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DMF NEWS

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MarineFisheries

A Commonwealth of Massachusetts Agency

New Marine Fisheries Institute (MFI) Creates DMF and U-Mass Partnership

The New Year promises to be an exhilarating time for *MarineFisheries*. The Commonwealth begins the year with a new Governor, Mitt Romney, and new Environmental Affairs Secretary, Ellen Roy Herzfelder. They bring with them the spirit and know-how to create productive partnerships, strengthen essential programs, and promote efficiency in government. *MarineFisheries* and the University of Massachusetts are doing their part to champion the initiatives of our new administration by launching the region's first Marine Fisheries Institute.

The Massachusetts Marine Fisheries Institute (MFI) is a fresh partnership between the Executive Office of Environmental Affairs (EOEA) and the University's Intercampus Graduate School of Marine Science and Technology (IGS). *MarineFisheries*, the Commonwealth's marine fisheries management and research agency, and the University of Massachusetts, its leading institution of higher education will guide the Institute towards its vision — ***"To become a nationally and internationally recognized educational center of excellence and leader in developing innovative and practical fisheries management applications contributing to scientific understanding, management, and the economic growth and sustainability of our oceans and the communities of Massachusetts that border on the ocean."***

The Institute's structure will link the two organizations together to enhance each other's influence and effect on marine fisheries management in Massachusetts and throughout New

Photo courtesy of Dianne Rittmuller, SMAST

School for Marine Science and Technology: site of new Marine Fisheries Institute in New Bedford.

England. The MFI will administer and support research projects involving faculty, professional researchers, technical staff, graduate students, and undergraduate students from 5 campuses, multiple disciplines, and several of the state's coastal facilities.

The MFI, to be based in New Bedford, will bring together experts from the UMass Graduate School of Marine Science and Technology and the state Division of Marine Fisheries to study fish stocks and ways to improve fishing gear and techniques.

The Massachusetts marine economy supports one of the largest and most historic industries in the Commonwealth. It currently employs over 80,000 people who earn almost $2 billion annually. Creation of the Institute occurs at a critical moment as the region's fishing industry is facing a fight for survival as federal regulators struggle to balance the health of fish stocks against the economic sustainability of New England's fishermen.

While its commercial fishery has always been a national leader, the value of the Massachusetts marine recreational fishing industry has grown in recent years and it is now ranked third in the country.

The school and the agency have been collaborating for the past 24 months, but the signing of a memorandum of agreement between UMass President William M. Bulger and Robert Durand, the former secretary of the Executive Office of Environmental Affairs, formalized the arrangement.

The city of New Bedford has turned over to the Institute a building at the former Navy Reserve Center at Fort Rodman, next to SMAST on Rodney French Boulevard. The 22,000-square-foot building will link with the existing SMAST building to help create a true campus for marine fisheries research.

The MFI would be largely staffed by current employees of UMass and the state. *MarineFisheries*' office in Pocasset is expected to close by the end of 2003, and its 40 employees will be transferred to the Institute in New Bedford.

Long-term plans include construction of a flume tank in New Bedford to test the performance of fishing nets. There are only a few such facilities operating in the world and none in the U.S. To help broaden its base, the MFI will seek strategic cooperators, such as NOAA Fisheries and the U.S. Fish and Wildlife Service.

MarineFisheries builds presence in New Bedford

The creation of the Massachusetts Marine Fisheries Institute (MFI) sets the groundwork for an increased *MarineFisheries* presence in the nation's leading port for landings in value. In anticipation of the cooperative work that will be carried out under the auspices of the MFI, Director Diodati engaged in discussions with NOAA Fisheries to bring the R/V Gloria Michelle to the port of New Bedford, where it will be berthed at the State Fish Pier. The Sandy Hook Laboratory in New Jersey was the vessel's previous homeport.

For almost twenty years, *MarineFisheries* has used the 70-foot R/V Gloria Michelle as its primary platform during its annual spring and fall trawl surveys. The vessel is also used during the joint state and federal annual northern shrimp survey.

The vessel will be outfitted with multibeam sonar provided by *MarineFisheries*. Multibeam sonar technology will greatly increase data that both the state and federal government can use to map the sea floor and improve fisheries mangement. *MarineFisheries* and the University also hope to begin discusssions with NOAA to develop a joint education program using the Gloria Michelle to train students in marine science.

By Paul Diodati

Thomas Moth-Poulsen: New Conservation Engineering Leader

Director Paul Diodati selected one of Europe's leading gear specialists, Thomas Moth-Poulsen, to lead the agency's Conservation Engineering Program. Thomas arrived in early December and joined Michael Pol and Mark Szymanski at *MarineFisheries*' Pocasset facility. This program was previously led by H. Arnold Carr and is recognized internationally for work on innovative gear designs and by-catch reduction.

Thomas Moth-Poulsen joins *MarineFisheries* from the Danish Institute for Fisheries Research where he coordinated international research projects on fishing gear selectivity for the Fishing Gear Technology Section. He has used his extensive experience including flume tank development of selective trawls to advise both the Danish Ministry of Fisheries and the European Commission on technical measures to reduce bycatch in target fisheries.

Thomas will immediately be engaged with several research projects currently underway in the Conservation Engineering Program covering various fishing gears such as otter trawls, gillnets, and longlines. *MarineFisheries* is currently promoting a "bottom-friendly" trawl, the "sweepless raised footrope trawl," to minimize effects on habitat. *MarineFisheries* looks forward to the continued success of these projects under Thomas' new leadership and to his expected advancements in these critical programs.

According to Director Diodati "Thomas' experience, knowledge and international reputation allows us to remain on the cutting edge of conservation while maintaining sustainable and profitable fisheries for Massachusetts."

by Dan McKiernan

DMF Photo

Thomas Moth-Poulsen (right) joins Mark Szymanski (center) and Michael Pol (left) on MarineFisheries' Conservation Engineering program.

Marine Fisheries Institute Industry-Based Cooperative Research

Monkfish

MarineFisheries is representing the Institute in a cooperative research project involving monkfish surveys by commercial gillnetters. This program has been funded by the National Marine Fisheries Service Research Partners Program. Originally scheduled for last spring, uncertainties about funding and project approval forced a postponement of the survey until spring 2003. Now we are about ready to go, and details of the survey are being finalized with fishermen's help and assistance from the Northeast Fisheries Science Center (NEFSC). An organizational meeting was held in December and another is planned for January.

Working with monkfish gillnetters fishing in the Gulf of Maine and from Cape Cod to North Carolina, *MarineFisheries*, Rutgers Haskin Laboratory, and the Monkfish Defense Fund have three goals in mind: (1) to increase monkfish scientific information; (2) to improve monkfish management and conservation, and (3) to conduct a pilot industry-based survey using commercial gillnet vessels. Specific objectives are to improve indices of monkfish abundance and identify monkfish size/age distributions by depth by filling data gaps from areas and depths where NEFSC bottom trawl surveys have not been conducted or might be inefficient.

Our gillnet survey is scheduled for March 16 through May, 2003 with 60 days-at-sea planned. With a budgeted 30 fishing days each for northern and southern areas, we will determine the number of stations to be sampled with an emphasis on stratification needs (e.g., depth and monkfish abundance as estimated by fishermen). The survey will cover areas potentially with a different size range of monkfish and with a proportionately greater amount of larger fish than taken in the trawl survey. We intend to contract a minimum of four commercial gillnetters to survey inshore and offshore stations.

We are still soliciting fishermen's interest in participating and their views as to survey gear specifications (e.g., net mesh, twine size, hang dimensions, tie downs, net length, etc.) and operational requirements (e.g., soak time, setting pattern, hauling procedures, time of day for setting, etc.). A preliminary "blueprint" currently is being fine-tuned.

An additional investigation tied to this project and funded at $49,600 is to be completed by SMAST - one of our partners in the recently established Massachusetts Marine Fisheries Institute involving the UMass Intercampus Graduate School of Marine Science and Technology. SMAST will analyze trawl and gillnet fishermen's logbooks to determine if a catch-per-unit-effort (CPUE) standardized index of stock size can be developed.

Why so much attention to monkfish, otherwise known as goosefish? Monkfish is very valuable and certainly to Massachusetts. In 2001 our landings totaled about 22.1 million lbs. worth about $18.3 million – fourth in value behind cod (#3), lobster (#2), and scallops (#1). This unsightly, bottom-dwelling fish with its very wide, ringed, fleshy-lobed mouth and flat, squat body belies its great value to the Commonwealth's commercial fishing industry. There is a large and increasing overseas market for monkfish tails and livers with whole monkfish being exported to Asian markets.

Consequently, the New England Fishery Management Council that manages the monkfish fishery and must react to changes in biomass and fishing mortality on the two monkfish stocks (northern and southern) needs the best scientific information it can get on stock status to prevent overfishing and rebuild biomass. Our cooperative research with the commercial fishing industry will be of great use to assessment scientists and eventually the Council.

DMF Photo by Dan McKiernan

Industry-based surveys will complement existing state and federal trawl data collection.

Gulf of Maine Cod

Another cooperative research project, but for Gulf of Maine cod, also is planned for this year. It's a pilot program designed to study cod aggregations and distribution. Information on cod population age structure, growth rates, spawning sizes and timing, and associations with other species and habitat will be collected. Survey information will complement federal and state bottom trawl surveys.

MarineFisheries is the program manager and will work with Maine DMR and New Hampshire Fish and Game. Survey details will be finalized by an Implementation Committee including those states and Rhode Island Fish and Wildlife. The Committee also includes NOAA Fisheries and the NEFSC.

A minimum of four fishing vessels at least 50 feet in overall length will be selected from a pool of vessels to do the surveys. Two will be from Massachusetts with the others from Maine and/or New Hampshire. Maine DMR will develop an internet Geographic Information System to house and provide public access to trawl survey data.

Surveys will occur from the shore out to 60 fathoms including Cashes Ledge, but not Georges Bank and within an area bordered by 41 degrees 30' North Latitude up to the northern extreme of the Hague line. Survey design will be random-stratified adjusted to include areas of concern to fishermen. Some stations will be industry-selected. Sampling strata (e.g., by depth and cod distribution/aggregations) will be determined by the Implementation Committee using fishermen's guidance. The Committee has met once already.

The survey will be over two 6-week periods from March through early May. Ten-day sampling cruises will occur in each of the two periods with trawl vessels making 30-minute

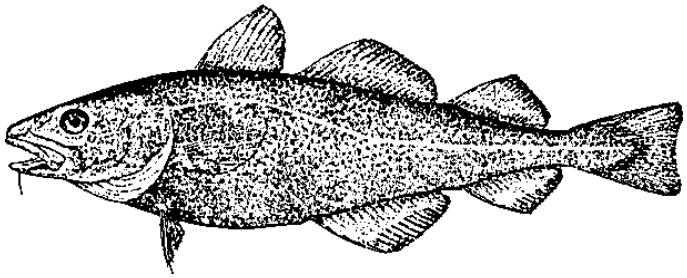
tows and averaging 5 tows per day depending on weather and sea conditions. We expect 400 stations will be sampled (200 per period).

The target species is cod due to the controversy about cod assessments, abundance, and biological reference points. We expect survey data will be very helpful in improving assessments of abundance and learning much more about cod seasonal shifts in distribution.

Funding for this work is from the NMFS Cooperative Research Partners Initiative, and will cover costs of equipment/gear, observers, vessel contracts, and vessel calibration tows. The expertise of *MarineFisheries'* Conservation Engineering Program will be used to "calibrate" tows by measuring door-spread, net wing-spreads and net headrope heights.

Like with monkfish survey data, the New England Fishery Management Council needs the best scientific information it can get on Gulf of Maine cod stock status to prevent overfishing and rebuild biomass. Our cooperative research should be of great use to assessment scientists and eventually the Council. If so, further funding will be sought for surveys improved by what we learn from this pilot, and inclusive of other seasonal periods.

Anyone interested in learning more about this survey and contributing towards its success, contact David Pierce at 617-626-1532.



Nominations sought for NE Fishery Management Council

The Secretary of Commerce is seeking nominations for openings on the New England Fishery Management Council. Seats open to nomination from the Commonwealth are the Massachusetts obligatory seat currently held by James Kendall of New Bedford, who is completing his second term, and one at-large seat held by Dana Rice of Maine who is completing a term formerly held by William Brennan.

Governor Romney has been asked to nominate up to six candidates for these two seats. Candidates "by reason of their occupation or other experience, scientific expertise or training must be knowledgeable and experienced in ways related to fishery resources of New England."

MarineFisheries will coordinate the nomination process on behalf of the Governor's office. We urge qualified individuals interested in being considered for nomination to the Council to contact us as soon as possible. The closing date for nominations is March 1, 2003. Nominees must complete a comprehensive application which includes a philosophy statement and financial disclosure statement.

To facilitate the nomination process, anyone interested in being nominated should contact Melanie Griffin at (617) 626-1528 or e-mail melanie.griffin@state.ma.us by February 15.

Groundfish Economic Assistance

Massachusetts commercial fishermen who fish for groundfish will be eligible for economic relief through a federal grant issued to *MarineFisheries*.

On August 2, 2002, President Bush signed Public Law 107-206, *The Supplemental Appropriation Act for Further Recovery From and Response to Terrorist Attacks on the United States*. Section 210 of the Act allocates funds to provide economic assistance to fishing communities of New England affected by federal closures and fishing restrictions in the northeast groundfish fishery. Congress provided $5.5 million dollars for economic assistance to the Massachusetts commercial fishing industry affected by the groundfish restrictions, especially those mandated by recent court order since April of 2002.

Similar funds were granted to Maine ($2.0 million), New Hampshire ($2.0 million) and Rhode Island ($1.5 million). *MarineFisheries* is responsible for distributing the funds among permit holders impacted by the continuing cutbacks in federal and state groundfish fisheries.

MarineFisheries was designated by the Governor's Fishing Assistance Advisory Council to administer the grant, which was issued by the Northeast Region of NOAA Fisheries. Industry input to the Advisory Council came from representatives of the Massachusetts Fishery Recovery Commission, Trawler Survival Fund, Family Fishermen's Partnership, Cape Cod Commercial Hook Fisherman's Association, and the public at three public meetings held in November and December, 2002.

There are two main objectives to the program. The first is aimed at providing immediate aid to vessel owners who have lost federally allocated "Days-at Sea." The program will provide compensation commensurate with lost income due to the reductions in the available days-at-sea incurred during the 2002-2003 fishing period as a result of court-ordered reductions. The second objective is to provide relief for vessel owners who have state permits but not federal permits. In order to qualify for either program, permit holders must be actively engaged in the 2002-2003 groundfish fishery.

The application for economic assistance is nearing final form and is expected to be mailed to all federal multi-species permit holders and state gillnetters and trawlermen by the end of January 2003.

For more information contact Cindy Smith at (617) 626-1521, or by email at cindy.smith@state.ma.us. Also, *MarineFisheries*' website will carry updates on the program at www.mass.gov/marinefisheries.

DMF Photo by Paul Diodati

New Bedford Harbor

Shellfish Beds Re-opened in Kingston Bay & Plymouth Outer Harbor

Town and state shellfish officials team up to re-open 1,800 acres

On September 18, residents of Kingston, Duxbury and Plymouth joined with state and local officials at Gray's Beach in Kingston to celebrate the opening of portions of two of the South Shore's most productive shellfish growing areas. The opening of more than 1,800 acres of shellfish waters was the result of a cooperative effort by the Commonwealth of Massachusetts and the Towns of Kingston, Duxbury and Plymouth.

Once known as the "Clam Towns" the three towns achieved real commercial importance during the 1800s supplying clams as bait for cod longlining fleets out of Boston, Gloucester and Provincetown. According to the literature, "hogsheads" of clams were taken from the flats of the three towns with more than two hundred men working full time digging clams.

During the 1860s, "steamers" became a popular food item. Markets in New York and Chicago purchased clams from the three towns and sold them by name as "Plymouth Clams" denoting their quality. At the time, local shellfishermen made a good living, earning as much as twenty five cents a bushel if clams were of good quality, which meant "clean shelled, not chipped and not taken from tainted waters".

In 1925, the National Shellfish Sanitation Program (NSSP) was established as the result of a nation-wide typhoid epidemic that was caused, in part, by the consumption of polluted shellfish. The national program required all states' Departments of Public Health to sample shellfish-growing waters and to close any areas that did not meet certain standards.

On December 12, 1925, Massachusetts Department of Public Health (MDPH) closed most of Plymouth Harbor and approximately half of Kingston Bay because of the excessive discharge of sewage along the western shore. Portions of Kingston Bay have remained closed since that time while most of the remaining eastern side of Kingston Bay was closed to shellfishing in 1978. The Plymouth Harbor shellfish closure has gradually increased in size since 1926 as a result of pollution from septic systems, stormwater runoff and the discharge of untreated waste from boats. The last closure in Plymouth Harbor occurred in 1996.

In 1999, at the request of local shellfish constables, *MarineFisheries* began a sanitary survey of the bay and outer harbor to determine if any of the areas could be reopened to shellfishing. The survey required *MarineFisheries* biologists along with Kingston Shellfish Constable Reggie Macamaux and Duxbury Shellfish Constable Donald M. Beers to walk the entire shoreline of the bay to identify all real and potential sources of pollution. Following completion of the survey the list of pollution sources was sent to the towns.

Acting upon the sanitary survey, the towns began an aggressive program to address the pollution of the bay. The Town of Kingston connected more than 350 houses in the Rocky Nook and Jones River sections of town to the Plymouth wastewater treatment plant. Duxbury connected 30 houses with failed or questionable septic systems along Bay Road to an upland community waste disposal site.

The Boards of Health and Conservation Commissions in all three towns also have worked hard on correcting other pollution sources along the shorefront. In the past three years, the state has provided almost $500,000 to the towns to design and construct stormwater remediation systems, assess sources of coastal pollution, and fund marine pumpout systems. The Natural Resources Departments of the three towns maintain excellent boat pumpout programs. The respective DNRs have removed more than 10,000 gallons of waste from boats in the bays annually.

The Plymouth Outer Harbor reclassification opened approximately 1,013 acres, about 855 acres on the Plymouth side and 158 acres on the Duxbury side. This area opened to harvest year round without restriction. The Kingston Bay reclassification conditionally opened about 800 acres, 500 acres on the Kingston side and 300 acres on the Duxbury side. The conditionally approved classification means that the Kingston Bay area is open to shellfishing from April 1 through October 31 except when rains exceed three-tenths of an inch in a twenty-four hour period. The area will remain closed to shellfishing for five days after a 0.31" or greater rainfall and will close seasonally from November 1 through March 31. The seasonal closure is necessary because of unacceptable water quality caused by feces from large flocks of waterfowl that winter in Kingston Bay.

by Frank Germano

DMF Photo by Frank Germano

Residents of the "Clam Towns" enjoy restored access to shellfish flats.

Clammers Return to Logan Flats

Creative solutions help resolve post 9-11 security concerns

Diggers returned to the Boston-Winthrop clam flats surrounding Logan Airport on November 29, 2002 after a 15 month absence. As a result of the September 11, 2001 terrorist attacks, clammers were barred by the Massachusetts Port Authority (Massport), from digging clams on three flats adjacent to Logan.

On September 13, 2001, State Police expelled the clammers from the Governor's Island flat and banned digging at the Wood Island flat and the 'Airport' flat. Collectively, these three flats accounted for nearly 60% of the Boston-Winthrop harvest of soft-shelled clams from 1997 through September 13, 2001. Massport's action limited the clammers to the two flats remaining open in Winthrop, Snake Island and Winthrop Shores.

Typically, Logan Airport flats are harvested during warm-weather months, May through October - periods of peak demand and price. Without access to the Airport Flats, diggers would lose 60-80% of their income. Snake Island and Winthrop Shores are primarily harvested during winter and account for much less of the harvest and digger income. The impact to shellfish production and digger income would have continued to drop over time due to loss of the Airport flats and the resultant over-harvesting of the Snake Island and Winthrop Shores

Fortunately, the Division's Shellfish Program had begun conducting sanitary surveys of three other areas in Boston prior to September 11 to expand available harvest sites. One of these flats was Carson Beach, which is a major bathing beach in South Boston operated by the Metropolitan District Commission (MDC). Through co-operation with MDC, regarding access of commercial vehicles on MDC roads and parking on MDC property, digging was allowed between April 16 and May 31, 2002 prior to the summer bathing season and again after the bathing season beginning on September 10. Carson Beach, which had been closed for 14 years due to poor water quality, provided excellent digging and temporarily relieved the pressure on Snake Island and Winthrop Shores but was unavailable during prime summer months. Two other sites, Long Island and Thompson Island were opened during the summer but provided only minimal harvests.

On September 28, 2001, acting Governor Jane Swift appointed the Carter Commission to recommend airport security improvements. One of the recommendations of the commission and state and federal transportation officials was that the Legislature enact a law establishing a permanent security zone bordering the airport out to a line 500 feet seaward and parallel to the mean high water line (MHW).

As proposed in a bill subsequently filed by the Swift Administration, clamming would be prohibited within the security zone and access to the three highly valuable clam flats bordering Logan Airport would be lost forever. The proposed legislation sparked a controversy among the diggers who engaged in a campaign to make their plight known to the public, Massport, the Legislature and the Governor. After a long and arduous debate, the Legislature's Transportation Committee proposed a plan to create the recommended security zone but at the same time allow commercial clammers to have access to the security zone in accordance with regulations and policies promulgated by *MarineFisheries* in coordination with Massport. The amended bill required digger registration with Massport, finger printing and criminal background checks by the State Police, issuance of a registration (identification) card by Massport, and a provision allowing not more than 50 clammers within the security zone. Additionally, any person who violates the provisions of this law is subject to immediate arrest and imprisonment for up to 2 years or by a fine of up to $25,000 or both. Acting Governor Swift signed the Bill on August 10, 2002.

On September 4, 2002 officials representing Massport, the State Police at Logan Airport, the Environment Police and the *MarineFisheries* met to discuss implementation of the new law and interagency coordination. Over the next three months details were worked out and implemented regarding a clam

DMF's Glenn Casey (left) and master digger John Dennehy (right) off Logan Airport.

DMF Photo by Mark Rousseau

DMF Photo by Jeff Kennedy

Overseeing the clamming at Carson Beach in South Boston(from left to right) Officer Daniel Reeves, DMF's Shellfish Project Leader Mike Hickey, Major Phil McMann and Officer Chris Baker of Environmental Police.

digger application and security screening process and digger identification on the flats.

Diggers are required to wear a green fluorescent vest purchased from Massport and a picture identification badge at all times while in the security zone. *MarineFisheries* and the State Police worked out a communication and notification protocol regarding digging schedules and locations. Only one designated flat is dug on a given day and diggers are rotated on a pre-determined schedule to different flats.

Shellfish Program personnel also obtained security clearance and training as well as identification badges in order to access the areas to sample water and shellfish as required under the National Shellfish Sanitation Program (NSSP) for public health protection. Digging commenced on November 29, 2002 with 40 diggers permitted by Massport.

The reopening of the Logan Airport clam flats was a victory for the diggers but they still face another battle. Clams harvested from moderately contaminated areas in Boston Harbor must be purified or depurated at a state owned and operated Shellfish Purification Plant on Plum Island in Newburyport, MA. This is the only depuration facility in the state and without it, shellfish from moderately contaminated areas could not be harvested. However, despite the purification plants importance to the state's shellfish industry, it has been under the threat of closure since last spring due to budget shortfalls. Closing the purification plant would shut down an entire segment of the shellfish industry affecting not only the clammers digging in Boston and Winthrop but also an even larger group clamming in Quincy, Hingham, Hull, and Weymouth historically totaling nearly 250 people. The twenty - year average contribution of depurated soft -shell clams to the Massachusetts total harvest is 36 percent.

The return of the diggers to Logan also benefits the plant, which saw a drop in revenues along with the diggers over the 14 months they were excluded from the airport flats. Concerned about this, some dealers and diggers have proposed doubling fees for treating clams and procuring commercial permits in order to help offset plant operating expenses. Fees have not been increased since 1989 and at $3.00 for each rack treated do not come close to covering actual costs, which approach $10.00 per rack.

In addition to fee increases, the diggers supported the creation of an open trust fund by the Legislation to help save the plant. This fund can accept donations for that purpose but state generated fees cannot be deposited into this fund.

Ultimately, the salvation of this industry depends upon several critical factors. With the clammers' return to the Logan Airport flats, fee increases to bolster the Marine Fisheries Fund, donations to the Plant Trust Fund and adequate funding of the Marine Fisheries FY03 budget, the Shellfish Purification Plant will remain open supporting this unique and valuable industry while supplying quality shellfish to Massachusetts consumers.

by Mike Hickey and Jeff Kennedy

Senator Bruce Tarr Receives *MarineFisheries*' Belding Award

Senator Bruce Tarr was awarded the twelfth annual Dr. David L. Belding Award for marine conservation at the Massachusetts Marine Fisheries Advisory Commission meeting on Thursday, December 5, 2002 at 2:00 PM at the Annisquam River Marine Fisheries Station. Senator Tarr has been a leading advocate for fisheries on Beacon Hill for over 11 years and serves on the Joint Committee on Natural Resources and Agriculture.

The Belding Award is funded in perpetuity by Dr. Belding's descendants. It is given to the individual who, in the opinion of the Commission, has done the most to promote the conservation and sustainable use of the Commonwealth's marine resources.

Dr. Belding was well known both to medical students and shellfish wardens in the first half of the 20th century, as he conducted two distinguished careers simultaneously in medicine and marine biology. As a medical professor for Boston University, he wrote two textbooks in parasitology and physiology, and his work in marine biology became one of the cornerstones of today's *MarineFisheries*.

DMF Photo by Mike Armstrong

From left to right: Commission Chairman Mark Amorello, Senator Bruce Tarr, and DMF Director Paul Diodati .

Recreational anglers participate in *MarineFisheries*' volunteer data collection

As part of the Atlantic coastwide effort to manage and conserve striped bass, *MarineFisheries* provides the Atlantic States Marine Fisheries Commission (ASMFC) with size, age, and catch data for striped bass caught in Massachusetts. To increase the information provided to ASMFC, *MarineFisheries* initiated a new program during the 2002 fishing season called the Sportfish Angler Data Collection Team, in which volunteer recreational anglers collected biological samples from striped bass.

Although 2002 was a pilot year for the Data Collection Team, 90 participants collected over 800 samples that will provide key age data for striped bass of all sizes, but especially for sub-legal sized fish that are released. Participating anglers followed simple protocols for measuring striped bass, recording data, and obtaining scale samples (used for age determination). Additionally, several charter captains donated carcasses from legally harvested striped bass. Biologists will use earbones, otoliths, from these carcasses for age verification.

Overall, results from the program will provide continued information on striped bass growth and will help determine which age classes are experiencing the highest fishing mortality in Massachusetts. Information gained will also contribute to the coastwide striped bass stock assessment, specifically improving the accuracy of population size estimates and estimates of fishing mortality. Ultimately, the expansion of the age data set will enhance our ability to conserve and manage striped bass.

Although the Sportfish Angler Data Collection Team was a great success in 2002, we hope more anglers will become involved with the program next year as it provides a mechanism for interested and dedicated anglers to help study the resource they enjoy. All particpating anglers receive a project T-shirt. To find out more about the program or to sign up for 2003, contact Kristen Ferry (987) 282-0308 or kristen.ferry@state.ma.us.

By Kristen H. Ferry

MarineFisheries staff analyst Micah Dean contributing to the collection of scale samples from sub-legal striped bass.

DMF Photo by Dan McKiernan

Craven family at the November 3RD dedication.

MarineFisheries and DLE dedicate Scorton Creek access property

On Sunday November 3RD, the Scorton Creek Public Fishing Area was renamed "Craven's Landing" in honor of James Michael Craven, a man who pursued his love of marine life throughout his lifetime. An Environmental Police Officer until his death from cancer on November 14, 2001 at the age of 51, Mr. Craven also worked as a fisheries supervisor for *MarineFisheries* from 1992 to 1994. An Air Force veteran who served in Vietnam, he majored in marine biology at Boston State College, became a commercial fisherman in the Carolinas and Bermuda in the early 1970s and served as a shellfish officer for the South Carolina Dept. of Health and Environmental Control for eight years before moving home.

"He was uniquely qualified and capable of enforcing and explaining the laws and regulations that protect our marine environment," said Commissioner Peters. "He was an inquisitive officer who anticipated new enforcement challenges and worked with his fellow officers to combat new problems."

The Scorton Creek Public Fishing Area, now known as "Craven's Landing," was part of the district patrolled by Mike. The property was acquired by *MarineFisheries* with financial support of the Orvis Company of Manchester, Vermont in 1999. The Creek and nearby shoreline are well known for their support of striped bass, bluefish and sea-run brown trout, and the site is actively used for launching small craft such as kayaks, canoes, and skiffs. The salt marsh plays a vital role in the overall biotic productivity of nearby waters and acts as a nursery for juvenile finfish and shellfish.

"It is fitting that an exceptional marine habitat area, and particularly one that is enjoyed by so many people, will be remembered for a man who loved the ocean, its resources, and outdoor recreation," noted Commissioner Peters.

by Bob Greco

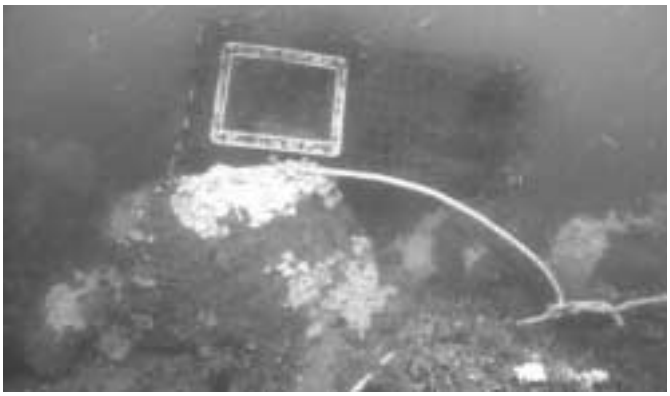
Mike Craven and his friend. DMF File Photo by Dan McKiernan

Cape Cod Bay lobstermen fish the whale-safest gear

Cape Cod Bay lobstermen are on the leading edge of right whale protection. Beginning in January 2003, lobstermen have stopped fishing "floating" groundlines year-round in the Cape Cod Bay Right Whale Critical Habitat and are switching over to groundlines that sink to the ocean floor. Next year that switch-over will include waters west of the Critical Habitat (see map). These rule changes were adopted with fishermen's cooperation to settle the long-standing federal litigation (*Strahan v. Durand)* that was filed in federal court in January 2001.

Two primary components of lobster gear pose a risk of entanglement: buoy lines that connect sets of pots to a buoy at the surface, and the "groundline" (or "mainline") to which each pot is attached with a short piece of line known as a "gangion."

Only sinking groundline (or "mainline") has been permitted by Massachusetts and federal regulation since 1997 in Critical Habitat from January through mid-May. This year-round change is a major sacrifice for lobstermen,who have preferred to use groundlines that float for several reasons.

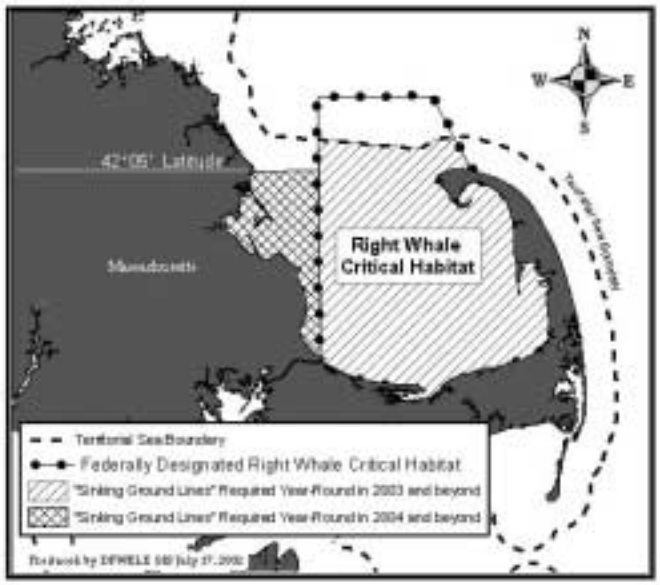


Lobster trawl rigged with non-buoyant "mainline" is now a standard in Cape Cod Bay.

DMF Underwater Photos by Vin Malkoski

Left: DMF's Bob Glenn measuring the height of a lobter trawl groundline. Floating mainlines typically measured 5-6 ft. above the trap and increasd to 16 ft. between traps.

Diagram of lobster trawl rigged with "floating" groundline. Floating mainlines are now prohibited in Cape Cod Bay.



Map of Cape Cod Bay and adjacent waters where non-bouyant mainlines are required to protect right whales.

Floating line, typically comprised of polypropylene, is less expensive than sinking line, typically comprised of nylon. When fished over uneven and hard substrate, floating line is less subject to abrasion and to parting, thus reducing gear losses. When buoy lines that mark the ends of the trawls are cut off, floating groundlines allow fishermen to more easily retrieve trawls by towing a grapnel hook perpendicular to the trawl hoping to hook onto the trawl mainline. Finally, floating line can be used as a visual target for depth sounders when searching for lost pot-trawls with lost buoy lines. Most electronic sounders are capable of displaying a floating arc of line above the substrate.

Several cordage companies now manufacture a new line type, marketed as "neutrally buoyant" line. Neutral buoyancy (in theory) allows the line to remain closer to the ocean floor than floating line (reducing vertical profile) while minimizing bottom contact and consequent abrasion (avoiding risk of gear loss).

A recent *MarineFisheries* study demonstrated the entanglement risk of floating groundlines. The study, conducted in lower Cape Cod Bay, was funded by NOAA Fisheries and used *MarineFisheries* SCUBA divers to measure and videotape gear profiles of floating line in contrast with neutrally and negatively buoyant line products. The video documented the arc created by the floating line, the height of the gangions off the traps, main lines, and groundline behaviors. Open-mouth feeding whales can easily become entangled if they encounter one of these floating arcs of line suspended horizontally in the water column.

The study concluded that that all the so-called neutrally buoyant line were negatively buoyant (registering a specific gravity greater than seawater) and in contact with the sea floor. In contrast, the trawls with floating groundlines were seen as high-risk to whales. The elevated mainlines were no lower than 5 ft. above the ocean floor and the arcs between gangions rose to an average height of 16 ft. - a dangerous place for a feeding large whale. See complete report on *MarineFisheries'* web site: www.mass.gov/marinefisheries.

by Dan McKiernan

DMF *Rules UPDATE*

Public Hearings • Regulations • Legislation

Notice of Public Hearings
Scheduled for February 3 & 4, 2003

Under the provisions of M.G.L. Ch 30A and pursuant to the authority found in M.G.L. Ch. 130 ss. 17A, 80, and 104, Division of Marine Fisheries (*MarineFisheries*) and the Marine Fisheries Commission (MFC) have scheduled hearings on the following regulatory proposals. Contact *MarineFisheries* for draft regulations and further details.

1. *MarineFisheries* proposals (based on a public petition) to further regulate the hand-harvest of sea scallops (322 CMR 6.05).
   a) Establish a recreational limit of one to two bushels of whole scallops or two to four quarts of shucked meats;
   b) Require a "sea scallop–diving" endorsement at no additional cost for commercial fishermen who harvest sea scallops by hand using SCUBA;
   c) Establish "reciprocal licensing" for this endorsement where residents from any state that allows only in-state residents to participate in commercial scallop diving would be prohibited from obtaining the "sea scallop–diving" endorsement;
   d) On vessels with SCUBA divers aboard where the scallop quantities exceed recreational possession limits, require all divers to possess individual commercial permits endorsed for sea scallop-diving ($65 residents / $130 for non-residents);
   e) Establish a commercial season for scallop diving that matches New Hampshire's (November 1 – April 14).
2. *MarineFisheries* proposal to lower the recreational bag limit for weakfish (322 CMR 8.06) from 12 to 10 fish to comply with the interstate plan.
3. *MarineFisheries* proposal to amend tautog (322 CMR 8.06) recreational catch limits. To reduce harvest by 29%, four options can be considered:
   a) 3-fish daily possession limit & no closed season;
   b) 4-fish daily possession limit & May 10 - June 14 closed season;
   c) 5-fish daily possession limit & May 10 - July 10 closed season; or
   d) 6-fish daily possession limit & May 20 - September 10 closed season
4. *MarineFisheries* proposal to amend commercial permitting and reporting for tautog. Commercial fishermen landing tautog would be required to purchase and possess a species-specific regulated fishery permit (322 CMR 8.08(10), and dealers would be required to report all tautog purchases from commercial fishermen to *MarineFisheries*.
5. *MarineFisheries* proposals to a) allocate throughout 2003 a black sea bass commercial quota to be divided into separate seasonal periods to preserve some traditional spring, summer, and fall fisheries; and b) establish different daily possession limits by gear type and no-fishing periods (322 CMR 6.28(3)).
6. *MarineFisheries* proposals to enact scup possession limits (322 CMR 6.28(1)) consistent with federal rules for the Winter I and Winter II periods (January – April & November – December).
   a) The Winter I daily possession limit trigger (cumulative catch that triggers a lowering of the regional trip limit) would be lowered from 85% to 80%.
   b) Winter II trip limit of 1,500 lbs would be enacted.
7. *MarineFisheries* proposal to amend the trap tag regulations (322 CMR 6.31) to prohibit the possession of any untagged traps on a commercial fishing vessel.
8. *MarineFisheries* proposal to adopt Lobster Management Area specific regulations (322 CMR 6.01 & 6.33) as mandated by the ASMFC Interstate Plan for American Lobster for all areas outside of Massachusetts jurisdiction.
9. *MarineFisheries* proposal to regulate non-commercial lobster fisherman authorized as described in 322 CMR 7.01(4)(b)(1) through a reduction in the 10 trap limit, creation of a daily possession limit, and increases in lobster minimum size limit (322 CMR 6.01(2)).
10. *MarineFisheries* proposal to adopt emergency regulation (322 CMR 6.03) that prohibits the mutilation of cod in such a way as to interfere with or affect a proper or adequate measurement of the fish. The weight of fillets and parts of fish, other than whole-gutted or gilled fish would be multiplied by three.

Two public hearings have been scheduled for:

❖ Monday, February 3, 2003 (7-10PM) at the Gloucester High School and
❖ Tuesday, February 4, 2003 (7-10PM) at the Plymouth North High School.

Regulations Update

During the period August through December, the following regulatory changes were enacted by MarineFisheries and the Marine Fisheries Commission.

Actions affecting groundfish, lobster and striped bass were discussed at August 12-13 public hearings and approved at the August business meeting of the Commission. Actions affecting northern shrimp were discussed at December 5 & 13 public hearings and approved by the Commission in December. Actions affecting the commercial cod fishery were taken through emergency action.

1) Changes to groundfish regulations to complement federal rules and Court orders:

(a) The commercial groundfish "rolling closure" in upper Cape Cod Bay and mass. Bay north of 42°and south of 42°30 was extended for the month of May and re-opened during January through March. In waters north of 42°30 from Marblehead north to N.H. border the closure was extended for the month of June.

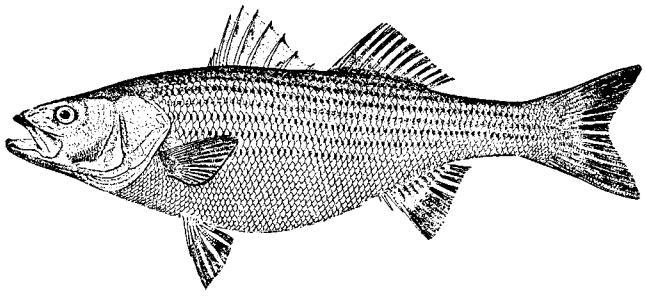
(b) For all gillnetters and trawlers, minimum mesh size opening was increased to 6 1/2".

(c) For commercial fishermen cod minimum size was increased from 19" to 22" and in waters north of 42°00' N latitude including all waters of Cape Cod Bay, cod daily limit was increased to 500 lbs.

(d) For all recreational fishermen, cod minimum size was increased from 21" to 23" and a daily statewide possession limit of 10 cod from April –November and 5 cod from December – March enacted. Exception: Fishermen on for-hire vessels which are permitted pursuant to 322 CMR 7.01(4)(e), and fishing in federal waters may possess cod in compliance with federal regulations.

2) Changes to striped bass regulations:

Holders of the new for-hire permit are authorized to filet striped bass at-sea for their customers consistent with existing regulations, thereby negating the need for written letter of authorization from the Director.



3) Changes to non-commercial lobster regulations:

Non-commercial lobster permit holders are exempt from the trap tag requirement and instead required to mark their traps and buoys with a "N" followed by their 4-digit permit # and then a dash (-) with a single digit from 0 to 9. The dash followed by the 1 digit number from 0 to 9 indicates the sequential pot number in the series (up to ten pots) that the permit holder is fishing.

4) Changes to commercial lobster regulations

The lobster trap escape vent increase for 2003 for all commercial fishermen authorized to fish in Lobster Management Areas 2, 3, and Outer Cape Cod was delayed until July 1, 2003.

5) Changes to northern shrimp regulations:

A 38-day fishing season (January 15 through February 27, 2003) for the 2003 northern shrimp fishery was set with no possession or landing of northern shrimp allowed on Fridays.

6) Changes to commercial cod regulations:

Emergency regulations were enatcted governing commercial possession limits for cod. Commercial cod trip limits shall be determined by the weight of whole, whole-gutted, or gilled fish. The weight of fillets and parts of fish, other than whole-gutted or gilled fish will be multiplied by 3.

7) Sea Bass Trip limit of 500 lbs. encted for the winter fishery. DMF enacted a 500 lbs. trip limit for the winter fishery. This rule and other seasonal possession limits will be discussed at the February public hearings. Final rules will be adopted at the March Commission meeting.

Get in touch with DMF:

Boston Office
251 Causeway St., Suite 400
Boston. MA 02114
(617) 626-1520
FAX: (617) 626-1509

Annisquam River
Marine Fisheries Station
30 Emerson Avenue
Gloucester, MA 01930
(978) 282-0308
FAX: (617) 727-3337

South Shore Office
50A Portside Drive
Pocasset, MA 02559
(508) 563-1779
FAX: (508) 563-5482

Martha's Vineyard Office
Marine Fisheries Station
P. O. Box 68
Vineyard Haven,MA 02568
(508) 693-4372
FAX: (508) 693-4157

Get up-to-date rule changes and notices!
Send e-mail to joinmarinefisheries@listserv.state.ma.us
with nothing in the subject or body.

INSIDE...

Surfers • Surfers • Surfers

This Newsletter and Other Information is available at our Web Site!

http://www.mass.gov/marinefisheries

DMF NEWS

EDITORS: **Dan M^cKiernan**
David Pierce
Kevin Creighton
Melanie Griffin
Jeanne Shaw
GRAPHICS: **David Gabriel**

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Paul J. Diodati, Director, *MarineFisheries*
David M. Peters, Commissioner, DFWELE
Ellen Roy Herzfelder, Secretary, EOEA
Mitt Romney, Governor

Comments and suggestions for the newsletter are welcome. Please contact the Editors at (617) 626-1520, or write to:

Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, MA 02114

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Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, Massachusetts 02114