



# Collaborations

**A monthly update of cooperative research news**

**November 2001**

On October 3<sup>rd</sup>, participants from many of the Northeast Consortium's cooperative research projects met in Portsmouth, NH to provide updates on those projects. This issue of "Collaborations" covers some of the twenty-two projects funded by the Consortium through its Request for Proposals for fiscal year 2001. Last year, the Consortium spent \$2 million in funding and administrative costs for eleven cooperative research projects and three outreach programs. This year, it will spend \$5 million on eighteen research projects, four education and outreach programs and two "core" programs.

**Ann Bucklin**, of New Hampshire Sea Grant, opened the meeting by giving some history and background on the Northeast Consortium. The Consortium was started in 1999 by Congressional initiative to address in a non-bailout fashion the decline of wild stocks by involving as many fishermen as possible in research. Congress chose this mechanism because it was all about "cooperative" research and helping the fishing industry in Maine, Massachusetts and New Hampshire.

The Consortium is comprised of four research institutions: University of New Hampshire, University of Maine, Massachusetts Institute of Technology and Woods Hole Oceanographic Institution. In projects funded by the Consortium, 75% of the money must go to the fishing industry partner. This program is about helping the industry, not the universities. The goal is to involve 100 vessels or more within three years.

The Consortium is directed by conceptual goals, not data goals. It's about outreach and building new partnerships between science and fishermen, reaching more fishermen over time so that industry-based research will have an impact on management. Commercial vessels are being equipped and used as research and monitoring platforms as part of this program

Your next chance to get involved is NOW! Visit [www.northeastconsortium.org](http://www.northeastconsortium.org) to learn about the Consortium's latest RFP. **PLANNING LETTERS ARE DUE JANUARY 9, 2002!** Make a difference by bringing your expertise to the science needed for management!

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## COOPERATIVE RESEARCH PARTICIPANTS REPORT ON FY2001 PROJECTS

### FISHERMEN ASSISTING GEAR TECHNOLOGISTS

**Arne Carr** of the Massachusetts Division of Marine Fisheries reported on a joint gear technology project with the Manomet Center for Conservation Science. Fishermen will team up with scientists to explore modifications in both fixed and mobile gear. One goal of the project is to increase the understanding of fish behavior in relation to gear and fishermen will assist this effort by acquiring videos of these processes. The ultimate goal of the project is bycatch reduction. Arne may be contacted at 508-563-1779 x 117 or [arne.carr@state.ma.us](mailto:arne.carr@state.ma.us).

## MODIFIED FLATFISH AND SHRIMP TRAWLS

**Pingguo He** of the University of New Hampshire Cooperative Extension reports they completed the design phase and were headed to Newfoundland for full-scale flume tank testing of a double grid device to reduce cod bycatch in flatfish trawls. They're close to sea trials but are encountering some problems with permitting in where they can fish. **Bart McNeel** and **James Mathieson** (F/V Aaron and Melissa II) are his industry partners. Their second project involves the design and model testing of lighter footgear for groundfish and shrimp trawls. It's currently in the design phase and work will continue over the winter. Pingguo may be contacted at 603-862-3154 or [pingguo.he@unh.edu](mailto:pingguo.he@unh.edu). Bart may be reached at 207-797-4341 or [bmcneel@maine.rr.com](mailto:bmcneel@maine.rr.com).

## MODIFIED GILLNETS

**Mike Pol** of the Massachusetts Division of Marine Fisheries reported on Phase II testing of two low-profile, low cod-bycatch gillnets designed by commercial fisherman, **Bob MacKinnon**. The designs exploit behavioral differences between cod and flatfish. They currently have only 12 sets with good data and are hoping to get more data this February and March if they get the permit for Closed Area 125. Promising preliminary results showed they caught less cod while targeting flatfish. Mike may be reached 508-563-1779 ext 116 or [mike.pol@state.ma.us](mailto:mike.pol@state.ma.us). Bob may be reached at 781-837-1911 or [ladyirene@xpres.net](mailto:ladyirene@xpres.net).

## COD FEEDING HABITS

Fisherman **Ted Ligenza** (F/V Riena Marie) reported that he's teaming up with Northeast Fisheries Science Center researchers **Frank Almeida** and **Dr. Jason Link** for a seasonal, local scale study of cod feeding habits. They hope to evaluate fishermen's observations that cod change their behavior in winter and that herring and mackerel become a large part of their diet before and during spawning. They are collecting oceanographic data and doing tri-monthly stomach assessments in the nearshore region of George's Bank from Truro, MA as far south as Chatham, MA in waters 80 to 300 feet deep. They will estimate consumption rates, look for diet patterns and attempt to correlate diet with oceanographic conditions, prey field, fish biology, etc. Frank may be reached at 508-495-2308 or [Frank.Almeida@noaa.gov](mailto:Frank.Almeida@noaa.gov) and Jason may be reached at 508-495-2340 or [jason.link@noaa.gov](mailto:jason.link@noaa.gov). Ted's number is 508-432-2628. The Fisheries Science Center has two related websites: <http://www.nefsc.nmfs.gov/femad/pbio/> (population biology) and <http://www.nefsc.nmfs.gov/femad/pbio/fwdp/FWDP.htm> (food web dynamics)

## IMPACT OF HERRING BAIT

**Don Perkins** of the Gulf of Maine Aquarium reported that the herring bait project will look at the impact of the thousands of tons of lobster bait that are dumped into coastal waters each year in hopes of answering four questions: What percentage of the lobster's diet is herring? What is herring's impact on lobster growth and population density? What is the initial fate of discarded bait? And what is the economic relationship of lobster production vs. herring cost? Captains **Matt Webber** (F/V Griffin), **Mike Cushman** (F/V Mistress), **Phillip Poland** (F/V Magan-Dawn), **Sherman Kinghorne** (Grand Manan Fishermen's Association) and Cutler lobsterman **Jeremy Cates** are working **Carl Wilson** (Maine Department of Marine Resources) and **Jonathan Grabowski** (University of North Carolina – Chapel Hill) to study this interaction between herring and lobster. One of the study areas is off Monhegan Island, where lobstering does not occur in summer. Contact Jonathan at 252-726-6841 or [jhg2729@email.unc.edu](mailto:jhg2729@email.unc.edu) or Don at 207-772-2321 or [don@gma.org](mailto:don@gma.org).

## SMOOTH AND THORNY SKATES

UNH researcher **Paul Tsang** described a 2-year project that began this past July, in partnership with doctoral students **James Sulikowski** and **Patrick Danley** and commercial fisherman **Joe Jurek** (F/V Mystique Lady) of the Yankee Fishermen's Cooperative. Each month, they collect 100 skates of two overfished species (smooth and thorny) to study three life history parameters essential to the development of a fisheries management plan: Age and growth rate (to correlate size and weight to age class), reproductive parameters (to establish breeding season and age at sexual maturity), and identification of distinct populations. Methods include DNA sequencing, polymerase chain reaction, radioimmunoassay, histology, counting vertebral growth bands and employing marginal increment analysis. Contact Paul at 603-862-3479 or [pct@cisunix.unh.edu](mailto:pct@cisunix.unh.edu).

## FISH HABITAT

**Dr. Richard MacKenzie** of the Wells National Estuarine Research Reserve reports that he and **Dr. Michele Dionne** have enlisted the aid of **Jeff Reed** (F/V Full Circle One), **Vincent Balzano** (F/V North Star), and **Kenneth Young, Jr.** (F/V Judy Marie) in a project to correlate benthic habitat to juvenile fish abundance along transects from estuarine through inner shelf areas of the Bigelow Bight. They will define

habitat by substrate type (sand, clay, cobble, rock and organic content) and invertebrate composition to characterize fisheries habitat resources. A SPI camera (sediment profile imager) will be used in the spring for surface and cross-section assessment of substrate. They will also use beam trawls, small mesh trap nets and variable mesh gillnets to sample the fish and a Ponar grab sampler for the invertebrates. They will include human-impacted areas such as sewage outfalls. Contact Michele at 207-646-1555 ext .136 or [michele.dionne@maine.edu](mailto:michele.dionne@maine.edu), or Rich at [rmac@wellsnerrcec.lib.me.us](mailto:rmac@wellsnerrcec.lib.me.us).

## eMOLT

**Jim Manning** of the Northeast Fisheries Science Center reported on the continuing work with **Bonnie Spinazzola** of the Atlantic Offshore Lobstermen's Association and **David McCarron** of the Gulf of Maine Lobster Foundation. The eMOLT project is now in Phase II with the deployment of salinity probes on lobster traps in addition to the forty-nine temperature probes already distributed. They are hoping to look at year-to-year changes on bottom temperature as lobstermen suspect that temperature is related to lobster activities. As a side finding, Jim notes that lobsters like to eat the probes and may be attracted to their green lights! Contact Jim at 508-495-2211 or [james.manning@noaa.gov](mailto:james.manning@noaa.gov), Bonnie at 603-483-3030 or [aola-bonnie@mediaone.net](mailto:aola-bonnie@mediaone.net) or Dave at 207-363-8008 or [gomlf@gwi.net](mailto:gomlf@gwi.net). Check out the website: <http://www.nefsc.nmfs.gov/~jmanning/emolt.html>

## CONTAMINANTS

**Dave Lincoln** of the Gloucester Fishermen's Wives Association reported on a contaminant study being done in collaboration with **Dr. Emily Monosson** of Mount Holyoke College. This spring, they plan to sample the livers and gonads of 50 spawning fish from 6 sites including Stellwagen and George's Bank. They will compare this data to the bottom sediments they sample this winter. Industry participants include **Paul Vitale, Nino Gicolone, John Palazzolo, John Sanfilippo, Vincenzo Taormina, Joe Orlando, Joe Randazzo, Al Cottone, Antonio Giacalone** and **Antonino Randazzo**. Contact Dave at 978-283-2504 for more information.

## HERRING SURVEY

**Dr. Matthew Cieri** (Maine DMR) reported on the upcoming third hydroacoustic survey of herring aggregations, a companion project to the NMFS offshore survey. Captains **Cameron McLellan** (F/V Adventurer) and **Paul Palino** (F/V Anna Lisa) will conduct the surveys in association with the Gulf of Maine Aquarium (**Don Perkins**). Matt reports they've worked most of the bugs out of the survey design but want to improve biological sampling using gillnets or jigging. They plan to integrate their data with offshore data. DFO Canada and NMFS have been very cooperative. Contact Matt at 207-633-9520 or [matthew.cieri@state.me.us](mailto:matthew.cieri@state.me.us), Cam at 207-882-6421 or [mcfish@lincoln.midcoast.com](mailto:mcfish@lincoln.midcoast.com), Paul at 207-563-8639 or don at 207-772-2321 or [don@gma.org](mailto:don@gma.org).

## DEEP SEA RED CRAB FISHERY

Stock assessment scientist **Dr. Yong Chen** of U. Maine's School of Marine Science reported on a project with ecologist **Dr. Rick Wahle** of Bigelow Lab and **Jon Williams** of the New England Red Crab Harvesters Association. The goal is to develop stock assessment methods for the fishery. They will utilize trawl and camera surveys, sea sampling, tagging and three different stock assessment modeling approaches.

The 3-year program will begin next spring and involves three tasks: Rick and Jon will repeat the 1974 NMFS survey and compare results. They will also collect biological information for stock assessment. Yong will be responsible for model development. Contact Rick at 207-633-9659 or [rwahle@bigelow.org](mailto:rwahle@bigelow.org).

## MAINE SCALLOP FISHERY

**Dan Schick** reported on the monitoring and enhancement project for the Maine scallop fishery. This winter they will conduct port sampling and sea sampling to take a 'look-see' and next year they're planning a fishery independent survey using scallop vessels. They are providing assistance to several community-based enhancement efforts that are utilizing spat collection to improve recruitment. They hope to answer the question of how to improve distribution of the collected spat. **Marsden Brewer** reports that he has grown and released over 5 million scallops since his efforts began two years ago. Contact Dan at 207-633-9528 or [dan.schick@state.me.us](mailto:dan.schick@state.me.us) or Marsden at [bandit@media2.hypernet.com](mailto:bandit@media2.hypernet.com).

## OFFSHORE LOBSTER FISHERY

With coordination by **Bonnie Spinazzola** (Atlantic Offshore Lobstermen's Association) and project assistant **Susan Little**, UNH Professor

**Win Watson** is implementing an automated monitoring program for the offshore lobster fishery using Thistle Marine data loggers. Thistle Marine stores the data on its website and it is available to stock assessors. Win reports that they are also collecting lobsters from northern and southern regions to compare age at sexual maturity. It appears that lobsters from the northern canyons mature at a larger size than those from the southern region. AOLA lobstermen **Marc Palumbo, Paul Bennett, Denny Colbert** and **Arthur Cote** are industry partners in this project. Win tells us the project is 'making good progress'! Contact Win at [win@unh.edu](mailto:win@unh.edu) or Bonnie at [aola-bonnie@mediaone.net](mailto:aola-bonnie@mediaone.net).

## QUAHOG SURVEY

**Dr. Dan Schick** of the Maine Department of Marine Resources reported on the pilot ocean quahog survey that will begin next spring (when there's less lobster gear in the water). The goal is to define the extent of the stock and help establish an appropriate quota to ensure the resource is being harvested at a sustainable rate. Downeast Dragger Association president **Kristan Porter** (F/V Whitney and Ashley) will conduct the survey. The survey area extends from the east side of Mount Desert Island to Petit Manan in eastern Maine. For more information, contact Dan at 207-633-9528 or [dan.schick@state.me.us](mailto:dan.schick@state.me.us).

## SOCIOECONOMIC ASSESSMENT

**David Bergeron** of the Massachusetts Fishermen's Partnership (MFP) is joining with **Drs. Madeleine Hall-Arbor** (MIT Sea Grant), and **Bonnie McCay** (Rutgers University) with the goal of modeling a structure to collect socioeconomic data for incorporation into the fisheries management process. MFP came up with the idea last year after convening workshops on the Magnuson reauthorization and concluding there was no infrastructure in place to collect this data as required by the act. This project will convene meetings in Cape Ann, the South Shore and Downeast. An advisory group made up of fishermen, processors, retailers and community members will define how the meetings will be structured. Contact Dave at 978-282-4947 or [bergeron@shore.net](mailto:bergeron@shore.net) or Madeleine at 617-253-9308 or [arber@mit.edu](mailto:arber@mit.edu).

## FISHING COMMUNITIES ATLAS

**Madeleine Hall-Arber** of MIT Sea Grant reported that her project will create an atlas that ties charts of fishing areas with the fishing communities that utilize them. This tool will be helpful in assessing the community impact of proposed fisheries closures. She'll be working with **Dr. Kevin St. Martin** of Rutgers University in cooperation with fishermen and community-based researchers. They will also be looking at what information fishermen will give out (such as habitat) and what it can be used for. Contact Kevin at 732-445-7394 or [kstmarti@rci.rutgers.edu](mailto:kstmarti@rci.rutgers.edu) or Madeleine at 617-253-9308 or [arber@mit.edu](mailto:arber@mit.edu).

## MARINE RESOURCE EDUCATION PROJECT

**John Williamson** of the New England Fishery Management Council reported on the "Marine Resource Education Project" being developed in association with U.N.H. Doctoral student **John Coon** and **Drs. Mimi Becker** and **Andy Rosenberg**. This program will provide a series of six week-long training workshops with curriculum geared toward fishermen to deal with management issues. The course will include basic science underlying the way modeling and assessment works. Ethics, data management and negotiation skills will also be covered. The 20 participants in each session (15 fishermen and 5 others with a commitment to commercial fishing) will receive a certificate and fishermen will be reimbursed. Contact John Williamson at 207-967-3847 or [jwilliamson@cybertours.com](mailto:jwilliamson@cybertours.com), John Coon at [jcoon@cisunix.unh.edu](mailto:jcoon@cisunix.unh.edu), Mimi at [mibecker@cisunix.unh.edu](mailto:mibecker@cisunix.unh.edu) or 603-862-3950, Andy at [Andy.Rosenberg@unh.edu](mailto:Andy.Rosenberg@unh.edu), or industry representative Mary Beth Tooley at [herring@midcoast.com](mailto:herring@midcoast.com).

## ADOPT-A-BOAT

MIT Sea Grant's **Cliff Goudey** gave a progress report on the Adopt-a-Boat Program that is in the pilot phase of a two-year effort. The goal of the program is to use fishing vessels to teach marine resource education, marine ecology and 'life as a fishermen' to K-12 students. **Craig Pendleton** (F/V Susan & Caitlyn), **Bob Kohl** (F/V Glenna & Jacob) and **Cameron McLellan** (F/V Adventurer) and several other fishermen are partnering with teachers in classrooms around New England. The project hopes to develop a good curriculum using common ground shared by fishermen and teachers and to expand the program to 100 classrooms and many more fishermen. Contact Cliff at 617-253-7079 or [cgoudey@mit.edu](mailto:cgoudey@mit.edu) or Brandy Moran at 617-253-5944 or [bmmoran@mit.edu](mailto:bmmoran@mit.edu). Check out their website [www.adoptaboat.org](http://www.adoptaboat.org) or get your hands on the latest issue of the Island Institutes "Working Waterfront" to read about Vincent Balzano's (F/V North Star) involvement with the project!

## "COLLABORATIONS"

**Julie Herndon** reported on the Northwest Atlantic Marine Alliance's Collaborative Research Reporter position. NAMA is currently

publishing "Collaborations" on a monthly basis and distributing it to an ever-widening circle of stakeholders, including policymakers. Direct circulation is about 1000, but we suspect it's double that as we've heard back from many e-mail recipients who are receiving copies forwarded through list serves and individuals. We also assembled a project database that was turned over to the Consortium and the Gulf of Maine Aquarium for further development as an online tool to improve communication and coordination among cooperative research projects in the Northeast. Contact Julie at 888-320-4530 or [collaborations@namanet.org](mailto:collaborations@namanet.org) and check out [www.namanet.org](http://www.namanet.org).

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## NORTHEAST CONSORTIUM'S CORE PROJECTS:

### SOCIO-ECONOMIC ASSESSMENT OF COOPERATIVE RESEARCH

**Rob Robertson** of the University of New Hampshire introduced the other core project that, according to handouts, "presents a work plan for the systematic collection, analysis and interpretation of information on the effectiveness and efficiency of the Northeast Consortium..."

**Bruce Lindsay** and **Jen Hafner**, also of UNH, join him in this effort to assist in meeting the Consortium's goals. They will collect data through "(a) informal discussions and interviews with commercial fishermen, scientists, managers, administrators and staff; (b) observation; (c) formal interviews with Consortium participants and non-participants; (d) personal interviews and questionnaires; (e) secondary data analysis, particularly NMFS data, census data, and vessel log books, and (f) available data from other projects and programs. You may contact Rob at 603—862-2711 or [robertr@cisunix.unh.edu](mailto:robertr@cisunix.unh.edu).

### GULF OF MAINE ECOSYSTEM MONITORING PROGRAM

**Jeff Runge**, fresh from Canada's DFO, reported the partnership-based Gulf of Maine Monitoring Program is in its pilot phase and is seeking nominations for an advisory committee to determine the nature of the community partnerships and how the monitoring work will be done. The project addresses the lack of long-term data needed to establish the linkages between fisheries and the environment and the status of the Gulf of Maine ecosystem. Fishermen will sample from fixed stations and community volunteers will analyze the data and distribute it on the web. A pilot station will be set up off Jeffrey's Ledge. Goals include: 1) Measurement of biodiversity and other oceanographic variables at fixed stations, 2) Community involvement in sample collection, data analysis and interpretation, 3) Getting the word out about long-term, integrated monitoring at workshops and conferences, 4) Keeping the public informed with an up-to-date website and 5) Stakeholder involvement in the development, implementation and evaluation of the project. Contact Jeff at 603-862-3575 [jrunge@cisunix.unh.edu](mailto:jrunge@cisunix.unh.edu) or

**Rebecca Clauss** at 603-862-4034 or [rclauss@cisunix.unh.edu](mailto:rclauss@cisunix.unh.edu) with your suggestions for advisors. To learn more about the project, check out [http://www.northeastconsortium.org/proj\\_des\\_2001/Runge\\_GoMMP.html](http://www.northeastconsortium.org/proj_des_2001/Runge_GoMMP.html)

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**“Fishing for Data”  
A Workshop Series to Develop Collaborative Research Proposals for 2002**

The Gulf of Maine Aquarium (GMA) is hosting a series of workshops to assist Maine fishermen in learning how to develop a proposal for collaborative research funding. The workshops are aimed at integrating the unique expertise of fishermen and scientists to produce innovative and successful projects. With support from Northwest Atlantic Marine Alliance, Maine Cooperative Fishermen’s Association and the Northeast Consortium, GMA hopes these workshops will encourage the development of research proposals to submit to the Northeast Consortium in January or to other funders supporting collaborative research in the region.

**I. Introduction to Research Funding Opportunities**

November 14: 7:00 p.m. to 9:00 p.m.  
Masons’ Hall, Main Street Tenants Harbor (across from Post Office)

November 15: 7:00 p.m. to 9:00 p.m.  
Wiscasset Municipal Building, 51 Bath Road (south end of building)

November 16: 12:00 p.m. to 4:00 p.m.  
Portland Chamber of Commerce, 145 Middle Street, 1<sup>st</sup> floor

**II. Developing Oceanographic and Habitat Research Projects**

November 30: 12:00 p.m. to 4:00 p.m.  
Portland Chamber of Commerce, 145 Middle Street, 1<sup>st</sup> floor

**III. Developing Gear Research and Stock Assessment Projects**

December 7: 12:00 p.m. to 4:00 p.m.  
Portland Chamber of Commerce, 145 Middle Street, 1<sup>st</sup> floor

**IV. Getting Involved in Cooperative Research - How to Get a Project Underway**

December 14: 12:00 p.m. to 4:00 p.m.  
Portland Chamber of Commerce, 145 Middle Street, 1<sup>st</sup> floor

**Format:** Participants in the initial workshop will learn about the experiences of fishermen and scientists who have been involved in collaborative research and the resources available to become involved. Subsequent workshops will offer an introduction to the scientific process used by researchers for a particular subject area (gear research, oceanography, habitat research and stock assessments) followed by a discussion of the various questions, concerns and research suggestions by both the scientists and the fishermen. The workshops will be interactive to get ideas generated and produce successful proposals.

Contact Laura Taylor Singer at the Gulf of Maine Aquarium, 207-772-2321, [laura@gma.org](mailto:laura@gma.org), or visit [www.fishresearch.org](http://www.fishresearch.org).