

# LINKAGES



Notes of the Research Planning and Coordination Staff

NORTHEAST FISHERIES SCIENCE CENTER



January 1995

## FISHERIES MANAGEMENT

1. The New England Fishery Management Council met in Danvers, MA on 11-12 January 1995. Most of the meeting was devoted to development of Framework Adjustment #9 to the Northeast Multispecies Fishery Management Plan. The framework measure is intended to be an interim rule to preserve the essential management elements of the emergency rule adopted on 12 December 1994, while Amendment 7 is developed. Amendment 7 is intended to be a more sweeping measure in response to recommendation from the Stock Assessment Workshop to lower fishing mortality rates for Georges Bank cod and haddock, and Georges Bank and Southern New England yellowtail flounder to levels approaching zero.

The Council voted to extend the emergency rule for another 90 days. The rule, which will expire on 12 March, closed portions of Georges Bank to all fishing and prohibited the retention of regulated species in the region's small mesh fisheries.

For the framework measure, the Council adopted the following exemptions from the closure/possession limit rules of the emergency rule:

- o recreational fishing would be allowed in the Nantucket Lightship Closed Area;
- o pelagic hook vessels (tuna and billfish longliners) would be allowed to fish in the closed areas;
- o the hagfish pot fishery would be allowed;
- o the experimental small mesh fishery for dogfish in the Nantucket Shoals area would be allowed;
- o the Cultivator Shoals whiting fishery would be allowed;
- o all vessels will be allowed to transit Closed Area I and the Nantucket Lightship Area provided their gear is properly stowed;
- o longline vessels would also be allowed to transit Closed Area II;
- o the northern shrimp fishery would be allowed to retain up to two totes (about 250 pounds) of whiting;

- o monkfish and lobster may be retained in the allowed small mesh fisheries up to 10% by weight of the total catch or, for lobsters 200 lobsters, whichever is less;
- o scallop dredge vessels would be allowed in the closed area with no possession of regulated species allowed.

For scallop management, the Council agreed to submit a framework adjustment to the scallop FMP which would require the use of dredges in the directed fishery and would allow nets only on vessels which had no history of using a dredge since 1987.

2. The **Mid-Atlantic Fishery Management Council** met in Ocean City, MD on 31 January - 2 February 1995. Major actions taken by the Council include

- o Discussion of Amendment 5 to the Squid Mackerel and Butterfish FMP, with consideration of qualification in the limited entry fishery for joint venture participants in the *Illex* (short-finned) squid fishery; joint qualification for the *Loligo*, *Illex* and butterfish fisheries; and recommendation for more detail on the quota setting process for squid.
- o The Council also asked the NEFMC to allow retention of skates in the small-mesh fisheries in the Southern New England area, provided that the skates account for no more than 10% of the total weight of the catch onboard.

CONTACT: Terry Smith  
508-548-512, x230

3. The **Plenary Meeting of the 19th Northeast Regional Stock Assessment Workshop (19th SAW)** was held in Atlantic City, MD just prior to the January meeting of the Mid-Atlantic Fishery Management Council. Dr. Terry Smith (RPAC), SAW Chairman, summarized the stock status and management advice for Gulf of Maine cod, Gulf of Maine-Georges Bank white hake, scup, surfclam, and ocean quahog. Background assessment information for these species/stocks was presented by Stock Assessment Review Committee (SARC) Subcommittee Chairs (Ralph May, Northern Demersal; Dr. Emory Anderson, Pelagic/Coastal; and Dr. Steve Murawski, Invertebrate). In addition, Dr. Fred Serchuk (Chief, NEFSC Conservation and Utilization Division) made a presentation on sea scallop 1994 survey results and implications.

CONTACT: Helen Mustafa  
508-548-5123, x244

#### RESEARCH VESSEL OPERATIONS

1. As soon as the contract award process has been completed, the **R/V DELAWARE II** will be undergoing extensive repairs and modernization under NOAA's Fleet Replacement and Modernization Program (FRAM). While the vessel is **out of service**, FRAM funds have been made available to provide programmatic days at sea aboard alternate vessels.

To satisfy programmatic needs,

- o Cruises requiring standardized fisheries research vessels (e.g., all bottom trawl surveys) have been scheduled aboard the NOAA R/V ALBATROSS IV;

- o Cruises that require capabilities not transferable from research vessels are either scheduled to be conducted aboard the ALBATROSS IV or the R/V SEWARD JOHNSON (from Harbor Branch Oceanographic Institution, Fort Pierce, Florida) which has been chartered by NOAA to support four GLOBEC cruises this spring;
- o A Marine Mammal Survey (21 days) will be conducted aboard the NOAA R/V RELENTLESS during March;

Other cruises scheduled for this fiscal year are planned to be conducted aboard chartered vessels:

- o One charter vessel will be used to support NOAA's Coastal Ocean Program Predator-Prey Studies on Georges Bank. This program is scheduled to conduct 5 cruises, totalling 61 days at sea, beginning in April and ending in August.
- o A second vessel charter will be used to support both the northeast shelf ecosystem monitoring cruise (MARMAP-EMAP) during June and a Marine Mammal cruise during July.
- o Another Charter vessel will be used to support a 26 day Apex Predator (longline) Survey during August and September.

2. R/V ALBATROSS IV conducted a **Vessel/Gear Comparison Study** on Georges Bank during 4-15 January 1995. The objective of the study was to measure and collect data on trawl and ship performance parameters.

These data will be used for ongoing survey evaluation studies. Chief Scientist was Thomas Azarovitz of the Woods Hole Laboratory (508-548-5123, x283).

CONTACT: Chuck Byrne  
508-548-5123, x224

### CMER

1. **Research topics** for the Cooperative Marine Research and Education (CMER) Program have been submitted to faculties of the University of Rhode Island, University of Massachusetts, and Rutgers University.

2. Drs. George Grice and Ambrose Jearld visited the University of Maryland Eastern Shore and had discussions with University personnel regarding a **possible cooperative agreement**.

CONTACT: George Grice  
508-548-5123, x239

### OTHER RPAC ACTIVITIES

1. On January 31 1995, Dr. George Grice made a presentation on the availability of vessels at a review of the **Fleet Replacement and Modernization Program** for upper NOAA management.

2. In an agency-wide effort to improve the way NMFS does business, the agency commissioned nine "**Charter Teams**" to design and implement approved changes. The grouping of these charter teams is based on recommendations for agency change which were presented to the NMFS Director in October 1994 by the Organization Review Team and include changes in daily operation of business, conduct of science, management

of the Nation's living marine resources, and human resource development. The nine charter teams are: Strategic Planning, Budget Process, Human Resource Management, Employee Involvement and Communications, NOAA Support Services, Agency Image and External Communications, Management Development and Succession Planning, Information Management, and External Interfaces and Relationships. Two RPAC staff have been chosen to participate on the charter teams. Their activities in this regard began with a training session in December 1994.

**Dr. Terry Smith** is on the **Strategic Planning Charter Team**. The objective of this team is to establish a dynamic strategic planning process and system that integrates operational, budget, and annual plans throughout the agency, and serves as the main vehicle of setting priorities and agency decision-making. Among the team's products will be a design for a strategic and operational planning process, a description of this process, and an implementation plan.

**Dr. Ambrose Jearld, Jr.** is Chairman of the **Human Resources Management Charter Team**. This team's objective is to develop human resource management systems and practices that result in the effective use of a highly competent, optimally utilized, and diverse work-force. The team will appoint subgroups to accomplish identified task areas and develop and implement appropriate pilot programs. Among the team's products will be a Strategic Plan for NMFS Human Resources Management.

3. **Dr. Ambrose Jearld, Jr.** (RPAC), Sherry L. Sass (Mass. Division of Marine Fisheries), and Dr. Melinda Davis (Fort Valley State College) were recipients of an **Outstanding Publication Award for 1993**. Their paper on early growth, behavior, and otolith development of the winter flounder *Pleuronectes americanus* was published in the Fishery Bulletin, Volume 91.

CONGRATULATIONS!

CONTACT: George Grice  
508-548-5123, x239

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Notes of the Research Planning and Coordination Staff

NORTHEAST FISHERIES SCIENCE CENTER



March 1995

## FISHERIES MANAGEMENT

1. The New England Fishery Management Council met in Danvers, MA on 20-30 March 1995. Most of the meeting was devoted to discussion of groundfish management issues. The Council continued development of Amendment 7 to the groundfish fishery management plan, a permanent change to the Northeast Multispecies FMP which is intended to sharply reduce fishing mortality on Georges Bank cod and haddock and Georges Bank and Southern New England yellowtail flounder. Debate at the meeting revolved around whether the amendment would use output (quota or TAC) or input (effort or days-at-sea) controls. Alternatives currently under development include both types of controls. The Council also endorsed an emergency rule to close non-groundfish large-mesh trawl fisheries (e.g., monkfish) that take more than 5% bycatch of groundfish and to prohibit retention of groundfish in the large-mesh fisheries remaining open. The rule would apply east of 72° 30' and north of 40° 30' (the southwest corner of this "box" is about 20 miles due south of Shinnecock Inlet, Long Island). The Council also approved a framework adjustment to the Lobster FMP

which amends the requirements for attaining a limited access permit and began development of a framework measure to prohibit the scrubbing of egg-bearing female lobsters.

2. The Mid-Atlantic Fishery Management Council met in Philadelphia on 15-16 March 1995. The Council continued to develop Amendment 5 to the Squid, Mackerel and Butterfish FMP. The amendment will limit access in the squid and butterfish fisheries with qualification determined from landings histories, establish minimum mesh sizes in the trawl fishery for *Illex* squid, and revise the procedures for determining when mackerel is fully utilized by domestic fishermen. The Council also recommended a 8 fish bag limit in the summer flounder recreational fishery<sup>1</sup>, with no seasonal closures to that group, endorsed the continued development of Amendment 1 to the Bluefish FMP, and heard reports on the status of development of FMPs for scup and black sea bass.

CONTACT: Terry Smith  
508-548-5123, x230.

<sup>1</sup>This measure was subsequently disapproved by the NMFS. At its April meeting, the Council endorsed a 6 fish bag limit with no seasonal closures.

**SARC Subcommittees will meet** to prepare stock assessments for review at the SAW-20 Stock Assessment Review Committee (SARC) Meeting which will take place at NEFSC Woods Hole during 19 - 23 June 1995. The Subcommittees will meet at the NEFSC Woods Hole Laboratory according to the schedule below:

o The Southern Demersal Subcommittee (W. Gabriel, Chair) will meet 15-19 May 1995, to review the **summer flounder** assessment.

o The Pelagic Coastal Subcommittee (E. Anderson, Chair) will meet 15-19 May 1995, to review assessments for **Northwest Atlantic mackerel, black sea bass, and tautog.**

o The Invertebrate Subcommittee (Paul Rago, Chair) will meet 22-26 May 1995, to review the **sea scallop** assessment.

o The Northern Demersal Subcommittee (R. Mayo, Chair) will meet 30 May - 2 June 1995, to review the **haddock** assessment.

CONTACT: Helen Mustafa  
508-548-5123, x230

#### RESEARCH VESSEL OPERATIONS

**R/V ALBATROSS IV** conducted the first half of the **Spring Bottom Trawl Survey**. The survey objective was to determine the seasonal distribution and relative abundance of fish and invertebrate species found on the continental shelf.

o Part I of the survey was conducted in the Cape Hatteras - Mid-Atlantic area. Chief Scientist was Donald Flesher of the

NEFSC Woods Hole Laboratory (508-548-5123, x293).

o Part II of the survey was conducted in the Mid-Atlantic - Southern New England area. Chief Scientist was Malcolm Silverman of the NEFSC Woods Hole Laboratory (508-548-5123, x202).

CONTACT: Chuck Byrne  
508-548-5123, x224

#### ICES

The NEFSC submitted titles and abstracts of seven papers for presentation at the 1995 Annual Science Conference of the International Council for the Exploration of the Sea which will be held at Alborg, Denmark during 21-29 September 1995:

- Application of Automated SST Frontal Detection Techniques to US-GLOBEC Studies on Georges Bank, by J. J. Bisagni and J.F Cayula (Stennis Space Center)

- A Cooperative Study of North Atlantic Harbor Porpoise Population Structure, by Debra Palka

- Estimating the Mean and Variance from Highly Skewed Marine Survey Data, by Michael Pennington

- Zooplankton and Fisheries of the Northeast Shelf Large Marine Ecosystem, by Kenneth Sherman, John Green, and Jack Jossie

- Cephalopod Species Captured by Deepwater Exploratory Fishing Off New England, by Michael Veccione

Evidence for Two Species of Surfclams (*Spisula*) Off the U.S. East Coast, by Michael Veccione

Cetacean Trophic Interactions Off the Northeast USA Inferred From Spatial and Temporal Co-Distribution Patterns, by Gordon T. Waring and John T. Finn (University of Massachusetts, Amherst)

2. Recently the NEFSC made several nominations and many changes of its representatives on various ICES groups. Currently the Center has 15 members and 1 alternate on 13 ICES Committees and one or more members on 42 ICES Working Groups and 12 ICES Study Groups. The Committee members are:

- Dr. Emory Anderson, Pelagic Fish
- Dr. Jon Brodziak, Shellfish
- Dr. Michael Fogarty, Consultative and Statistics
- Dr. Kevin Friedland, Anadromous & Catadromous
- Dr. Wendy Gabriel, Statistics
- Dr. R. Gregory Lough, Biological Oceanography
- Ralph Mayo (Dr. Wendy Gabriel alternate), Advisory Committee on Fishery Management
- Dr. David Mountain, Hydrography
- Dr. Steven Murawski, Demersal Fish
- Dr. John Pearce, Baltic Fish and Mariculture
- Dr. Frederic Serchuk, Baltic Fish
- Dr. Gordon Waring, Marine Mammals
- Dr. Vincent Zdanowicz, Marine Environmental Quality

CONTACT: Helen Mustafa  
508-548-5123, x230

## NEFSC RESEARCH PLANNING

1. Dr. George Grice prepared a report entitled "**Fisheries Research Vessels: Justification and Requirements**" for Richard Roe, Chief of the NMFS Office of Research and Environmental Information.

CONTACT: George Grice  
508-548-5123, x239

2. On March 20, Dr. David Dow represented the Center at the **Coastal Eutrophication & Management Strategies for Environmentally Sensitive Areas**, a coastal research forum organized by the Waquoit Bay National Estuarine Research Reserve (WBNERR). The panel of speakers featured Richard Batuik (EPA-Chesapeake Bay Program), Stephen Olsen (URI-Coastal Research Center), David Burdick (UNH-Jackson Estuarine Laboratory), and Ivan Valiella (Boston Univ.-BUMP). The program was designed to provide a scientific perspective on the impact of eutrophication on coastal embayments, especially impacts on water quality and ecological resources at risk, and included a discussion session that addressed the concerns of local and state managers.

3. Dr. John Pearce, Deputy Center Director, and Chairman of the **Gulf of Maine (GOM) Marine Mammal and Fisheries Habitat Conference**, issued invitations for a **planning workshop** to be held on 3 May 1995. The May planning meeting will involve scientists, managers, and non-government organization constituents in honing the symposium agenda and list of invited speakers, based on a proposal developed by the GOM Ecosystem Health Steering Committee which is chaired

by Dr. David Dow. Following the May 3 planning workshop, the proposed conference agenda will be submitted to the Regional Association for Research in the Gulf of Maine Board of Directors for their concurrence in running the conference and producing the conference report, as well as to the organizations indicated in section 20 of the Marine Mammal Protection Act (MMPA) reauthorization (including the Marine Mammal Commission and state fisheries agencies) that must be consulted in carrying out this endeavor.

The Gulf of Maine Marine Mammal and Fisheries Habitat Conference will be held 18-20 September 1995, at the Hanover Inn in New Hampshire. It was mandated by the MMPA reauthorization of 30 April 1994, which calls for a report to Congress on the outcome of the conference by December 31, 1995.

CONTACT: David Dow  
(508)-548-5123, x249

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Notes of the Research Planning and Coordination Staff

NORTHEAST FISHERIES SCIENCE CENTER



June - July 1995

## RESEARCH PLANNING AND COORDINATION STAFF (RPAC)

Yvonne Hiltz-Deuser recently transferred from the RPAC to the Data Management Support Staff.

CONTACT: George Grice  
508548-5123, x239

## FISHERIES MANAGEMENT

1. The New England Fishery Management Council met in Danvers, 28-29 June 1995 and continued development of Amendment 7 to the Groundfish FMP and Amendment 5 to the Lobster FMP.

### *Groundfish*

- o The Council continued development of the Amendment with discussion on Alternative 4 (seasonal, stock-specific or regional TACs with trip limits). The Council included in this Alternative a framework provision which would limit inputs in the gillnet and trawl sector. As an objective of this alternative the Council adopted the language "To attempt to balance the desire to preserve fishing opportunities throughout the year for as many vessels as possible without exceeding the quota."
- o The Council reviewed the new Alternative 2. The Alternative arose from an industry proposal to not use the explicit TAC for at least the first two years of the plan but, instead, to close 50% of the area in the Gulf of Maine, Georges Bank, and southern New England (see the May-June, 1995 LINKAGES). Language adopted as a statement of the objective of this alternative is "to accomplish the fishing mortality rate

reduction targets through wholesale closures chosen to both reduce catch rate and protect significant cod, haddock, and yellowtail flounder habitat, combined with reduction of fishing gear inputs in open areas."

- o With regard to the general provisions, the Council included, as an option, maintaining the open access permit categories with vessels in this category restricted by a possession limit on cod, haddock, and yellowtail flounder.
- o The Council voted to adopt the general provisions and alternatives discussed for the purpose of public hearing with the understanding that the Council reserves the right to combine elements of any of the proposed alternatives during formulation of their final version of Amendment 7.

### *Lobster*

- o The current version of the public hearing document for amendments to the Lobster FMP was discussed. There needs to be additional work by a group developing a non-trap sector proposal and a final technical review of the draft by the Lobster EMT Technical Core Group. A motion to remove the provisions for ITTs and ITQs in Management Area 3 failed. The Council will continue development of the Amendment via two more committee meetings. Final action on the public hearing document is anticipated at the August Council meetings; final action on the Amendment or Framework is expected at the October Council meeting.

CONTACT: Terry Smith  
508-548-5123, x239

2. **The Stock Assessment Review Committee (SARC) Meeting** of the 20th Northeast Regional Stock Assessment Workshop (20th SAW) was held at the Northeast Fisheries Science Center, 19-23 June 1995. SARC Chairman was Dr. Terrence P. Smith, NEFSC. In addition to the organizations regularly represented on the SARC, the 20th SAW SARC included a representative from the summer flounder industry in response to a court order resulting from the summer flounder law suit. The SARC reviewed 13 working papers, some with extensive appendices of analyses, on Georges Bank haddock, summer flounder, Atlantic mackerel, sea scallop, black sea bass, and tautog. Seven papers were designated to be published in the SAW-20 NEFSC Reference Document series:

- o Assessment of the Georges Bank haddock stock for 1994 (CRD 95-13)  
by L. O'Brien and R. Brown
- o An examination of the influence of environmental conditions on spring survey catches of Atlantic mackerel (CRD 95-14)  
by J. Brodziak and W. Ling
- o A comparison of some biological reference points for fisheries management (CRD 95-15)  
by J. Brodziak and W. Overholtz
- o Status of the sea scallop fisheries off the northeastern United States, 1993 (CRD 95-16)  
by H.-L. Lai, L. Hendrickson, and S. Wigley
- o Selectivities of lined and unlined dredges used in sea scallop research surveys (CRD 95-17)  
by H.L. Lai
- o Assessment of black sea bass (*Centropristis striata*), 1995 report of the Coastal/Pelagic Subcommittee (CRD 95-18)
- o Assessment of tautog (*Tautoga onitis*), 1995 report of the Coastal/Pelagic Subcommittee (CRD 95-19).

The SARC Consensus Summary of Assessments and the "Advisory Report on Stock Status" will be

published after the SAW Steering Committee Meeting in August.

CONTACT: Helen Mustafa  
508-548-5123, x244

## RESEARCH VESSEL OPERATIONS

1. **ALBATROSS IV** conducted four cruises during June and July:

- o **GLOBEC Broad Scale Survey** was conducted in the Georges Bank area, 4-16 June 1995. Chief Scientist was Ann Bucklin of the University of New Hampshire.
- o **Sea Scallop Survey (Part I)** was conducted in the Cape Hatteras - Southern New England area, 19-30 June 1995. Chief Scientist was Thomas Azarovitz of the NEFSC Woods Hole Laboratory.
- o **GLOBEC Broad Scale Survey** was conducted in the Georges Bank area, 10-24 July 1995. Chief Scientist was Peter Wiebe of the Woods Hole Oceanographic Institution.
- o **Sea Scallop Survey (Part II)** was conducted in the Southern New England - Georges Bank area, 24 July - 6 August 1995. Chief Scientist was Donald Flescher of NEFSC Woods Hole Laboratory.

2. On 18 July 1995, the **DELAWARE II** departed **Woods Hole to begin the yard period Repairs-to-Extend the Service Life**. The vessel arrived at Detyen's Shipyard, Mt. Pleasant, SC on 21 July 1995. The scheduled delivery date is April 30, 1996, in Mt. Pleasant.

3. **F/V KATAHDIN**, back fill charter for DELAWARE II conducted three cruises during June and July:

- o **MARMAP-EMAP Survey** was conducted in the area Cape Hatteras - Gulf of Maine, 1 - 15 June 1995. Chief Scientist was Jerry Prezioso of the NEFSC Narragansett Laboratory.

o **Coastal Ocean Program, Predator-Prey Study** was conducted in the Georges Bank area 19 June - 1 July 1995. Chief Scientist was William Michaels of the NEFSC Woods Hole Laboratory.

o **Coastal Ocean Program, Predator-Prey Study** continued in the Georges Bank area, 17-29 July 1995. Chief Scientist was Rodney Rountree of NEFSC Woods Hole Laboratory.

After completing the charter, the KATAHDIN departed Woods Hole on 31 July 1995.

4. **R/V PELICAN** from Cocodrie, LA, owned by Louisiana Universities Marine Consortium was chartered to partially back fill for DELAWARE II and partially for the marine mammals investigation:

o **Marine Mammal Survey** was conducted in the Mid-Atlantic Bight, 8 July - 3 August 1995. Chief Scientist was Debra Palka of the NEFSC Woods Hole Laboratory.

5. **R/V ABEL-J** was chartered by the NEFSC Protected Species Branch to conduct:

o **Marine Mammal Survey** in the Southern New England area, 9 July - 2 August 1995. Chief Scientist was Gordon Waring of the Woods Hole Laboratory.

CONTACT: Chuck Byrne  
508-548-5123, x224

## CMER

### 1. UMass/NOAA Cooperative Marine Education and Research (CMER) projects funded in 1995:

o Quality Determination in Atlantic Mackerel (H. Hultin, Dept of Food Science, UMass- Amherst)

o Prey-Size and Type Selectivity and Predator Dynamics of Marine Fish on the Northeast Continental Shelf ( F. Juanes, Dept of Forestry and Wildlife Management, UMass-Amherst)

o Effects of Endocrine-Disrupting Chemicals on Winter Flounder (J. Newsted, Dept. of Forestry and Wildlife Management, UMass-Amherst)

o Introduction of Metals into the Marine Food Web - Analytical Methods Development (J. Tyson and P. Uden, Dept. of Chemistry, UMass-Amherst)

o Habitat Requirements of Important Fish Species Inhabiting the Hudson River Estuary (J. Boreman /NMFS/ Dept. of Forestry and Wildlife Management, UMass-Amherst).

o Limits to Recovery of the Shortnose Sturgeon (J. Boreman /NMFS/ Dept of Forestry and Wildlife Management, UMass-Amherst)

o A Simulation of Predation Effects on Out-Migrating Atlantic Salmon Smolts in the Merrimack River (F. Juanes, Dept of Forestry and Wildlife Management, UMassAmherst)

CONTACT: John Boreman  
413-545-2842

### 2. URI/NOAA CMER projects funded in FY 1995:

o Population Structure and Recruitment in Long-finned Squid (W.K. Macy, Graduate School of Oceanography)

o Quality Evaluation of Scallops (L. Pivarnik, A. Rand, S. Letcher, K Wilhelm, Food, Science & Nutrition Dept.)

o Ecological Effects of Dredging on the Benthic Megafauna of Northern Georges Bank (J. Collie, Graduate School of Oceanography)

o Recruitment Strategies of Decapods: A Comparative Approach (J.S. Cobb, Zoology Dept.)

o Characterization of the Mid-Atlantic Coastal Gillnet Fisheries (J. DeAlteris, N. Lazar, Department of Fisheries and Aquaculture)

- o Development of DODS Client and Server Libraries to Support Internet Access to NODC Oceanographic Data Sets (P. Cornillon, G. Milkowski, Graduate School of Oceanography)
- o Broad Scale Zooplankton on Georges Bank (E. Durbin, A. Durbin, Graduate School of Oceanography)
- o Right Whale Database (H. Winn, B. Kenney, Graduate School of Oceanography)
- o Survey Methods for Harbor Porpoise (J. Heltshe, Statistics)
- o Engineering for a Programmable Temperature Tag (C. Recksiek, P. Banerjee, G. Fischer, J. Daly; Fisheries, Animal and Veterinary Science)
- o Student Research Training Program (H. Winn, T. Smith; Graduate School of Oceanography)
- o Applications of Satellite Remote Sensing Data (P. Cornillon, R. Armstrong /NMFS/ Graduate School of Oceanography)
- o Studies on Surfclam (*Spisula solidissima*) Recruitment (J. P. Grassle; Inst. of Marine and Coastal Sciences)
- o Life History and Ecology of Windowpane Flounder (*Soophtalmus aguosus*): Recruitment Process (K.W. Able, W. W. Morse /NMFS/; Rutgers Marine Field Station, Howard Laboratory/NMFS)
- o An Evaluation of Shallow Water Drift Material in the Arthur Kill and Kill van Kull. (Kenneth Able, Uwe Kils, Gary Taghon, Anne Studholme /NMFS/, Rutgers Marine Field Station, Howard Laboratory/NMFS)

CONTACT: Larry Buckley  
401-792-6671

### 3. Rutgers/NOAA CMER projects funded in FY 1995:

- o Assimilation of Metals by Phytoplankton in the Mid-Atlantic Bight: Controls on Introduction to the Coastal Marine Food Web (R.M. Sherrell, V. Zdanowich /NMFS/; Inst. of Marine & Coastal Science, Howard Laboratory/NMFS)
- o Identification of Major Chemical Compounds Relating to Quality Deterioration of Mackerel and Other Fatty Fish by GC/MS Methods: Development of a Novel Rapid and Nondestructive NIR Method to Determine these Compounds and their Application for Fish Quality Assessment and Processing Improvement (T.-C. Lee; Dept. of Food Science & the Fisheries & Aquaculture TEX Ctr.)

CONTACT: Sybil Seitzinger  
908-932-6555, x342

### RESEARCH PLANNING

1. Dr. David Dow gave a presentation on the Marine Mammal Protection Act - mandated **Gulf of Maine Ecosystem Health Workshop** at a Regional Association for Research on the Gulf of Maine (RARGOM) held at the University of Maine Darling Marine Laboratory on 9 June 1995. RARGOM has been contracted to run the Workshop which will be held on 18-20 September 1995 in Hanover, NH. The draft agenda for the September workshop and the terms of reference were discussed with the RARGOM board. The RARGOM board recommended to add workshop participants and requested that Dr. Gordon Wallace (UMass-Boston, Environmental Sciences Department) represent RARGOM as an ex-officio member of the workshop steering committee (chaired by David Dow). It was agreed that after the 9 June meeting, official communications on the September workshop would come from either the Workshop Chairperson (Dr. John Pearce, NMFS) or the RARGOM Executive Director (Dr. Daniel Lynch, Dartmouth College).

CONTACT: David Dow  
508-548-5123, x 249

# LINKAGES



Notes of the Research Planning and Coordination Staff

NORTHEAST FISHERIES SCIENCE CENTER



October - November 1995

## RESEARCH VESSEL OPERATIONS

1. Two cruises of the **Autumn Bottom Trawl Survey** were conducted aboard the **R/V ALBATROSS IV**. Cruise objectives were to: (1) determine the autumn distribution and relative abundance of fish and selected invertebrate species; (2) collect biological samples for studies of age and growth relationships, fecundity, maturity and food habits; (3) collect hydrographic and meteorological data; (4) collect samples of ichthyoplankton and zooplankton; (5) make data and sample collections for cooperative researchers and programs; (6) collect catch data in and near Closed Area II on Georges Bank.
  - o Part III of the Autumn Bottom Trawl Survey was conducted during 2 - 13 October 1995 in the Georges Bank and the southern Gulf of Maine area. Chief Scientist was J. Brian O'Gorman of the NEFSC Woods Hole Laboratory (508-548-5123, x358)
  - o Part IV of the Autumn Bottom Trawl Survey was conducted during 16 - 27 October 1995 in the Gulf of Maine. Additional 23 stations were occupied in Closed Area II at the end of this leg. Chief Scientist was Linda Despres of NEFSC Woods Hole Laboratory ( 508-548-5123, x346).
2. **GLOBEC Long-term Mooring Deployment** was carried out aboard the **R/V ALBATROSS IV** during 27 October to 9 November in the area of Georges Bank and southern Gulf of Maine. Cruise objectives were to: (1) deploy the Long- Term Moored Program's moorings on the Southern Flank and Northeast Peak sites, (2) deploy the bio-acoustic mooring at the Southern Flank site, (3) take supportive CTD profiles by the scientific moorings, (4) take hydrographic sections from the crest of Georges Bank out into waters deeper than 150 meters, (5) deploy ARGOS tracked drifters, (6) do MOCNESS biological sampling at selected stations, and (7) collect additional CTD profiles and sections as time permits. Chief Scientist was James Irish of the Woods Hole Oceanographic Institution (508-289-2732).
3. **An Ecosystem Monitoring Survey** was conducted aboard the **R/V MARION C. II** during 8 - 22 November 1995 in the area Cape Hatteras to the Gulf of Maine. The objective of the survey is to assess the impact of changing biological and physical properties of the NE Continental Shelf ecosystem which influence the sustainable productivity of the living marine resources. Key parameters measured were: water column temperatures, salinities, and chlorophyll and nutrient concentrations; ichthyo- and zooplankton composition, abundance, and distribution; and, standard weather observations. Chief Scientist was Jerome Prezioso of the NEFSC Narragansett Laboratory (401-782-3277).
4. On 19 October 1995, Dr. George Grice and Chuck Byrne represented the NEFSC and NMFS at a **DELAWARE II RTE Progress Review meeting** held