



MASSACHUSETTS Division of Marine Fisheries

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January - March 1998

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Volume 18 First Quarter January - March 1998

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Looking for Whales in All the Right Places

DMF teams up with Center for Coastal Studies scientists to study endangered right whales

We will have a better understanding of endangered northern right whales in Cape Cod Bay after this winter and spring thanks to a DMF contract with the Center for Coastal Studies (CCS) in Provincetown and Mass. Environmental Trust grants to CCS and other researchers. CCS scientists were in the air and on the water in January when right whales arrived in Cape Cod Bay. This research will continue into spring when whales are expected to leave

the Bay.

What are the identities of these right whales? How long do they reside in the Bay? Which portions of the Bay do they use? Where are they going, and where have they been? These are questions that state and federal regulators need to have answered to protect right whales. The research is being coordinated by right whale researcher Dr. Moira Brown who has assembled a team of experienced right whale scientists from CCS, the New England Aquarium, and the Woods Hole Oceanographic Institution. From January through May, 38 chartered aircraft flights and about 30 research vessel trips will document whale locations, behavior, and individual whale identification (see box). Eight DMF biologists will assist CCS during aerial surveys of Cape Cod Bay and adjacent waters.

Unlike the more common fish-eating humpback whales, right whales feed on zooplankton (copepods). The program provides for Dr. Charles (Stormy) Mayo of CCS to continue his multi-year studies of plankton and oceanographic conditions for development of predictions of where and when right whales will forage. Dr. Mayo was awarded an additional grant by the Mass. Environmental Trust for related habitat work: a study of satellite sea surface images to identify locations of Gulf of Maine thermal fronts where copepods are concentrated - prime right whale feeding areas. This research will dovetail nicely with the surveillance work and plankton sampling.

There are about 300 - 350 right whales remaining in the North Atlantic. Whaling from the 1600's through the 1800's decimated most nearshore populations. Despite international protection since 1935, this whale species has not shown much recovery, and scientists have identified ship strikes and fishing gear entanglement as two man-induced sources of mortality.

This research addresses both concerns. All whale sightings are quickly reported to the National Marine Fisheries Service Right Whale Early Warning System to warn shippers and other maritime users about whale aggregations. Ships entering the Bay at the east end of the Cape Cod Canal pose a risk to whales when aggregated on the western side of the Bay in the path of ship traffic.

As for fishing gear entanglements, if any whales are seen entangled with nets or lines, the CCS Disentanglement Team will immediately respond. Fortunately (for whales and fishermen) right whales typically reside in Cape Cod Bay during the months with the least amount of fishing. However, because whales are capable of carrying gear for months or even years before succumbing to a serious injury, whales that are entangled elsewhere and swim into Cape Cod Bay can be disentangled by the CCS Team. During January flights, as many as 19 whales were seen in one day, and little or no fixed gear was observed in areas with whales. When whales leave the Bay in spring, fishermen will be notified, and if the departure is early (last year they left in March), fishermen might be allowed to re-set certain gear types in the area. Fixed gear restrictions are effective through May 15.

This research program fulfills parts of the Division's Conservation Plan for Northern Right Whales submitted to federal court on December 16, 1996. The Court ordered the Commonwealth to "engage in substantive discussions...regarding modifications of fixed fishing gear and other measures to minimize actual harm to Northern Right Whales." Also, the judge ordered a plan to "restrict modify or eliminate the use of fixed gear fishing in coastal waters of Massachusetts known as critical habitat for northern right whales." [See Rules Update for details.](#)

Because of the importance of this embayment for right whales, in 1994 Cape Cod Bay was federally designated as one of three "critical habitats" for right whales. Over the past decade about two-thirds of the known population has been photographed by CCS scientists and others in the Bay. Whales have been observed feeding, socializing, and nursing their young; these whales typically reside in the Bay during winter and early spring months and depart for other known - and possibly unknown - feeding areas.

Dr. Moira Brown, analyzing the identities of whales, showed Cape Cod Bay to be a favorite haunt of female right whales and mother-calf pairs that migrate from the birthing grounds off Florida and Georgia (another Critical Habitat) to New England waters. Right whales aggregate seasonally in at least three other habitats including the Great South Channel that lies between Nantucket Island and Georges Bank (spring months) and two Canadian areas (lower Bay of Fundy, between Nova Scotia and Maine and Browns-Baccaro Bank south of Nova Scotia) where they summer.

Dr. Brown's ongoing DNA sampling will be continued as well. This research is yielding important genetic information about the population and about individual whales. CCS scientists aboard research vessels will extract minute skin samples from certain individual

whales - if and when these previously unsampled whales are spotted.

DMF also will contract CCS services on a contingency basis to investigate whale sightings "out of season." If right whales migrate into nearshore waters during peak fishing and boating seasons, there might be an increased risk from vessel collisions or fixed gear. Though whales typically depart from Cape Cod Bay by spring, individual whales or mother/calf pairs have been known to unpredictably migrate through state waters during the summer or fall. Furthermore, there have been anomalous years, last seen in 1986, when right whales were found in Cape Cod Bay and Mass. Bay throughout the summer feeding on unusually dense copepod concentrations. That year was notable for a lack of humpback whales on Stellwagen Bank as well as sand lance, their favorite prey. Sand lance also feed on copepods and their absence may have contributed to the copepod abundance that right whales and sei whales (another copepod feeder) enjoyed that summer.

If right whales migrate unexpectedly into state waters during summer/fall, DMF's biologists, who will have gained experience during the winter surveillance program, will be ready to assist CCS and NMFS identify the whales, document their movements, and take appropriate action. This might entail simple warnings to mariners and fishermen, or in extreme cases, could include restrictions on certain gear types, if feasible.

This program, in addition to other right whale programs funded by the Mass. Environmental Trust (known for license plate depicting a right whale), will provide a comprehensive look at right whales in Cape Cod Bay and adjacent waters. Our real-time knowledge of whale distribution and movement will help direct many of the other right whale researchers in the field this season. These field studies include:

- Study of right whale habitat through sea surface satellite imagery by Dr. Stormy Mayo of CCS.
- Cooperative tagging program by David Wiley of the International Wildlife Coalition and Dr. Peter Tyack. David and Peter will be testing and deploying state-of-the-art technologies to attach tags to right whales that will reveal dive depths, swim speeds, and short term movements. They hope to collect physiological measurements such as heart rate, swim stroke, and vocalizations.
- Right Whale Health Assessment by Dr. Michael Moore of Woods Hole Oceanographic. Blubber thickness will be measured and analyzed relative to reproductive and sighting histories of individuals.
- Feasibility study by Dr. Clifford Goudey of MIT to use "passive detection techniques a means of identifying and localizing right whales"

Other grants awarded by the Trust include:

- "Assessing the role of inbreeding in the lack of recovery of northern right whales:" Howard Rosenbaum and Dr. Rob DeSalle of the American Museum of Natural History will extract DNA from museum specimens of baleen and bone from whales killed between the 16th and 20th centuries. This study will reveal the genetic variability over the centuries and assess the current level of "inbreeding."
- "Analysis of photographs collected in Massachusetts during 1998, digitization of the Right Whale Catalog, and updating the published identification catalog" by Philip Hamilton of the New England Aquarium.

From the air, right whales are unmistakable. Measuring 40-55 feet as adults, their broad black backs and lack of a dorsal fin clearly distinguishes them from other large whales commonly seen in Cape Cod Bay, notably fin whales and humpbacks. But the pattern of callous-like skin, known as "callosities," on their head and jaws, is most distinctive and unique to each individual like a fingerprint. Scientists have positively identified individual whales over time and in different habitats. This has contributed to our knowledge of seasonal migrations, as well as estimates of reproductive and mortality rates. The Cape Cod Bay surveillance program will add hundreds of photographs to the New England Aquarium's catalog that totals over 150,000 photographs and is growing. About 2,000 sightings are processed annually. Photographs are archived for all the known members of the population.

These photographs allow scientists to track whales that might have been injured or entangled with gear. For example, last June fishermen spotted an 8 year-old male (known as catalog #1971) swimming near Chatham inlet. This whale was entangled in gear that

officials now believe was picked up over 100 miles offshore. Disentanglement was successful. Most of the gear was removed, except for one line fragment that remained in the whale's mouth. The whale was photo-identified again during July and August in the Bay of Fundy free of any line. The surveillance teams working in Cape Cod Bay hope to re-sight four whales last seen entangled in various gears last summer in the Bay of Fundy, Canada.

by Dan McKiernan

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Fishery Council Nominations

The Secretary of Commerce is seeking nominations for two Council at-large seats. One seat is currently held by William Amaru who is completing a first term. The other seat is held by James O'Malley (Rhode Island) who also is completing his first term. Governor Cellucci has been asked to nominate a slate of 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."

Anyone interested in being nominated should contact DMF for further information. Time is short, however. The Governor must submit his nominations by March 13. Background checks and paperwork make it necessary for anyone who is interested to contact DMF's Jeanne Shaw at our Boston office by February 23 (617-727-3193, ext. 371).

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Acushnet River Estuary PCB Fisheries Closures

DMF has scheduled a public hearing (6:30 P.M. to 9:00 P.M.) on Thursday, March 5 in Fairhaven at the Seaport Inn to receive public comment on its proposal to restrict certain fishing in the Acushnet River estuary. The Department of Public Health (DPH) regulation "Prohibition against certain fishing in New Bedford Harbor" (105 CMR 260) was implemented on September 25, 1979. Its purpose was to protect seafood consumers from PCB (polychlorinated biphenyl)-contaminated fish and shellfish in three areas of the Acushnet River estuary. The taking and sale of lobsters, shellfish, and bottom-feeding finfish was prohibited in some or all of these three areas.

Enforcement of the closure continues to be difficult. DPH does not have the resources to enforce its closure especially for the taking of lobster, the fishery of greatest concern to DPH. Because the Division of Law Enforcement (DLE), DMF's sister agency in the Department of Fisheries Wildlife and Environmental Law Enforcement, does not have the authority to enforce public health closures, up until now, DMF has requested DLE to obtain permit numbers of pots being fished in the DPH-closed areas. DMF has sent letters to lobstermen warning them to remove their pots or face a DMF adjudicatory hearing that could result in suspension or loss of their lobster permit.

DMF proposes to improve enforcement of Area 1-3 restrictions by enacting similar closures under its authority provided in M.G.L. Chapter 130. Once implemented, DLE will enforce these DMF closures supporting DPH's efforts to protect the public from exposure to seafood with PCB levels exceeding the Food and Drug Administration's (FDA) PCB 2 parts per million (ppm) tolerance level for seafood.

Of note, DPH's Area 3 prohibition pertains only to the taking of lobster. DMF proposes to prohibit the taking of lobster in Area 3 ("Upper Buzzards Bay") to mirror this longstanding DPH prohibition. However, DMF's decision to close this fishery under its authority will depend on tests of PCB levels in Area 3 lobster for the last few years and subsequent DPH agreement that our test results are applicable in determining whether Area 3 can be opened. DMF's tests reveal that PCB concentrations in Area 3 lobster total edible portions including the tomalley (green liver) from 1992-1995 have been below the FDA tolerance. We remind the public that DPH has a 10-year old health advisory: "All persons should eliminate consumption of tomalley from lobsters from any source due to the finding of abnormally high chemical contaminant levels in tomalley from lobsters from a number of different geographic locations."

DMF also proposes to prohibit conch harvest in Areas 1 and 2. Conch prohibitions are necessary for effective enforcement of the closures. Conch are caught with pots buoyed at the surface, and there is no way to know if a pot is being fished for lobster or conch unless each pot is pulled and examined by Law Enforcement. At this time, DPH does not prohibit conch fishing in Area 2. A DMF conch prohibition is not being proposed for Area 3 because the emphasis of enforcement is to be on Areas 1 and 2. Furthermore, fish pots are fished for such species as scup and black sea bass in Area 3 so prohibiting conch pots to promote more effective enforcement would serve no purpose.

by David Pierce

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Polychlorinated biphenyls

PCBs are man-made, very stable chemicals composed of carbon, hydrogen, and varying amounts of chlorine (1-10 atoms). There are 209 different kinds of PCBs (called congeners) determined by the number and location of chlorine atoms on the PCB "backbone" diagrammed as two joined, hexagon-shaped "rings."

PCBs are nonflammable and are ideal as liquid coolants in electrical transformers and capacitors, as flame retardants, lubricants, machine tool cutting oils, and hydraulic fluids. PCBs are now illegal to manufacture, process, or distribute. When PCBs were legal to sell, they were sold under the trade name of Aroclor followed by a four-digit number such as 1254 or 1260 with the last two numbers indicating the weight (as percent) of chlorine content.

PCBs are persistent and widespread in the environment. They degrade slowly, and because they are soluble in body fats, they accumulate and may magnify in some food chains. While most of the 209 congeners are not toxic, some appear to be associated with numerous biological and toxicological effects, perhaps even in humans, if study results from laboratory animals (such as rats and mice) given very high doses of PCBs daily for about two years can be applied to humans exposed to very low amounts over a lifetime. This is a controversial assumption.

FDA tolerance level and seafood safety

Concern about PCBs in lobster, and other seafood, is characterized in terms of cancer risk with a PCB tolerance level of 2 parts per million (ppm).

The tolerance was derived in the late 1970's by FDA from a study of large, accidental consumption of PCB-contaminated rice oil by Japanese in 1968. By 1971, 1,057 cases of rice-oil disease ("Yusho" disease) had been reported. The average amount of PCBs causing an obvious effect was 2,000 milligrams eaten over 53 days (38 milligrams per day). An aspirin is about 325 milligrams. Effects believed to be due to PCBs in the rice oil included fatigue, weight loss, gastroenteritis, eye discharge, and skin disorders such as chloracne.

The 2 ppm tolerance resulted from a simple calculation of dividing an assumed safe consumption level of 46 micrograms (46 millionths of a gram) of PCBs per day by 19 grams of seafood per day (daily per capita seafood consumption) and rounding the result. FDA applied large safety factors (three orders of magnitude) to the Japanese accidental PCB exposure to estimate the 46 micrograms per day safe exposure.

The 2 ppm tolerance is our guidepost. The seafood industry uses the tolerance for the commercial harvest and sale of seafood involved in interstate commerce. The tolerance is the best available means to judge the safety of lobster and other seafood in the marketplace regarding PCBs.

by David Pierce

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Watch for Tagged Winter Flounder (Blackback)

DMF's Power Plant Investigations' Project has a multi-year, western Cape Cod Bay winter flounder tagging study funded by Boston Edison Company.

We ask all fishermen to be on the lookout for tagged winter flounder. This year we're offering more prize money for returned tags. Anyone returning tag recapture data will be eligible for our annual drawing for **\$1,000, \$500, \$250, and ten \$100** prizes. An individual's name will go into our drawing each time he/she reports a tagged fish.

This January, we picked the winner of our 1997 winter flounder tag return contest. We had 253 entries. Our lucky winner received \$500.

DMF biologists continue to tag flounder with a Petersen disc tag (round in shape) attached close behind the head. Since 1994, we have tagged about 14,700 flounder in western Cape Cod Bay and part of Massachusetts Bay. We plan on marking an additional 7,500 flounder in 1998. Tag return information, including date and location, continues to come into our office.

To date, we have had 479 tag returns. The majority of these have come from our tagging area off of Plymouth. However, we have had returns from such places as Boston Harbor, Stellwagen Bank, and Buzzards Bay. Recently, a fish was recaptured off Long Island, New York. Thanks to everyone who provided us with invaluable recapture information.

Using this tagging information, we intend to map seasonal movements, define the geographical distribution of the local population, and estimate population size. Our objective is to determine the significance of power plant impact - namely the entrainment of winter flounder larvae in Pilgrim Nuclear Power Station's cooling water. Waters adjacent to the power plant, including the Plymouth, Kingston, Duxbury Bay estuary, are important spawning areas for winter flounder.

If you catch one of our tagged flounder, please record the tag number and color, location of capture, date, and length of the fish (fish under the 12" size limit should be released with the tag in place). Please call or send the information to Bob Lawton at DMF, 50A Portside Dr., Pocasset, MA 02559; Tel.#(508) 563-1779.

By Robert Lawton, Power Plant Investigations

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ASMFC Lobster Plan Approved- New era of lobster management is upon us

Two Newsletters ago, we reported on the essentials of the draft lobster plan that was taken to public hearings in late August 1997. As of a vote on November 29, the full Atlantic States Marine Fisheries Commission voted to implement Amendment 3 as recommended by the Lobster Management Board. At the request of National Marine Fisheries Service Regional Administrator, Dr. Andrew Rosenberg, the Commission also voted to request that the Management Board immediately address overfishing through the plan. The National Marine Fisheries Service has been consistent in their criticism that the ASMFC plan does not adequately address overfishing and meet the objectives of the FMP.

Equally consistent, ASMFC has asserted that the critical issue is getting all the conservation partners on the same page through the approval of a plan and then using the tools available under adaptive management to address overfishing and the achievement of the plan's goals. A brief summary of the major plan components follows:

The plan features the continuation of area based management that was developed under now defunct federal Lobster Plan amendment 5. The plan now contains 7 management areas generally similar to the management areas developed under Amendment 5. Massachusetts not only borders the confluence of two great ecosystems, but also borders three lobster management areas as well as receives landings from a fourth, the so called offshore area #3. The three areas the Commonwealth borders are the Gulf of Maine which we share with Maine and New Hampshire; the Outer Cape Lobster Management Area stretching from Provincetown to Monomoy and Southern New England from Nantucket to New York (so called area 2). (See chart of Mass lobster management areas) These areas were developed originally to encompass what were viewed as fisheries of generally similar nature.

Under the previous federal plan, Effort Management Teams (EMTs) consisting of lobster fishermen and biologists worked together to craft area specific management measures specific to their areas. The ASMFC plan continues the areas and the concept of co-

management by establishing Lobster Conservation Management Teams (LCMTs) manned by lobster harvesters and scientists.

Of course, the plan continues the all encompassing management measures such as the 3 1/4" minimum carapace size, the prohibition on v notching and the prohibition on egg bearing female lobsters. There are also area specific measures, most notable of which in area 1 is the maximum carapace size of 5". All fishermen harvesting lobsters from Area 1 must abide by this measure.

The controversial issue of the appropriate allocation of lobster to the non trap sector was addressed by the Commission by adopting a 100/day 500/trip allowance. This limit is coincidentally the same as the current Massachusetts statute and the default that was inserted into the Magnuson Stevens Conservation and Management Act for implementation by NMFS in March, 1998 should ASMFC fail to approve a measure in Amendment 3. Although this limit was opposed by some non trap interests, it is a level of lobster harvest that is not exceeded by the vast majority of mobile gear and other non trap lobster harvesters.

Another point of contention in the ASMFC plan is the implementation of V notch protection throughout the entire range of the American lobster resource. As noted earlier, a harvesting and possession prohibition of V notched female lobsters was a provision of the federal lobster plan but a statutory exception was created in Massachusetts so that state waters only fishermen were exempted. Since the v-notch possession prohibition is now part of the ASMFC plan, exemptions are presently not allowed which means all fishermen must abide by this regulation. Fishermen from the Outer Cape Lobster Association are no longer exempt. Recent sea sampling of Outer Cape lobstermen catches revealed the incidence of v-notched lobsters to be well below the levels observed previously so this regulation should not impact this group any more than other groups.

As previously noted, with regard to reaching the plan rebuilding objectives, the deep differences between NMFS and ASMFC as to how to achieve these objectives resulted in NMFS announcing that they were going to go forward with possible rulemaking to amend the federal plan to achieve rebuilding in the federal waters portion of the plan. NMFS is proposing to use significant trap limit reductions to reduce effort and fishing mortality. While the Commonwealth presently has an 800 trap limit within state waters, the feds were calling for plan out year limits far lower than 800.

Fortunately, at a recent meeting of ASMFC Commissioners representing lobster management Area 1 and NMFS regional officials hosted by Dr. Rosenberg, a political confrontation was averted when tentative agreement was reached regarding how to achieve an acceptable trap reduction that would meet everyone's needs. NMFS backed off a little on their schedule and ASMFC agreed, subject to rulemaking or statutory changes, to adopt a trap reduction schedule that would be implemented with defaults after initial reduction goals were achieved.

by Philip Coates

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Environmental Police patrol vessel re-christened

Massachusetts Environmental Police patrol vessel "Jessie" was re-christened at the Charlestown Navy Yard on November 25, 1997 after being substantially renovated and improved. The "Jessie" is one of two large state patrol boats operated by the Environmental Police that enforce state and federal fishing laws and conduct search and rescue efforts.

Secretary of Environmental Affairs Trudy Coxe had the honor of officially christening the vessel. She said, "The improvements to the "Jessie" are essential for the effective enforcement of our marine fishing laws. This enforcement is absolutely critical for the restoration of marine fish stocks and the long-term health of Massachusetts' billion dollar commercial fishing industry."

The \$140,000 of renovations and improvements included a new electrical system, improved Captain's station, a new global positioning system (GPS) radar, and improved exterior lighting for search and rescue. The contractor also added an external video camera to record boarding of vessels for inspection of equipment or catches, state-of-the-art night vision equipment, and improved sleeping, bathroom, and kitchen areas. The "Jessie"

gained three knots per hour due to the elimination of older, heavier equipment.

"Enforcement of the complex state and federal marine fisheries statutes is the most important job of the Environmental Police in coastal waters," said Department of Fisheries, Wildlife & Environmental Law Enforcement Commissioner John Phillips. "I would like to thank the Legislature, Secretary Coxe, and Governor Cellucci for supporting this crucial project."

"This project greatly enhances the Commonwealth's ability to enforce the regulations that will improve fisheries and the fishing industry in the future," said Representative Douglas Petersen (D-Marblehead), the House Chairperson of the Natural Resources and Agriculture Committee.

The "Jessie" and "Evelyn" are the two major patrol vessels responsible for enforcing all the boating and fishing regulations in Massachusetts coastal waters. The vessels patrol Massachusetts waters 365 days a year around the clock with a crew of two or three officers. Both patrol vessels work closely with the state Division of Marine Fisheries, the Coast Guard and the National Marine Fisheries Service, patrolling federal waters when necessary.

The 26 year-old "Jessie" was renovated because its hull and other systems are still in very good shape. Purchase of a new comparable vessel would have cost between \$500,000 and \$600,000.

by Robert Greco, Dept Information Officer

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DMF and NE Aquarium win grant to study groundfish longlining

DMF's Conservation Engineering Program and the New England Aquarium (NEA) were awarded \$163,244 from the Saltonstall-Kennedy grant program to jointly study demersal longline fisheries. The purpose of the work is to increase selectivity of longline gear by reducing catch of undersized cod and haddock and to increase survival of those fish that are released back to the water. This is the second grant awarded to DMF and NEA pertaining to the New England demersal longline fishery.

The first study, conducted in 1995 and 1996 acquired data on hook selectivity and bycatch survival. Survival of discarded cod, the target species, was previously unknown.

Discarded juvenile cod, caught on the longline, were held for three days in cages on the bottom where they were caught. (Three days holding has been deemed sufficient by previous studies to determine short term mortality.) During the initial fish capture process, fish were examined for injury and stress. The latter was accomplished through blood serum analysis. At the end of three days, the fish were removed from the cages and were again examined for survival, injury, and stress. Survival of juvenile cod was lower than expected.

To increase survival, changes in hook design and fishermen's unhooking techniques show promise. Researchers now must test this combination with commercial longline captains to evaluate the best and most practical means to implement improvements. The Cape Cod Hook Fishermen's Association has been an asset in all of the longline research by providing ideas and cooperative crew and vessel time.

Only six proposals were funded out of 90 submitted. So, competition was extreme. This joint research team had previously looked at the survival and stress of groundfish caught by trawl gear. This is the fifth Saltonstall-Kennedy grant awarded to this research team.

by Arnold Carr, Conservation Engineering Program

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DMF NEWS

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GRAPHICS: David Gabriel

DMF receives state and federal funds to conduct research, management and development of the Commonwealth's marine fishery resources. Information in this publication in alternative formats is available.

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John C. Phillips, Comm'nr DFWELE
Trudy Coxe, Secretary, EOE
Argeo Paul Cellucci, Governor

Comments and suggestions for the newsletter are welcome. Please contact the Editors at (617) 727-3193, or write to DMF, 100 Cambridge St., Boston, MA 02202.

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Division of Marine Fisheries

Rules UPDATE

Public Hearings / Regulations / Legislation

Volume 8 Number 1

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Notice of Public Hearings

Scheduled for February 23 and 24, 1998

Under the provisions of G.L. C. 30A and pursuant to the authority found in G.L. c 130 ss. 17A, 80, 100A, and 104, the Division of Marine Fisheries (DMF) and the Marine Fisheries Commission (MFC) have scheduled hearings on the following proposals. Contact the Division of Marine Fisheries for specific proposals and details.

The following items are proposed regulation changes for the upcoming fishing seasons and are presented for public comment. After public hearings, the Commission and DMF will consider all oral and written comments, and votes on these proposals will be taken either at the March 9 or April 2 business meetings of the Commission. If no changes are approved, 1997 regulations will remain in effect.

(1) The Marine Fisheries Commission seeks public comment on possible changes to striped bass management.

(a) Recreational fishery: Increase the recreational possession limit per angler from one to two fish. (The minimum size limit of 28" would remain in effect.)

(b) Commercial fishery: Establish a minimum commercial size limit of 28" and adopt a possession limit per commercial angler ranging from 10 fish to 20 fish. (The overall commercial quota of 750,000 lbs. and the schedule of open/closed fishing periods would remain similar to that seen in 1997.)

(2) DMF proposal to delay the start of the commercial summer/fall summer flounder season. Current rules allow landing/possession limits of 100 lbs. from April 23 through June 16. The limit increases to 300 lbs. on June 17 through the end of the season until the state's annual quota is reached. This proposal would extend the 100 lbs. limit until

July 15. On July 16 the limit would increase to 300 lbs. An alternative would be to set a 0 lbs. possession limit from June 16 through July 15 to prevent targeting on fluke and high-grading.

(3) DMF proposal to amend black sea bass regulations:

(a) Monitoring commercial black sea bass landings. DMF proposes requiring dealers purchasing black sea bass to report their purchases to DMF's Statistics Program, as is currently done for certain species, e.g. striped bass, bluefish, summer flounder, and scup.

(b) Black sea bass commercial fishery possession limits consistent with the Mid-Atlantic Council and ASMFC Plan. The Council/ASMFC Plan calls for the following limits for all Mid-Atlantic and New England states: April through June, 7,000 lbs.; July through September, 3,000 lbs.; and October through December, 4,000 lbs. DMF proposes to enact these limits or to adopt a uniform 2,000 lbs. possession limit year-round.

(4) DMF proposals to enact or amend recreational fishery restrictions for summer flounder (fluke), black sea bass, and scup consistent with federal management plans.

(a) Summer flounder. Increase minimum size from 14 1/2" to 15" and decrease the possession limit from 10 to 8 fish.

(b) Black sea bass. Enact a 20-fish possession limit.

(c) Scup. Enact a recreational possession limit in the range of 25 to 50 fish.

(5) Scup commercial fishery restrictions: Enact a commercial fishery possession limit of between 100 - 500 lbs. per vessel during May through October.

(6) Trap tag program. Details of a trap tag program for lobster and fish/conch pot fisheries will be discussed. These specific details will be based in part on a January 31 DMF/MFC meeting in Hyannis.

Two hearings have been scheduled:

Monday February 23, at 7:00 p.m. at the Fuller School Auditorium in Gloucester ; and Tuesday February 24 at 7:00 p.m. at the Mass. Maritime Academy Auditorium, Buzzards Bay.

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Regulatory Update

*During the period of November - January 1998, the following changes were made by DMF and the Massachusetts Marine Fisheries Commission: **Commercial limits on cod from Gulf of Maine enacted:** This regulation complements the 1,000 lbs. cod trip limit in the EEZ. This limit affects holders of DMF commercial fishermen permits who do not have a federal permit for the taking of "regulated species" (i.e., cod, haddock, flounders...). Gulf of Maine cod is nearing a "collapse;" therefore, a complementary DMF regulation is necessary for conservation and rebuilding of the Gulf of Maine cod stock.*

"It is unlawful for vessels, without federal permits allowing the landing or possession of cod, to land or possess at any time more than 1,000 lbs. of cod caught in waters under the jurisdiction of the Commonwealth north of 42° 00' N. latitude including all waters of Cape Cod Bay."

Commercial summer flounder limits: DMF decided to *increase the limit for summer*

flounder to 1,000 pounds for the 2-week period February 16 through March 1. Since January 1, the limit has been 500 pounds. DMF, supported by the Marine Fisheries Commission, recently decided to increase the limit if January landings remained low and similar to January 1997 when very little summer flounder was landed (less than 5,000 pounds). The limit will drop back to 500 pounds on March 2.

When 50% of the 217,637 lbs. winter/spring quota is reported caught, the limit will drop to 100 lbs. However, regardless of the percent caught, the limit will drop to 100 lbs. on April 23 - the beginning of our inshore squid season.

Sea Herring restrictions: consistent with recent Atlantic States Marine Fisheries Commission initiatives, the MFC approved a prohibition on the **landing and processing (at-sea) of sea herring** by vessels greater than 165' overall length and 3,000 horsepower, Also the "direct mealing" of sea herring was prohibited.

Seasonal possession limits were enacted for scup and black sea bass consistent with federal regulations: For scup the limit is 20,000 lbs. during January - April, and for black sea bass, the limit is 11,000 lbs. During January - March. These restrictions are expected to have no impact on Massachusetts-based fishermen since landings of these species have been negligible during the winter when these species are found well offshore. However, the ASMFC required Massachusetts to enact regulations that complimented those of other harvesting states and the federal government for the winter months.

DMF seeks volunteers to serve on a "Working Group" to advise DMF on the drafting of regulations regarding processing of shell-on frozen lobster tails by wholesale dealers. Last November Governor Cellucci signed S. 1013 that allowed DMF to promulgate regulations permitting possession and on-shore processing of shell-on frozen lobster tails by wholesale dealers. The law requires DMF to draft a regulation by June, 1998. The Marine Fisheries Commission has asked DMF to convene a group of interested parties to assist DMF in the drafting of proposed rules that would be presented formally at May 1998 public hearings. For more information contact Assistant Director Jim Fair at 617 727-3193.

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Changes to Mass. Conservation Plan for Northern Right Whales:

A few minor changes to the state's Right Whale Conservation regulations (322 CMR 12.00) were approved.

These regulations were originally adopted in January 1997 in response to a federal court order to "modify, restrict or eliminate fixed gear in Cape Cod Bay Critical Habitat" to minimize risk of entanglements. These regulations apply to recreational and commercial fishermen. The four changes include: (1) breakaway buoy line specifications; (2) allowance of two-pot strings; (3) new gear marking scheme to designate modified gear; and (4) plan to suspend the rules if whales depart early.

(1) Break-away features must be used in all buoy lines deployed on lobster gear in Cape Cod Bay Critical Habitat within state waters during January 1 - May 15. Buoy lines must be fitted with at least one of the following configurations:

(a) The top end of the buoy line looped through the end of the buoy stick and then attached to itself with not more than 5 steel hog rings or another device designed to part at breaking strengths less than 500 lbs.

(b) Top end of the buoy line is a short section, 2 fathom (12 feet) or more, of non-floating line with a manufacturer's determined breaking strength not to exceed 1500 lbs. (Example: 1/4" diameter nylon blend) This short section

shall be attached to the main section of the buoy line with either a device designed to part at breaking strengths less than 500 lbs. or tied with one of the following knots to reduce the breaking strength of the line by approximately 50%: sheet bend or weaver's knot, double carrick bend, square knot, or overhand knot. This section is expected to part when pulled by a large whale swimming at the surface. (Some fishermen already use this design in areas of high vessel traffic).

(2) Amendment of the 4-pot trawl minimum to allow the use of "doubles". Last year's requirement that fishermen set pots in trawls (4-pot minimum) to minimize the number of vertical lines in the waters was amended. However, the spirit of this requirement is maintained where fishermen will be allowed to set two-pot strings with one vertical buoy line. Sinking groundline is still required between pots.

(3) A new gear marking scheme was established to designate "modified" lobster gear in Critical Habitat. This proposal would allow the surveillance teams or law enforcement officers to identify the abandoned and/or un-modified gear for removal.

(a) Two-pot trawls or "doubles" shall be marked with a single buoy, three-foot stick and twin orange markers visibly attached to the top of the buoy stick.

(b) All buoys marking either end of a trawl shall have twin orange markers visibly attached to the buoy stick in addition to the existing marking requirements already in effect.

Twin orange markers means *"a pair of identical orange flag-like strips of material that are clearly visible and attached to the buoy stick or high flyer."* We are not specifying the material type at this time because we anticipate fishermen will be using and testing a variety of materials that should withstand the winter conditions and be inexpensive, yet be sufficiently visible to accomplish the program goals. These twin orange markers must be removed from all buoy sticks after May 15 and before June 1 and fishermen may not re-attach them until after November 30 of each year. Any gear found in Critical Habitat that is unmodified or that is not properly marked with visible twin orange markers will be considered unlawful and may be confiscated or the owner held liable for its removal.

(4) A "trigger" mechanism was established whereby the Director could suspend the fixed gear rules if whales depart the Bay early. *"If at least three full surveys of Cape Cod Bay are successfully completed after April 1 yielding no right whale sightings, and if corroborating evidence support whales' departure from the Critical Habitat, the Director may suspend the fixed gear restrictions beginning on April 21 or thereafter."*

In summary, here's a brief list of the state's gear restrictions for 1998:

In Cape Cod Bay Critical Habitat from January 1 - May 15:

Lobster gear must be configured as follows:

Use of sinking line is required in groundlines (lines connecting lobster traps in a trawl). Buoy lines must be constructed of sinking line except for the lower 1/3 which may be floating line.

To reduce the number of vertical buoy lines, pots must be set in multiple pot strings: either a 4-pot trawl minimum with a buoy line on each end, or a two-pot string with just a single buoy line. Setting of single traps, each connected to a buoy line, is prohibited.

Buoy sticks must be marked with the "twin orange flags".

For gillnets, the following rules apply:

Gillnets (sink gillnets or surface gillnets) prohibited in Critical Habitat from January 1 through May 15.

New regulated fishery permit required for anyone deploying surface gillnets anywhere in state waters, except inshore net areas (permit cost: \$30 for residents/ \$60 for non-

residents). These nets will not be allowed in the Critical Habitat during periods of expected whale occurrences (January 1 - May 15) and/or during other times and areas with right whale aggregations are identified by surveillance.

Fishermen should be mindful of the concurrent federal gear restrictions that apply beyond Critical Habitat and year-round. NMFS published an "interim final rule" last July. This rule prohibited floating line at the surface, requires all gear be tended at least every 30 days, and a called for a buoy line marking system to provide more information about entanglements. Also restrictions on lobstering and gillnetting were enacted for Great South Channel. Contact NMFS for specifics. Gear "menus" were created where fishermen can choose features that would reduce the risk to whales. This menu-approach respects time-honored fishing practices that vary significantly among areas based on various physical forces (e.g. strong tides) and other factors. Gear set in Critical Habitat beyond May 15 or year-round in waters adjacent to Jeffreys Ledge or Stellwagen Bank must be rigged with at least two of the characteristics from the "list." Otherwise gear must be rigged with at least *one* feature. This list may be changed when NMFS publishes the final rule in early 1998. Contact NMFS for details, especially regarding offshore fisheries.

Federal Lobster Technology List

- All buoy lines are 7/16 inches in diameter or less;
- All buoy lines are attached to the buoy line with a weak link having a maximum tensile strength of 1100 pounds (weak links may include swivels, plastic weak links, rope of appropriate diameter, hog rings, or rope stapled to a buoy stick);
- All buoys lines composed entirely of sinking line;
- All ground lines are made of sinking line;
- For gear set in offshore areas only, all buoys are attached to the buoy line by a section of rope no more than 3/4 the diameter of the buoy line;
- For gear set in offshore areas only, all buoys are attached to the buoy line with a breaking strength of 3,780 lbs.

Federal Gillnet Technology List

- All buoy lines are 7/16 inches in diameter or less;
- All buoys lines composed entirely of sinking line;
- All buoys are attached to the buoy line with a weak link having a maximum tensile strength of 1100 pounds;
- Gear is anchored with the holding power of a 22 pound danforth-style anchor at each end;
- Gear is anchored with a 50 pound dead weight at each end;
- Nets are attached to a lead line weighing 100 pounds or more per 300 feet;
- Weak links with a maximum tensile breaking strength of 1100 pounds between net panels along the float rope.

Fishermen are reminded of the state's Right Whale Buffer Zone restrictions: Vessel operators must stay at least 500 yards away from a right whale but can remain within the zone after reporting an entangled whale. Vessel operators must notify Coast Guard or the Division of Law Enforcement when they observe an entangled whale, and then they can stay near the entangled whale until told by enforcement officers or disentanglement teams that standing-by is no longer necessary. Last summer's successful disentanglement off Chatham demonstrated the critical role fishermen can play by reporting the sighting, standing-by the whale, and assisting the Center for Coastal Studies Disentanglement Team. Upon request, DMF can send you a free water-proof disentanglement card that explains what to do - and what not to do - if you observe an entangled whale.

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