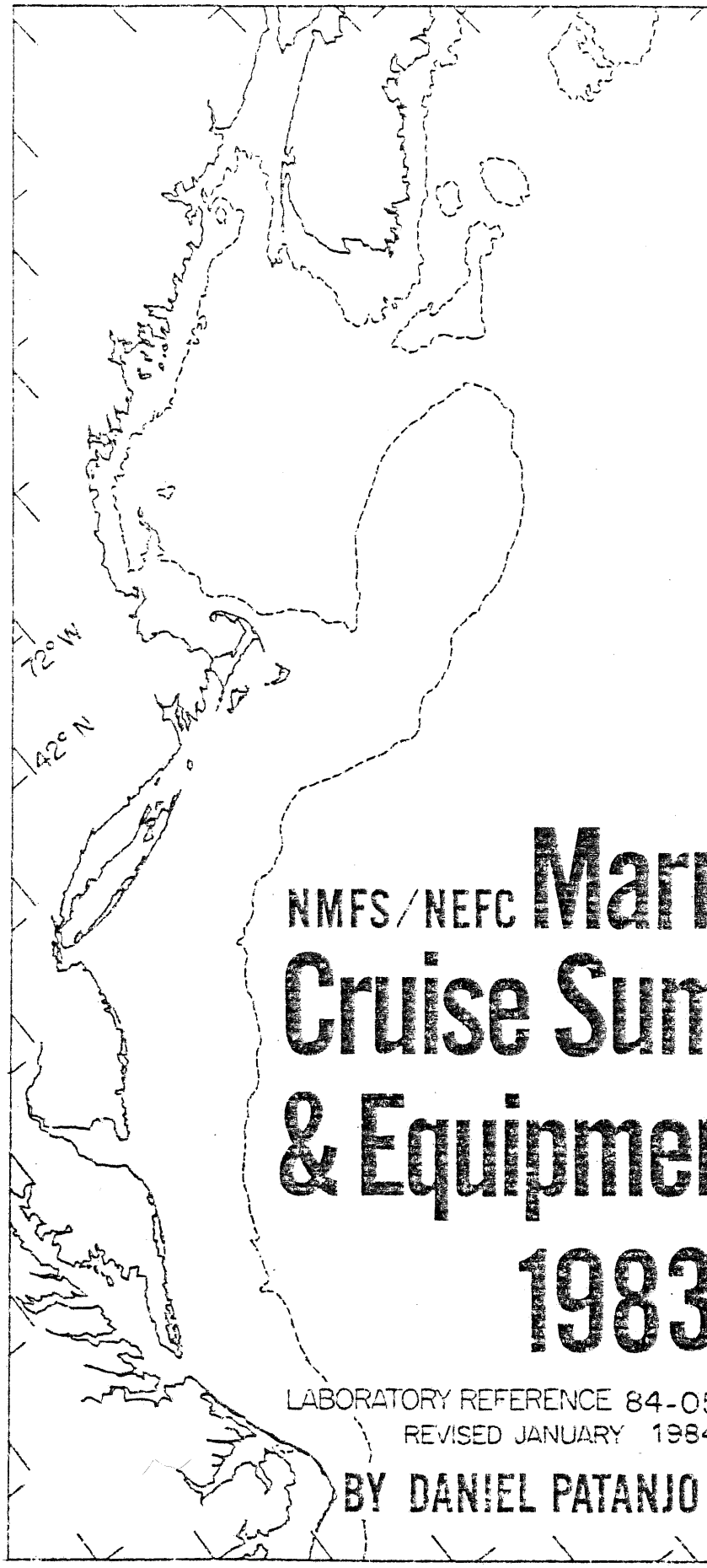

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NMFS/NEFC Marmap Cruise Summaries & Equipment List 1983

LABORATORY REFERENCE 84-05
REVISED JANUARY 1984

BY DANIEL PATANJO

NATIONAL MARINE FISHERIES SERVICE · NORTHEAST FISHERIES CENTER · WOODS HOLE LABORATORY
WOODS HOLE, MA. 02543

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

February 1, 1984 F/NEC1:DP

TO: Distribution

FROM: Daniel Patanjo

SUBJECT: NMFS/NEFC MARMAP Cruise Summaries and Equipment List 1983

This report is a 1983 update to the 1976-1983 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 null - if you wish or know of some equipment that should be listed, please let me know.

The 1976-1983 summary and equipment list is still available.

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VESSEL: ALBATROSS IV CRUISE: 83-01

DATES: Feb 25 - March 3

DAYS AT SEA: 8 STATIONS: 16

OBJECTIVES

This cruise is part of a MARMAP I survey conducted to monitor seasonal changes in distribution and abundance of fish eggs, larvae, and zooplankton. This survey was made to obtain coverage missed due to rescheduling of R/V DELAWARE II Cruise 83-01, Part III. For additional station coverage as part of this survey, refer to cruise results for R/V DELAWARE II 83-01 (I-II) and R/V DELAWARE II 83-02.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Robert Halpin, Chief Scientist

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

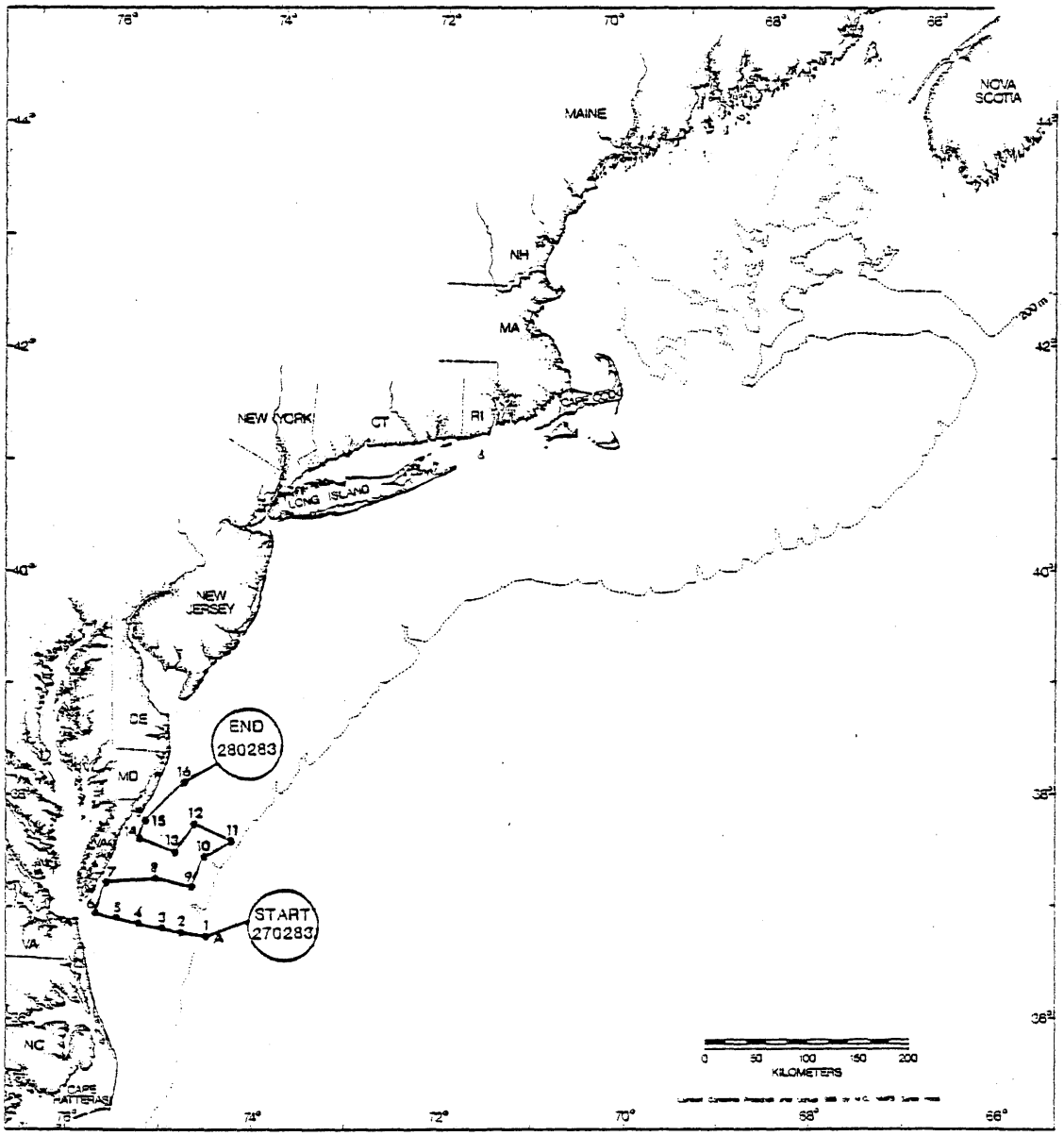
Ellen Johnson

Manomet Bird Observatory, Manomet, MA

Eleanor Perkins

CRUISE STATISTICS

	Total
Sea days	8
Plankton stations	16
0.61-meter bongo tows (.505/.333-millimeter)	16
0.20-meter bongo tows (.253/.165-millimeter)	6
0.5 x 1-meter neuston tows	16
Haedrich neuston tows	6
Weather observations	16
Surface temperature observations	16
XBT drops	16
Marine mammal sightings	7
Number of bird species sighted	10



Station locations numbered consecutively for R/V ALBATROSS IV Cruise 83-01, MARMAP: Ichthyoplankton-Zooplankton Survey, during 25 February-3 March 1983.

VESSEL: ALBATROSS IV | CRUISE: 83-02

DATES: MARCH 7-25 | PART I

DAYS AT SEA: 18 | STATIONS: 172

OBJECTIVES

The objectived of the cruise were 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 meterological samples and data, (5) collect samples of ichthyoplankton and zooplankton, and (6) do trawl stations originally assigned to WIECZNO on Cruise 83-01 (I-II).

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Henry Jensen, Chief Scientist
Donald Flescher
Harold Foster
Margaret McBride
William Michaels
Robert Halpin
Ira Palmer

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Doris Finan

Virginia Institute of Marine Sciences, Gloucester Point, VA

Eugene Burreson	(debarked vessel on 17 March 1983)
Dennis Thoney	
Michael Armstrong	(debarked vessel on 17 March 1983)
*James Colvocorreses	(embarked vessel on 17 March 1983)

North Carolina Division of Marine Fisheries, Moorehead City, NC

Jess Hawkins

State University of New York, Stony Brook, NY

James Gilmore (debarked vessel on 10 March 1983)

*Replaced Michael Armstrong on 17 March 1983.

Eastern Nazarene College, Quincy, MA

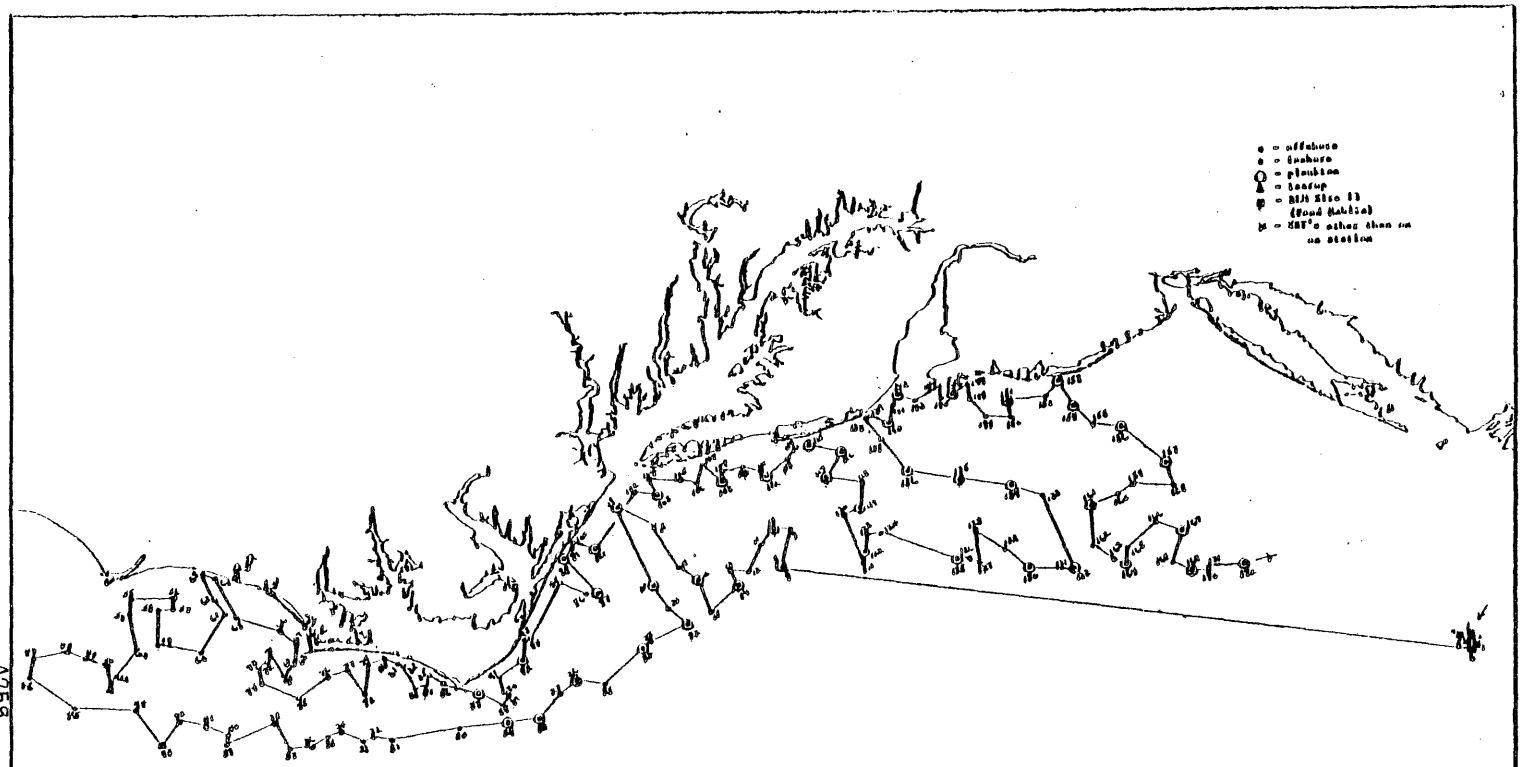
Cynthia Compton

Manomet Bird Observatory, Manomet, MA

Steven Mullane

DATA COLLECTED

	I PT	II PT	TOTAL		I PT	II PT	TOTAL
.61 cm BONGO			43	SALINITY SAMPLES			154
.20 cm BONGO			43	OXYGEN SAMPLES			
.61 cm NEUSTON				NUTRIENT SAMPLES			
.20 cm NEUSTON.				CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT			172	DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS			172
CURRENT METERS				FISH SAMPLES			YES



Station locations and cruise track for ALBATROSS IV Cruise 83-02 (I) Spring Bottom Trawl Survey, during 7-25 March 1983.

VESSEL: ALBATROSS IV | CRUISE: 83-02

DATES: March 28-April 8 | PART: II

DAYS AT SEA: 20 | STATIONS: 105

OBJECTIVES

The objectives of the cruise were to: (1) determine the spring 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, (4) collect hydrographic and meteorological samples and data, and (5) collect ichthyoplankton and zooplankton.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Malcolm Silverman, Chief Scientist
Andrew Thomas
Rose Concha
Lorraine Belfiore
Philip LeBlanc

National Marine Fisheries Service, NEFC, Narragansett, RI

Jerome Prezioso

National Marine Fisheries Service, NEFC, Milford, CT

David Nelson
Jose Pereira

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Myron Silverman
John Ziskowski
Ellen Johnson

Virginia Institute of Marine Science, Gloucester Point, VA

Michael Armstrong

Instituto Nacional de Investigacio das Pascos, Lisboa, Portugal

Francisco Ruano

University of Rhode Island, Kingston, RI

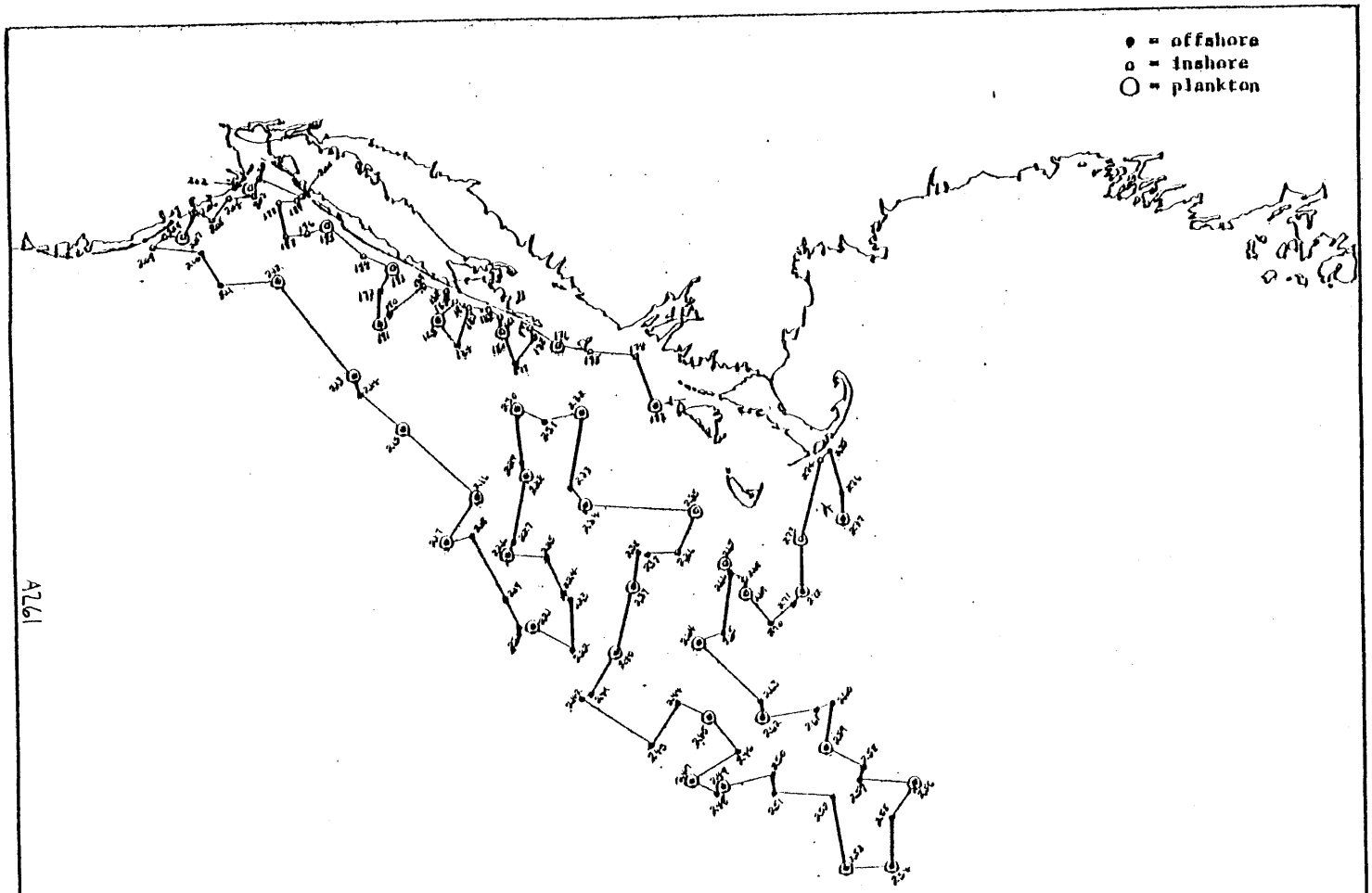
Paul Joyce

Manomet Bird Observatory, Manomet, MA

Scott Marion

DATA COLLECTED

	I PT	II PT	TOTAL		I PT	II PT	TOTAL
.61 cm BONGO			37	SALINITY SAMPLES			105
.20 cm BONGO			37	OXYGEN SAMPLES			
.61 cm NEUSTON				NUTRIENT SAMPLES			
.20 cm NEUSTON				CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT			105	DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS			105
CURRENT METERS				FISH SAMPLES			YES



Station locations and cruise track for R/V ALBATROSS IV Cruise 83-02 (II) Spring Bottom Trawl Survey, during 28 March-8 April 1983.

A261

VESSEL: ALBATROSS IV | CRUISE: 83-02

DATES: April 11-22 | PART III

DAYS AT SEA: 11 | STATIONS: 89

OBJECTIVES

The objectives of the cruise were to: (1) determine the spring 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, (4) collect hydrographic and meterological samples and data, and (5) collect samples of ichthyoplankton and zooplankton.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Linda Despres-Patanjo, Chief Scientist
Loretta O'Brien
William Overholtz
Ray Bowman
Eileen Klopfer
Cheryl Windsor

National Marine Fisheries Service, NEFC, Narragansett, RI

Joseph Kane

National Marine Fisheries Service, NEFC, Milford, CT

Jose Pereira
Dee Dee Tucker

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Alyce Wells

National Marine Fisheries Service, NEFC, Oxford, MD

Robert Murchelano
Sharon McLean

Fisheries & Oceans Canada, Marine Fishery Division, St. Andrews, New Brunswick, Canada

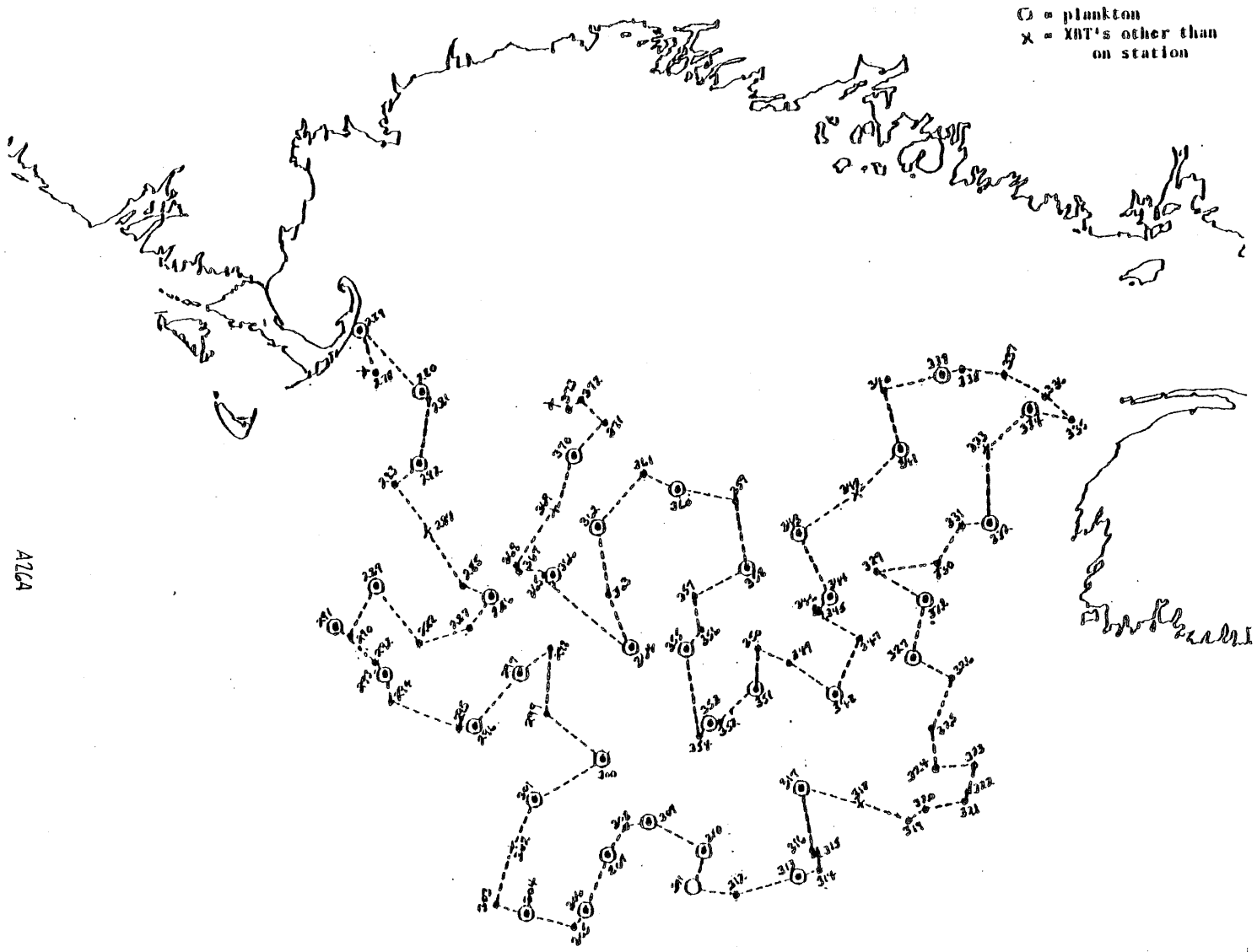
Michael Strong

Manomet Bird Observatory, Manomet, MA

Sofie Webb

DATA COLLECTED

	I PT	II PT	TOTAL		I PT	II PT	TOTAL
.61 cm BONGO			38	SALINITY SAMPLES			93
.20 cm BONGO			38	OXYGEN SAMPLES			
.61 cm NEUSTON				NUTRIENT SAMPLES			
.20 cm NEUSTON				CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT			93	DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS			89
CURRENT METERS				FISH SAMPLES			YES



Station locations and cruise track for ALBATROSS IV Cruise 83-02 (III) Spring Bottom Trawl Survey, during 11-22 April 1983.

VESSEL: ALBATROSS IV | CRUISE: 83-02

DATES: April 25-May 6 | PART IV

DAYS AT SEA: | STATIONS: 102

OBJECTIVES

The objectives of the cruise were to: (1) determine the spring 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, (4) collect hydrographic and meteorological samples and data, and (5) collect ichthyoplankton and zooplankton.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Malcolm Silverman, Chief Scientist
Donald Flescher
John Nicolas
Ralph Mayo
William Michaels
John Burnett
Susan Shepherd

National Marine Fisheries Service, NEFC, Narragansett, RI

Carolyn Giswold

National Marine Fisheries Service, NEFC, Milford, CT

Beth Marks

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Myron Silverman

Sea Education Association, Woods Hole, MA

Richard Allen

Northeastern University, Boston, MA

Steven Bailey

Instituto Espanol de Ocanografia, Vigo, Spain

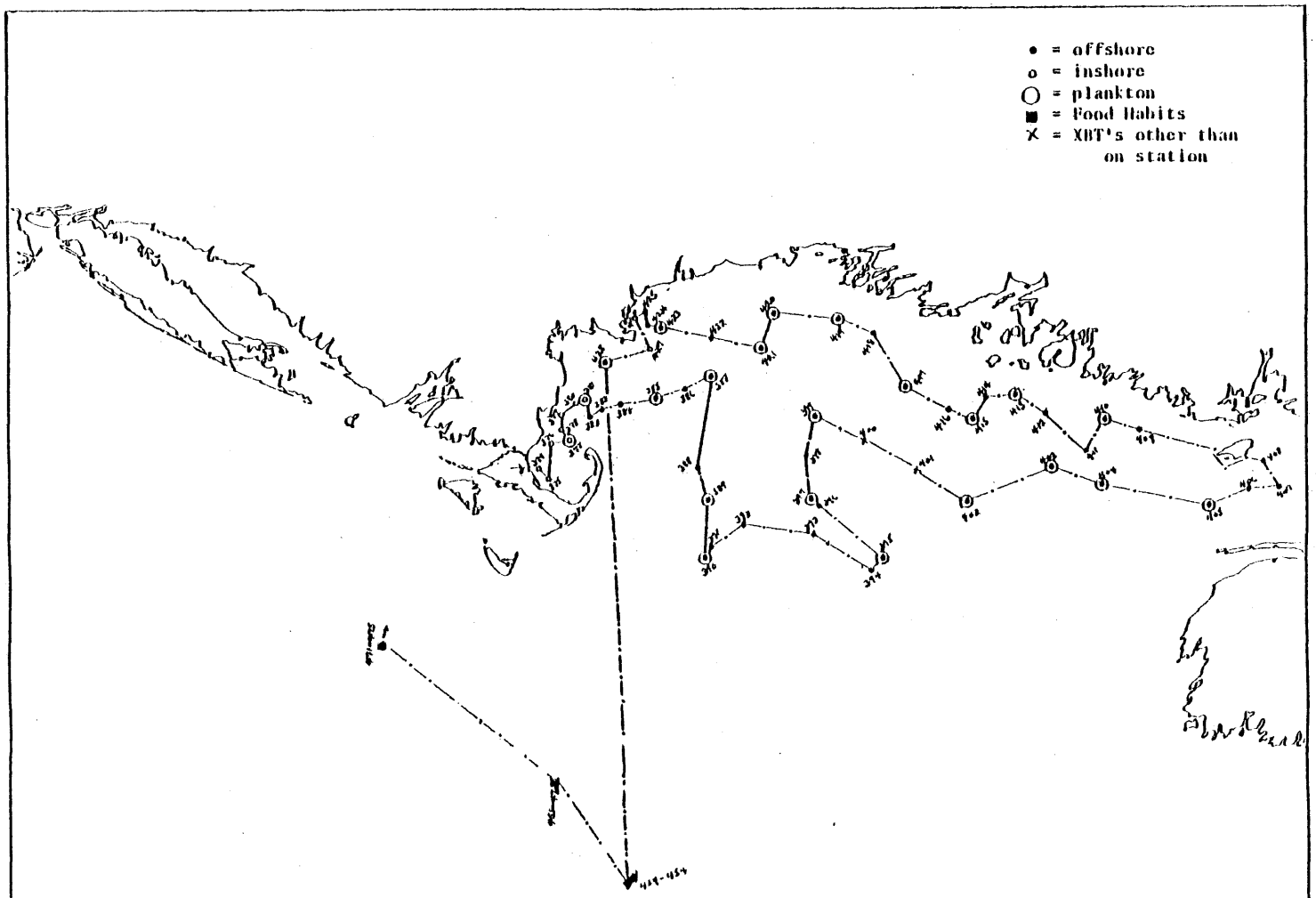
Francisco Pereiro

Manomet Bird Observatory, Manomet, MA

Scott Marion

DATA COLLECTED

	I PT	II PT	TOTAL		I PT	II PT	TOTAL
.61 cm BONGO			22	SALINITY SAMPLES			104
.20 cm BONGO			22	OXYGEN SAMPLES			
.61 cm NEUSTON				NUTRIENT SAMPLES			
.20 cm NEUSTON				CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT			104	DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS			102
CURRENT METERS				FISH SAMPLES			YES



Station locations and cruise track for ALBATROSS IV Cruise 83-02 (IV) Spring Bottom Trawl Survey, during 25 April-6 May 1983.

VESSEL: ALBATROSS IV CRUISE: 83-03

DATES: May 9-20

DAYS AT SEA: 12 STATIONS:

OBJECTIVES

The objectives of the cruise were to determine the fine-scale vertical and horizontal distribution of larval haddock-cod and their prey organisms and to 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
Philip LeBlanc
Peter Auditore
Harold Merry
Roger Clifford

National Marine Fisheries Service, NEFC, Narragansett, RI

Geoffrey Laurence
John Green
Joseph Kane
Bruce Burns
Jacquelyn Anderson
Patricia Michalik

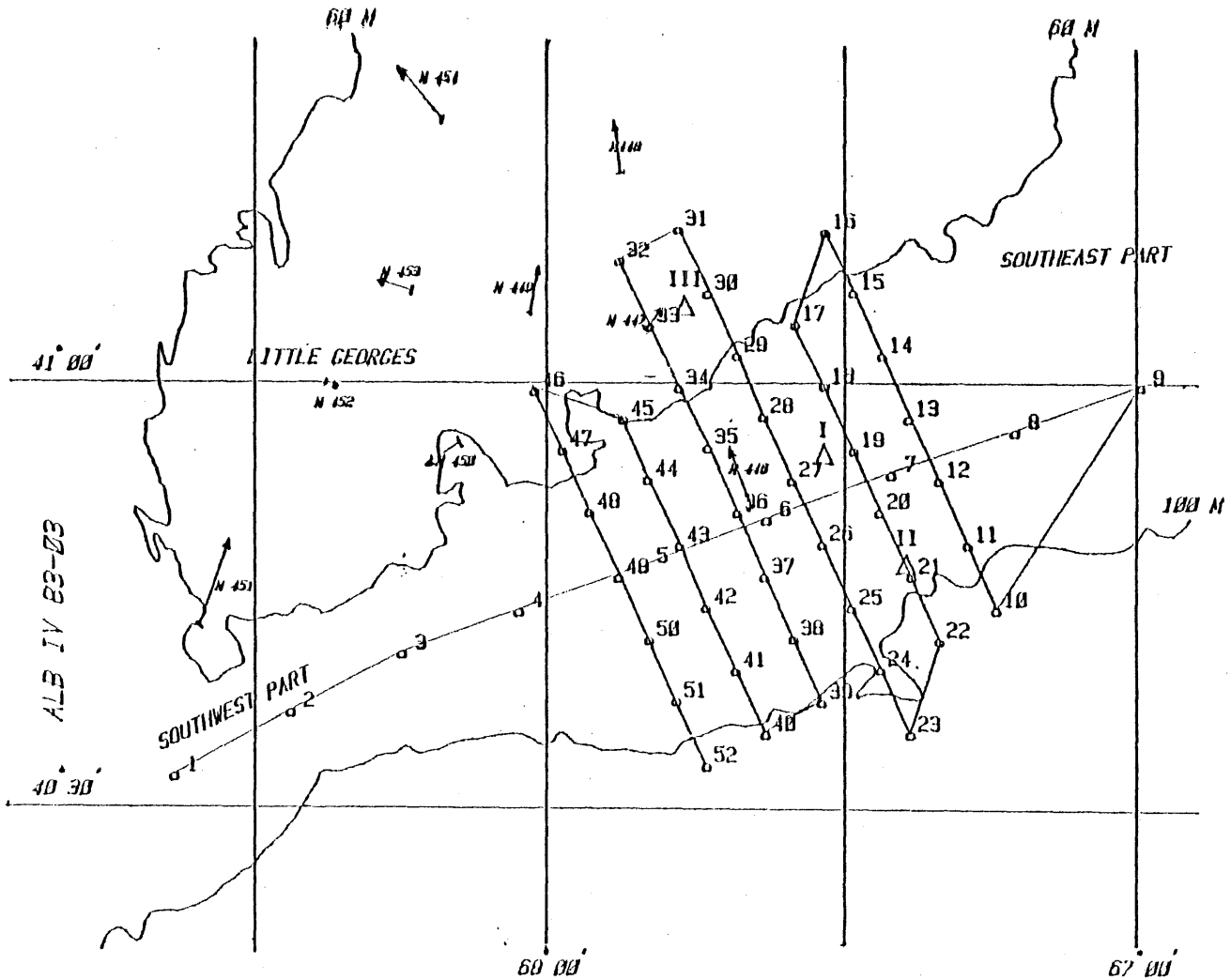
Manomet Bird Observatory Manomet, MA

Karen Tarnow

DATA COLLECTED

	I PT	II PT	TOTAL
.61 cm BONGO			52
.20 cm BONGO			52
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			60
BOTTLE CAST			
STD CAST			31
CURRENT METERS			
BOTTOM-TRIP NISKIN			31

	I PT	II PT	TOTAL
SALINITY SAMPLES			
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLOROPHYLL SAMPLES			413
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			
FISH SAMPLES			
DROGUE			3
MOCNESS HAULS (ALL)			45
PLANKTON PUMP PROFILES			15



Cruise track and station locations of bongo hauls (○), time-series operations (△), and MOCNESS-10 meter hauls (→) on Georges Bank for ALBATROSS IV Cruise 83-03, Interdisciplinary Sampling Studies of Larval Fish and Prey Microdistribution and Associated Processes, during 9-20 May 1983.

VESSEL: ALBATROSS IV | CRUISE: 83-04

DATES: May 23-June 3; June 6-June 22 | PART I, II

DAYS AT SEA: 12, 17 | STATIONS: 177 MARMAP
8 Trawl

OBJECTIVES

This cruise is one of a series of MARMAP I 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, otter trawl tows were made at a study site south of Martha's Vineyard to determine the size, type and quantity of food consumed by selected species of fish.

SCIENTIFIC PERSONNEL

PART I: 23 May-3 June 1983
PART II: 6-22 June 1983

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

John Sibunka, Chief Scientist	PART I
Alyce Wells	PART I
Paul Lyons	PART I
Thomas Finneran	PART I
Donald McMillan	PARTS I, II
Kathleen Ingham	PARTS I, II
Cynthia Muchant	PART II
Ellen Johnson	PART II

National Marine Fisheries Service, NEFC, Woods Hole, MA

Benjamin Marshall	PART I
James Myette	PART I
Dana Densmore	PARTS I, II
Daniel Patanjo	PARTS I, II
Catherine Jewell	PART II

National Marine Fisheries Service, NEFC, Narragansett, RI

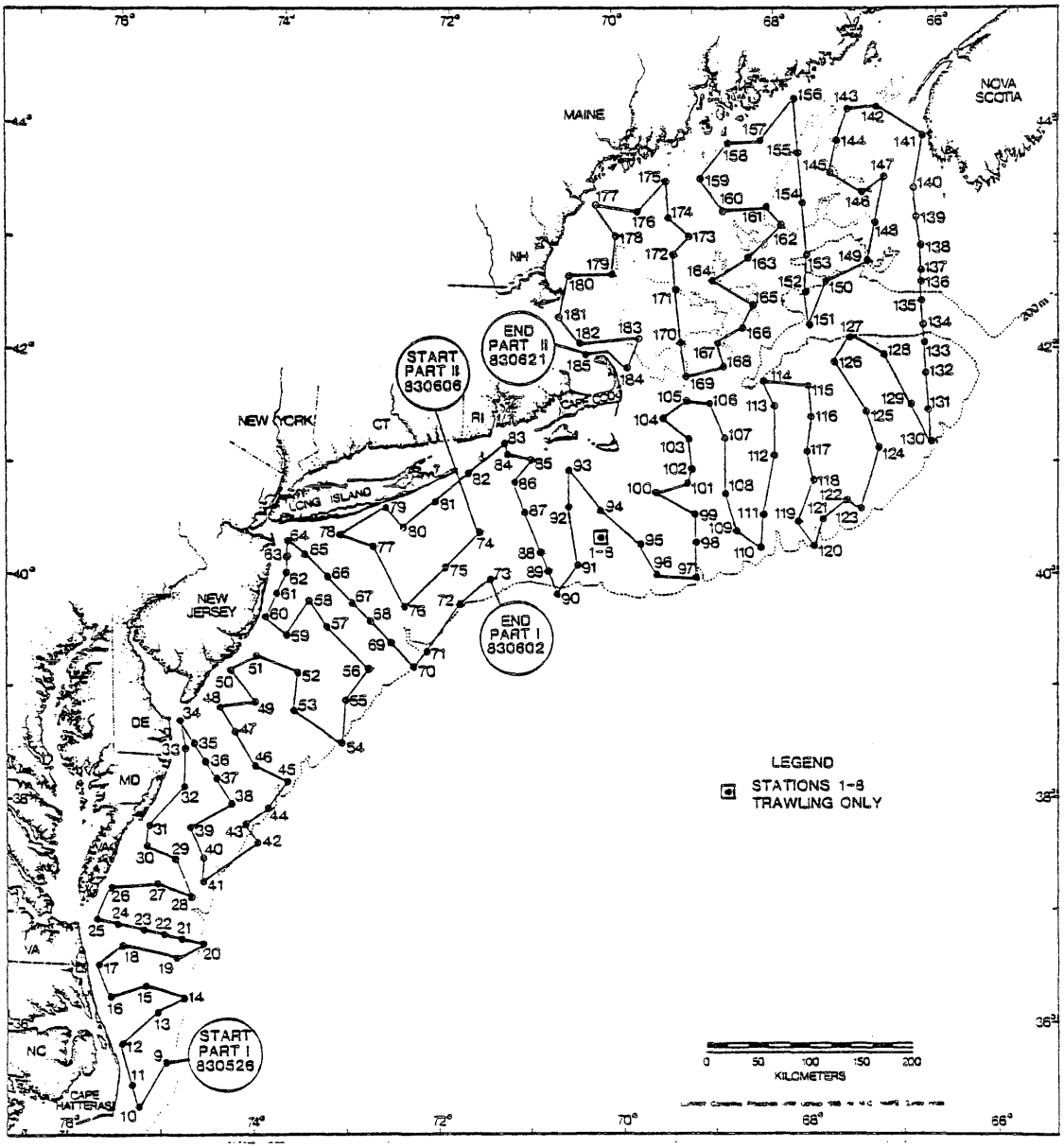
Joseph Kane, Chief Scientist	PART II
Bruce Burns	PART II

Manomet Bird Observatory, Manomet, MA

Scott Marion	PART I
Marcia Litchfield	PART II

CRUISE STATISTICS

	Part I	Part II	TOTAL
Sea days	12	17	29
Plankton/hydrographic stations	65	112	177
Otter trawl stations	8	0	8
Primary productivity stations	15	27	42
0.61-meter bongo tows (.505/.333-millimeter)	64	112	176
0.20-meter bongo tows (.253/.165-millimeter)	11	20	31
0.20-meter bongo tows (.165/.053-millimeter)	14	27	41
0.5 x 1-meter neuston tows	64	112	176
Haedrich neuston tows	21	31	52
Weather observations	73	112	185
Hydrocasts	65	111	176
Number of Niskin bottles	563	1289	1852
Bottles with reversing thermometers	501	1231	1732
Salinity samples	563	1249	1812
$H_2{}^{18}O$ samples	563	1289	1852
Chlorophyll samples	508	1131	1639
Dissolved oxygen samples	196	516	712
Phytoplankton samples (M-C)	69	69	138
Samples for *Ceratium tripos*	9	11	20
Surface temperature observations	68	112	180
Secchi disc observations	38	64	102
XBT drops	18	28	46
Marine mammal sightings	54	31	85
Number of bird species sighted	19	23	26



Station locations numbered consecutively for R/V ALBATROSS IV Cruise 83-04 (I-II), MARMAP I: Ichthyoplankton-Zooplankton, Oceanographic and Primary Productivity Survey during 23 May-22 June 1983.

VESSEL: ALBATROSS IV | CRUISE: 83-05

DATES: 1-5 July 1983 | PART I, II, III

DAYS AT SEA: 15 | STATIONS: 89

OBJECTIVES

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, 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.), and benthic community structure.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Frank Steimle, Chief Scientist
David Radosh
Russell Terranova
Ralph Bruno
Thomas Finneran
Cynthia Muchant
Kathleen Ingham

National Marine Fisheries Service, NEFC, Milford, CT

Margaret Dawson
Donna Luedke
Renee Mercaldo
Diane Rusanowsky

National Marine Fisheries Service, NEFC, Oxford, MD

Gretchen Roe

Drew University, Madison, NJ

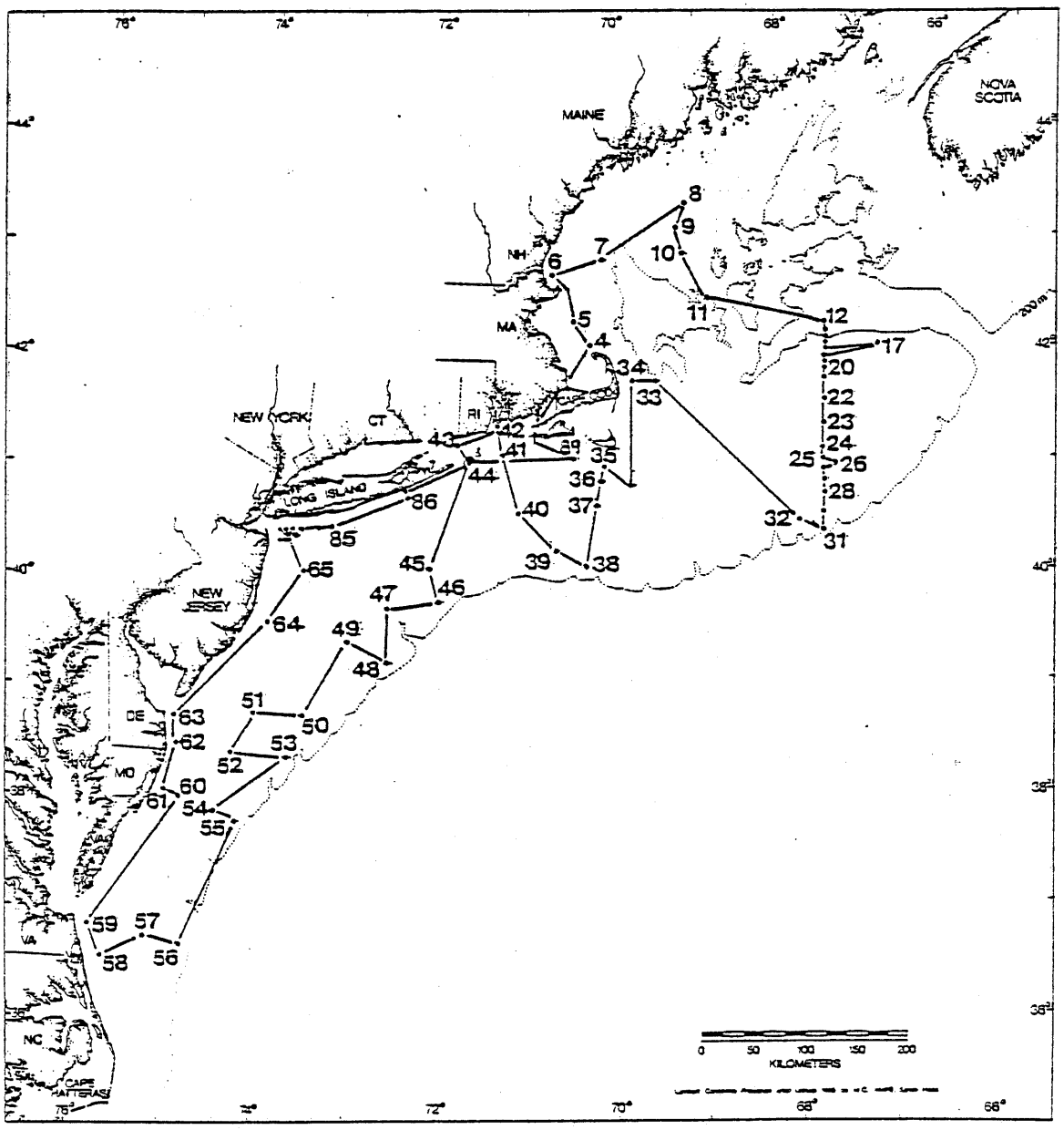
Andrew Sperber

Manomet Bird Observatory, Manomet, MA

Anne Heise

DATA COLLECTED

	I PT	II PT	TOTAL		I PT	II PT	TOTAL
.61 cm BONGO				SALINITY SAMPLES			418
.20 cm BONGO				OXYGEN SAMPLES			46
.61 cm NEUSTON				NUTRIENT SAMPLES			418
.20 cm NEUSTON				CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT				DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS			
CURRENT METERS				FISH SAMPLES			



Cruise track and station locations for R/V ALBATROSS IV Cruise 83-05 Northeast Monitoring Program, Biological Effects Survey, during 1-15 July 1983.

VESSEL: ALBATROSS IV	CRUISE: 83-06
DATES: 18-22 July	PART I, II, III
DAYS AT SEA: 5	STATIONS: 76

OBJECTIVES

The objectives were to: 1) conduct annual monitoring of contaminants and bacteria in sediments and contaminant effects on benthic macrofauna; 2) determine rates of seabed oxygen consumption (SOC) for comparison with prior data; and 3) determine redox potentials and densities of diatom resting spores in both grabs and cores at selected stations.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Robert Reid, Chief Scientist
David Radosh
Steven Fromm
Vincent Zdanowicz
William Phoel
Peter Kube
Steven Spina
Kevin Gashlin
Andrew Draxler
Roger Kothe

National Marine Fisheries Service, NEFC, Milford, CT

John Graikoski

National Marine Fisheries Service, Office of Resource Investigations, Washington, DC

Sharon Shutler

New Jersey Department of Environmental Protection, Edison, NJ

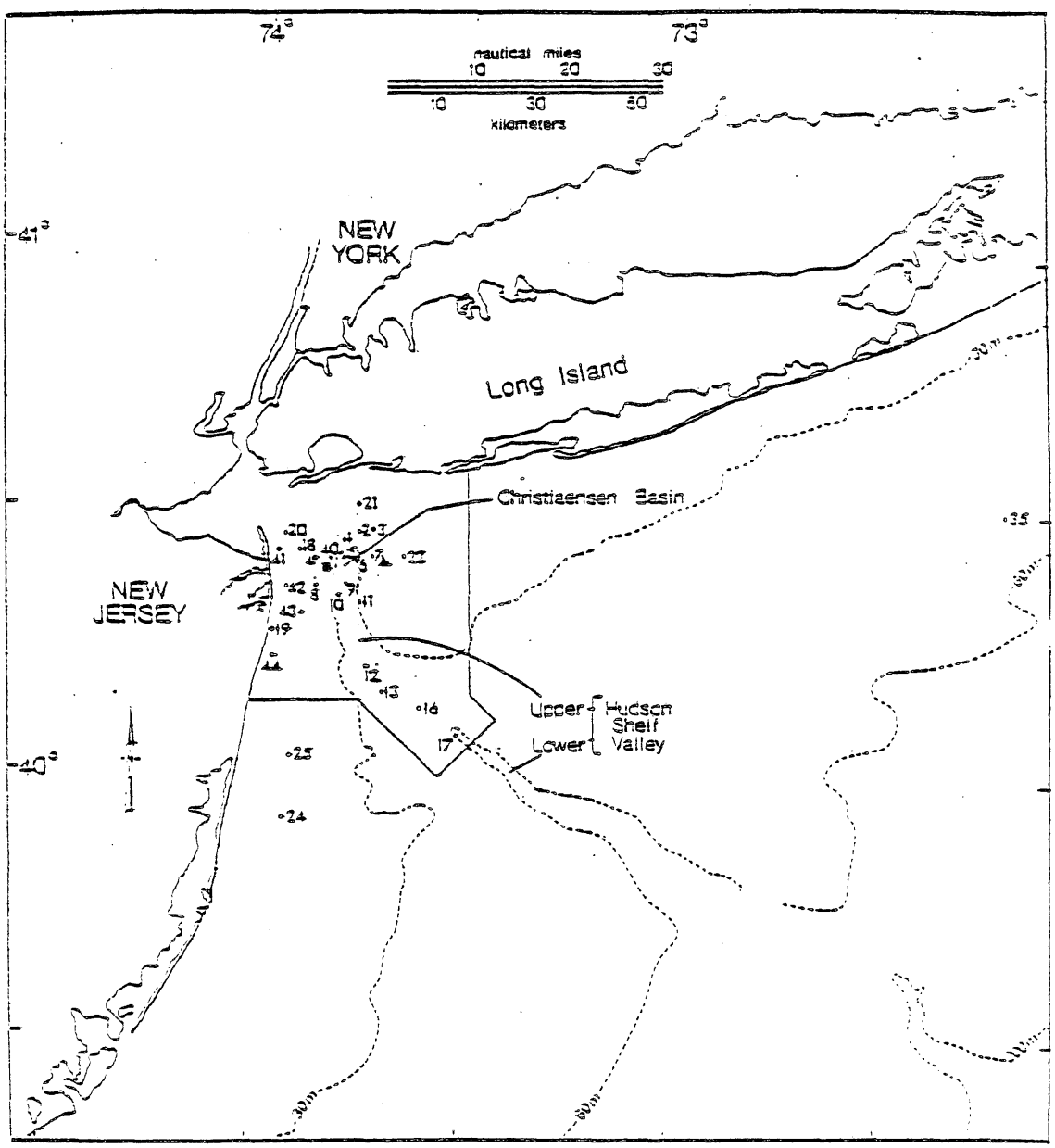
Gail Guttman

State University of New York, Stony Brook, NY

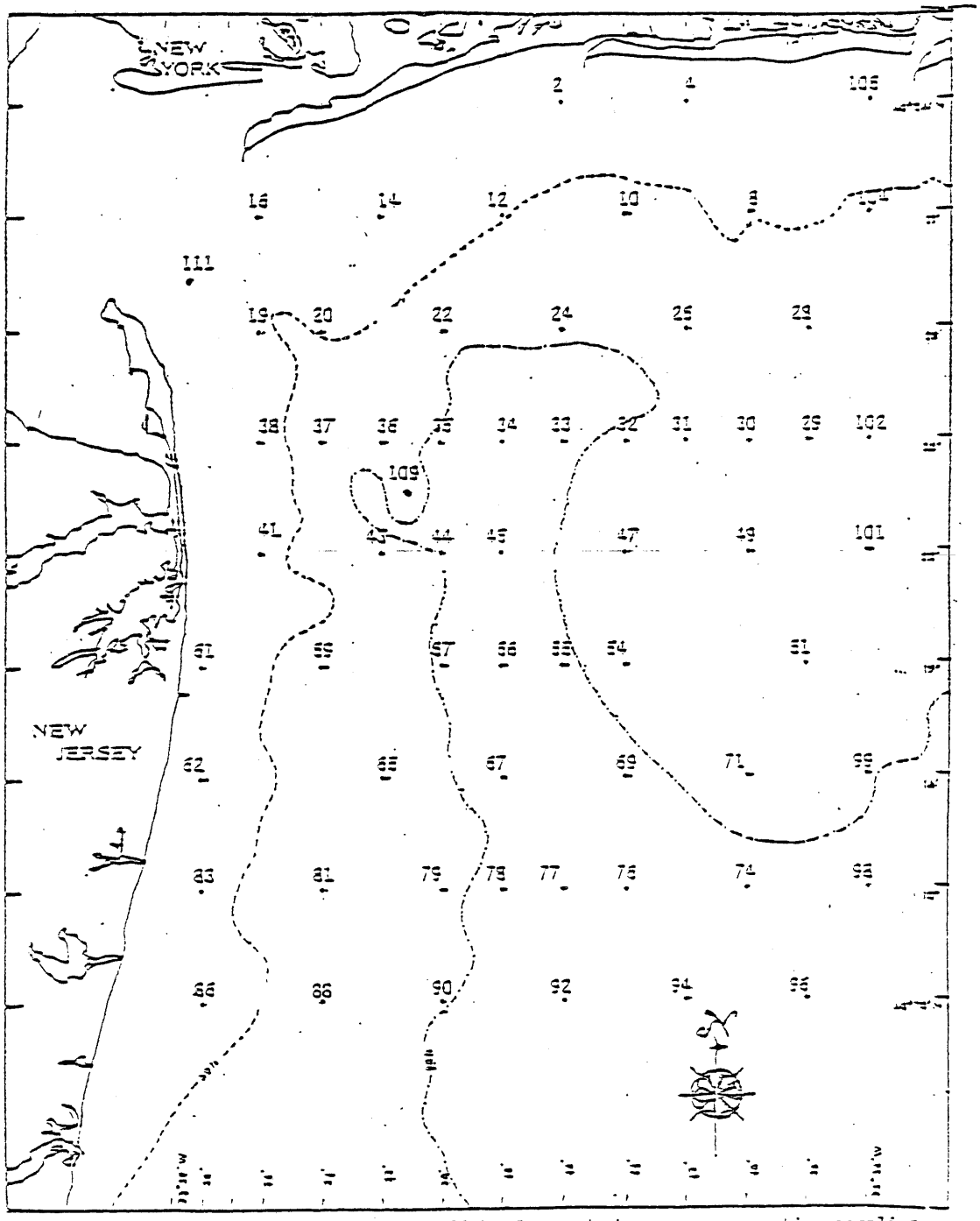
Raymond Valente

DATA COLLECTED

	I PT	II PT	TOTAL		I PT	II PT	TOTAL
.61 cm BONGO				SALINITY SAMPLES			65
.20 cm BONGO				OXYGEN SAMPLES			65
.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			



Station locations in New York Bight for grab sampling on R/V ALBATROSS IV Cruise 83-06 Northeast Monitoring Program, Sediment Quality Monitoring Survey, during 18-22 July, 1983. ▲= Sewage sludge disposal site; ■ = Dredged material disposal site.



Station locations in New York Bight for seabed oxygen consumption sampling on R/V ALBATROSS IV Cruise 83-06 Northeast Monitoring Program, Sediment Quality Monitoring Survey, during 18-22 July 1983.

VESSEL: ALBATROSS IV

CRUISE: 83-07

DATES: July 26-August 5

PART I

DAYS AT SEA: 11

STATIONS: 200

OBJECTIVES

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) determine the distribution and relative abundance of fish eggs and larvae.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Malcolm Silverman, Chief Scientist
Dennis Hansford
Thurston Burns
Loretta O'Brien
Melinda Grace
Donald Mack
Robert Halpin
Andrea Swiecicki
Charles Ball
Robert Johnson

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Doris Finan

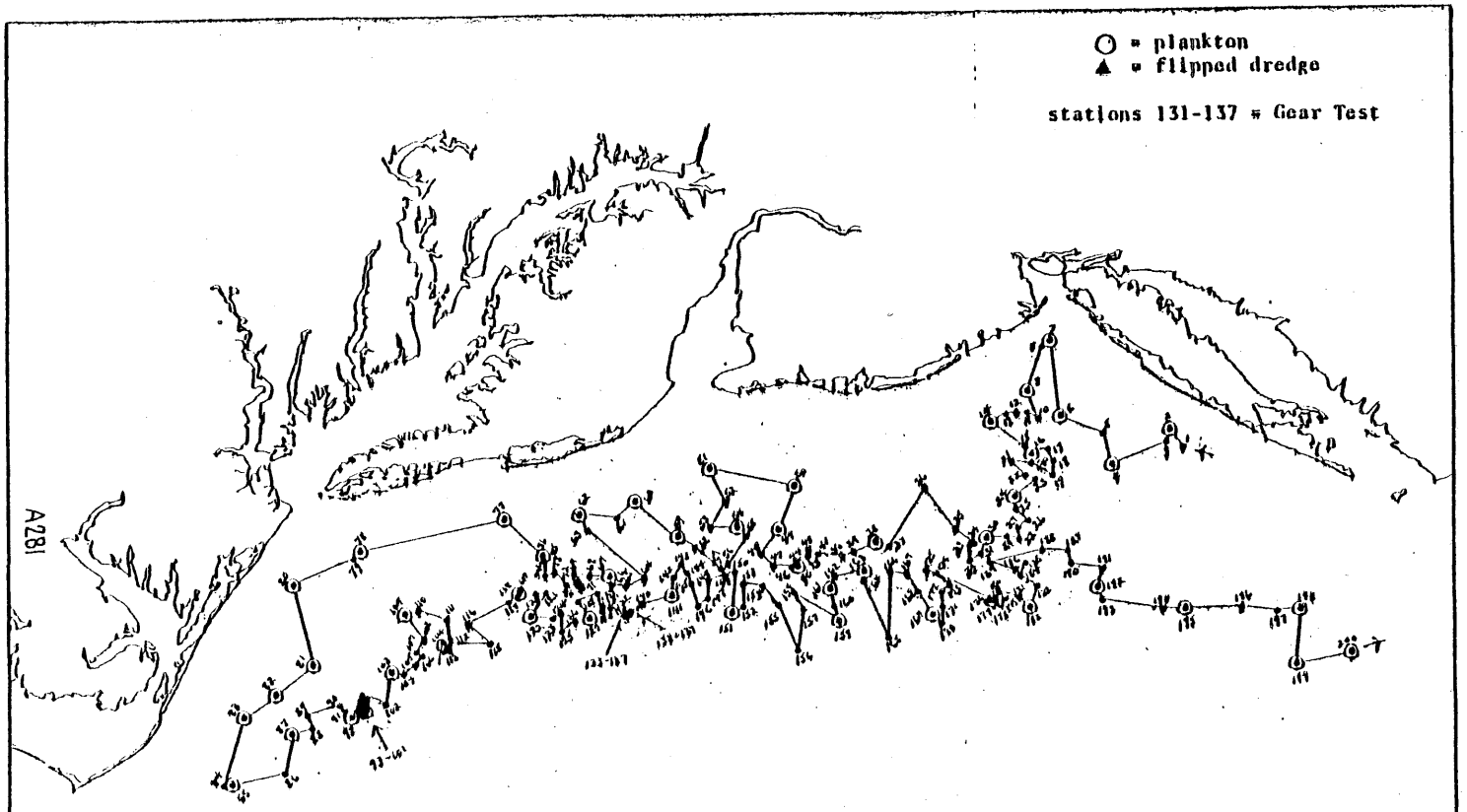
Manomet Bird Observatory, Manomet, MA

Karen Tarnow

DATA COLLECTED

	I PT	II PT	TOTAL
.61 cm BONGO			49
.20 cm BONGO			
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			49
BOTTLE CAST			
CTD CAST			
CURRENT METERS			

	I PT	II PT	TOTAL
SALINITY SAMPLES			49
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLOROPHYLL SAMPLES			
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			
FISH SAMPLES			
SCALLOP DREDGE			200



Station locations and cruise track for R/V ALBATROSS IV Cruise 83-07 (I) Sea Scallop Survey, during 26 July to 5 August 1983.

VESSEL: ALBATROSS IV | CRUISE: 83-07

DATES: August 9-19 | PART II

DAYS AT SEA: 10 | STATIONS:

OBJECTIVES

The objectives of the cruise were to: 1) determine the distribution and relative abundance of the sea scallop (*Placopecten magellanicus*); 2) collect biological samples; 3) determine the distribution and relative abundance of fish eggs and larvae; and 4) obtain samples of the Iceland scallop (*Pecten islandicus*).

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Henry Jensen, Chief Scientist
Margaret McBride
Rose Concha
Isiah McFadden
Brenda Fields
Donna White

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Ellen Johnson
Myron Silverman

Michigan State University, East Lansin, MI

Christopher Cooper

University of Rhode Island, Kingston, RI

Margaret Carriero

Virginia Institute of Marine Science, Gloucester Point, VA

Michael Armstrong

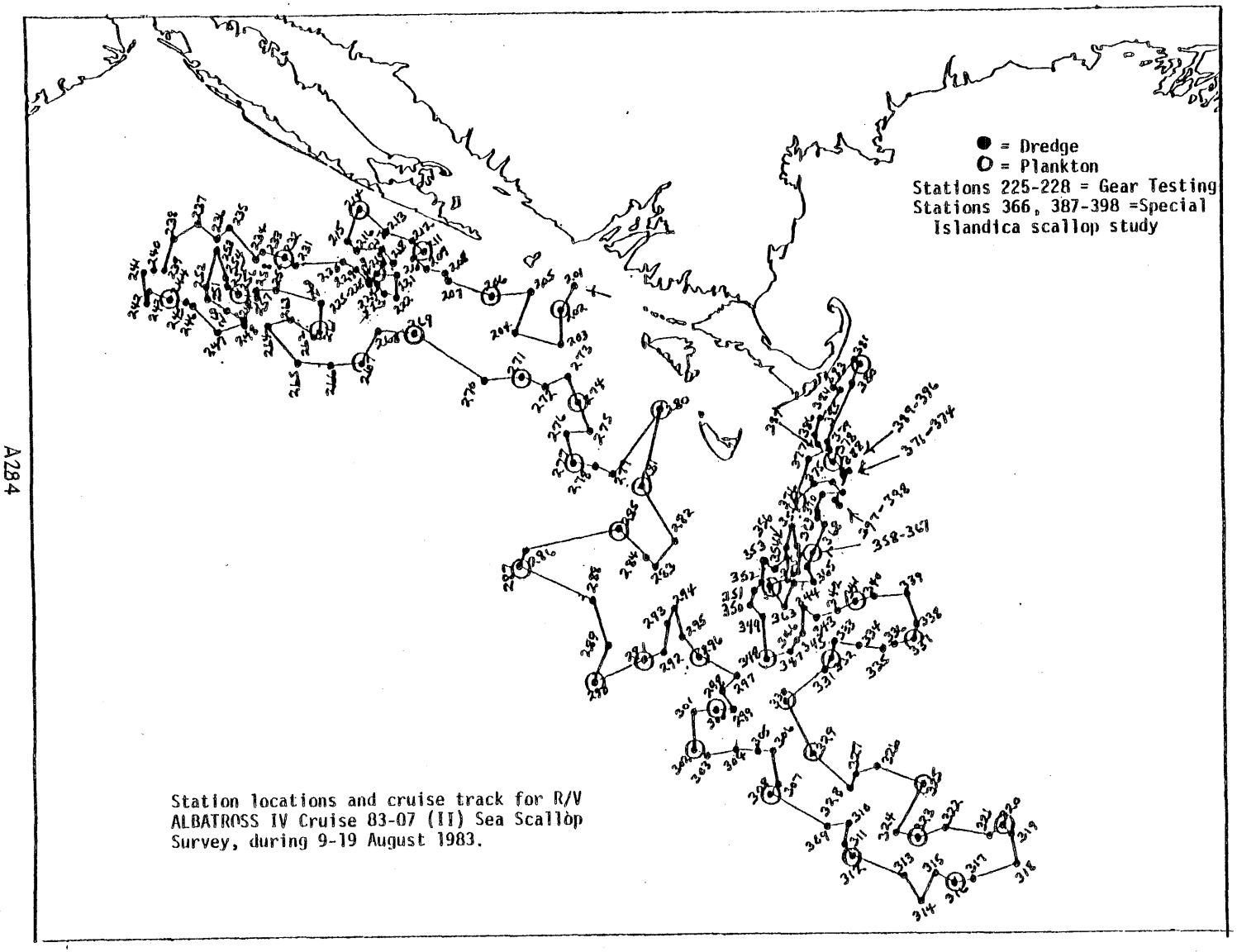
Manomet Bird Observatory

Thomas Crossman

DATA COLLECTED

	I PT	II PT	TOTAL
.61 cm BONGO			42
.20 cm BONGO			
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			42
BOTTLE CAST			
CTD CAST			
CURRENT METERS			

	I PT	II PT	TOTAL
SALINITY SAMPLES			42
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLOROPHYLL SAMPLES			
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			
FISH SAMPLES			
SCALLOP DREDGE			42



Station locations and cruise track for R/V ALBATROSS IV Cruise 83-07 (II) Sea Scallop Survey, during 9-19 August 1983.

VESSEL: ALBATROSS IV	CRUISE: 83-07
DATES: Aug 22-Sept 2	PART III
DAYS AT SEA: 12	STATIONS: 219

OBJECTIVES

The objectives of the survey on Georges Bank were to: 1) determine the distribution and relative abundance of the sea scallop, *Placopecten magellanicus* and the Icelandic scallop, *Chlamys islandica*; 2) collect biological samples; and 3) determine the distribution and relative abundance of fish eggs and larvae. Sampling objectives in the Gulf of Maine were to collect biological samples from deep-water scallop populations in areas of potential importance for commercial exploitation. The work in the South Channel was to evaluate the effects of tow duration on scallop catches.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Linda Despres-Patanjo, Chief Scientist
Harold Foster
Ralph Mayo
Robert Halpin
Patricia Hersey
Susan Wigley
Wendy Sylvia
Jutta Schmidt-Gengenbach

National Marine Fisheries Service, NEFC, Milford, CT

Edith Gould
Beth Marks

National Marine Fisheries Service, NEFC, Narragansett, RI

Joseph Kane

Hampton Institute, Hampton, VA

Gregory Love

Manomet Bird Observatory, Manomet, MA

Lawrence Seltzer

DATA COLLECTED

	I PT	II PT	TOTAL
.61 cm BONGO			35
.20 cm BONGO			
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			35
BOTTLE CAST			
CTD CAST			
CURRENT METERS			

	I PT	II PT	TOTAL
SALINITY SAMPLES			35
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLOROPHYLL SAMPLES			
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			
FISH SAMPLES			
SCALLOP DREDGE			219

Station locations and cruise track for R/V ALBATROSS IV Cruise 83-07 (III) Sea Scallop Survey, during 22 August-2 September 1983 (• random trawl and ⊙ random trawl-plankton stations).

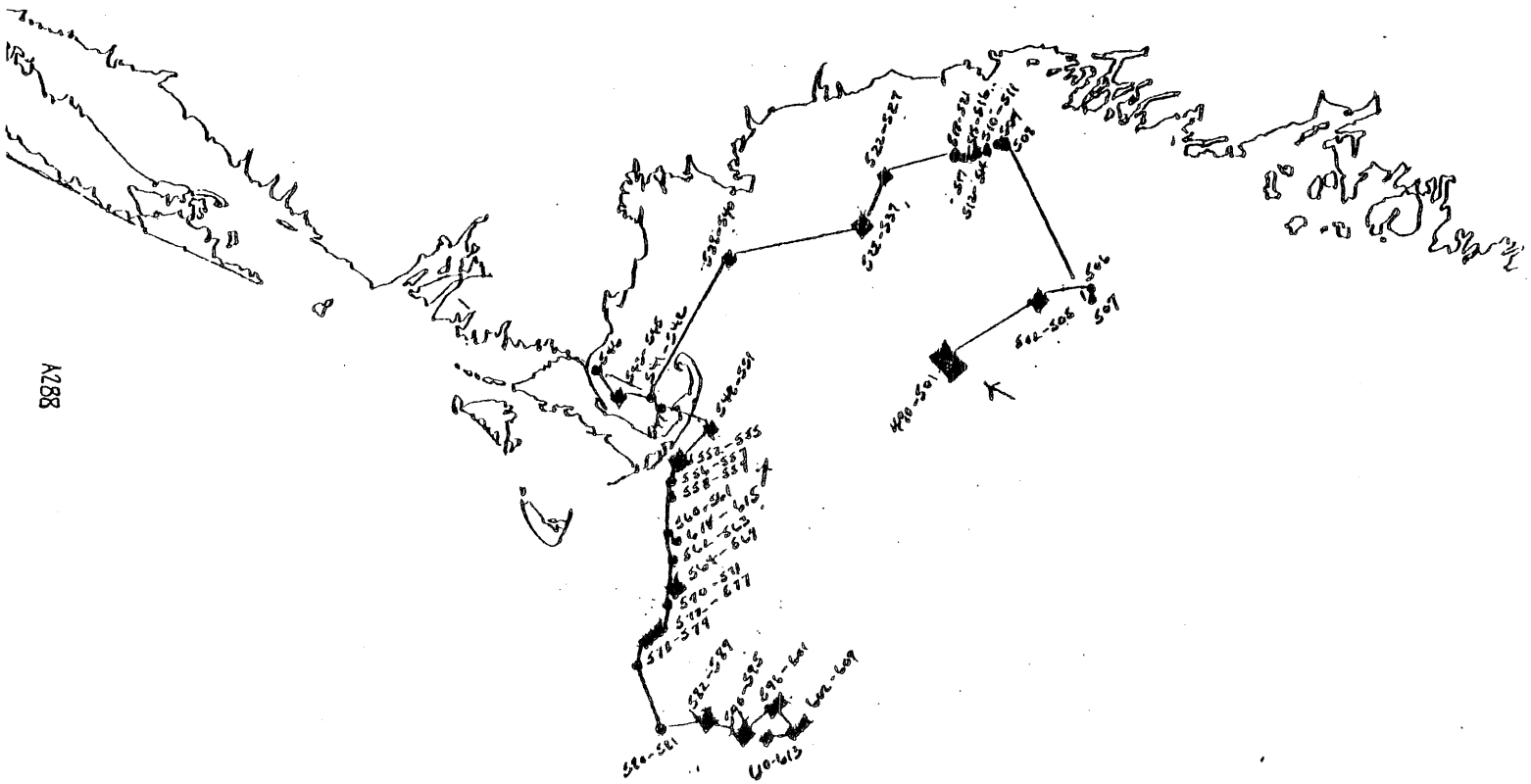


Figure 1 continued.....Station locations and cruise track for R/V ALBATROSS IV Cruise 83-07 (III) Sea Scallop Survey, during 22 August-2 September 1983 (● random and ■ non-random trawl stations).

VESSEL: ALBATROSS IV	CRUISE: 83-08
DATES: Sept 12-30	PART I
DAYS AT SEA: 18	STATIONS: 190

OBJECTIVES

The objectives of the cruise were 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.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

*Thomas Azarovitz, Chief Scientist
**Donald Flescher
Peter Auditore
Charles Bell
Melinda Grace
Robert Halpin
Alicia Kelly
Eileen Klopfer
Eva Montiero
Susan Wigley

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Doris Finan

Virginia Institute of Marine Sciences, Gloucester Point, VA

Dennis Thoney
***Brian Bowen

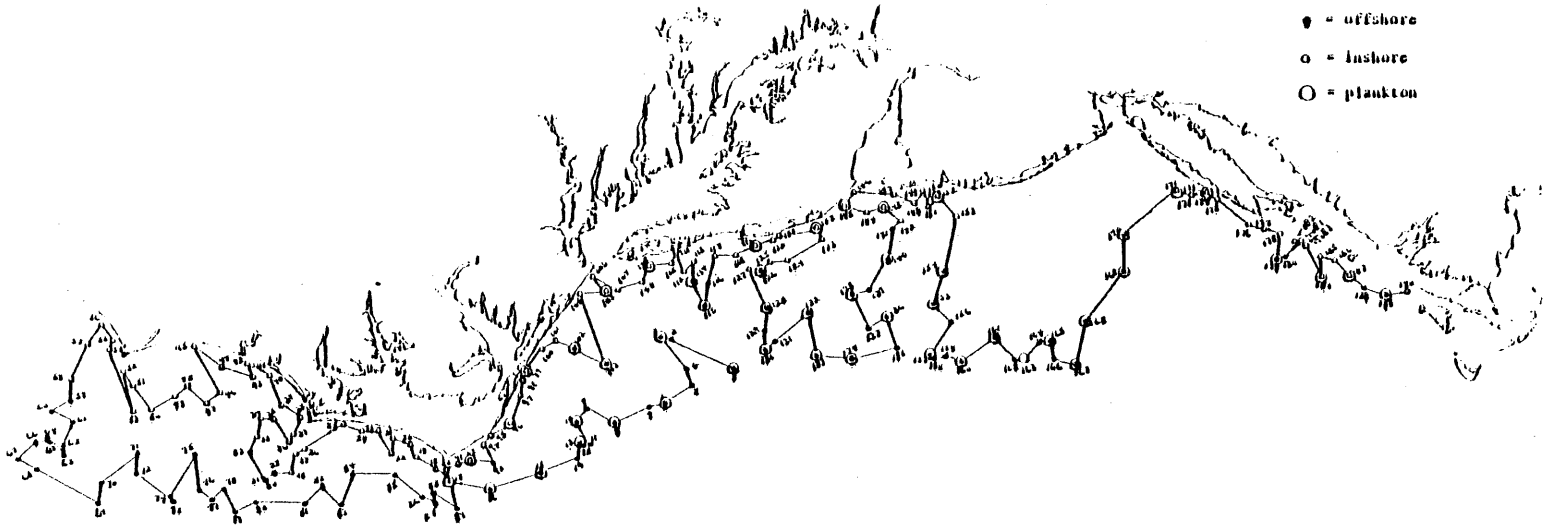
*Debarked vessel on 22 September 1983 at Norfolk, VA
**Chief Scientist from 22-30 September 1983.
***Embarked vessel on 23 September 1983 at Norfolk, VA

Manomet Bird Observatory, Manomet, MA

Gerald Therrian

DATA COLLECTED

	I PT	II PT	TOTAL		I PT	II PT	TOTAL
.61 cm BONGO			50	SALINITY SAMPLES			
.20 cm BONGO				OXYGEN SAMPLES			
.61 cm NEUSTON				NUTRIENT SAMPLES			
.20 cm NEUSTON				CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT			177	DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS			190
CURRENT METERS				FISH SAMPLES			YES



Station locations and cruise track for R/V ALBATROSS IV Cruise 83-08 (I) Autumn Bottom Trawl Survey, during 12-30 September 1983.

VESSEL: ALBATROSS IV	CRUISE: 83-08
DATES: October 3-14	PART II
DAYS AT SEA: 11	STATIONS: 106

OBJECTIVES

The objectives of the cruise were to: 1) determined the autumn 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, 4) collect hydrographic and meteorological samples and data, and 5) collect ichthyoplankton and zooplankton.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Malcolm Silverman, Chief Scientist
Rhett Lewis
Harold Foster
Brenda Fields
Bernice Kingsley
Ronald Mack

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Myron Silverman
John Ziskowski
Ellen Johnson

National Marine Fisheries Service, NEFC, Milford, CT

David Nelson
George Sennefelder

National Marine Fisheries Service, NEFC, Narragansett, RI

Joseph Kane

State University of New York, Stony Brook, NY

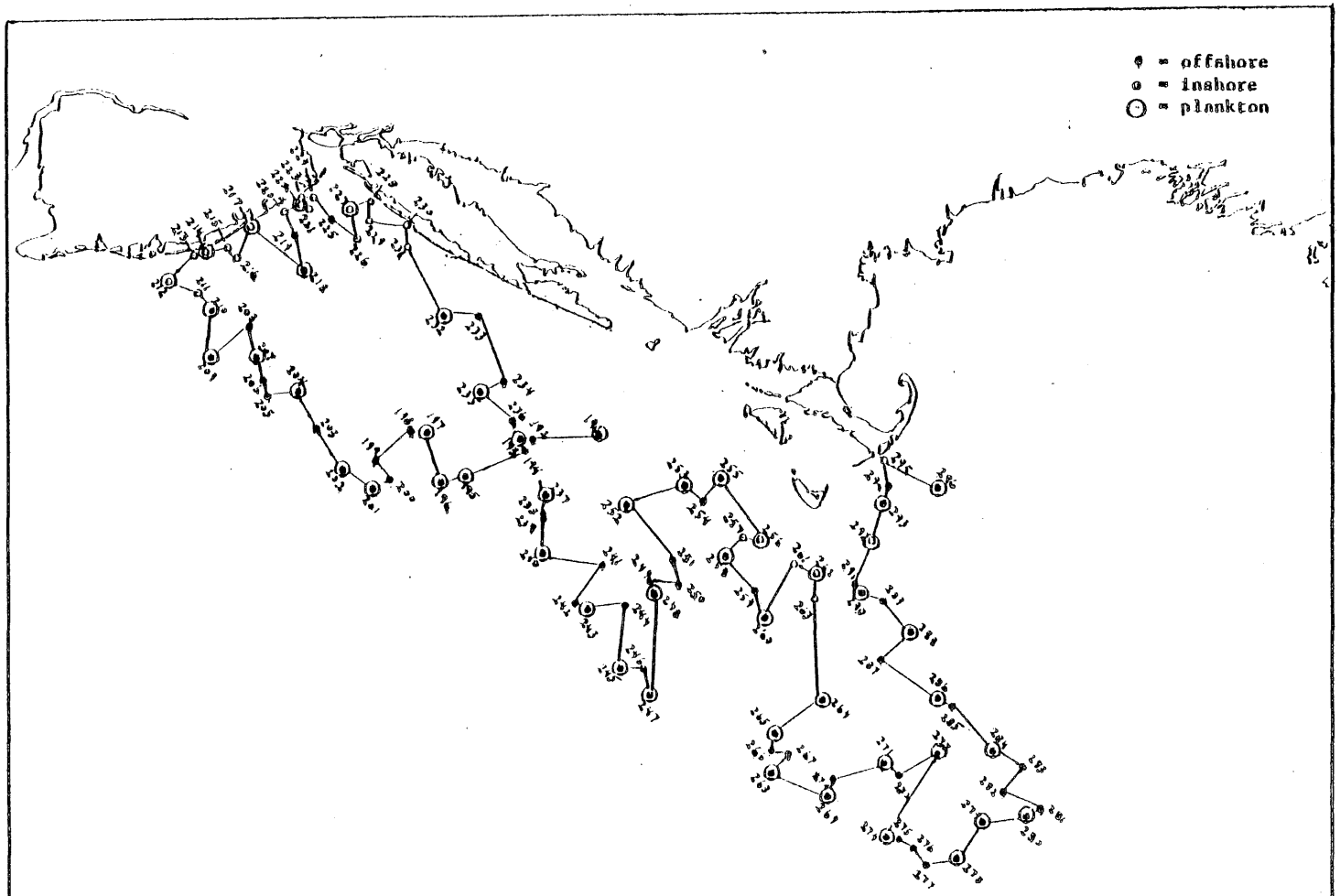
James Gilmore

Manomet Bird Observatory, Manomet, MA

Scott Marion

DATA COLLECTED

	I PT	II PT	TOTAL		I PT	II PT	TOTAL
.61 cm BONGO			49	SALINITY SAMPLES			106
.20 cm BONGO			49	OXYGEN SAMPLES			
.61 cm NEUSTON			49	NUTRIENT SAMPLES			
.20 cm NEUSTON			49	CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT			106	DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS			106
CURRENT METERS				FISH SAMPLES			YES



Station locations and cruise track for R/V ALBATROSS IV Cruise 83-08 (II) Autumn Bottom Trawl Survey, during 3-14 October 1983.

VESSEL: ALBATROSS IV | CRUISE: 83-08

DATES: October 17-28 | PART III

DAYS AT SEA: 12 | STATIONS: 101

OBJECTIVES

The objectives of the cruise were to: 1) determine the autumn 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, 4) collect hydrographic and meteorological samples and data, 5) collect samples of ichthyoplankton and zooplankton, and 6) conduct paired tows with DELAWARE II.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Linda Despres-Patanjo, Chief Scientist
Loretta O'Brien
Frank Almeida
Raymond Maurer
Philip LeBlanc
Adam Green

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Doris Finan
Ellen Johnson

National Marine Fisheries Service, NEFC, Oxford, MD

James Turek

National Marine Fisheries Service, Office of Data Management, Washington, DC

Connie Huss

Tufts University, Boston, MA

Linda Salerno

Massachusetts Division of Marine Fisheries, Cat Cove Laboratory, Salem, MA

Christine Smith

University of Rhode Island, Kingston, RI

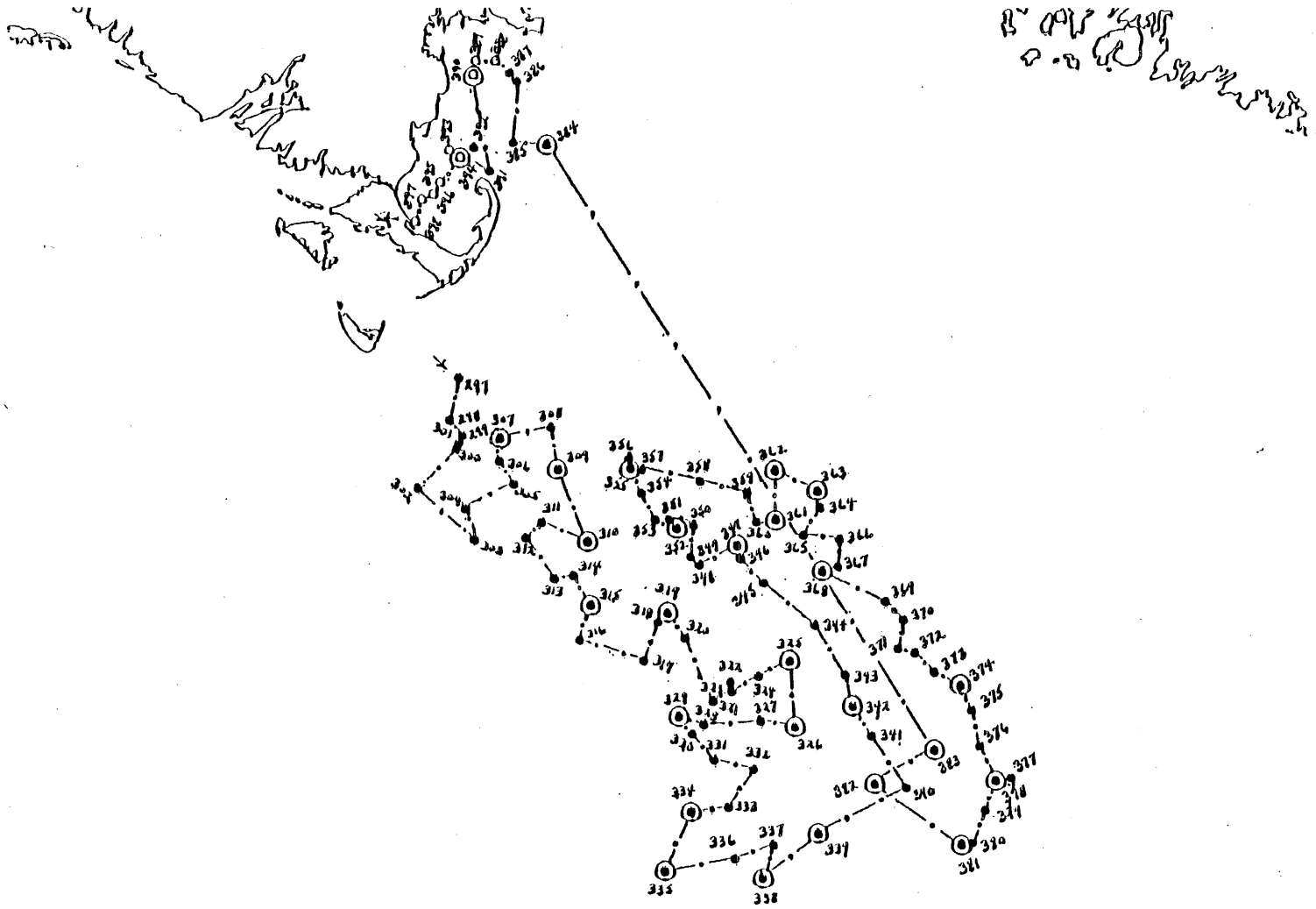
Paul Joyce

Manomet Bird Observatory, Manomet, MA

Hollie Devaul

DATA COLLECTED

	I PT	II PT	TOTAL		I PT	II PT	TOTAL
.61 cm BONGO			28	SALINITY SAMPLES			101
.20 cm BONGO			28	OXYGEN SAMPLES			
.61 cm NEUSTON			28	NUTRIENT SAMPLES			
.20 cm NEUSTON			28	CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT			97	DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS			101
CURRENT METERS				FISH SAMPLES			YES



Station locations and cruise track for R/V ALBATROSS IV Cruise 83-08 (III) Autumn Bottom Trawl Survey, during 17-28 October 1983.

VESSEL: ALBATROSS IV | CRUISE: 83-08

DATES: Oct 31-Nov 10 | PART IV

DAYS AT SEA: 11 | STATIONS:

OBJECTIVES

The objectives of the cruise were 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 50 collect samples of ichthyoplankton and zooplankton.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Donald Flescher, Chief Scientist
Detra Green
Dennis Hansford
Ralph Mayo
William Michaels
John Ropes
Gary Shepherd
Gordon Waring

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Stanley Gorski
Ellen Johnson

National Marine Fisheries Service, NEFC, Narragansett, RI

Joseph Kane

National Marine Fisheries Service, NEFC, Gloucester, MA

Susan Koch

University of Massachusetts, Amherst, MA

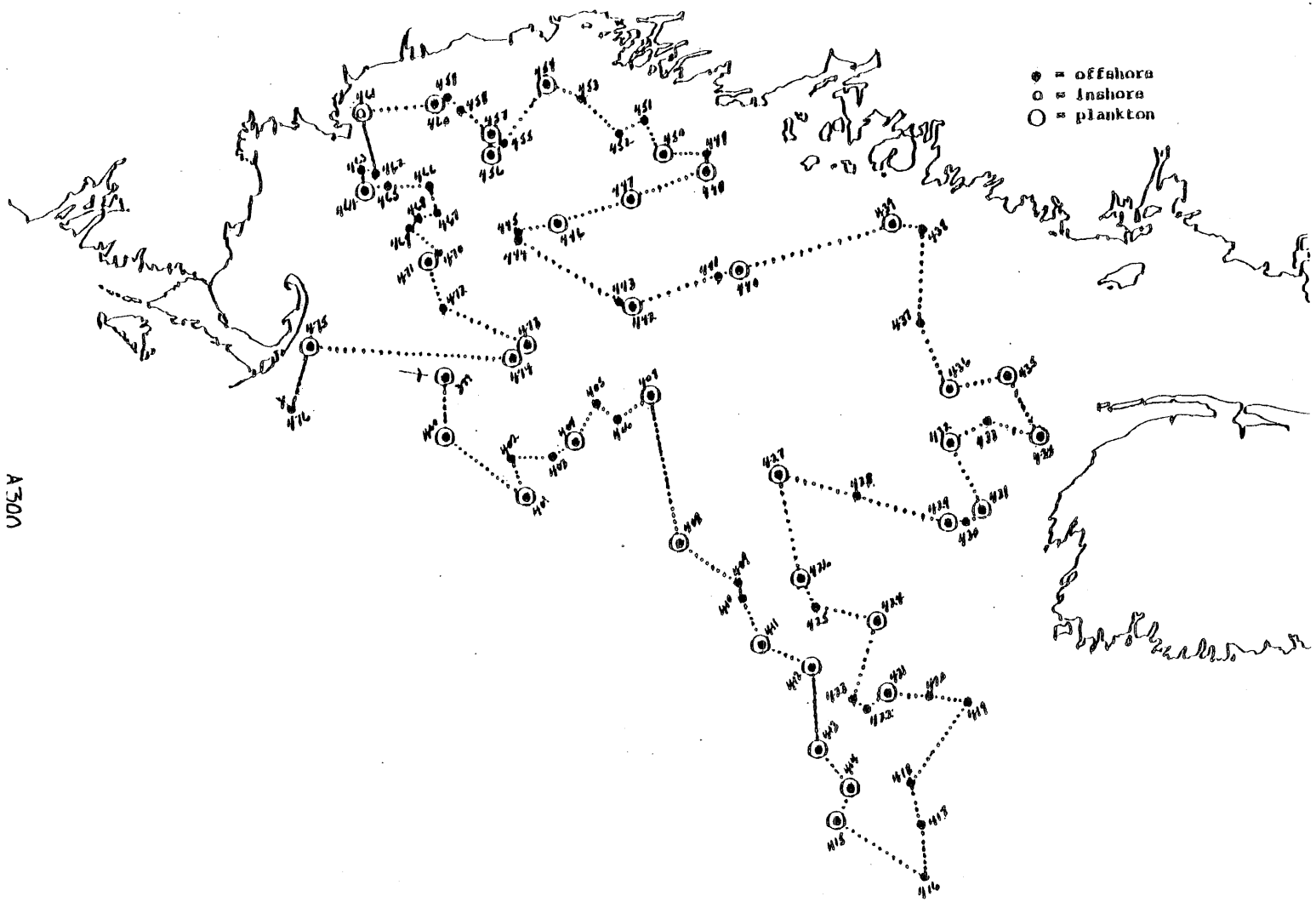
John Burnett

Manomet Bird Observatory, Manomet, MA

Scott Marion

DATA COLLECTED

	I PT	II PT	TOTAL		I PT	II PT	TOTAL
.61 cm BONGO			50	SALINITY SAMPLES			78
.20 cm BONGO			50	OXYGEN SAMPLES			
.61 cm NEUSTON			50	NUTRIENT SAMPLES			
.20 cm NEUSTON			50	CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT			78	DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS			78
CURRENT METERS				FISH SAMPLES			YES



Station locations and cruise track for R/V ALBATROSS IV Cruise 83-08 (IV) Fall Bottom Trawl Survey, during 31 October-10 November 1983.

A300

VESSEL: ALBATROSS IV	CRUISE: 83-09
DATES: Nov 14-23; Nov 28-Dec 9	PART I, II
DAYS AT SEA: 10; 12	STATIONS: 78

OBJECTIVES

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, 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.), and benthic community structure.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Frank Steimle, Chief Scientist	PART I
David Radosh	PARTS I and II (Chief Scientist on PART II)
Russell Terranova	PARTS I and II
Steven Fromm	PARTS I and II
Roger Kothe	PARTS I and II

National Marine Fisheries Service, NEFC, Milford, CT

Jose Pierera	PART I
Donna Luedke	PART I
George Sennefelder	PART II
Diane Rusanowsky	PART II
Robert Bill	PART II

National Marine Fisheries Service, NEFC, Oxford, MD

Tina Roney	PART I
Gretchen Roe	PARTS I and II
Jay Lewis	PART II

Drew University, Madison, NJ

Wendy Kaplan	PARTS I and II
Susan Draxler	PART I

Manomet Bird Observatory, Manomet, MA

Pricilla McQuade	PART II

Old Dominion University, Norfolk, VA

Ann Randolph	PART I
Robert O'Reilly	PART II

Darien High School, Darien, CT

Paul Rista	PART I
John DiFrancisco	PART I
Diane Milano	PART II

DATA COLLECTED

1. Obtained from water samples:

   88 salinity samples at 46 stations
   46 dissolved oxygen samples at 38 stations
   62 phytoplankton samples for community structure

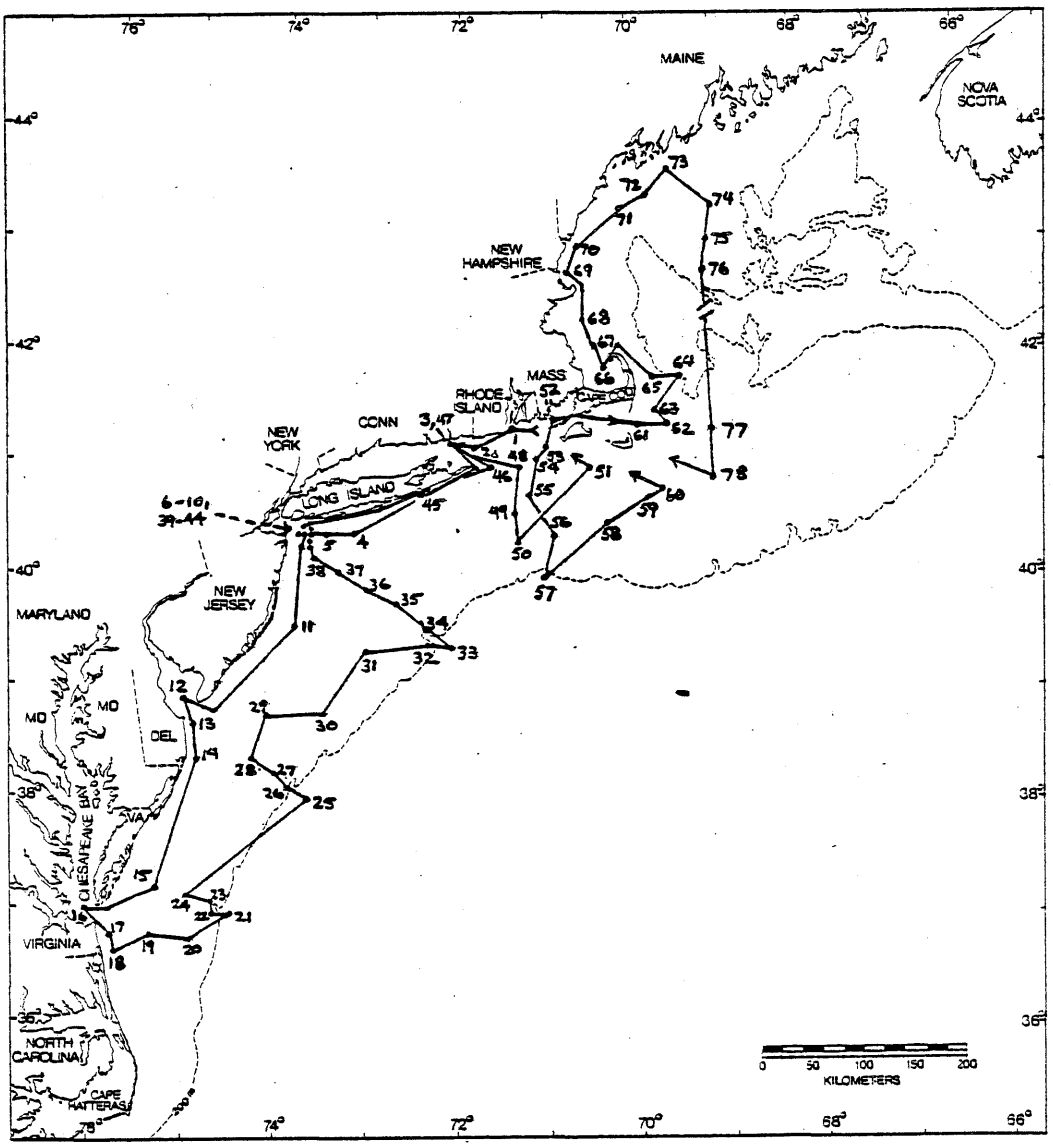
2. Obtained from grab or dredge samples:

   16 samples of bacteriology
   128 sediment cores for trace metals at 32 stations
   120 sediment cores for grain size analysis at 24 stations
   35 samples for hydrocarbon analysis at 7 stations
   120 benthic macrofauna samples at 24 stations
   15 secondary productivity samples at 3 stations
   56 samples for *Gonyaulax* cysts

3. Obtained from trawl collections:

   2 collections of sand lance for pathology
   553 fish samples for stomach content analysis
   328 tissue or specimens for trace metal analysis
   418 flounders examined for diseases
   143 winter flounder for physiology and biochemistry
   85 yellowtail flounder for physiology and biochemistry
   185 windowpane flounder for physiology and biochemistry
   134 scallops for physiology and biochemistry
   581 serum samples from flounders and hakes for immunology
   4 collections of deepwater fauna for calorimetry

4. A total of 67 hours of marine bird and mammal observations



Cruise track and station locations for R/V ALBATROSS IV Cruise 83-09 (I-II), Northeast Monitoring Program, Biological Effects Survey, during 14-23 November, and 28 November-9 December 1983.

VESSEL: DELAWARE II	CRUISE: 83-01
DATES: Jan 17-Feb 11	PART I, II
DAYS AT SEA: 12, 12	STATIONS: 105

OBJECTIVES

This cruise is one of a series of MARMAP I 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.

SCIENTIFIC PERSONNEL

PART I: 17-28 January 1983
PART II: 31 January-11 February 1983

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

John Sibunka, Chief Scientist	PARTS I, II
Peter Berrien	PART I
Paul Lyons	PART II
Ellen Johnson	PARTS I, II
Thomas Finneran	PARTS I, II
Cynthia Muchant	PART I
Kathleen Ingham	PARTS I, II

National Marine Fisheries Service, NEFC, Woods Hole, MA

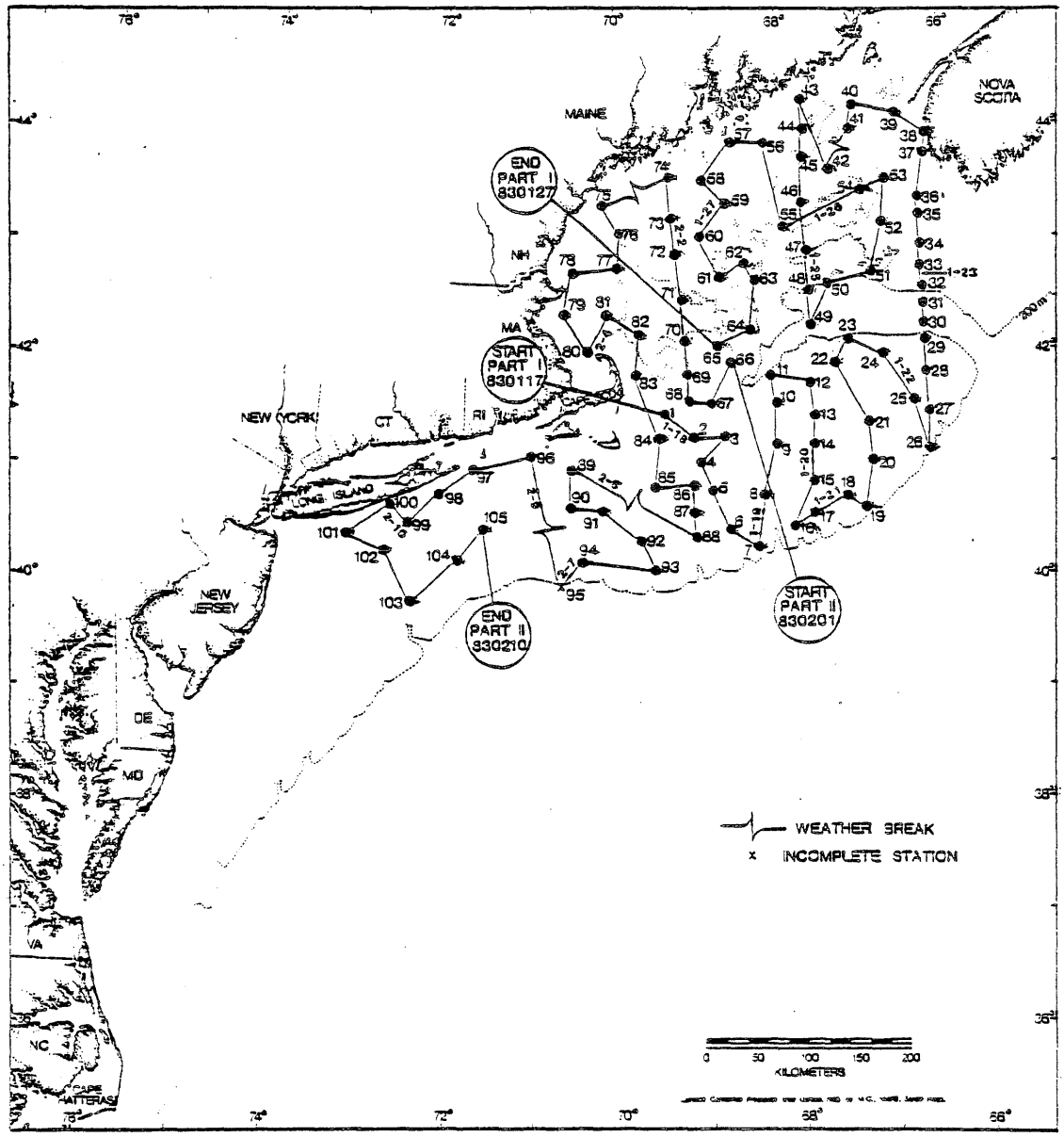
Dana Densmore	PARTS I, II
Catherine Jewell	PARTS I, II
Daniel Patanjo	PART I
Robert Halpin	PART II
Paul Jessen	PART II

Manomet Bird-Observatory, Manomet, MA

Scott Marion	PART I
Eleanor Perkins	PART II

CRUISE STATISTICS

	Part I	Part II	TOTAL
Sea days	12	12	24
Plankton/hydrographic stations	63	39	102
Hydrographic stations	2	1	3
Primary productivity stations	15	10	25
0.61-meter bongo tows (.505/.333-millimeter)	63	39	102
0.20-meter bongo tows (.253/.165-millimeter)	10	5	15
0.20-meter bongo tows (.165/.053-millimeter)	13	9	22
0.5 x 1-meter neuston tows	63	39	102
Haedrich neuston tows	16	10	26
Weather observations	65	40	105
Hydrocasts	65	40	105
Number of Niskin bottles	758	452	1210
Bottles with reversing thermometers	732	428	1160
Salinity samples	758	452	1210
$H_2{}^{18}O$ samples	758	452	1210
Chlorophyll samples	652	388	1040
Dissolved oxygen samples	279	162	441
Phytoplankton samples (M-C)	21	39	60
Samples for *Ceratium tripos*	30	18	48
Surface temperature observations	65	40	105
Secchi disc observations	22	17	39
XBT drops	10	8	18
Marine mammal sightings	21	4	25
Number of bird species sighted	15	14	22



Station locations numbered consecutively for R/V DELAWARE II Cruise 83-01 (I-II), MARMAP I: Ichthyoplankton-Zooplankton, Oceanographic and Primary Productivity Survey, during 17 January-11 February 1983.

VESSEL: DELAWARE II CRUISE: 83-02

DATES: Feb 14-24

DAYS AT SEA: STATIONS: 126

OBJECTIVES

The objectives of the cruise were to: 1) determine the seasaonal distribution and relative abundance of fish species with particular reference to Atlantic herring, 2) complete standard MARMAP stations, 3) collect hydrographic and meteorological samples and data, and 4) collect biological samples for pathological observations.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Linda Despres-Patanjo, Chief Scientist
Gary Shepherd
Brend Fields
Robert Johnson
Scott Mosley

National Ocean Survey, NEFC, Woods Hole, MA

Ellen McDougal

National Marine Fisheries Service, NEFC, Oxford, MD

Martin Newman

National Marine Fisheries Service, NEFC, Narragansett,RI

Joseph Kane

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

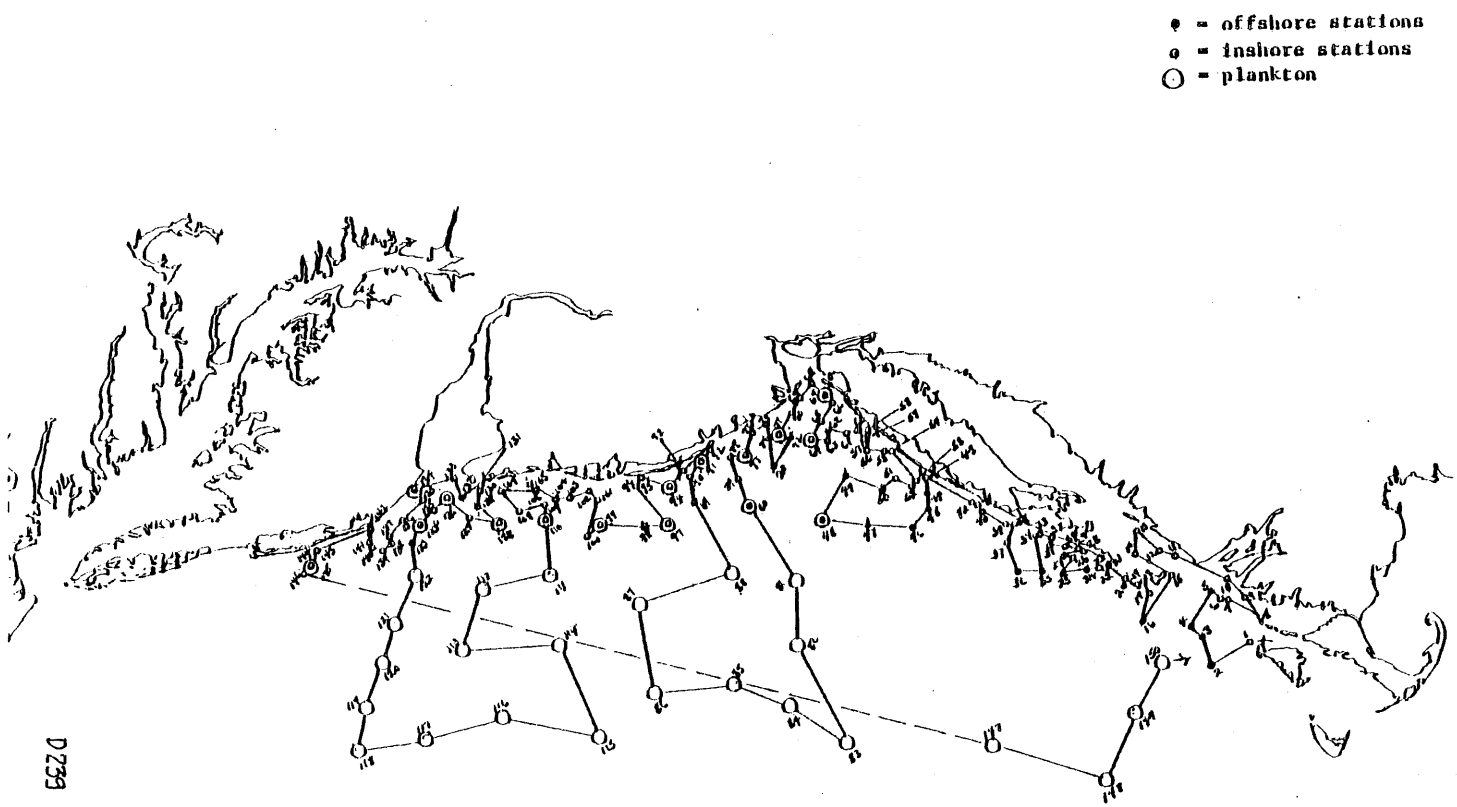
Alyce Wells

Manomet Bird Observatory, Manomet, MA

Scott Marion

DATA COLLECTED

	I PT	II PT	TOTAL		I PT	II PT	TOTAL
.61 cm BONGO			39	SALINITY SAMPLES			150
.20 cm BONGO			39	OXYGEN SAMPLES			
.61 cm NEUSTON				NUTRIENT SAMPLES			
.20 cm NEUSTON				CHLOROPHYLL SAMPLES			
HAEDRICH				PRIMARY PRODUCTIVITY			
XBT			150	DROGUES			
BOTTLE CAST				SECCHI DISC			
CTD CAST				TRAWLS			126
CURRENT METERS				FISH SAMPLES			YES



Station locations for DELAWARE II Cruise 83-02 Trawl Survey for Atlantic Herring, during 14-24 February 1983.

D733

VESSEL: DELAWARE II CRUISE: 83-03

DATES: Feb 28-March 9

DAYS AT SEA: 10 STATIONS: 73

OBJECTIVES

The objectives of the cruise were to: 1) determine the seasonal distribution and relative abundance of fish species with particular reference to Atlantic herring; 2) collect biological samples; 3) collect hydrographic and meteorological samples and data; 4) collec hydroacoustic data, using both standard and color depth sounding instruments, with the aim of developing hydro-acoustic survey techniques for Atlantic herring; and 5) acoustically measure the opening of a NEFC standardized Number 36 Yankee otter trawl using two sizes of BMV oval trawl doors.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Charles Byrne, Chief Scientist
Andrew Thoms
Dennis Hansford
Roger Clifford
Patricia Hersey
Evetta Dozier
Darvene Adams

Charles S. Draper Laboratory, Massachusetts Institute of Technology, Cambridge, MA

John Suomala
William DeRusso

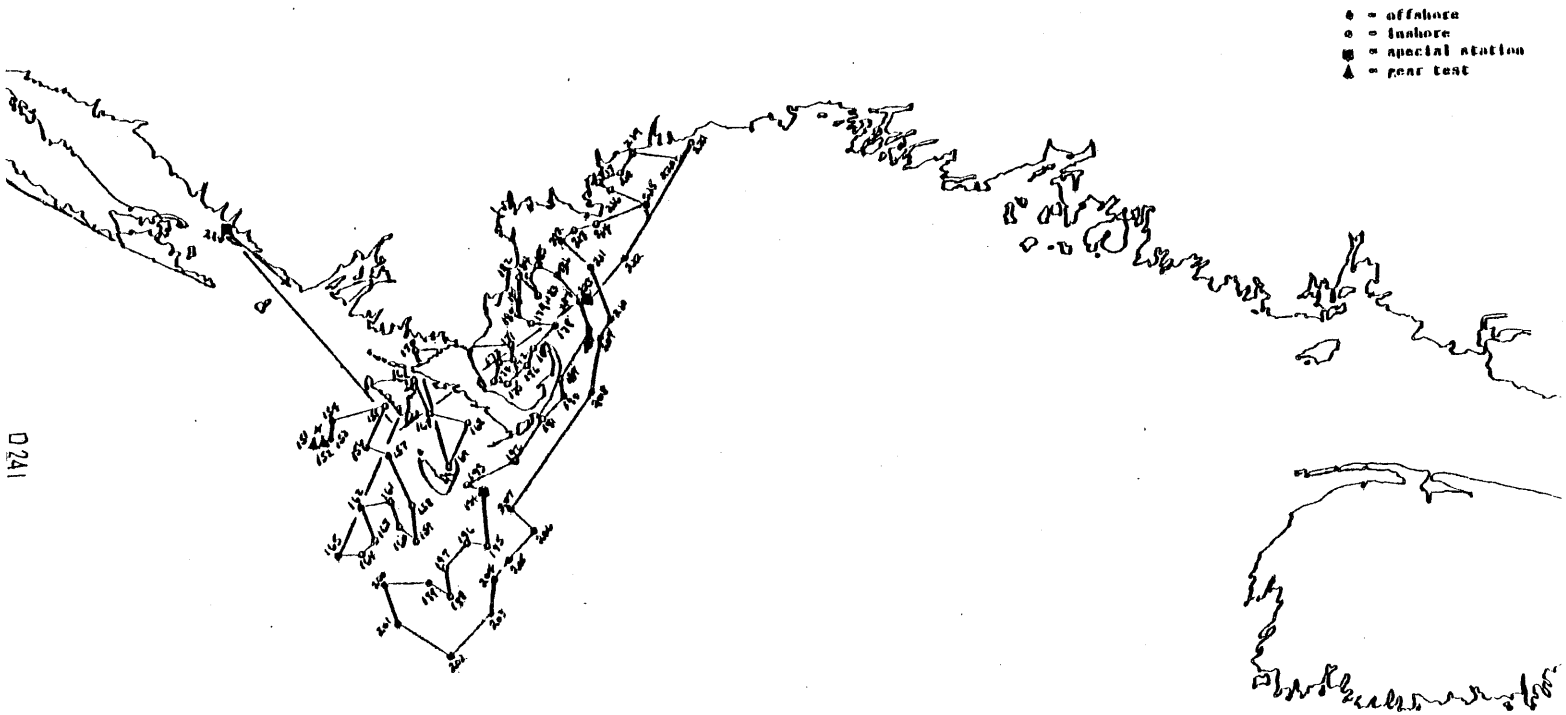
Antioch University, Yellows Spring, OH

Esther Howard

DATA COLLECTED

	I PT	II PT	TOTAL
.61 cm BONGO			
.20 cm BONGO			
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			70
BOTTLE CAST			
CTD CAST			
CURRENT METERS			

	I PT	II PT	TOTAL
SALINITY SAMPLES			70
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLOROPHYLL SAMPLES			
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			73
FISH SAMPLES			YES
HYDROACOUSTIC DATA TAPES			19



Station locations for R/V DELAWARE II Cruise 83-03 Winter Trawl and Gear Comparison Survey, during 28 February-9 March 1983.

VESSEL: DELAWARE II | CRUISE: 83-07

DATES: Aug 15-26/Aug 29-Sept 7 | PART I, II

DAYS AT SEA: 11/10 | STATIONS:

OBJECTIVES

The objectives of the cruise were to: 1) investigate the distribution and relative abundance of the surf clam (*Spisula solidissima*), ocean quahop (*Arctica islandica*), and other molluscs; 2) collect biological samples and data relative to assessment needs; 3) collect ichthyoplankton samples; 4) recapture marked *Artica*; 5) make collections for interested scientists from other institutions and NMFS laboratories; and 6) monitor meteorological and hydrographical conditions during the survey.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Charles Byrne, Chief Scientist	PARTS I, II
Andrew Thoms	PARTS I, II
Mark Matulaitis	PARTS I, II
Christopher Gledhill	PART I
Eileen Klopfer	PART I
Bridget O'Brien	PART I
Ira Palmer	PART II
William Overholtz	PART II
Uvetta Dozier	PART II
Judith Gordon	PART II

National Marine Fisheries Service, NEFC, Narragansett, RI

Jerome Prezioso	PART I
Patricia Michalik	PARTS I, II

National Marine Fisheries Service, NEFC, Cape May, NJ

Walter Makowski	PART I

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

Ellen Johnson	PART II

National Marine Fisheries Service, NEFC, Oxford, MD

Frederick Kern	PART II

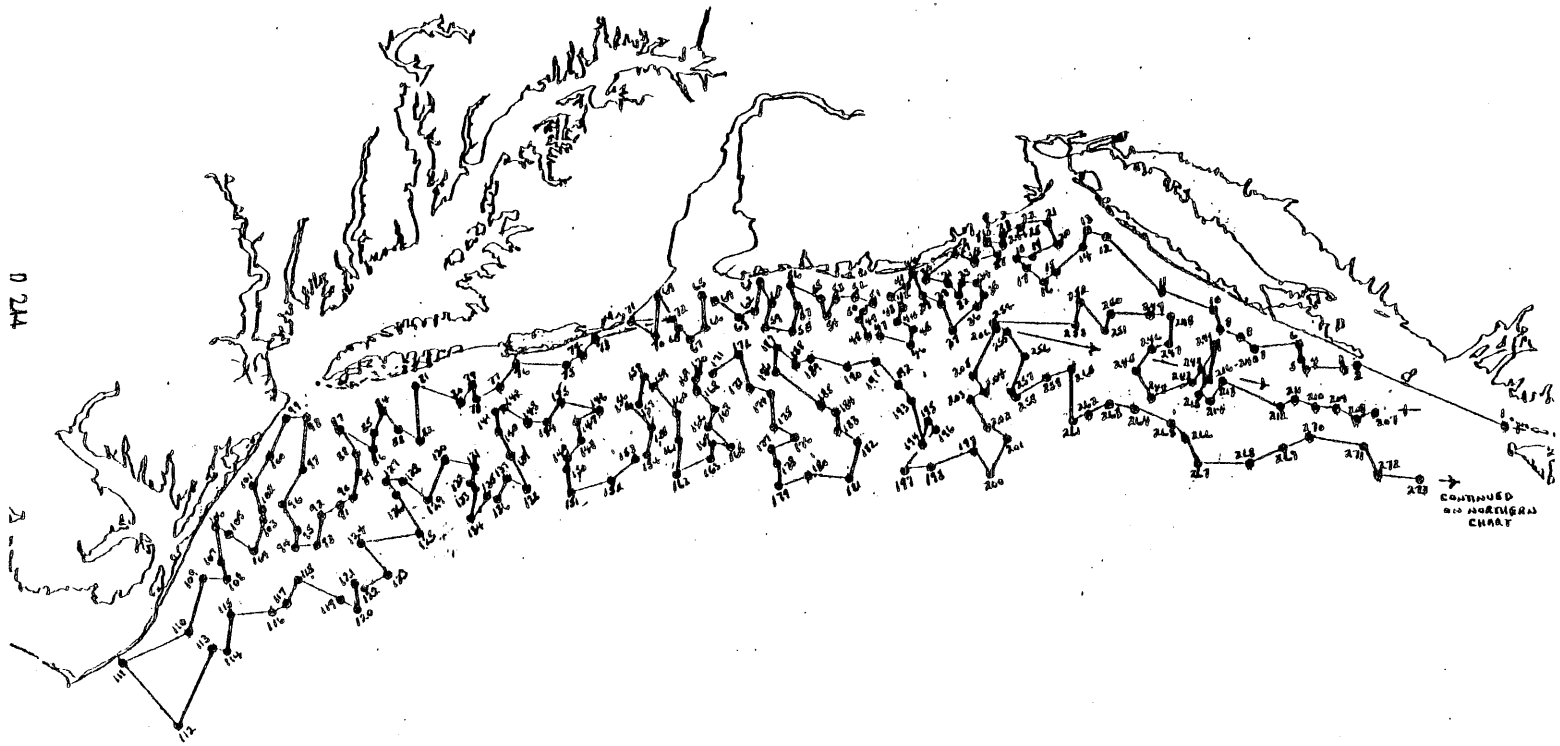
Hampton Institute, Hampton, VA

Thea Jackson PART I

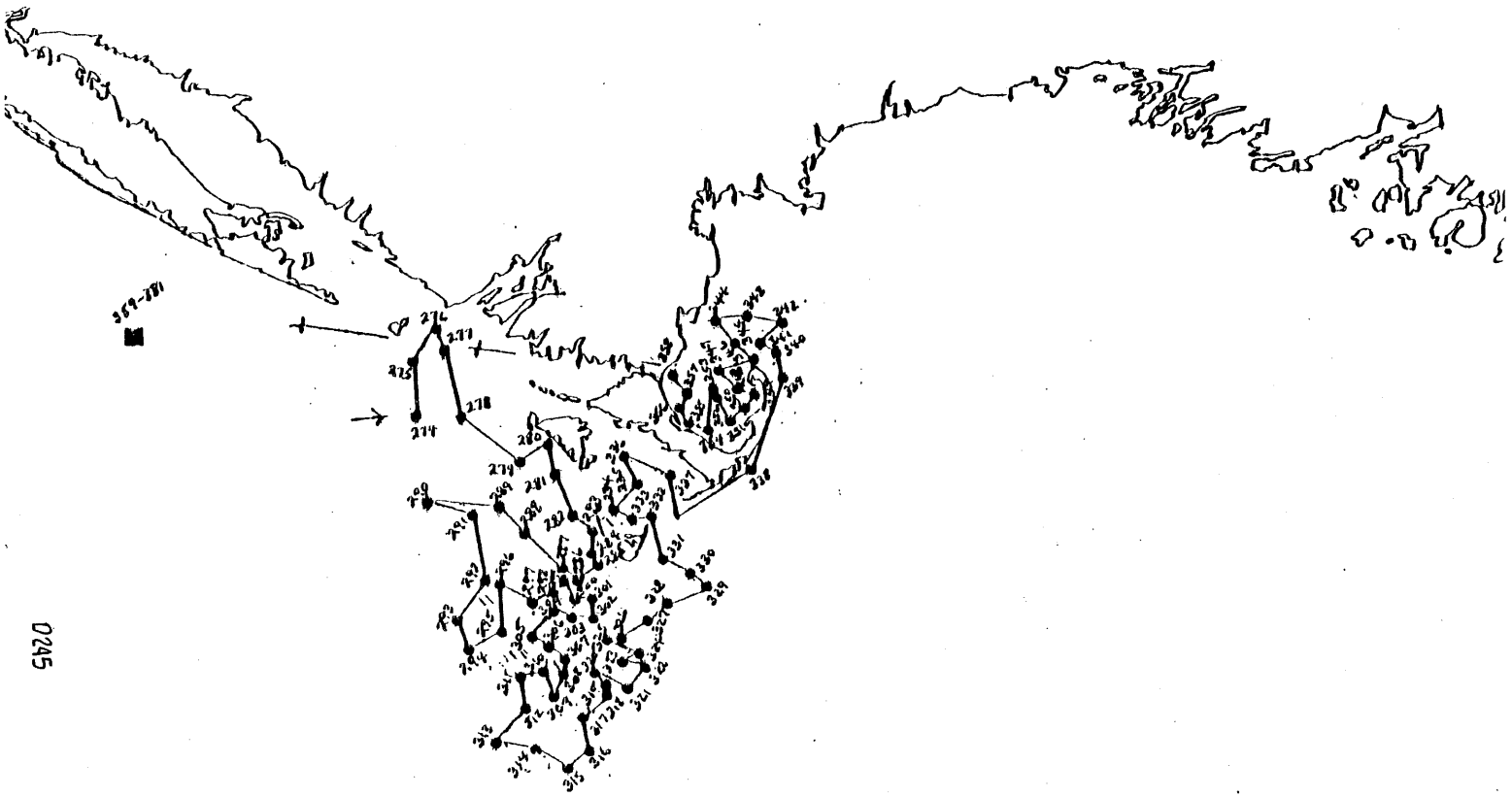
DATA COLLECTED

	I PT	II PT	TOTAL
.60 cm BONGO			60
.20 cm BONGO			
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			62
BOTTLE CAST			
CTD CAST			
CURRENT METERS			

	I PT	II PT	TOTAL
SALINITY SAMPLES			
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLOROPHYLL SAMPLES			
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			
FISH SAMPLES			
CLAM DREDGE			381



Station locations and cruise track for R/V DELAWARE II Cruise 83-07 (I-II) Shellfish Resource Assessment Survey, during 15 August-7 September 1983.



continued....Station locations and cruise track for R/V DELAWARE II Cruise 83-07 (I-II) Shellfish Resource Assessment Survey, during 16 August-7 September 1983 (• random and ■ non-random stations).

VESSEL: DELAWARE II | CRUISE: 83-07

DATES: Sept 13-28 | PART III

DAYS AT SEA: 16 | STATIONS: 138

OBJECTIVES

The objectives of the cruise were to: 1) investigate the distribution and relative abundance of *Arctica islandica*, *Spisula polynyma*, and *Cyrtodaria siliqua* on Georges Bank, the Scotian Shelf, and St. Ann's Bank; 2) collect biological samples and data relative to assessment needs; 3) recover previously marked ocean quahops (*Arctica islandica*) and to continue marking those animals at one site on Sable Island Bank; 4) initiate a marking study of *Spisula polynyma*; and 5) make collections for scientists from various government and private agencies.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFC, Woods Hole, MA

Andrew Thoms, Co-Chief Scientist
John Ropes
Roger Clifford
Mark Matulaitis

Fisheries and Oceans Canada, Halifax, Nova Scotia, Canada

Christopher Hawkins, Co-Chief Scientist
Allison Edwards
Curtis Dunn
Catherine Welch

Bio-ATLANTECH ltd., Halifax, Nova Scotia, Canada

David Chaisson

Dalhousie University, Halifax, Nova Scotia, Canada

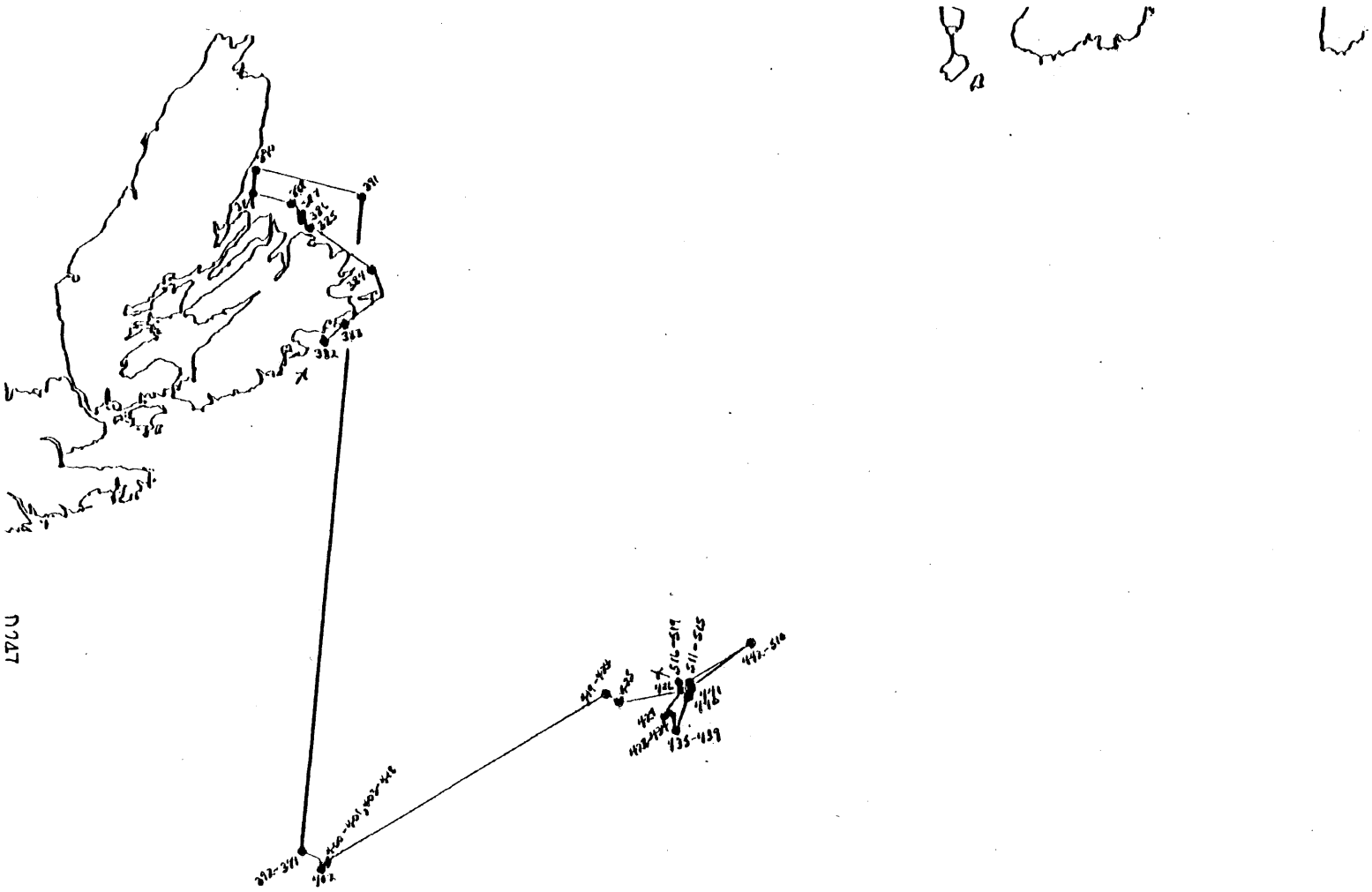
Stewart Johnson

DATA COLLECTED

	I PT	II PT	TOTAL
.61 cm BONGO			
.20 cm BONGO			
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			
BOTTLE CAST			
CTD CAST			
CURRENT METERS			

	I PT	II PT	TOTAL
SALINITY SAMPLES			
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLOROPHYLL SAMPLES			
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			
FISH SAMPLES			
CLAM DREDGE			138

D246



Station locations and cruise track for R/V DELAWARE II Cruise 83-07 (III) Shellfish Resource Assessment Survey, during 13-28 September 1983.

Figure 1 continued...Station locations and cruise track for R/V DELAWARE II Cruise 83-07 (III) Shellfish Resource Assessment Survey, during 13-28 September 1983.

VESSEL: DELAWARE II	CRUISE: 83-08
DATES: Oct 4-14; 17-226; 26-27	PART I, II, III
DAYS AT SEA: 20	STATIONS: 140

OBJECTIVES

The objectives were to: (1) test the effects of different trawl doors on trawl performance and catch rates; (2) conduct a parallel fishing experiment with R/V ALBATROSS IV to study the effect of types of trawl doors on catch rates and composition of species; (3) collect hydroacoustic data in conjunction with trawling operations; and (4) demonstrate normal research vessel operations for an A-76 review team.

SCIENTIFIC PERSONNEL

PART I, 4-14 October 1983

National Marine Fisheries Service, NEFC, Woods Hole, MA

Charles Byrne, Chief Scientist
Dennis Hansford
Adam Green
Cheryl Windsor
Uvetta Dozier
Tina Holbrook
Jutta Schmidt
Patrick Twohig (5-7 and 12-14 October 1983)

Eastern Nazarene College, Quincy, MA

Mark Sims (4-5 and 7-14 October 1983)
John Twining (4-12 October 1983)

Northeastern University, Boston, MA

Steven Bailey

PART II, 17-26 October 1983

National Marine Fisheries Service, NEFC, Woods Hole, MA

Charles Byrne, Chief Scientist
Andrew Thoms
John Nicolas
Bryan Wells
Elizabeth Kenney
Judith Gordon
Eva Montiera

NOAA, Ocean Assessment Division, Washington, DC

Tracey Gill

Charles Stark Draper Laboratory, Cambridge, MA

John Suomala
Carmen Martorella

PART III, 26-27 October 1983

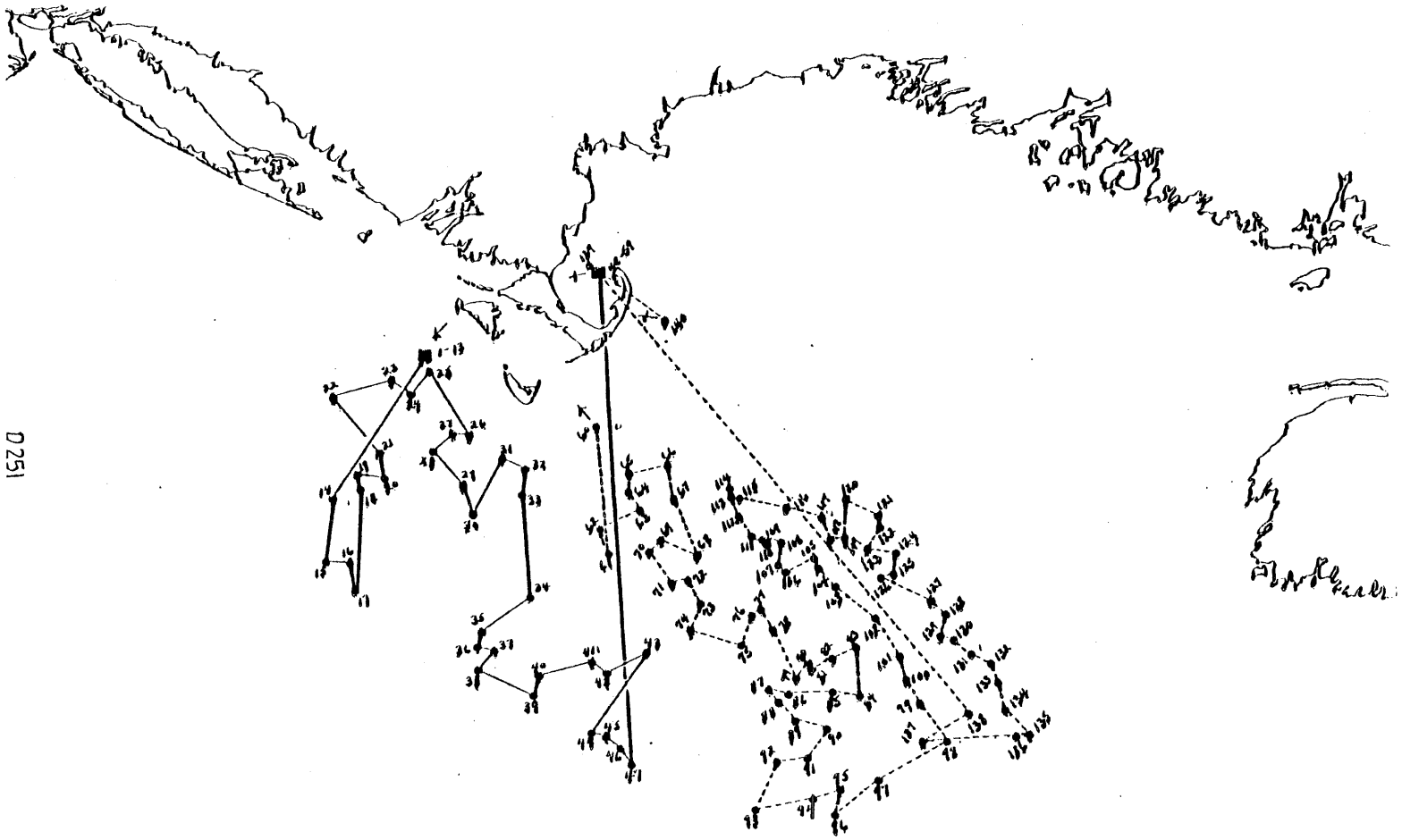
National Marine Fisheries Service, NEFC, Woods Hole, MA

Thomas Azarovitz, Chief Scientist
Michael Sissenwine
Charles Byrne
Dana Densmore

DATA COLLECTED

	I PT	II PT	TOTAL
.61 cm BONGO			
.20 cm BONGO			
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			
BOTTLE CAST			
CTD CAST			
CURRENT METERS			

	I PT	II PT	TOTAL
SALINITY SAMPLES			
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLORPHYLL SAMPLES			
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			140
FISH SAMPLES			YES
HYDROACOUSTIC DATA	20 Cassette Tapes		



Station locations and cruise track for R/V DELAWARE II Cruise 83-08 (I-III) Gear Testing, during 4-27 October 1983.

VESSEL: DELAWARE II | CRUISE: 83-09

DATES: Nov 14-23, Nov 28-Dec 8, Dec 12-21 | PART I, II, III

DAYS AT SEA: 10, 11, 10 | STATIONS: 55, 55, 42

OBJECTIVES

This cruise is one of a series of MARMAP I 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.

SCIENTIFIC PERSONNEL

PART I: 14-23 November 1983
PART II: 28 November-8 December 1983
PART III: 12-21 December 1983

National Marine Fisheries Service, NEFC, Sandy Hook, NJ

John Sibunka, Chief Scientist	PARTS I, II, III
Donald McMillan	PARTS I, II, III
Kathleen Ingham	PARTS I, II, III
Cynthia Muchant	PARTS I, II, III
Ellen Johnson	PART I
Myron Silverman	PART I

National Marine Fisheries Service, NEFC, Woods Hole, MA

Dana Densmore	PARTS I, II, III
Daniel Patanjo	PART I
David Flanagan	PARTS I, III
Benjamin Marshall	PART II
Paul Jessen	PARTS II, III
Robert Halpin	PART II

National Marine Fisheries Service, NEFC, Narragansett, RI

Jacqueline Anderson	PART II
Joseph Kane	PART III
Carolyn Griswold	PART III

Manomet Bird Observatory, Manomet, MA

Wendy Van Dyke	PART I
Holly DeVaul	PARTS II, III

DATA COLLECTED

	PART I	PART II	PART III	TOTA
Sea Days	10	11	10	31
Plankton/hydrographic stations	55	55	42	152
Primary productivity stations	11	13	11	35
0.61-meter bongo tows (.505/.333-millimeter)	55	55	41	151
0.20-meter bongo tows (.253/.165-millimeter)	7	13	9	29
0.20-meter bongo tows (.165/.053-millimeter)	13	13	12	38
0.5 x 1-meter neuston tows	55	55	41	151
Haedrich neuston tows	17	20	9	46
Weather observations	55	55	42	152
Hydrocasts	55	55	42	152
Number of Niskin bottles	452	591	513	1556
Bottles with reversing thermometers	405	549	499	1453
Salinity samples	452	591	511	1544
$H_2{}^{18}O$ samples	452	591	511	1554
Chlorophyll samples	418	525	444	1387
Dissolved oxygen samples	166	281	209	656
Phytoplankton samples (M-C)	54	55	42	151
Surface temperature observations	55	55	42	152
Secchi disc observations	22	21	15	58
XBT drops	8	17	15	40
Marine mammal sightings	2	20	5	27
Number of bird species sighted	16	17	19	15

VESSEL: ADMIRAL ARCISZEWSKI (Polish) CRUISE: 83-01

DATES: Feb 2-April 8 PART I-VI

DAYS AT SEA: 20; 22; 22; 5; 20; 8 STATIONS: 186

OBJECTIVES

The objectives of the cruise were to: 1) obtain length and age data for mackerel from commercial-sized catches in order to monitor the age structure of the overwintering stock, 2) define the distribution of overwintering mackerel in the area of operations and measure environmental parameters which may relate to distribution, 3) identify location of northern and southern spawning components of mackerel in overwintering area, and 4) collect relevant biological data from mackerel and associated species.

SCIENTIFIC PERSONNEL

ADMIRAL ARCISZEWSKI

PART I : 2-22 February 1983
PART II : 23 February-16 March 1983
PART III: 18 March-8 April 1983
PART IV : 9-13 April 1983
PART V : 13 April-2 May 1983
PART VI : 2-10 May 1983

Sea Fisheries Institute, Gdynia, Poland

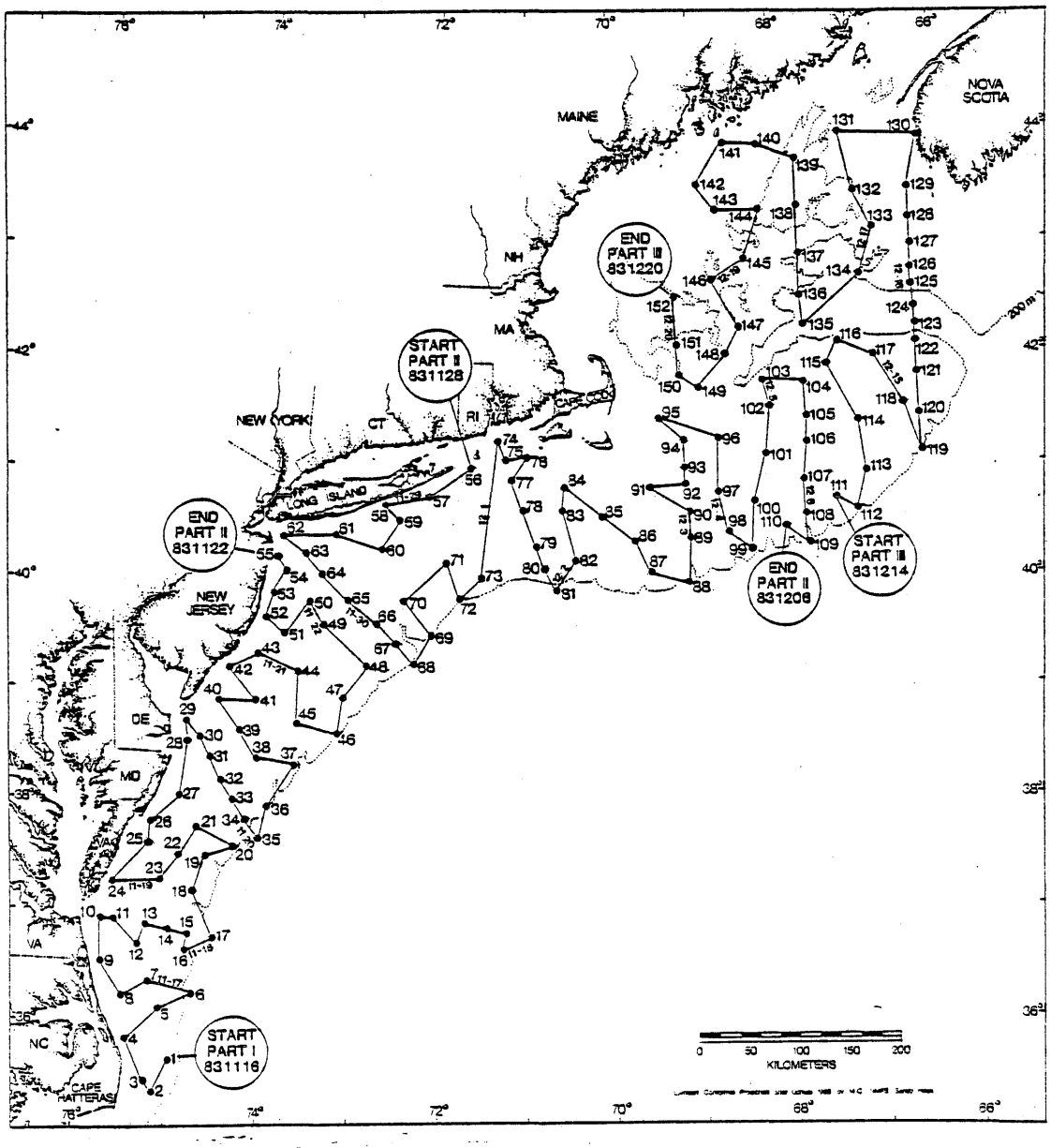
Miroslaw Mucha	PARTS I-VI
Maciej Foltman	PART I
Jan Warzocha	PART III

National Marine Fisheries Service, Foreign Fisheries Observer Program, Gloucester, MA

Mark Biercevica	PART I
James Durkin	PART II
Bradford Haskell	PART III
Paul Jones	PART IV
David Gallagher	PART V
Arvidas Poshkus	PART VI

National Marine Fisheries Service, NMFS-URI Fisheries Engineering Unit, Narragansett, RI

Alan Blott	PART IV



Station locations numbered consecutively for R/V DELAWARE II Cruise 83-09 (I-III), MARMAP I: Ichthyoplankton-Zooplankton, Oceanographic and Primary Productivity Survey during 14 November-21 December 1983.

Virginia Institute of Marine Science, Gloucester Point, VA

Philip Cahill PART IV

University of Rhode Island, Fisheries and Marine Technology, Narragansett, RI

Daniel Rubino PART IV
Anthony Facino PART IV
Turner Cabanis PART IV
Peter Gang PART IV
Terry Prendergast PART IV

NATIONAL FISHERMAN, Camden, ME

Susan Pollack PART IV

Commercial fisherman, Virginia Beach, VA

Henry Braithwaite PART IV

Commercial fisherman, Plymouth, MA

Stanley Sikorsky PART IV

Commercial fisherman, Pt. Judith, RI

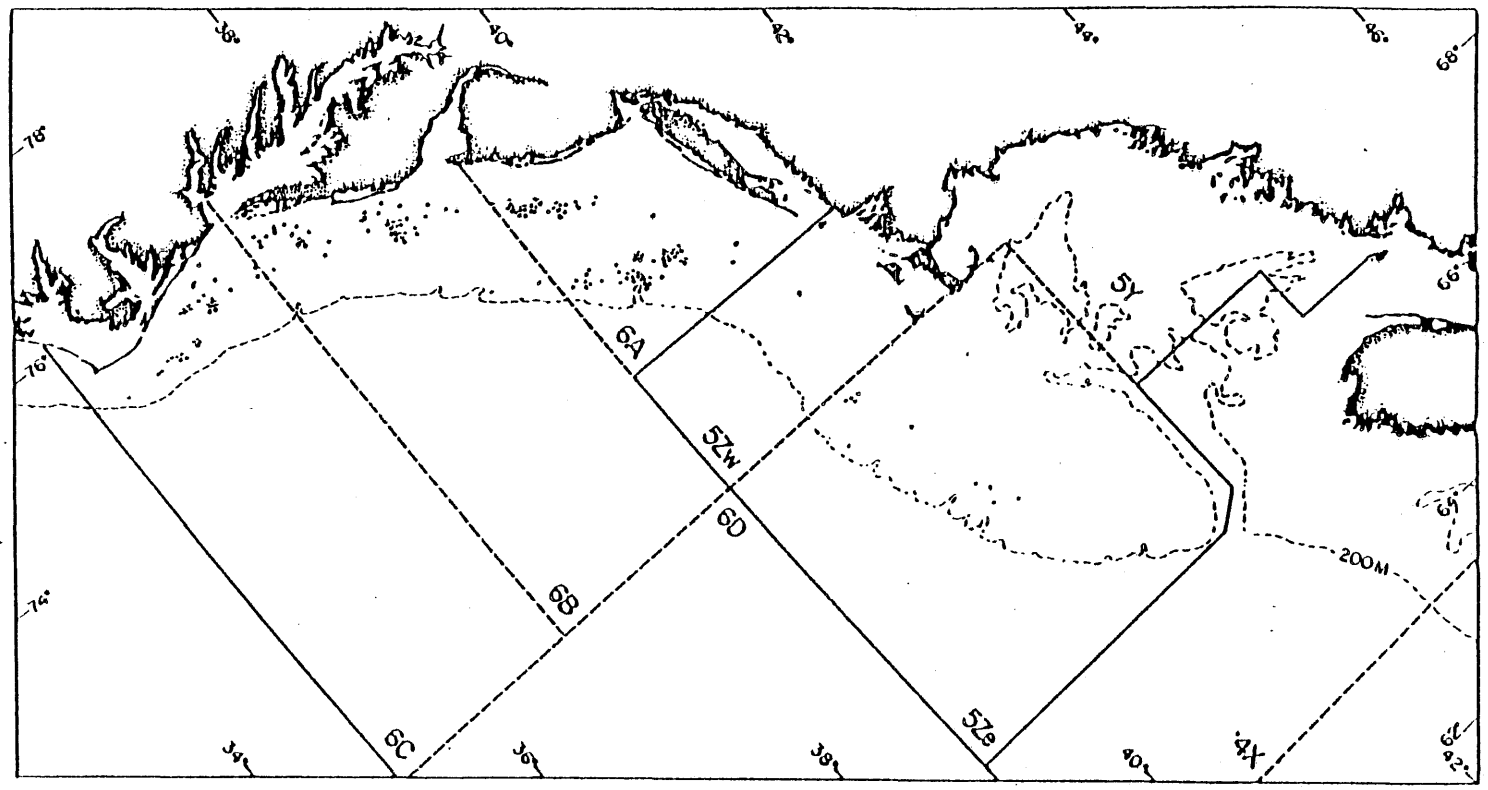
Peter Staples

DATA COLLECTED

	I PT	II PT	TOTAL
.61 cm BONGO			
.20 cm BONGO			
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			
BOTTLE CAST			
CTD CAST			
CURRENT METERS			

	I PT	II PT	TOTAL
SALINITY SAMPLES			
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLOROPHYLL SAMPLES			
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			186
FISH SAMPLES			YES

*SEE CRUISE REPORT.



Area of work for the Polish M/T ADMIRAL ARCISZEWSKI Cruise 83-01 (I-VI) Atlantic Mackerel Research Fishery during 2 February-10 May 1983. Dots depict location of trawl tows.

AD307

VESSEL: KUNATKA (Polish) CRUISE: 83-01

DATES: March 24-May 9 PART I, II, III

DAYS AT SEA: 15; 18; 14 STATIONS: 128

OBJECTIVES

The objectives of the cruise were to: 1) obtain length and age data for mackerel from commercial-sized catches in order to monitor the age structure of the overwintering stock, 2) define the distribution of overwintering mackerel in the area of operations and measure environmental parameters which may relate to distribution, 3) identify location of northern and southern spawning components of mackerel in overwintering area, and 4) collect relevant biological data from mackerel and associated species.

SCIENTIFIC PERSONNEL

KUNATKA

PART I : 24 March-7 April 1983
PART II : 9-25 April 1983
PART III: 26 April-9 May 1983

Sea Fisheries Institute, Gdynia, Poland

Jan Warzocha PARTS I-III

National Marine Fisheries Service, Foreign Fisheries Observer Program, Gloucester, MA

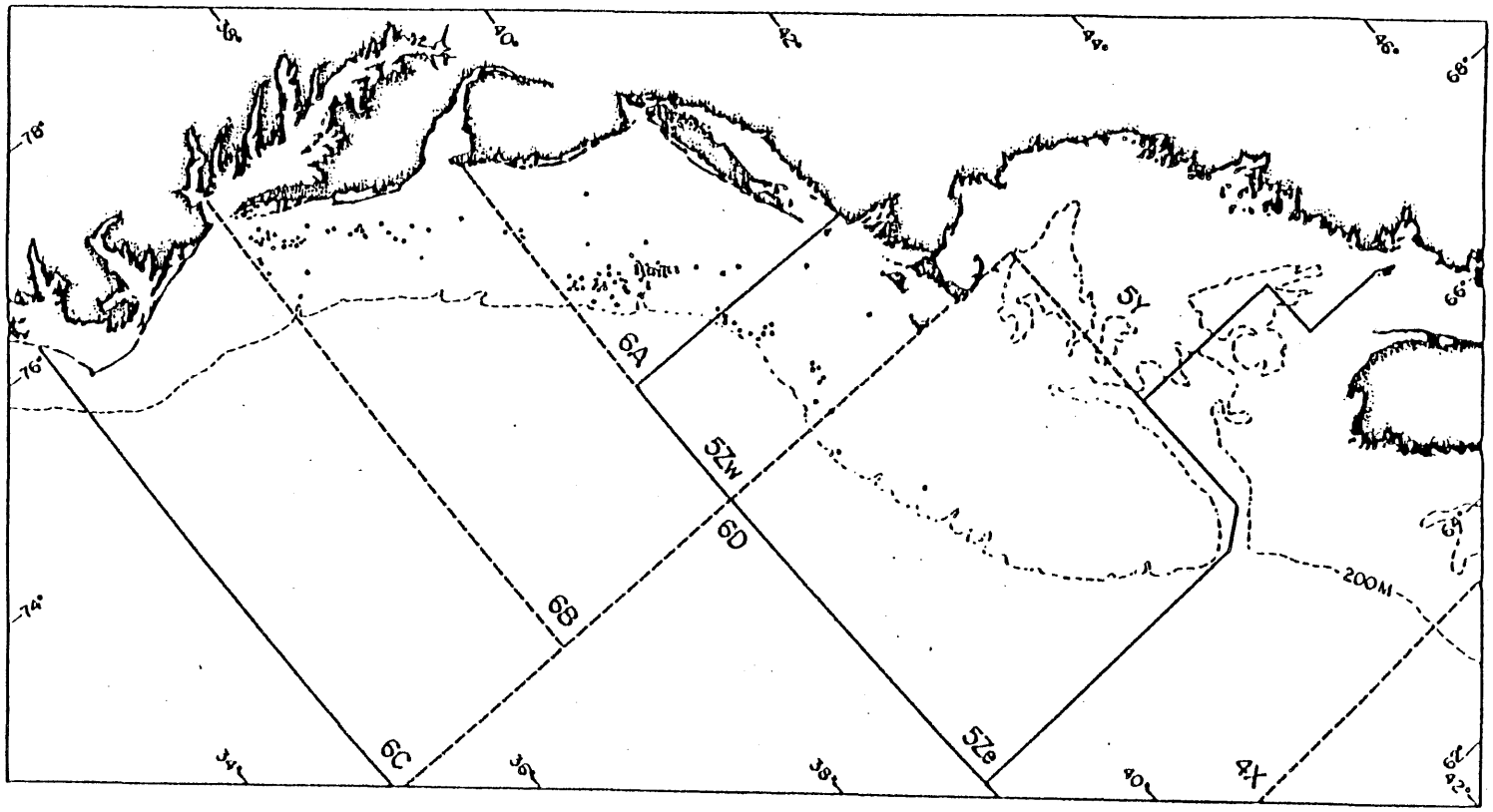
Paul Jones PART I
James Durkin PART II
John Arnold PART III

DATA COLLECTED

	I PT	II PT	TOTAL
.61 cm BONGO			
.20 cm BONGO			
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			
BOTTLE CAST			
CTD CAST			
CURRENT METERS			

	I PT	II PT	TOTAL
SALINITY SAMPLES			
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLOROPHYLL SAMPLES			
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			128
FISH SAMPLES			YES

SEE CRUISE REPORT



Area of work for the Polish M/T KUNATKA Cruise 83-01 (I-III) Atlantic Mackerel Research Fishery during 24 March-9 May 1983. Dots depict location of trawl logs.

VESSEL: WIECZNO

CRUISE: 83-01

DATES: Jan 26-Feb 10

PART I

DAYS AT SEA:

STATIONS: 43

OBJECTIVES

The objectives of the cruise were to: 1) define the distribution of overwintering mackerel in the area of operations and measure environmental parameters which may relate to distribution, 2) collect biological samples for studies of age and growth relationships, length-weight relationships, maturity, food habits, disease, and parasites of mackerel, 3) collect relevant biological information from other species, particularly squid, sea herring, and spiny dogfish.

SCIENTIFIC PERSONNEL

Morski Instytut Rybacki, Gdynia, Poland

Marianna Pastuszak, Co-Chief Scientist
Jan Netzel
Jan Warzocha
Tadeusz Chromicz
Wislaw Korsekwa

National Marine Fisheries Service, NEFC, Woods Hole, MA

Gordon Waring, Co-Chief Scientist
Dennis Hansford

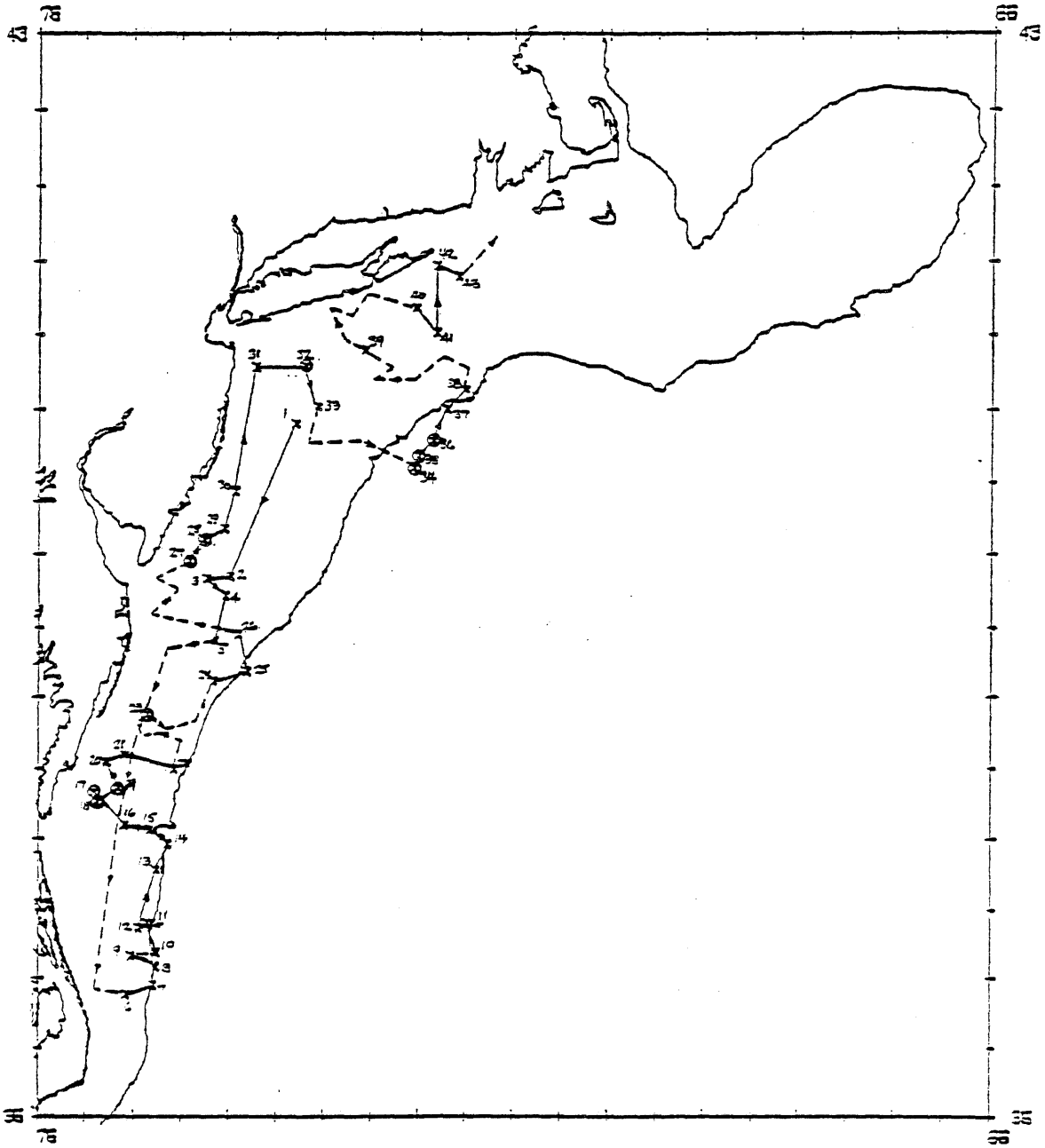
National Marine Fisheries Service, NEFC, Sandy Hook, NJ

John Ziskowski

DATA COLLECTED

	I PT	II PT	TOTAL
.61 cm BONGO			
.20 cm BONGO			
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			43
BOTTLE CAST			
CTD CAST			
CURRENT METERS			

	I PT	II PT	TOTAL
SALINITY SAMPLES			43
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLOROPHYLL SAMPLES			
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			43
FISH SAMPLES			YES



Station tract (solid line) and searching tract (dashed line) for R/V MIECZNO Cruise 83-01 (I) Atlantic Mackerel Survey during 27 January-10 February 1983. Stations at which mackerel were obtained are indicated by "O".

VESSEL: WIECZNO (Polish) CRUISE: 83-01

DATES: Feb 13-24 PART II

DAYS AT SEA: STATIONS: 37

OBJECTIVES

The objectives of the cruise were to: 1) define the distribution of overwintering mackerel in the area of operations and measure the environmental parameters which may relate to distribution, 2) collect biological samples for studies of age and growth relationships, length-weight relationships, maturity, and food habits of mackerel, and 3) collect relevant biological infoirmation from other species such as squid, sea herring, and spiny dogfish. An additional objective during Part II was to intensively sample three sites on Georges Bank for feeding selectivity studies.

SCIENTIFIC PERSONNEL

Morski Instytut Rybacki, Gdynia, Poland

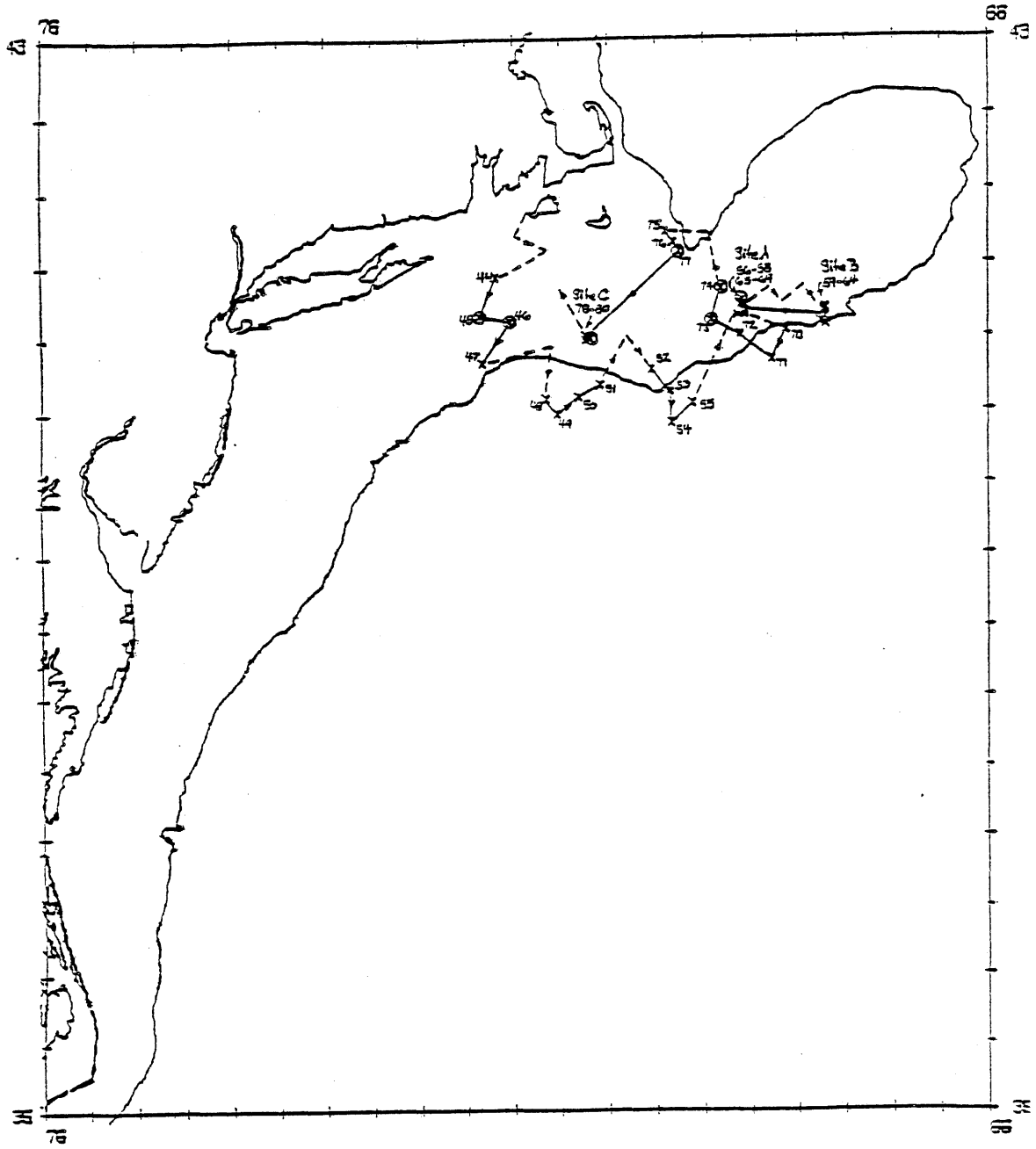
Jan Netzel, Co-Chief Scientist
Jan Warzocha
Tadeusz Chromicz
Wislaw Korsekwa

National Marine Fisheries Service, NEFC, Woods Hole, MA

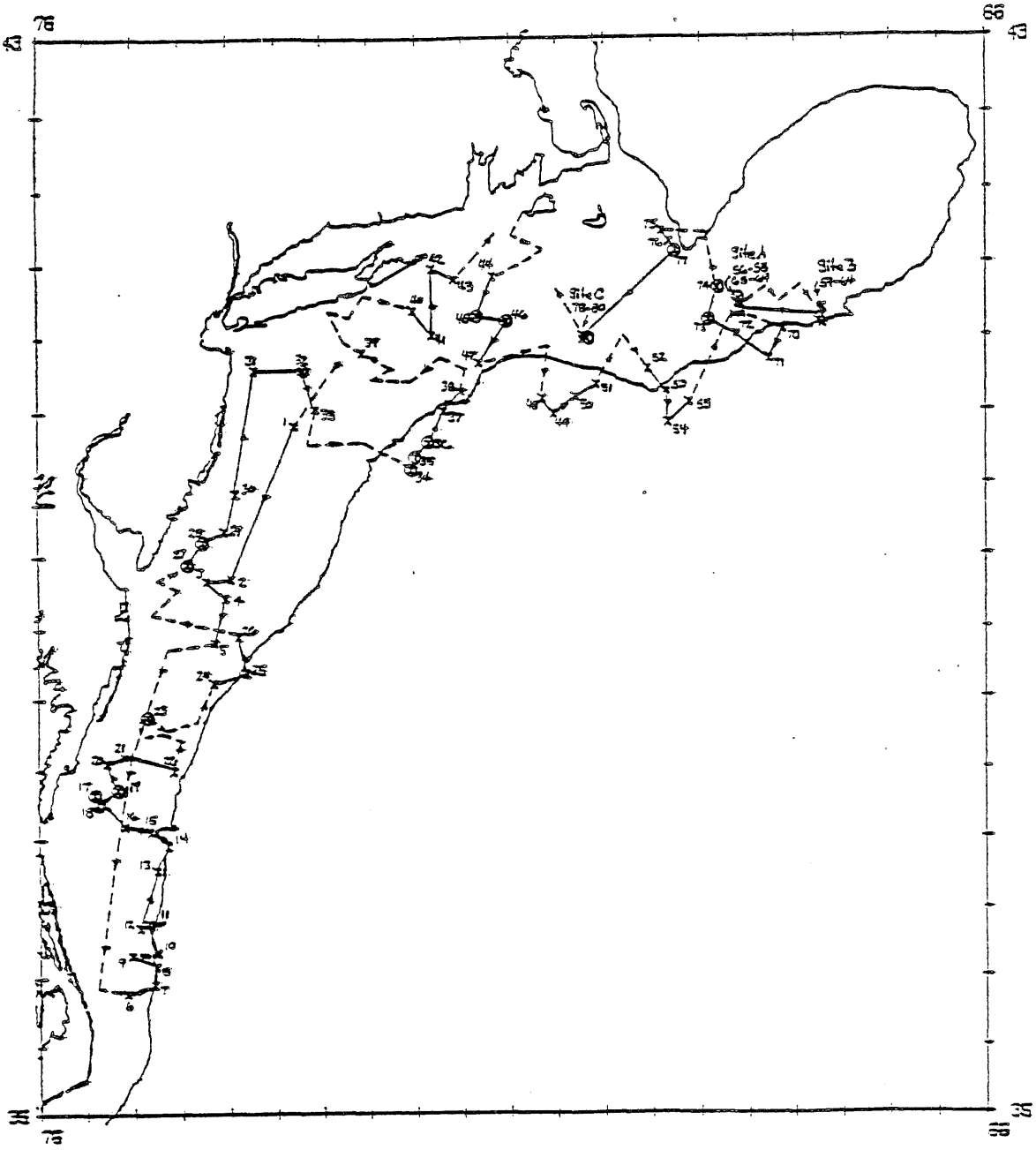
Frank Almeida, Co-Chief Scientist
Ray Bowman
William Michaels
Thomas Morris

Woods Hole Oceanographic Institution, Woods Hole, MA

Jeremy Collie



Station tract (solid line) and searching tract (dashed line) for R/V WIECZNO Cruise 83-01 (II) Atlantic Mackerel Survey, during 12-24 February 1983. Stations at which mackerel were obtained are indicated by "O".



Station tract (solid line) and searching tract (dashed line) for R/V WIECZNO Cruise 83-01 (I-II) Atlantic Mackerel Survey, during 25 January-24 February 1983. Stations at which mackerel were obtained are indicated by "O".

A0314

VESSEL: WIECZNO CRUISE: 83-02

DATES: Feb 26, March 12

DAYS AT SEA: 15 STATIONS: 17

OBJECTIVES

The objectives of the cruise were to: 1) survey selected warm and cold core rings and the Gulf Stream margin for large apex predators (primarily sharks, tunas, and swordfish), 2) conduct food habits studies by examining stomachs of apex predators taken in the different water masses, 3) collect biological material for reproductive studies of sharks, 5) collect blood samples from tuna for bacteriological studies, 6) collect parasites from sharks, 7) test acoustics equipment for detecting concentrations of prey species, 8) compare hooking rates of U.S. and Japanese longline gear, and 9) tag sharks and tunas for studies of migration.

SCIENTIFIC PERSONNEL

Morski Instytut Rybacki, Gdynia, Poland

Marianna Pastuszak, Co-Chief Scientist
Jan Warzocha
Tadeusz Chromicz
Wislaw Korsekwa

National Marine Fisheries Service, NEFC, Narragansett, RI

John Casey, Co-Chief Scientist
Charles Stillwell
Nancy Kohler
John Hoey

Department of Conservation, Storrs, CT

George Benz

Woods Hole Oceanographic Institution, Woods Hole, MA

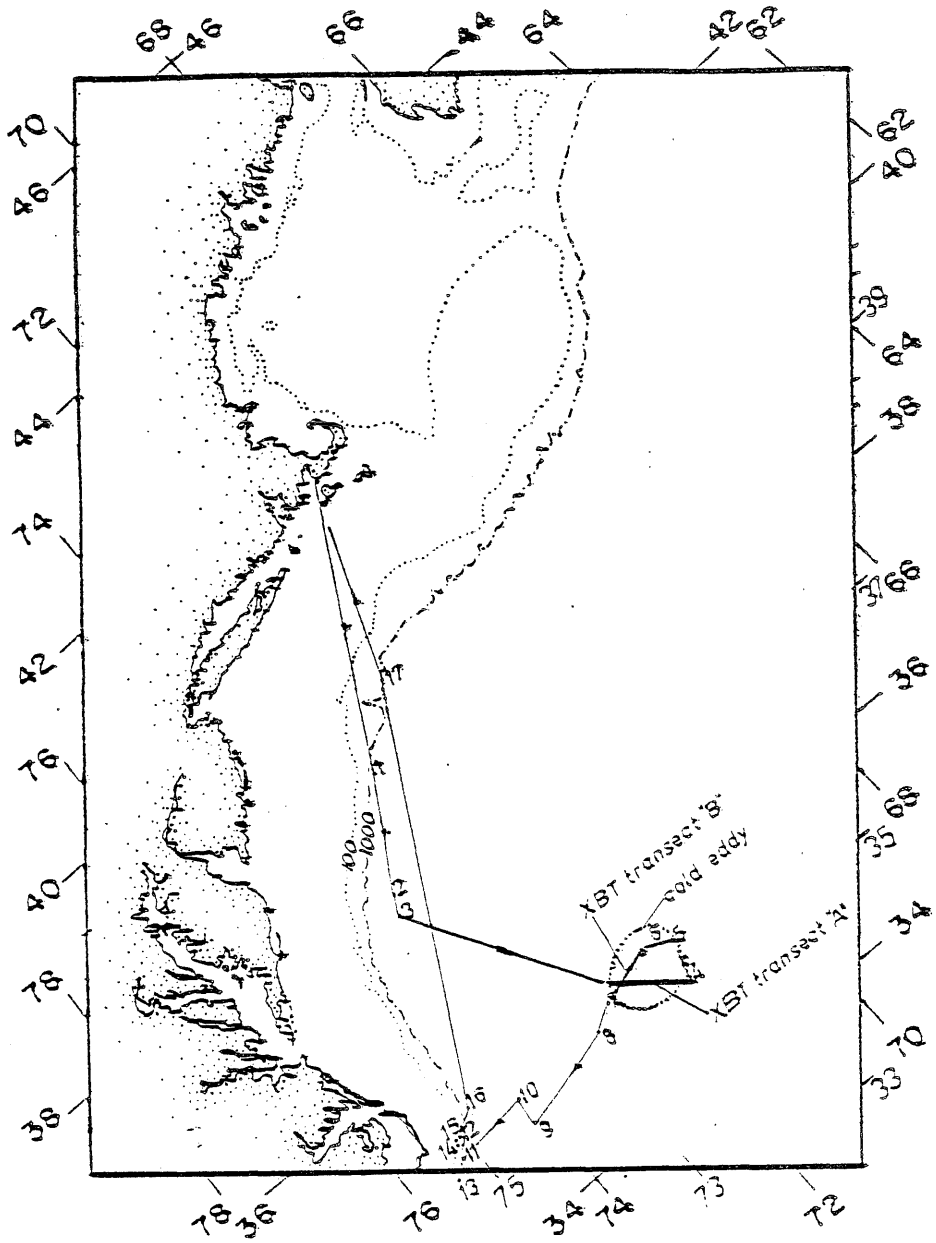
Francis Carey

DATA COLLECTED

	I PT	II PT	TOTAL
.61 cm BONGO			
.20 cm BONGO			
.61 cm NEUSTON			
.20 cm NEUSTON			
HAEDRICH			
XBT			YES
BOTTLE CAST			
CTD CAST			
CURRENT METERS			

	I PT	II PT	TOTAL
SALINITY SAMPLES			
OXYGEN SAMPLES			
NUTRIENT SAMPLES			
CHLOROPHYLL SAMPLES			
PRIMARY PRODUCTIVITY			
DROGUES			
SECCHI DISC			
TRAWLS			
FISH SAMPLES			YES
LONG LINE			17

AD315



Cruise track and station locations of longline sets for the R/V WIECZNO Cruise 83-02 Survey of Apex Predators - Sharks and Swordfish, during 28 February-12 March 1983.