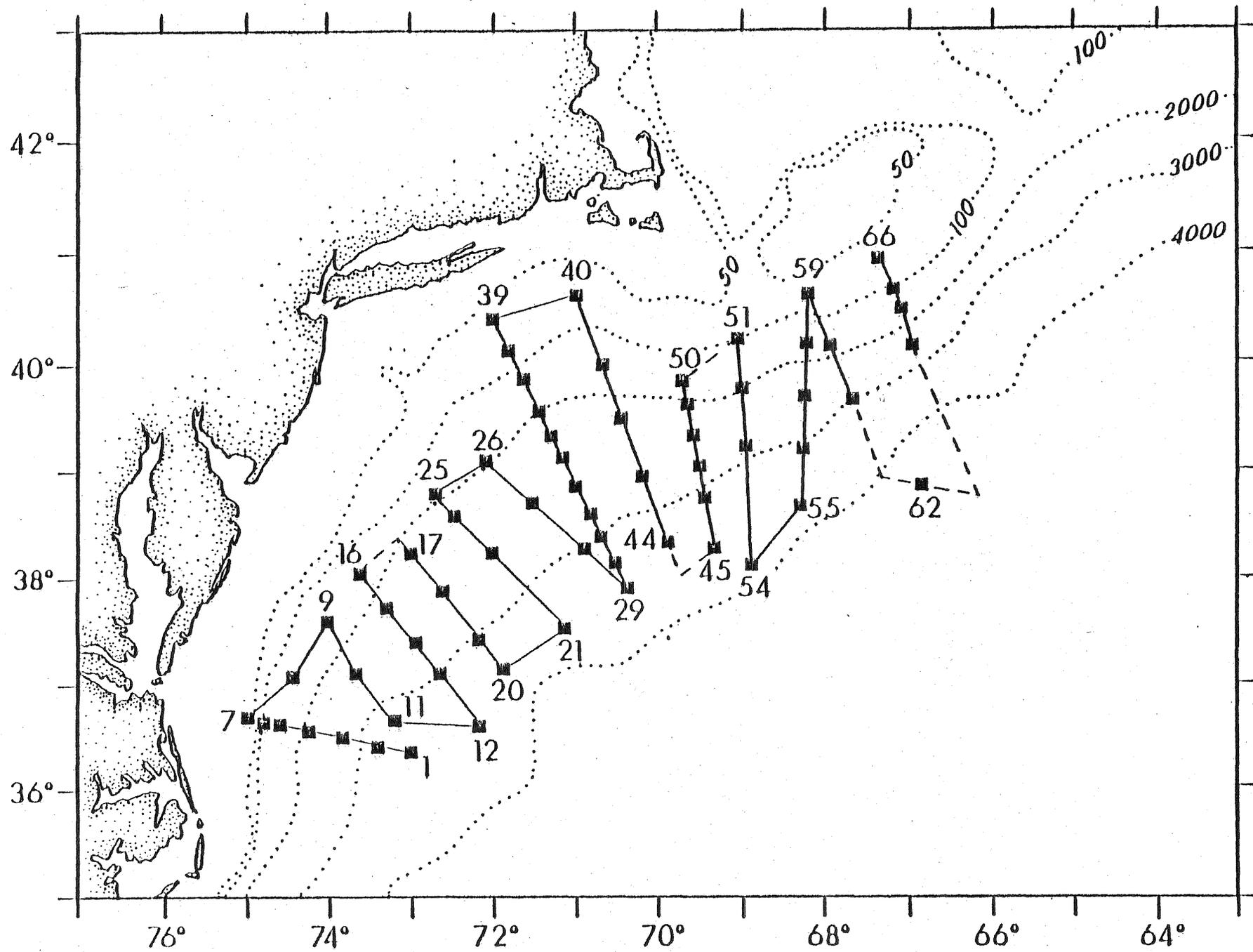
	<u>TOTAL</u>		<u>TOTAL</u>
.61 cm BONGO	67	SALINITY SAMPLES	_____
.20 cm BONGO	64	OXYGEN SAMPLES	_____
NEUSTON	62	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	136	DROGUES	_____
BOTTOM CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	_____
CURRENT METERS	_____	FISH SAMPLES	_____

A 0 280



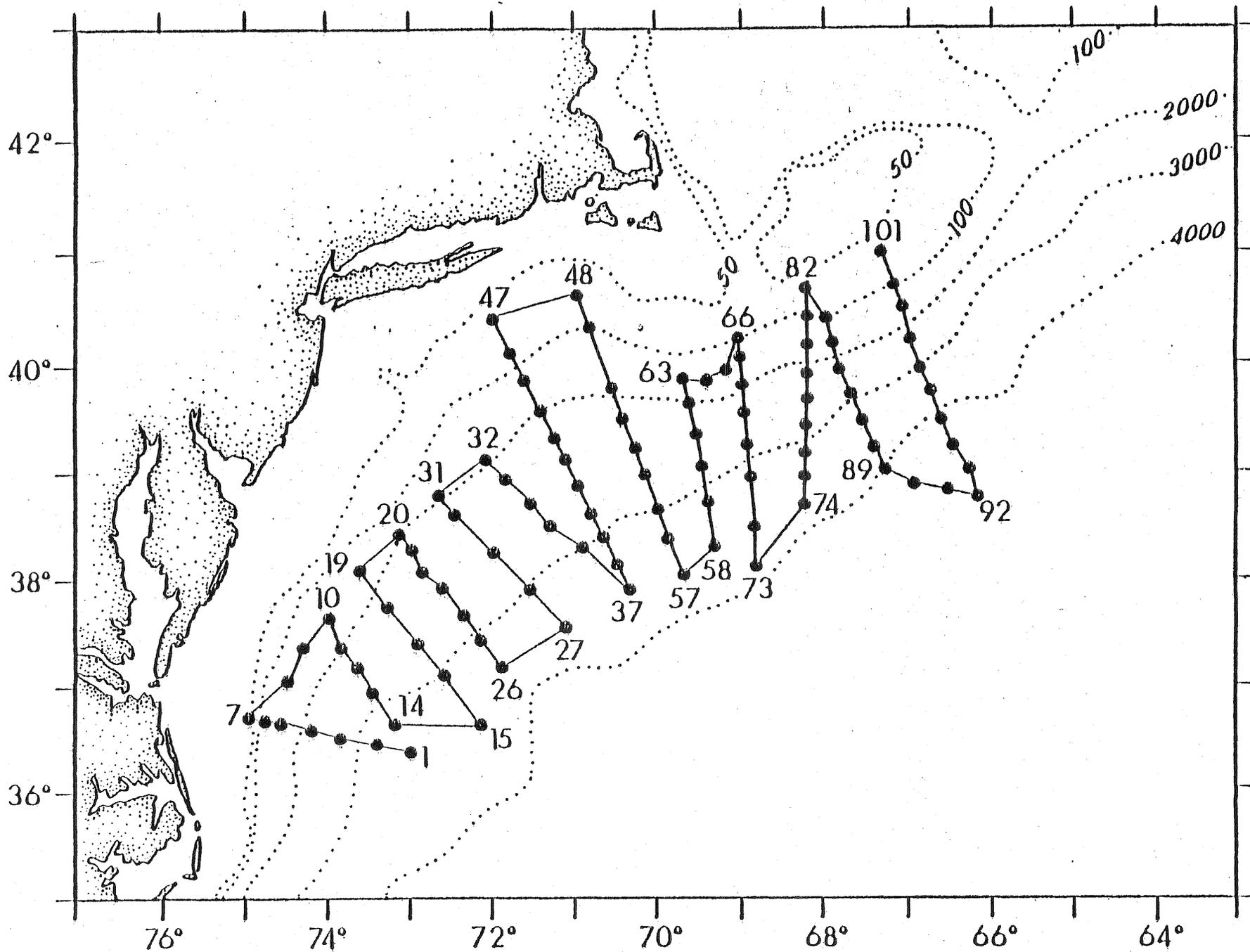
Consecutive stations for the XBT's completed on the USSR R/V STVOR Cruise 81-02 (I-II), Warm Core Ring Study, during 24 September-26 October 1981.

AO 281



Consecutive stations for the bongo and neuston hauls completed on the USSR R/V STVOR Cruise 81-02 (I-II), Warm Core Ring Study, during 24 September-26 October 1981.

AO 282



Consecutive stations for the hydro-casts completed on the USSR R/V STVOR Cruise 81-02 (I-II), Warm Core Ring Study, during 24 September-26 October 1981.

VESSEL STVOR  
DATES OCT. 28-NOV. 17  
DAYS AT SEA 21

CRUISE 81-03  
PARTS I, II, III  
STATIONS 34

Cruise Objective

The cruise was the third in a series of warm core ring studies to be conducted jointly with the Northeast Fisheries Center during October and November 1981. The objective of the study was to obtain data on the hydrographic and biological conditions of the slope-shelf front and warm core rings. A special effort was made to obtain data on the distribution and abundance of specific marine species, namely, euphausiids, Atlantic saury, and squid.

Scientific Personnel

AtlantNIRO, Kaliningrad, USSR

Anatoliy Bendik, Chief Scientist  
Valerey Balkovoy  
Aleksandor Remeslo

National Marine Fisheries Service, NEFC, Narragansett, RI

Janet Hess  
Paul Fofonoff

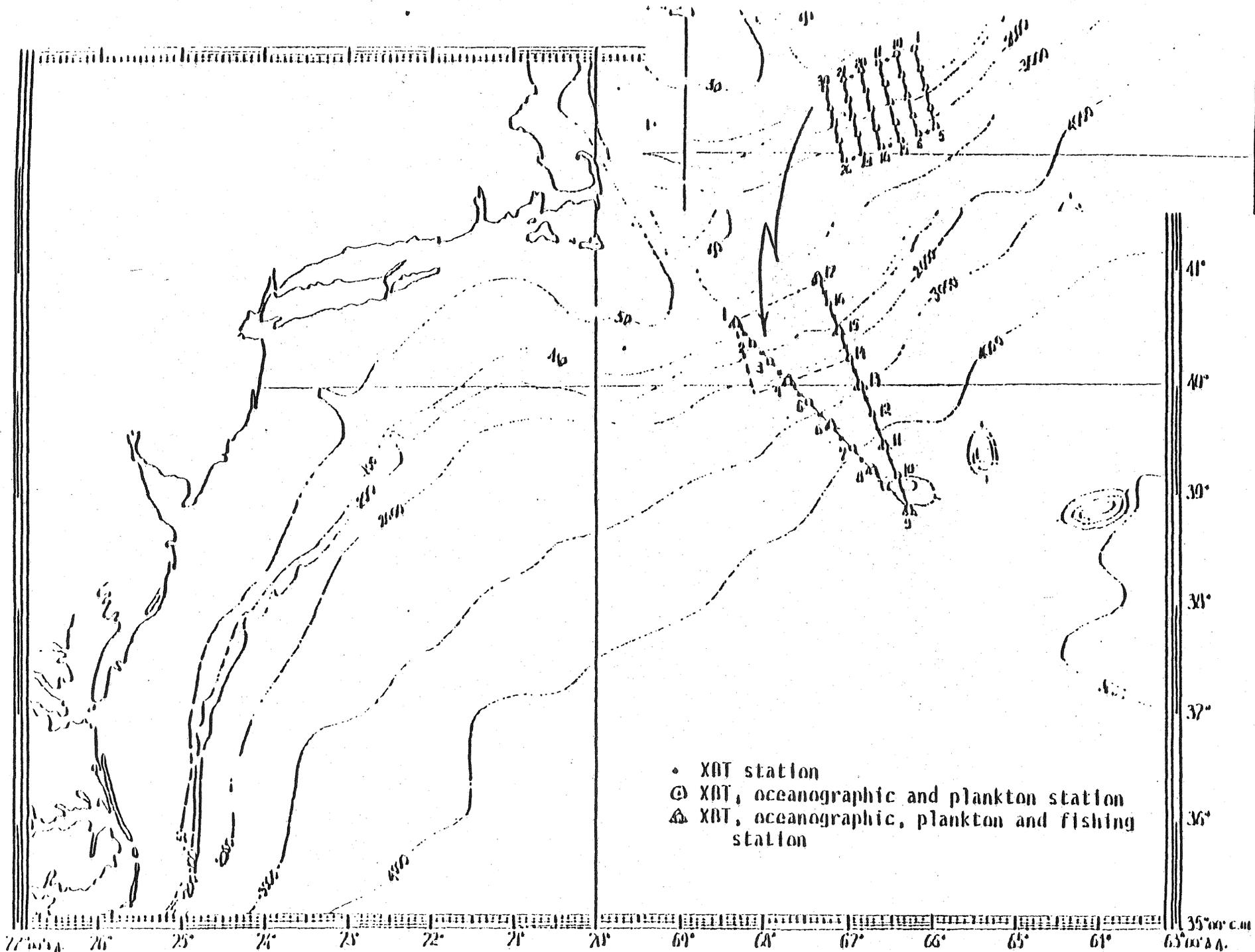
National Marine Fisheries Service, NEFC, Woods Hole, MA

Alicja Mann  
John Antonellis

DATA COLLECTED

	<u>Total</u>		<u>Total</u>
.61 cm BONGO	3	SALINITY SAMPLES	_____
.20 cm BONGO	3	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	3	PRIMARY PRODUCTIVITY	_____
XBT	34	DROGUES	_____
BOTTLE CAST	17	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	_____
CURRENT METERS	_____	FISH SAMPLES	_____

No 284



Station locations for USSR R/V STVOR Cruise 81-03, Warm Core Ring Study with Special Reference to the Distribution and Abundance of Atlantic Saury, during 28 October-17 November 1981.

VESSEL Wieczno CRUISE 81-01

DATES September 21 - October 5, 1981

DAYS AT SEA 14 STATIONS 48

Cruise Objective

The primary objectives of the cruise were to determine the distribution and relative abundance of Atlantic herring on Georges Bank, and to obtain data on age and length composition, sex, and gonadal development of herring collected during the survey.

Scientific Personnel

Morski Instytut Rybacki, Gdynia, Poland

Andrzej Kosior, Co-Chief Scientist  
Andrzej Furtak  
Andrzej Majewicz  
Antoni Kurowicki  
Ryszard Sobczak

National Marine Fisheries Service, NEFC, Woods Hole, MA

Michael Fogarty, Co-Chief Scientist  
Robert Rak

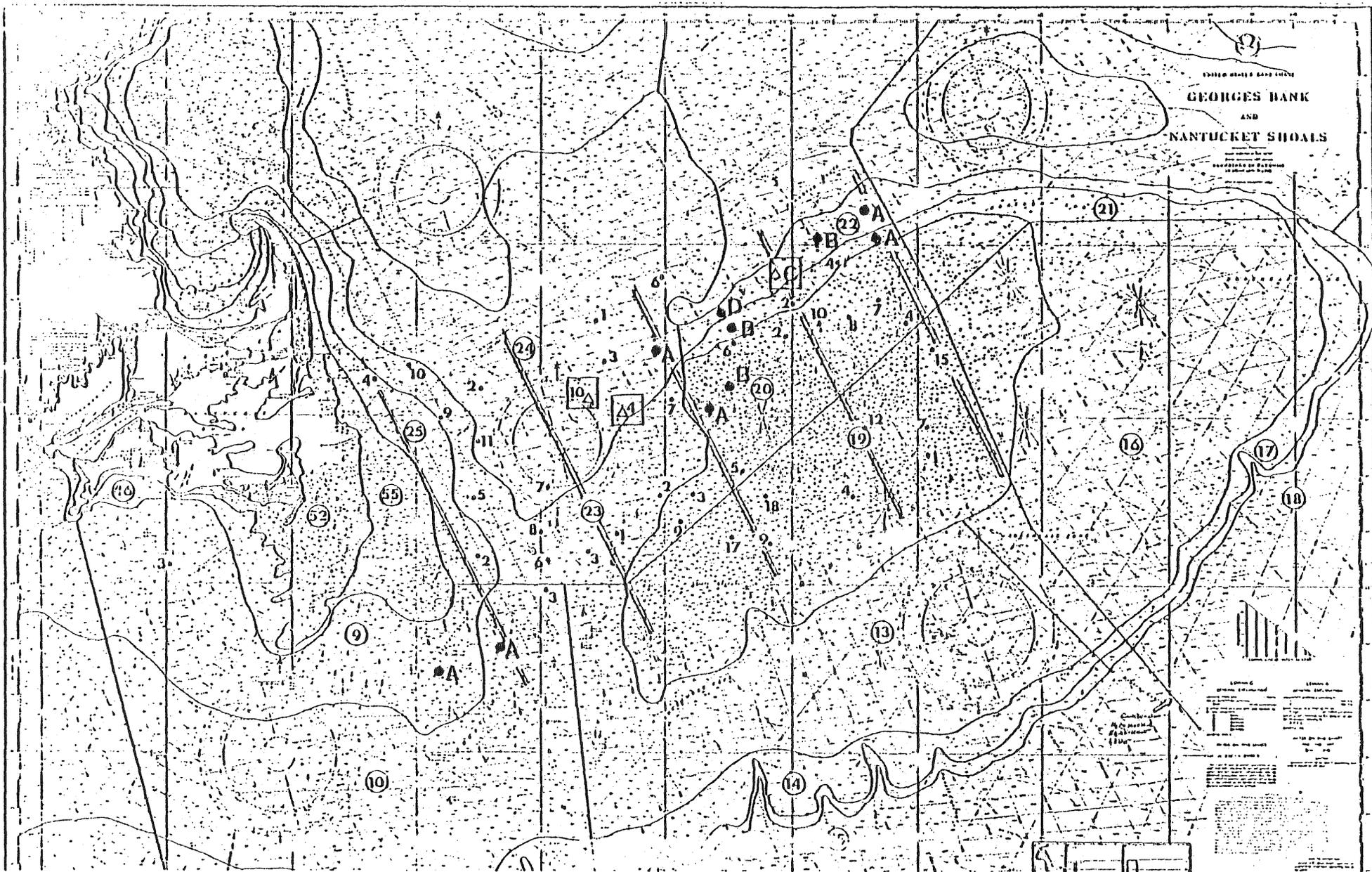
Draper Laboratory, Massachusetts Institute of Technology, Cambridge, MA

Carmen Martorella  
William DeRuso

Data Collected

.61 cm BONGO	_____	SALINITY SAMPLES	_____
.20 cm BONGO	_____	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	<u>76</u>	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	<u>48</u>
CURRENT METERS	_____	FISH SAMPLES	<u>3</u>

AO 286



Station locations for R/V WIECZNO Cruise 81-01 Trawl Survey for Atlantic Sea Herring, during 21 September-5 October 1981. Stations designated with a letter code represent non-random stations. Herring were obtained at stations indicated by an open triangle. Double lines indicate the position of five major hydroacoustic transects.

VESSEL WIECZNO

CRUISE 81-02

DATES Oct. 7-22

DAYS AT SEA 15

STATIONS

CRUISE OBJECTIVE

The primary objective of this cruise was to capture live sharks or billfish, to attach transmitters to the fish and follow them to learn about their temperature relationships and behavior. An echo sounder was to be used on this cruise to correlate the depths sought by the fish with the depths of potential food organisms in the sound scattering layers.

SCIENTIFIC PERSONNEL

Morski Instytut Rybacki, Gdynia, Poland

Andrzej Kosior, Co-Chief Scientist  
Andrzej Furtak  
Antoni Kurowicki  
Ryszard Sobczak

Woods Hole Oceanographic Institution, Woods Hole, MA

Francis Carey, Co-Chief Scientist  
Julie Early  
Kevin King  
Jean McGuire

AC/BC Associates, New York, NY

Brian Carey

DATA COLLECTED

	<u>Total</u>		<u>Total</u>
.61 cm BONGO	_____	SALINITY SAMPLES	_____
.20 cm BONGO	_____	OXYGEN SAMPLES	_____
.61 cm NEUSTON	_____	NUTRIENT SAMPLES	_____
.20 cm NEUSTON	_____	CHLOROPHYLL SAMPLES	_____
HAEDRICH	_____	PRIMARY PRODUCTIVITY	_____
XBT	_____	DROGUES	_____
BOTTLE CAST	_____	SECCHI DISC	_____
CTD CAST	_____	TRAWLS	_____
CURRENT METERS	_____	FISH SAMPLES	<u>YES</u>
		LONGLINE	_____

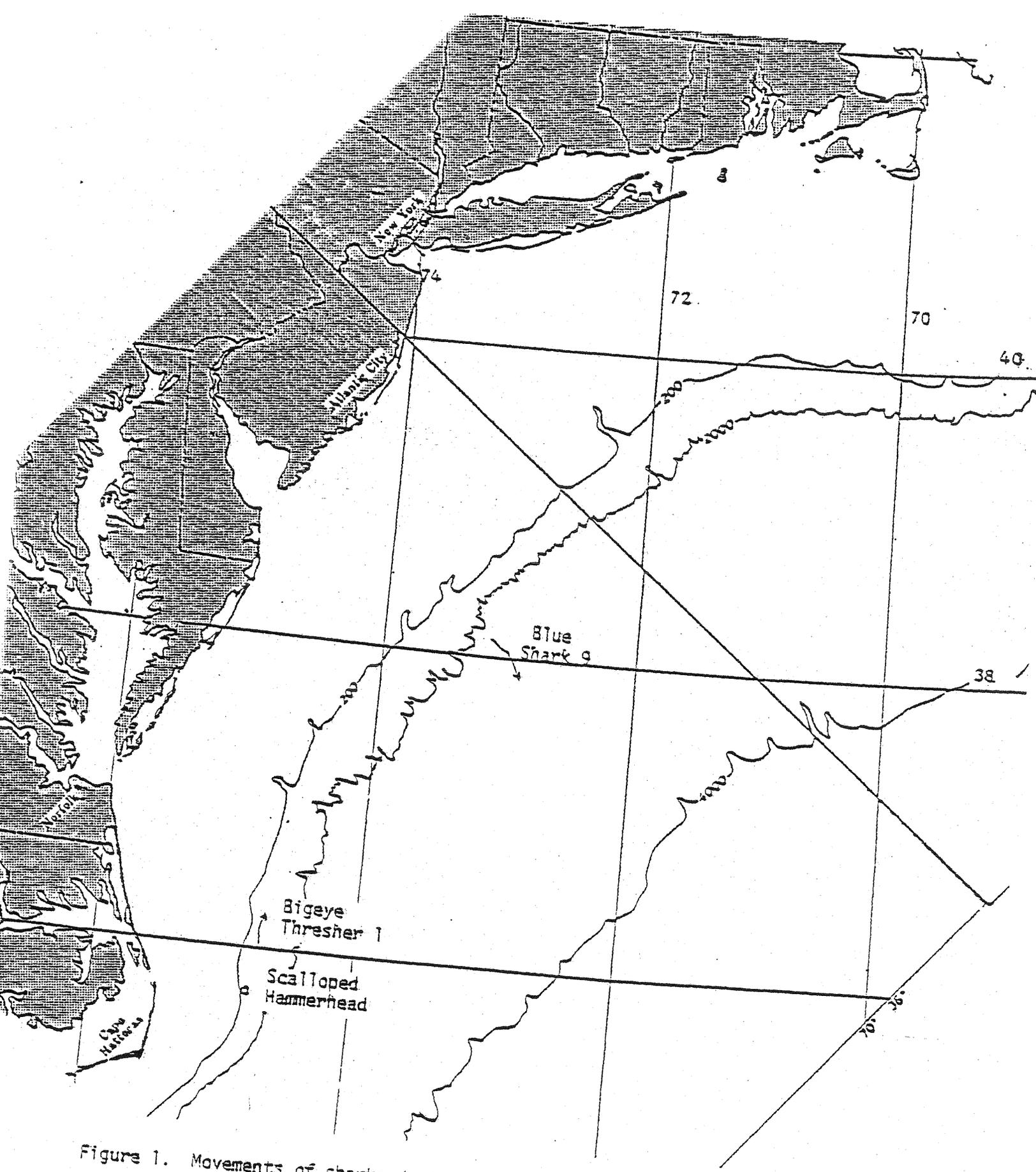


Figure 1. Movements of sharks during telemetry experiments on R/V WIECZNO Cruise 81-02 Acoustics Telemetry Experiments with Pelagic Fish, during 7-22 October 1981.

VESSEL WIECZNO

CRUISE 81-03

DATES OCT 24-NOV 9

DAYS AT SEA 16

STATIONS 19

CRUISE OBJECTIVE

The objectives were to: (1) collect food and feeding related information from sharks and swordfish, (2) collect vertebral samples from sharks for age-growth studies, (3) collect biological material for reproductive studies, (4) collect liver tissue for seasonal caloric analysis, (5) mark apex predators with standard dart tags, and (6) survey warm core ring 81-D for diversity of large apex predators.

SCIENTIFIC PERSONNEL

Morski Instytut Rybacki, Gdynia, Poland

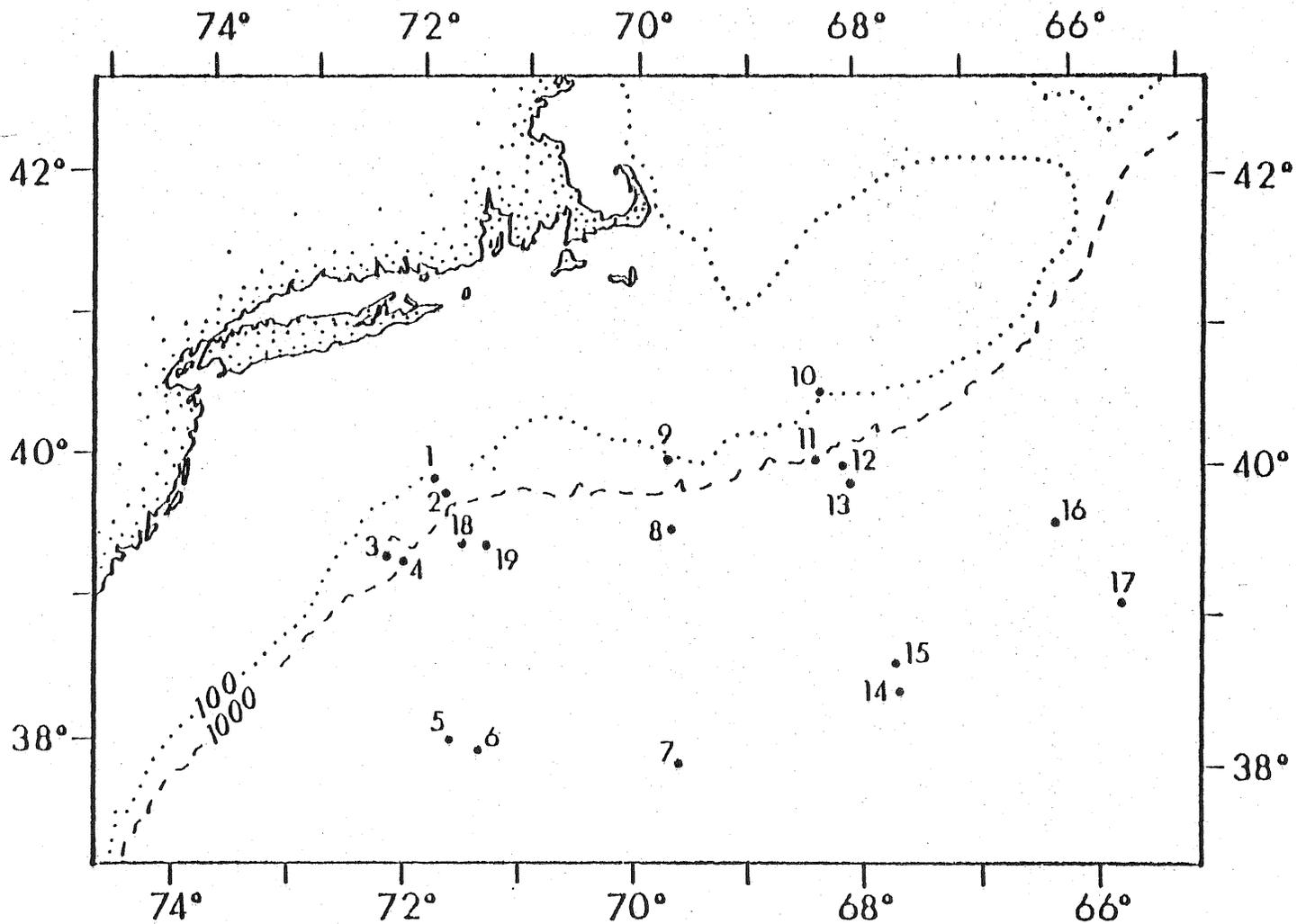
Andrzej Kosior, Co-Chief Scientist  
Andrzej Furtak  
Antoni Kurowicki  
Ryszard Sobczak

National Marine Fisheries Service, NEFC, Narragansett, RI

Charles Stillwell, Co-Chief Scientist  
John Hoey  
Nancy Kohler  
Allen Lintala

	<u>DATA COLLECTED</u>				<u>DATA COLLECTED</u>		
	<u>I PT</u>	<u>II PT</u>	<u>TOTAL</u>		<u>I PT</u>	<u>II PT</u>	<u>TOTAL</u>
.61 cm BONGO	_____	_____	_____	SALINITY SAMPLES	_____	_____	_____
.20 cm BONGO	_____	_____	_____	OXYGEN SAMPLES	_____	_____	_____
.61 cm NEUSTON	_____	_____	_____	NUTRIENT SAMPLES	_____	_____	_____
.20 cm NEUSTON	_____	_____	_____	CHLOROPHYLL SAMPLES	_____	_____	_____
HAEDRICH	_____	_____	_____	PRIMARY PRODUCTIVITY	_____	_____	_____
XBT	_____	_____	_____	DROGUES	_____	_____	_____
BOTTLE CAST	_____	_____	_____	SECCHI DISC	_____	_____	_____
CTD CAST	_____	_____	_____	TRAWLS	_____	_____	_____
CURRENT METERS	_____	_____	_____	FISH SAMPLES	_____	_____	_____
				LONGLINE	YES	_____	_____
					19	_____	_____

AO 290



Station locations of longline sets on R/V Wieczno Cruise 81-03 Survey of Apex Predators - Sharks and Swordfish, during 24 October-9 November 1981.