Published quarterly by the Massachusetts Division of Marine Fisheries to inform and educate its constituents on matters relating to the conservation and sustainable use of the Commonwealth's marine resources

DMF NEWS

Volume 19 Third & Fourth Quarters July - December 1999

New Automated Licensing Program is Here

Permit office shifted from the Saltonstall Building at 100 Cambridge St. to 175 Portland St.

In the year 2000, DMF's licensing program will have a new look, new features, and a new address. Over the next year, DMF's licensing staff will become part of the Department's new automated licensing system that will vastly improve our licensing capabilities and create unprecedented convenience for the public. DMF's licensing system, largely unchanged for the past 25 years, will become state-of-the-art.

The new program which will be part of the Department of Fisheries, Wildlife and Environmental Law Enforcement (DFWELE) is being created by Department and DMF staff with the expertise of a consultant firm of KPMG. The goal is to create an automated statewide point-of-sale licensing system, for "one-stop shopping" for any DFWELE license. Licenses types include Environmental Law Enforcement's registrations and titles (boats, snowmobiles, and ATV's), Fisheries & Wildlife's hunting and freshwater fishing licenses, and Marine Fisheries commercial fishing, seafood dealer, and recreational lobster permits.

Through the new system, fishermen will be able to purchase a variety of permits at a single location (such as town halls or retail stores) or from a home computer over the internet. Many of our constituents will enjoy the convenience of renewing fishing and hunting licenses, boat registrations and non-commercial lobster permits, all with ease of a keystroke. Each year DMF sees hundreds of frustrated license applicants who must travel between two or more state office buildings or offices to purchase fishing and hunting permits and register their boat. Soon those problems will be solved.

The licensing system, which has been given the name "SPORT" (**S**tatewide **P**oint-of-Sale **O**utdoor **R**ecreation **T**ransaction system) will be used to process most of the licenses issued by the Department. The program will be introduced to the public in several phases over the next several months and through the 2000 calendar year. In the first phase, SPORT will be used to issue the Department's recreational licenses at several DFWELE locations such as the Portland St. (Boston) office and outlying field stations. The second phase will be introduced in early 2000,and will expand the access sites to include the internet, participating retail agents, and town halls throughout the state.

The final phase, known as the "commercial" side of SPORT, will incorporate the Marine Fisheries commercial fishermen and seafood dealer permits into the SPORT licensing system. The commercial side of SPORT is still being built with a planned integration and implementation by the fall of 2000. Since many of these commercial fishing and dealer permits require detailed catch reports (and some are "limited entry"), these may not be available on-line for some time. Don't be fooled by the name SPORT. This new licensing system will have benefits for commercial and recreational fishery users.

DMF's largest group of license holders - the non-commercial lobstermen - will be the first to see changes. This November they will receive a new automated renewal form instead of the usual index-card sized yellow permit. DMF issues about 12,000 non-commercial lobster permits each year.

The consolidation of the Department's three licensing sections is already well under way. By mid-November of this year, the new SPORT licensing bureau will begin issuing all DMF and ELE permits and registrations at its main office located on the 2nd floor of 175 Portland Street in Boston (617-727-3900). This is the same location where Law Enforcement's "Boat Registration" has been headquartered for the past five years. This site is just a 5 minute walk from DMF's Boston office and a stone's throw from the Fleet Center on Causeway Street.

by Kevin Creighton, Licensing Program Coordinator

"Circle hooks"show promise in DMF bait fishing study

DMF is busy completing a study to compare the catch and release mortality rates for striped bass captured with two baited hook types, a conventional j-style hook and a circle-style hook. This is pertinent to management of striped bass stocks since a percentage of released fish are known to die from the hook and release process. The currently used estimate is 8%. In 1998, 7.1 million striped bass were hooked and released in the Massachusetts recreational fishery. This equates to 568,000 fish that were lost to future harvest, a considerable number by anyone's standard. This past June, DMF biologists and some volunteer anglers were able to successfully conduct this experiment. A brief overview is presented here, although final results await peer review.

Lethal wounding was low with circle-hooks and higher with conventional J-style hooks.

Striped bass were caught using similar sized j-hooks and circle-hooks baited with menhaden chunks. Fish were captured from a boat and temporarily stored on board in a circulating-seawater tank, then delivered to sea-bed holding cages. Anatomical hook site and degree of injury, along with number of bait pickups and number of hookups were recorded. Handling and holding conditions between capture types were kept as consistent as possible. All fish were held for a 48-hour period to account for latent mortality. Anglers were rotated between hook types to assure equal probabilities of hookup independent of hook type. When the cage was hauled and emptied total length of each fish was recorded along with condition and capture hook type. Alive fish were released after external examination. Dead fish were further examined, including field dissection, for the suspected cause of mortality, specifically for signs of lethal injuries.

A total of 60 fish were captured on the circle-hook, and 58 fish were captured on the J-hook. When first placed in the holding tank, all fish appeared in excellent health with the exception of one, which had remnants of a hook and steel leader from a previous capture. Several fish began to exhibit obvious signs of stress (reduced swimming motions, inability to remain upright in the tank, slow gill movements) prior to being placed in holding pens.

Most fish captured with circle-hooks were caught in the jaw corners (96 %). Only one fish was hooked in the upper gut for a potentially lethal wounding rate of 1.6 %. Fish captured with j-hooks were hooked in a much wider variety of hook sites. Most were hooked in the jaw (60%), but nine were hooked in gut locations (five in the upper gut and four in the lower), seven were hooked in the snout and four were hooked in the pharynx. Thus, 16 out of 58, or approx. 27.5 %, of those fish captured with the J-hooks were hooked in sites that could result in lethal wounding (pharynx or gut).

J-hook circle-hook

Photo by Paul Caruso

Most fish captured with circle-hooks were caught in jaw corners...Fish captured with j-hooks were hooked at a much wider variety of hook sites.

Two fish caught with circle-hooks died despite non-lethal wounding. Since these two fish were held in the holding tank for the longest time period of all subjects and exhibited stress when first placed in the seabed cage, we presume they died from holding effects. Nine fish caught with j-hooks died. They were wounded in the heart (3 cases), liver (3 cases), gills (1 case), kidney (1 case), and intestines (1 case).

Of 110 bait pickups recorded on circle-hooks, 65% (71) were hooked. For the J-hooks, 55% of 115 pickups were hooked. These hook-up:pick-up ratios are not statistically different.

In conclusion, potentially lethal wounding was low with circle-hooks and higher with conventional j-style hooks and there appears to be no loss in catch to anglers from the use of circle hooks. DMF will review this study's findings in the coming months and will consider using the information as basis for developing formal recommendations for reducing striped bass hook and release mortality in bait fisheries.

by Paul Caruso, DMF Biologist

Upcoming National Symposium on Catch and Release in Marine Recreational Fisheries

For as long as there have been rod and reels, anglers have practiced catch and release in recreational fisheries. The need to evaluate this practice as a component of angler ethics and a fishery management tool has increased as coastal populations have grown and placed greater pressure on species of high economic and cultural value. The first National Symposium on Catch and Release in Marine Recreational Fisheries will be held December 5-9, 1999 in Virginia Beach, Virginia. The Symposium should stimulate discussion and scrutiny on catch and release and includes the following objectives:

- Examine current research on catch and release mortality.
- Assess applications of catch and release fishing in marine fisheries management.
- Develop an action agenda to focus future research on catch and release fishing issues.
- Assess education and outreach efforts targeting marine anglers use of catch and release.
- Develop an outreach and education action agenda designed to promote a stronger marine angling conservation ethic.

The Symposium will highlight research on the impact of various fishing practices on species such as striped bass, bluefish, summer flounder, bluefin tuna, red drum, billfish, salmon, and Pacific Halibut.

DMF will present three research papers. Dr. Jason Stockwell and Paul Diodati will present a paper on "*The chronic stress hypothesis: does catch and release fishing constrain striped bass growth?*". Greg Skomal and Brad Chase will present papers on "*The physiological effects of angling on post-release survivorship in tunas, sharks, and marlin*" and "*A comparison of circle and straight hooks relative to hooking location, damage, and success while catch and release angling for bluefin tuna.*" Brad Chase also serves on the Steering Committee for the Symposium.

In addition to DMF, major sponsors include the National Sea Grant Office, National Marine Fisheries Service, U.S. Fish and Wildlife Service, American Fisheries Society, American Sportfishing Association, The Billfish Foundation, Federation of Fly Fishers, AFTCO Manufacturing Co., state Sea Grant Marine Extension Programs (VA, NY, NC, GA, CA), and the Virginia Marine Resources Commission.

For more information, contact Jon Lucy at the Virginia Institute of Marine Science (email:*lucy@vims.edu;* 804-684-7166) or Brad Chase at 978-282-0308 x111. Information is also on the VIMS Web site (www.vims.edu).

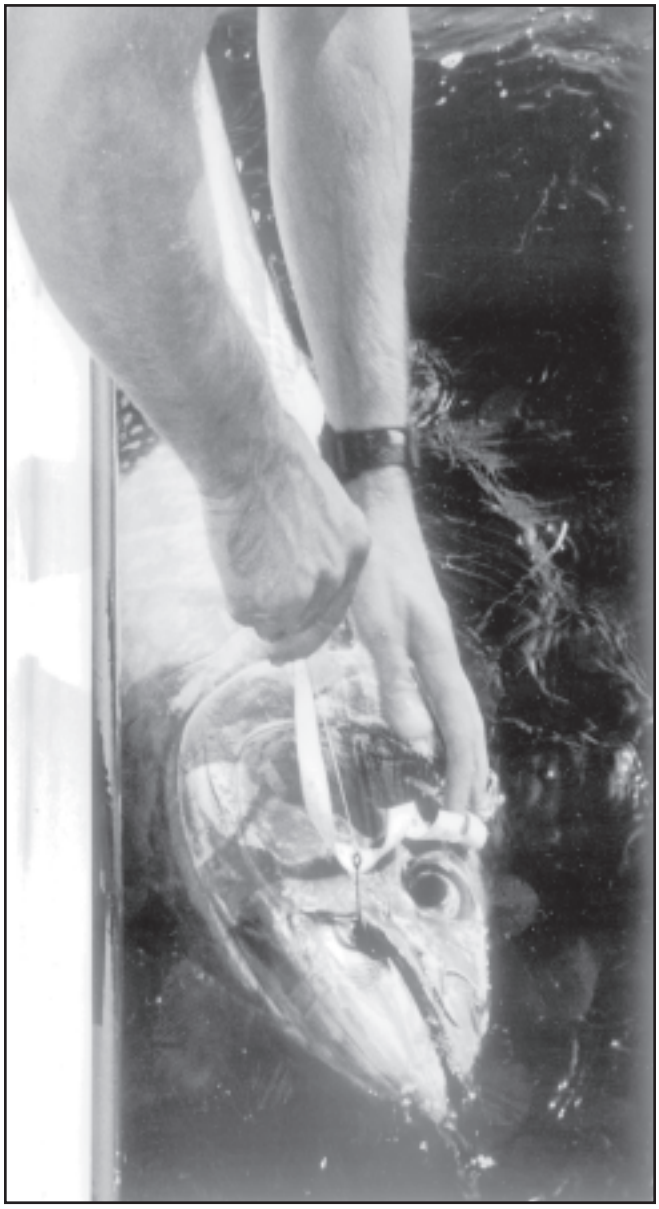
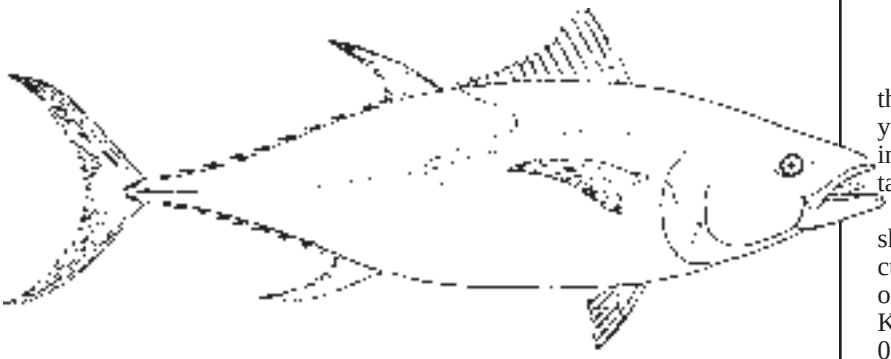


Photo by Terry C. Tessein, Blue Water Enterprises



Coming Soon: 2000 Saltwater Sport Fishing Guide

We're busy working on next year's Guide, so now's the time to contribute your favorite fishing photos. Each year the guide strives to present the public with current information about fish, fishing, where to fish, buy tackle, or hire a charter.

Tackle shop owners and party/charter operators should contact us to ensure their business information is current. If you have any comments on last year's guide or some great fishing pictures, call or write to Drew Kolek at DMF, 50A Portside Drive, Pocasset, MA 02559. His number is (508)563-1779 x103

ASMFC to Reduce Bass Fishing in 2000

The Atlantic States Marine Fisheries Commission (ASMFC) has decided to reduce Atlantic coast fishing on striped bass in the year 2000. Proposed cuts call for a 14% reduction in landings and represent the first call for decreased fishing in over a decade.

Many fishermen were caught off guard this fall when the ASMFC launched a series of coastwide public hearings to discuss possible measures to reduce striped bass fishing next year. The fast-paced hearing schedule, which some onlookers have characterized as a "rush to judgement," was set in motion in September when the ASMFC Striped Bass Technical Committee (TC) presented its 1999 stock assessment report to the Striped Bass Policy Board.

The overfishing rate defined in this plan should not be confused with the considerably higher rate of fishing that leads to stock collapse.

Although the TC report indicated that total numbers of stripers in the stock increased in 1998, following a consistent trend in stock growth since 1982, total weight of fish that compose the spawning stock decreased. Annual harvest rates targeted by the current fisheries management plan (Amendment 5) allow for up to 25% of all striped bass that reach legal minimum-sizes to be removed from the population. The report found that the1998 harvest rate was 29%, which equals the "over-fishing" rate contained in the FMP. The rate was 26% in 1997. Close evaluation of 1998 harvest rates shows that excessive mortality occurred primarily on fish that were age eight and older harvested by recreational fisheries.

The overfishing rate is a guideline which managers have decided should not be exceeded. It is expected that if annual harvest rates continue at 29%, increases to stock size will eventually stabilize and the population will remain at or near present levels. The over-fishing rate defined in this plan should not be confused with the considerably higher rate of fishing that leads to stock collapse.

The current management plan requires action to reduce fishing levels when harvest rates exceed the target fishing rate, 25%, in two consecutive years, which occurred in 1997 and 1998. The TC estimates the harvest rates and other striped bass stock assessment parameters by a computer-run mathematical model known as a *virtual population analysis* (VPA). The model requires basic information about how many fish by age-group are killed each year by fishing activities, including fish that die as discards in recreational and commercial fisheries.

The current FMP uses VPA results as the primary information used by the TC for management advice. Uncertainty in the results exists because of inconsistency between VPA-generated harvest rates and harvest rates derived from striped bass tagging information. The latter, which estimates considerably lower harvest rates in 1998 (about 20%) provided strategic guidance to managers for most of the past decade. Use of VPA was adopted only two years ago. In essence, it is possible that VPA results are overestimating fishing mortality rates, and any restrictive actions reflect an extremely cautious approach.

At an October 7 meeting, Policy Board members decided to require states reduce mortality on age 8 and older striped bass by 14% in the year 2000. If ASMFC does not have a new striped bass management plan in place by the end of next year, than further changes will be required as needed to bring the harvest rate to the FMP's 25% target in 2001. This decision was reached after tense discussion by some Board members who may have sensed that any reduction of catch would alter allocation of the resource. Several fishing jurisdictions unsuccessfully aligned themselves with a management option that would have allowed fishing to go unchanged through 2000. This status quo motion was strongly supported by New Jersey and Connecticut representatives whose coastal stripedbass fisheries have fully liberalized in accordance with the FMP since 1995.

A condition of the Board's decision was that the benchmark for reductions would be a 28-inch minimum size and a 2-fish daily bag limit. This was of paramount importance to Massachusetts since it assures that the state's long-standing conservative striped bass management positions will be recognized. Given that the Massachusetts recreational fishery is constrained by a 28-inch minimum size and a 1-fish daily bag limit, it is unlikely that any cuts will be mandated here next year. However, since Massachusetts is the key state for harvesting larger fish, further deliberations by DMF with the Striped Bass Technical Committee, the Massachusetts Striped Bass Advisory Panel and the Massachusetts Marine Fisheries Commission, may end in recommendations for further voluntary conservation measures in 2000.

by Paul Diodati

A glance at the successful 1999 striped bass commercial season

A number of rule changes were enacted last winter designed to extend the fishing season, reduce market gluts, and improve prices paid to fishermen at the dock. The new rules in 1999 were: 3 no-fishing days per week, 40-fish limit per vessel, and permit changes mandating only one striped bass permit for each commercial boat permit. Most of these rules were recommended by a DMF-convened Striped Bass Advisory Panel. DMF plans to reconvene the panel during the winter of 2000.

Did these changes accomplish the goals? The results are in, and they appeared to have succeeded. Daily catch rates appeared to be lower by 33%. The 3 no-fishing days further reduced the weekly landings by 62%. The quota was spread out among 40 fishing days (up 42%), and the dealers were able to sell bass over 77 days, a 93% increase. Prices paid to fishermen rose to $2.20, up 54%.

	1998	**1999**
Total lbs. Landed	822,000	766,213
Opening date	July 6	July 5
Closing date	Aug. 9	Sept. 6,19*
# fishing days	28	40
# days dealers allowed to sell bass	40	77
Daily average (lbs. landed)	29,357	19,200
Weekly average (lbs. landed)	201,700	76,600
Average price/lb.	$1.43	$2.20

**Fishery open for one extra day, Sept 19*

DMF champions whiting fishery opening

P'town draggermen have relied on DMF's experimental fisheries to gain access to local whiting schools during the fall since 1996. This year it almost didn't happen. The federal October-November groundfish "rolling closure" in upper Cape Cod Bay and Massachusetts Bay was approved last spring to protect Gulf of Maine cod and banned all gear capable of taking groundfish.

Back in the spring, DMF, armed with seven years of sea sampling data, urged federal fishery managers to exempt the whiting fishery in this area because cod have been rarely seen in catches. Long before the cod collapse, DMF biologists had identified by-catch of juvenile flatfish as the "Achilles heel" of the Cape Cod Bay whiting fishery. Through the hard work of a single P'town fisherman who tested and refined the net, a net design was drawn up that would allow local draggers to catch whiting and red hake with minimal by-catch – below 5% of the overall catch (the federal standard). The raised footrope trawl is designed to travel about 1-2 feet off-bottom, effectively catching whiting

Photo by Dan McKiernan

From left to right: Vito Calamo, Senator John Kerry, fisherman Bill Amaru, and DMF's Arne Carr discuss the workings of the raised footrope trawl. Calomo and Amaru are NE Council members.

but passing over juvenile flatfish, lobster, and other weak-swimming fish and invertebrates.

Throughout 1999, the New England Fishery Management Council and NMFS, under pressure to restore the collapsed cod stock, focused on closing areas to fishing, not opening them. So when DMF requested NMFS re-open the whiting fishery this fall, NMFS staff were hesitant and cited the need for cod conservation and the unforseen potential for cod by-catch, as occurred last May when these same areas were re-opened after a three month February-April closure. See the previous DMF News.

Fishermen and industry leaders appealed to Senator John Kerry and Representative Bill Delahunt and demonstrated the gear and its effectiveness. See photo. Congressional staffers convened a meeting with DMF, NMFS, and Council staff to explore options to allow the "experimental fishery" to proceed in small portions of the closed areas.

To satisfy NMFS' concerns about impacts to groundfish, DMF agreed to limit the number of vessels to a manageable (low) number, slightly increase sea sampling coverage, and - most novel of all - have fishermen record the contents of every tow, including location, time, catch and by-catch.

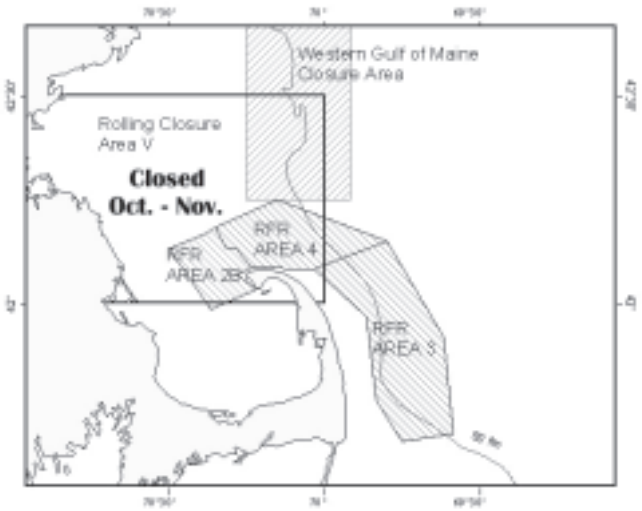
Like the good old days. Whiting have been abundant off Provincetown since the fishery opened in September. Photo by Felix Carroll, Cape Cod Times

Fishermen agreed to accurately weigh the regulated species within every tow. DMF simply couldn't afford to place observers on every boat.

Each week DMF submits to NMFS reports of observed catch rates and a map depicting where the entire fleet fished. A handful of Gloucester vessels have joined the 16 Provincetown vessels. Also, three Chatham vessels are using the net east of Cape Cod. The data gained from this and the past three years will make this one of the most studied and scrutinized small-mesh trawl fisheries ever documented.

NMFS intends to close the fishery if by-catch levels increase over previous years. This is reasonable, and now every captain in the fleet has incentive to "fish clean." At DMF's meetings with the fleet, discussions focus on by-catch rates and ways to help fishermen whose rates may be above average. This intense coverage has also allowed DMF to test a new refinement to the trawl – removing the sweep. A sweepless trawl might become a new industry standard, if successful. (See next page.)

by Dan McKiernan



Experimental fishery allowed in RFRegions 2B, 4 and 3. These were chosen by fishermen as historically productive.

Can a great net be made better?

This whiting season the Massachusetts whiting fleet and DMF's Conservation Engineering Program, headed by Arne Carr, are testing a "second generation" whiting net called the sweepless trawl.

The sweepless trawl is essentially identical to the raised footrope trawl except that the sweep chain in contact with the bottom is removed (see diagram). This arrangement leaves about half the length of the 42-inch dropper chains in contact with the bottom while still keeping the net open.

The sweepless net is being tested because it should produce less by-catch than the normal raised footrope trawl, probably has less bottom impact, and is easier to enforce. Over the past three years sea sampling data have shown the raised footrope trawl sometimes gets fouled by ghost traps, gillnets or other debris. These obstructions cause the footrope to contact the bottom and by-catch reduction benefits are lost.

In cooperation with the Provincetown fleet, Conservation Engineering is alternating the raised footrope trawl with the sweepless trawl tow-by-tow. Henry Souza, the Provincetown captain who assisted in development of both the raised footrope and sweepless trawl, has altered nets of about five vessels so far. He has been accompanied by the Program's Mark Szymanski and Gregg Morris, a contracted sea sampler, to collect catch and by-catch data.

Preliminary analysis of tow data show that the sweepless trawl can reduce catch of regulated flatfish by as much as 30%. Testing is continuing to determine the effect of the sweepless net on size and catch of whiting and on by-catch of regulated species (winter, yellowtail, windowpane and witch flounders, American plaice, cod, haddock, pollock, redfish, and white hake). Weather permitting, testing will continue through the fall. Results of this testing will provide crucial input into any decisions about adopting the sweepless trawl for use by the entire fleet.

We are encouraged. Some fishermen who have seen the sweepless trawl during testing, such as Captain Luis Ribas of the F/V *Blue Skies*, already prefer it because it rarely becomes entangled with bottom debris (thus fishing more cleanly). Testing of the sweepless net, regardless of the results, is another example of the power of cooperation between fishermen and researchers. If the net proves successful, everyone will share the credit, and the benefits.

by Michael Pol, Conservation Engineering Program

For more coverage of the whiting fishery visit the Cape Cod Times website http://www.capecodonline.com/cctimes/archives/1999/oct/1/fishery01.htm

Northern Shrimp Stock Continues Its Decline

The 1999 Northern Shrimp stock assessment has been completed, and the news is not good. The Northern Shrimp Technical Committee (comprised of biologists from Massachusetts, Maine, New Hampshire, NMFS, and ASMFC) gathered several weeks ago in Woods Hole for the annual stock assessment to produce an assessment document and management advice. The bottom line is that landings of 4 million lbs. from the 1998-1999 fishing season were enough to depress the stock further.

Northern shrimp are subject to natural fluctuations. The stock is now at a low level not seen since the stock collapse in the late 1970s. In addition, it appears that all year classes since 1996 have been extremely small due to low spawning stock and poor environmental conditions. Thus, the biologists anticipate the stock will continue to decline with even modest fishing pressure. As a result of this gloomy stock picture, the Northern Shrimp Technical Committee recommended that there be no fishing season for northern shrimp during the upcoming winter. The technical committee felt strongly that this would be the best way to preserve the remaining spawning stock biomass and consequently, offer the best chance to produce healthy recruitment and help rebuild the stock.

The 1998-1999 fishing season produced some of the worst shrimp fishing in the last two decades. Massachusetts landings were only 176,000 lbs., down from a recent historic high of 1.5 million lbs. in 1995. Fishermen targeting northern shrimp fish from ports of Gloucester, Rockport and Newburyport. Most fishermen chose not to participate in the fishery because of a lack of large shrimp in local waters and consequently, low prices. Other factors contributing to a relatively small catch along the entire coast, Massachusetts to Maine, included a restrictive season (90 days, weekends off), high groundfish prices that provided an incentive to not switch to shrimp fishing, and the presence of "slime" (actually a jellyfish relative) in the water that clogged nets.

The Northern Shrimp Section of the Atlantic States Marine Fisheries Commission, the body charged with managing shrimp, met on October 28 to set a season for the 1999-2000 fishery. The Section considered the advice of the Technical Committee as well as recommendations from the Industry Advisory Committee. Weighing the biological and economic realities, the Section decided on a 51 day season, a substanyial reduction from the 87 days suggested by the Industry Advisors, but a significant increase from the closed season suggested by the Technical Committee. The Section felt this was a compromise to preserve the infrastructure of the fishery but allow for a continued reduction in landings to help preserve stock biomass. The 1999-2000 shrimp season will be January 17 – March 15 with Sundays off. Finally, due to stock concerns, the section voted to amend the management plan in the near future.

Given these restrictions and the poor recruitment seen in recent years for northern shrimp, landings will likely be lower this upcoming winter. Biologists predict continued erosion of biomass as the below-average year classes enter the fishery next year.

For further information contact Dr. Michael Armstrong, Annisqam River Marine Field Station, Gloucester, 978-282-0308 ext. 124.

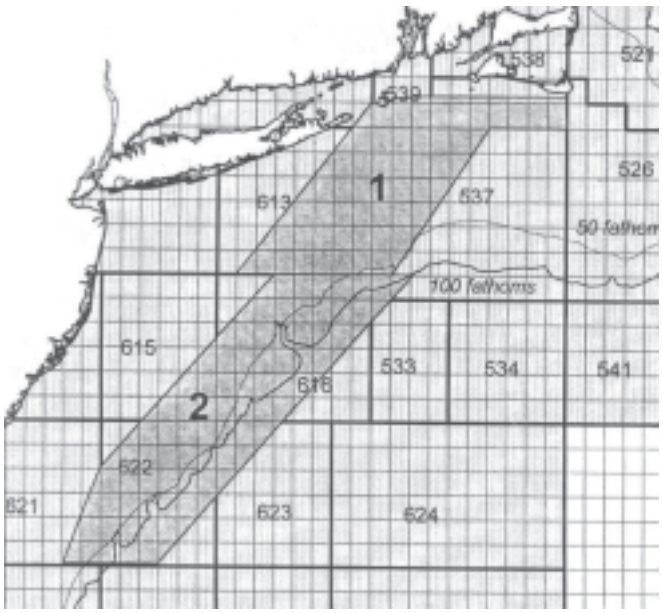
Scup Y2K: NMFS & Council trying to solve offshore discards

Small-mesh trawl discards of scup in offshore fisheries are finally being addressed by the Mid-Atlantic Council and the National Marine Fisheries Service. For many years DMF has railed about this waste and its impact on our state's inshore fisheries from May through October.

Influential, prominent environmental organizations now have joined the fray. These groups share our concern that the 1997 year-class of scup judged to be the strongest in many years, will continue to be discarded in large numbers. This discarding has undercut scup conservation strategies and the sacrifices of inshore fishermen ruled by very restrictive quotas. The Natural Resources Defense Council, Environmental Defense Fund, Center for Marine Conservation, National Audubon Society, and American Oceans Campaign have petitioned NMFS and the Council for immediate action.

The author holds a scup taken during DMF's fall bottom trawl survey of state waters. Pierce played a major role in DMF's lawsuit. His experience in scup research and management began two decades ago with his work studying local scup fisheries. His 1981 Master's thesis was: "Scup of Southeastern Massachusetts waters – Growth and Yield, Fisheries, and Management" (University of Massachusetts at Dartmouth). Photo by Jeremy King

Unfortunately, if scientists' assessments prove accurate, this 1997 year-class, the best in 20 years, already has been hard hit as by-catch and discard. According to these scientists, the scup discards to landings ratio of the last few years has doubled; based on recent data, discards are getting worse, not better. Consequently, because the Council penalizes the directed fishery for discards in other fisheries, the entire quota for 2000 would be just 324,000 pounds for all states combined - unless drastic steps are taken reduce discarding in 2000. In other words, Massachusetts' inshore fishery primarily with hook-and-line and pots would be prohibited. Totally unacceptable!



One of the offshore closure alternatives considered by the Council and endorsed by DMF. Area 1 would be closed during Nov. 1 - Dec. 31 and Area 2 during Jan. 1- April 30.

Drastic steps are being taken. To maintain the 2000 commercial quota at the 1999 level, the Council has submitted six alternatives for "regulated-mesh areas" to NMFS to protect small scup offshore. Fishing with small mesh (less than 4 1/2" "scup" mesh) would be prohibited in certain areas. Extensive monitoring and effective enforcement are key elements of this strategy. The trick will be to provide for squid fisheries in areas where scup discard is expected to be minimal. The Council is relying on sea sampling information from January 1989 through May 1999 to make this determination.

DMF prefers the regulated-mesh area shown. The Council projects this alternative will provide for 58% less scup discards. The trade-off is a 36% reduction in squid landings. However, loss of squid landings actually is desirable because the Council also lowered the squid quota for next year by about 34%. Furthermore, squid fishermen might be allowed some small-mesh fishing in the regulated-mesh area if they can prove scup discard will be low. An experimental fishery approach with sea samplers on board might be an option.

Scup continued...

The Council will have to work out the details. We anticipate that the Council will be held to the same tough standards as DMF's fall experimental fishery for whiting in Cape Cod Bay. Criteria are rigorous for justifying an experimental fishery requiring a high degree of monitoring (sea sampling).

We await NMFS's decision that must be made before the beginning of 2000. Regardless of that decision, we are still faced with an uncertain inshore fishery next May. The Council and the ASMFC Scup Board at their meeting in Kill Devil, North Carolina voted to allocate Massachusetts just 22% of the summer quota for 2000. We objected. Before our successful 1997 lawsuit against the Secretary of Commerce and NMFS, Massachusetts was allocated 15.5%.

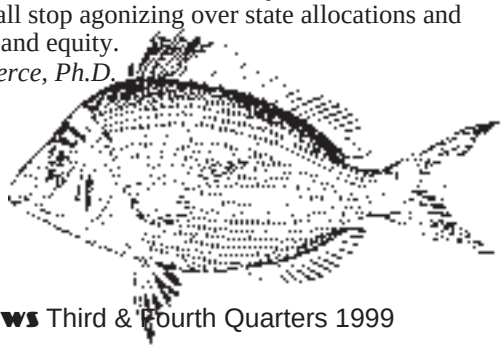
The 22% allocation for Massachusetts is the result of factoring in additional data that DMF was fortunate to obtain from one dealer who happened to keep his records of scup purchases from 1986-1992, the years used by ASMFC to determine state shares. We continue to insist that the record will always be very incomplete and inaccurate, and we'll be satisfied with no less than 30%, a concession on our part as we try to resolve how to allocate scup summer quota to the states. Massachusetts has a summer fishery only, in contrast to Rhode Island and New York, the other states with significant summer fisheries.

Our dilemma is obvious. A percentage of 22% applied to a 2000 summer quota of 990,000 lbs. minus about 300,000 lbs. (R.I. overage of the 1999 summer coast-wide quota) leaves Massachusetts with only 151,800 lbs. (22% of 660,000 lbs.)! This total represents about 10% of Massachusetts scup summer landings in recent years, a huge cut in landings that we cannot support, especially since we closed our summer fishery in 1999 when the coast-wide quota was taken. Rhode Island did not. Our inshore fishery has relatively few discards, and those scup released have very high survival. Fish are caught in shallow water primarily by handlines, pots, and weirs.

We suspect Rhode Island also may find the proposed 2000 summer scenario unacceptable. Rhode Island's summer quota (assuming state summer shares are in place next year) will be very low. For this reason, we and our counterparts from Rhode Island and New York will meet this fall to develop a tri-state approach for management of next year's inshore (sumer) fisheries. Whatever we develop will be aired at a DMF/Marine Fisheries Commission public hearing in February. Beforehand, we'll meet with scup commercial fishermen and dealers to get their ideas and support.

The 1997 year-class was to have been the basis for rapid rebuilding of scup and for productive spring through fall inshore fisheries. It appears that's not to be. Now we await another banner year-class that may not occur for many years to come. Still, if average-sized year-classes can be protected through an effective, well-enforced regulated-mesh area during the winter, our inshore fisheries may see better times, provided we can all stop agonizing over state allocations and issues of fairness and equity.

by David E. Pierce, Ph.D.



Menhaden management changes coming ...

ASMFC recently released a Public Information Document for Atlantic Menhaden. The document's purpose is to inform the public of ASMFC's intent to gather information concerning the fisheries and to provide an opportunity for the public to identify major issues and alternatives to current management. This information is needed because ASMFC has begun the process of amending the existing Atlantic menhaden fishery management plan (FMP).

Recent concerns over declines in the Atlantic menhaden population led ASMFC to conduct an external peer review of the menhaden stock assessment in 1998. This peer review provided some major recommendations for changes to the assessment and management of menhaden. Recommendations included restructuring the technical and management boards to include a greater diversity of participants in the management process, initiating further studies into the role of menhaden as forage fish, and re-evaluating the effectiveness of current biological reference points. In light of these recommendations, ASMFC decided to open the FMP for an Amendment.

The amendment process will take about one year. Public hearings on a draft Amendment are anticipated to take place during the summer of 2000. Measures that could be included, as outlined in the Public Information Document, are effort controls on the commercial fishery, catch quotas, habitat protection, mandated future research, and a restructuring of the management or technical committees.

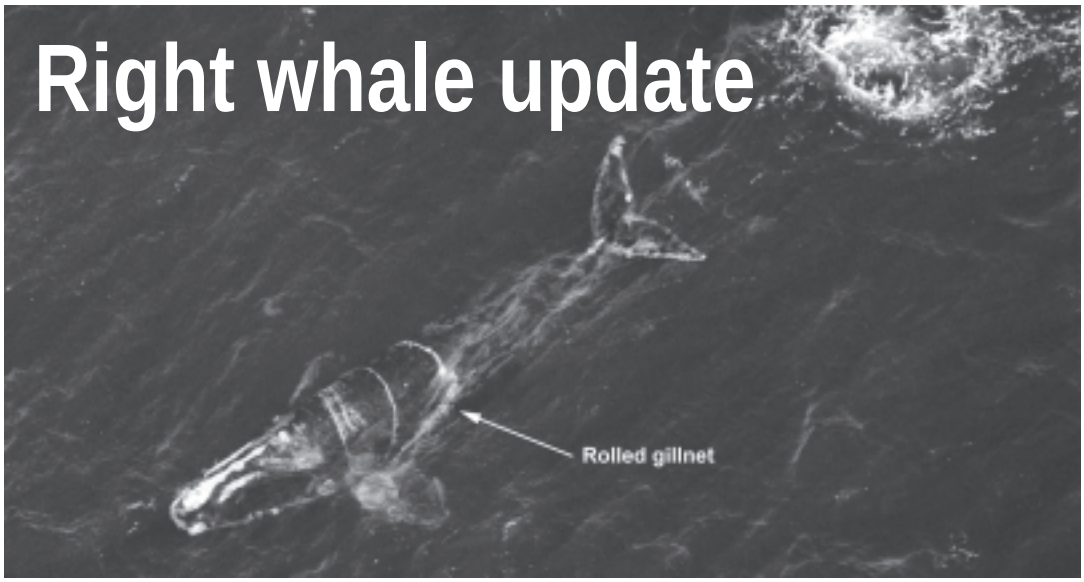
The Atlantic menhaden stock is currently considered healthy, although the assessment indicates there has been a decline in recruitment in recent years. The cause of this poor recruitment is not known but appears to be related to environmental effects (e.g., predation, water temperature, pollution) rather than a lack of spawning stock. A decreased number of juveniles has been noted in recent years especially in the Chesapeake Bay, which historically has been the major nursery for menhaden.

This summer, we've seen signs that the years of poor recruitment may be coming to an end. Reports are coming from all along the Massachusetts coast of a great abundance of juvenile menhaden, a level of abundance that has not been seen for many years. Large schools of 2-4" (age-0) menhaden are reported to be present in most nearshore waters, bays, and estuaries. Reports also indicate that this abundance of menhaden seems to be occurring not just in Massachusetts, but throughout the Gulf of Maine and southern New England.

Menhaden biologists have noted this abundance and it may a very large year class. However, in the next several months, scientists must examine data from along the entire east coast to determine if this is simply a regional phenomenon or if in fact, there has been good recruitment throughout the stock range (Florida to Maine). Until all the data are analyzed and the fate of these juveniles is tracked, it is impossible to tell what impact this year class will have on the population. Those involved with the assessment of Atlantic menhaden are cautiously optimistic.

For further information on Atlantic menhaden contact Dr. Michael Armstrong or Dr. Joe Defosse, Atlantic States Marine Fisheries Commission, 202-289-6400.

Right whale update



Right whale #2030 photographed during a federal offshore survey flight near Georges Bank last May. After many months, the wounds from the entanglement along its back became lethal. Researchers cannot determine where the whale picked up the gear. Photo courtesy of Greg Derr of the Quincy Patriot Ledger.

Right whales have been in the news again with recent entanglement death and Congressional announcements to substantially increase federal funding for research, conservation, and protection programs. Right whales are expected to return soon to Cape Cod Bay for the winter and early spring. If reports of right whales come in prior to January 1, aerial surveys will be launched by DMF and the Center for Coastal Studies Team.

Last winter, right whales arrived early in the Bay on December 13. Five were photographed, and this was the earliest reported arrival of whales to Cape Cod Bay. During January – mid-May, 39 flights and 21 vessel-based surveys identified 96 individual right whales – almost one-third of the entire population. An average of 15 whales were seen during the flights and the peak was in late March (31st) when 29 individuals were identified.

No mother/calf pairs were seen in Cape Cod Bay. This is just the third season in the last 18 that they've been absent. It's not surprising since there were only four known births in 1999, the lowest since monitoring began in 1980. The 1998 production was also disappointing with five births. None of the nine cows producing calves in the last two years are among the group of females known to use the "inshore" habitats. Researchers have found the population segregates with some females routinely summering in "inshore" habitats, such as the Bay of Fundy, while others presumably use offshore habitats.

The low production is especially alarming because of the confirmed deaths of two whales this year. "Staccato" was found dead in Cape Cod Bay, presumably killed by a ship strike More recently, a badly entangled whale (#2030) was found dead off New Jersey on October 20. The federal offshore aerial survey team first saw this whale entangled in a gillnet back on May 10, about 60 miles east of Nantucket on a western portion of George's Bank called Cultivator Shoal. The whale was not re-sighted until September 2 by NE Aquarium researchers working in the Bay of Fundy. By this time, the whale's condition had deteriorated. The lines across its back cut a deep wound.

After repeated unsuccessful attempts to rid the whale of all the gear, CCS' Disentanglement Team attached a satellite linked tracking buoy to the whale to monitor its movements. The whale left the Bay of Fundy on September 15 and in just 4 days traveled to waters off Southern New England. CCS believes the tag came off the whale on September 24 somewhere near Barnegat Inlet NJ. It died in the days or weeks since and was found partially decomposed on October 20.

Three other entanglements were detected this summer - although none in Massachusetts waters. These three were less threatening. One was disentangled completely, and the other two partially. Survey teams will be on the lookout to determine the health of these whales in the months ahead. The right whale problem – and solution – obviously will require regional and international attention.

The burden on everyone trying to conserve this species is enormous. Consider how difficult it is to protect these whales when they can travel over 2,400 miles from Nantucket to Norway in just four months! On September 17 a right whale was sighted in a fjord in northern Norway (69 57' north, 21 38' east). The NE Aquarium received digitized photographs over the internet from a Norwegian researcher and the whale was ID'd as #1133, nicknamed "Porter", a young male. Porter was last seen on May 23 photographed by a DMF biologist in the survey plane assisting the CCS Disentanglement Team trying to locate an entangled whale near Georges Bank.

Dr. Phil Clapham of NMFS noted that "with the sole exception of the catch of a single individual in western Norway in 1926, this is the only record of a right whale in Norwegian waters this century. The eastern N Atlantic population - what was left of it - was essentially extirpated by Norwegian whaling from 1881 to the 1920's, and sightings anywhere in Europe are very rare today." According to Marilyn Marx of the Aquarium who ID'd the whale, "Young Porter may have been looking for love in all the wrong places. "

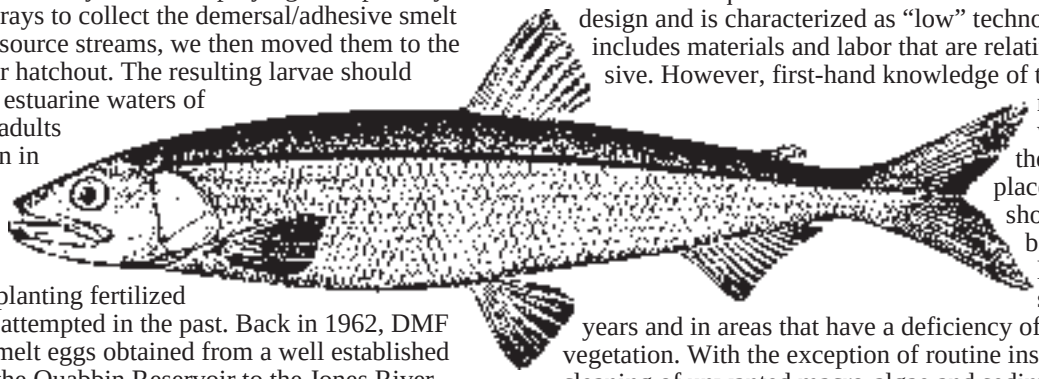
by Dan McKiernan

For more info on the entanglements, visit the Center for Coastal Studies website at http://www.coastalstudies.org/

Jones River smelt spawning habitat enhancement and restoration

Since 1994, DMF has worked to rebuild the declining sea-run rainbow smelt population in western Cape Cod Bay. This effort has included stocking smelt eggs to increase natural egg production and enhancing spawning habitat in the Jones River in Kingston, MA, which is the location of the principle smelt spawning ground for this stock. The program has been cooperatively funded by Boston Edison Company, the former owners of the Plymouth Nuclear Power Station located in Plymouth, where several substantial fish kills of smelt have occurred over the years of plant operations. Smelt frequenting the area of Pilgrim Station are evidently from the population originating within the Plymouth, Kingston, Duxbury Bay (PKDB) estuary to which the Jones River flows. This population has markedly declined in the 1980s and early 1990s. Any significant power-plant losses of adults likely would have impacted the spawning stock and subsequent recruitment.

DMF has "jumpstarted" the spawning run by stocking over 1.8 million smelt eggs into the Jones River. Fertilized eggs came from two selected, genetically isolated, wild broodstocks - one in the Weweantic River, Wareham and the other, Back River, Weymouth. Employing 120 specially-designed egg trays to collect the demersal/adhesive smelt eggs from the source streams, we then moved them to the Jones River for hatchout. The resulting larvae should imprint on the estuarine waters of PKDB and as adults return to spawn in its tributaries, especially the Jones River.



Restoring smelt by transplanting fertilized eggs has been attempted in the past. Back in 1962, DMF transplanted smelt eggs obtained from a well established population in the Quabbin Reservoir to the Jones River, where at the time the latter population was depressed. This was followed in two years by a resurgence of spawning run fish in the Jones River. Smelt were not native to the Great Lakes and the Quabbin Reservoir but were introduced there.

DMF has also enhanced spawning habitat in the Jones River. We have deployed additional egg collecting trays containing artificial plant substrate on the spawning ground to collect eggs that are naturally spawned there in areas that lack ideal spawning substrate, which for smelt eggs is vegetation. This approach involved manipulating the natural aquatic environment through use of artificial habitat with the intent of overcoming an ecological limiting factor or factors to the system to increase smelt production.

Smelt egg survival is a sensitive parameter driving future population growth. Aquatic vegetation (endemic, macroscopic river plants) is known to collect higher smelt egg densities (12-15 times higher) than hard bottom, such as sand, gravel, or cobble. Furthermore, the survival of smelt eggs to hatching on plant material is about 10% as compared to only 1% on other surfaces. The smelt spawning ground in the Jones River consists mainly of sand, gravel, and cobble bottom, with only scattered areas of attached vegetation. Our egg trays of artificial vegetation supplement the amount of naturally occurring plant material on the spawning bed. We are using sphagnum moss as egg deposition substrate which functions similar to attached plants**.** This provides optimum spawning habitat and represents only a small-scale modification of the natural stream environment.

We patterned the egg tray design after trays employed in Maine to collect smelt eggs. Each unit consists of a rectangular wooden frame measuring 14 by 18 inches that is weighted with steel bars on the underside to lend stability on the river bottom. The frame is filled with unprocessed sphagnum moss, and chicken wire is nailed to both sides to hold the moss in place (see picture). The moss provides a three-dimensional surface for the eggs to set on and represents a micro-environment that offers protection for the eggs. Water can flow through the moss, carrying away metabolic wastes and providing a continuous supply of oxygen. With these trays deployed on smelt spawning grounds, the sphagnum moss provides a suitable spawning substrate that improves the probability of egg survival.

This technique of habitat enhancement is simple by design and is characterized as "low" technology that includes materials and labor that are relatively inexpensive. However, first-hand knowledge of the spawning run is needed when deploying the trays. The placement sites should be selected based on the location of egg sets from past years and in areas that have a deficiency of natural aquatic vegetation. With the exception of routine inspections and cleaning of unwanted macro-algae and sediment that can foul the trays, it is best to avoid entering the river and disturbing the substrate once spawning commences. Excessive walking in the river can damage the eggs set on natural substrate.

Egg deposition in the Jones River during 1998 and 1999 greatly improved over that observed during the past decade. In addition, the number of fish observed on the Jones River

spawning ground in the daytime on a given day increased from one or two dozen sighted in the early 1990's to 100+ in 1998 and 500+ in 1999. Large numbers of spawning-run smelt had not been observed in the Jones River since the early part of the last decade.

Over the last few years, we also have assisted in the removal of tree falls in the Jones River which were major obstructions to smelt upstream passage (this was covered in a past issue of the newsletter).

A decline in smelt numbers has taken place in recent times in populations throughout Gulf of Maine and in Quebec, Canada, as well. DMF monitored all smelt runs in Massachusetts Bay between 1988 and 1995 and encountered common threats to spawning habitat that appeared most associated with structural alterations and stormwater run-off. Although there are obvious environmental perturbations, the human influences in the watersheds are thought to degrade water and habitat quality, resulting in reduced smelt production in natal streams.

DMF is currently evaluating remediation options in the Jones River and other smelt spawning streams to develop a state-wide strategy for smelt restoration. DMF completed a control study on smelt egg transfer in 1998 in the Danvers River, Danvers. The results of this study and the Jones River efforts will be used to evaluate the over-all benefits of egg transfer methods.

(Above) To enhance spawning habitat, collection trays are added to the river bed to collect whatever eggs are naturally spawned there. (Left) The sphagnum moss in the trays -with its high surface area - collects higher egg densities than natural hard bottom (sand, gravel, cobble).

Future restoration efforts should stress water quality issues in the respective watersheds. Enhancement efforts could also include, among other things: stormwater runoff treatment, addressing sewage problems along water bodies, and purchasing a "green belt" along a spawning river or stream as a buffer to prevent development or environmentally detrimental land use in the watershed.

It is appropriate for us at this time to stress restoration and enhancement efforts in the environs of Pilgrim Nuclear Power Station after many years of environmental studies to assess impact of plant operations. This is especially so with the recent adoption of the essential fish habitat (EFH) amendment (Sustainable Fisheries Act) to the Magnuson-Stevens Fishery Conservation and Management Act which strengthens the role of the New England Fishery Management Council in the New England area to further conserve and enhance critical fisheries habitats and related fishery resources. The new amendment directs the council to describe options to avoid, minimize, or compensate for the adverse effects of non-fishing activities (which include power plant impacts - both thermal and mechanical) in the environment which impact EFH and also directs the council to promote the conservation and enhancement of these habitats.

by Robert Lawton, Power Plant Studies

DMF challenges Councils' plan to end all dogfishing

The National Marine Fisheries Service (NMFS) has decided to approve the Spiny Dogfish Management Plan developed by the Mid-Atlantic and New England Fishery Management Councils. This Plan will mark the end of the dogfish fishery in federal waters beginning next May and bodes ill for the fishery in state waters, especially in Massachusetts because federal permit holders will be obliged to live by federal regulations regardless of where dogfish are caught. Furthermore, the Atlantic States Marine Fisheries Commission (ASMFC) intends to develop a complementary plan for commercial fishermen who hold state permits only and fish solely in state waters.

How has this very abundant, former nuisance species gained such a special status to the extent that, as NMFS readily admits, the Plan likely will destroy the fishery? The Office of Advocacy of the U.S. Small Business Administration (SBA) has noted this admission. In September 17 correspondence with the NMFS Regional Administrator, SBA concluded:

"*the possible impact of the proposal on the industry [spiny dogfish] is quite severe – total collapse of the US market for spiny dogfish harvesting and processing (emphasis added). To rebuild a fishery stock in a manner that may cause the entire collapse of the industry is counterintuitive. The Office of Advocacy asserts that all possible viable alternatives should be considered prior to implementing a proposed action that may have such a dramatic and devastating impact on an industry. Failure to consider such alternatives would violate the RFA [Regulatory Flexibility Act].*"

The answer to the above question is an apparent downward trend in abundance of large females greater than 31" (80 cm) and what appears to be a decline in recruitment, fish less than 14" (36 cm) since 1997. Although abundance of dogfish is still extremely high - at least 650,000 metric tons (mt) - this fishery, targeting larger fish, appears to have decreased the abundance of large females. If recruitment continues to be low, biomass will decline. Clearly, it's necessary for state and federal managers to be aware of these trends and to prevent the very high abundance of 14-31" fish from being cropped once dogfish grow into the desirable greater than 31" size range.

It's also clear that dogfish abundance is very difficult to assess particularly due to huge amounts of dogfish bycatch that are discarded in other fisheries such as for cod and fluke. We can only guess at the bycatch recently estimated to about 80,000 mt in 1997 – a huge amount of discard the Councils have yet to address. The consequences of this assumed discard are dramatic. Allowable landings (quotas) in future years are reduced by 80% to account for discards.

We repeatedly have objected to this plan that is unnecessarily restrictive. Beginning in May, 2000, the directed fishery will be closed for at least four years, but probably longer. We raised our objections during the Plan's development. Our formal comments on the Plan and implementing regulations can be found at DMF's website (Also, see DMF NEWS December 1998).

NMFS intends to implement this plan with a specific charge to the Councils that they must select another biomass rebuilding target for large female dogfish other than the 180,000 mt target selected by the Councils. NMFS concluded that the target would not provide for rebuilding to the maximum sustainable yield (MSY). By rejecting this target NMFS has removed from the Plan the basis for New England Council support for the Plan developed with the Mid-Atlantic Council after extensive give-and-take. Both Councils had to adopt the same target else the "joint" Plan could not be submitted to NMFS. The New England Council initially favored a target of 150,000 mt. The Mid-Atlantic Council argued for 200,000 mt. New England support was contingent on a compromise of 180,000 mt. The size of the target affects quotas for the dogfish commercial fishery

By rejecting the 180,000 mt target, NMFS may force the New England Council to reconsider its support for its own Plan. Certainly it will afford DMF, a Council member representing the state with the most to lose if the fishery is shut down for many years, the opportunity to urge reconsideration. We also will be able to resume our challenge of the scientific basis for the 200,000 mt (and 180,000 mt) all the while emphasizing that we share the concern about potential overfishing of dogfish. That concern will be manifested by self-imposed year 2000 restrictions on the dogfish fishery in our waters.

Compared to cod, haddock, flounders, and other valuable groundfish, dogfish is of much less importance to the Commonwealth. Fishermen and processors have worked hard to find and maintain markets for dogfish.and were encouraged by the New England Council and NMFS to find alternative species to groundfish. Dogfish was a sensible choice, especially because, not too long ago, the scientific community advised the Council that its rebuilding efforts for groundfish might be compromised due to predation from - and competition with - extremely abundant dogfish. Now, the fishery is about to be stripped away.

Once this plan is implemented dogfish fishermen will find fishing in state waters to be their last option. Consequently, DMF and our Marine Fisheries Commission must anticipate that likely shift in effort.

This fall and winter we will meet with dogfish fishermen to discuss the best management approach for Massachusetts waters. This discussion will include issues of access by gear type (e.g., gillnets versus hook-and-line), quotas, landings limits, gear restrictions, and tending of gillnets. We will demonstrate our concern about dogfish conservation – a demonstration shared with fishermen who realize their plight (i.e., a federal waters' closure) and the importance of dogfish for their future income.

Before next spring when dogfish return to our waters, we'll have our own state regulations consistent with our own objective of preserving some remnant of this valuable fishery for state permit holders with an investment in the fishery. These fishermen will be obliged to live by a separate set of rules they will help develop with dogfish conservation in mind. In the meantime, if the Councils truly intend to

Dogfish longliner in Cape Cod Bay. Photo by David Pierce

protect spiny dogfish, we encourage them to resolve bycatch and discard problems.

The challenge for the Council and NMFS will be to turn the 80% discard into some allowable landings and to beat the drum for responsible fishing practices resulting in far less discard. The current assumption is that out of every 100 pounds of dogfish caught in any fishery, 80 pounds are discarded. A peril of the current federal plan is that prolonged closures of the directed fishery for dogfish will destroy markets resulting in no reason for dogfish to be landed. The result: turning discards into landings will be impossible - **almost all dogfish will be discarded.** There will be no other choice.

by David E. Pierce, Ph.D.

Update on the Seizure of F/V NANA MOLLY by Env. Police

Last May, DLE was involved in a high profile female lobster egg-scrubbing bust off Cape Cod. The vessel was seized and the civil forfeiture case proceeded through the summer. On October 12, 1999 David C. Hoover, Special Assistant Attorney General representing DLE in their seizure of the lobster boat F/V NANA MOLLY, reached agreement with the lobsterman's attorney, E. James Veara, from the law firm of Zisson & Veara regarding a settlement of the civil forfeiture case pending in Barnstable Superior Court.

Under the terms of the agreement, the vessel owner paid $3,543.00 for the costs of the seizure and storage of the F/V NANA MOLLY. He also signed a release discharging the Commonwealth from any claims that he may have for damages resulting from the seizure and storage of the vessel, and he agreed that he would no longer participate in the lobster fishery in Massachusetts in the future.

On October 12, 1999 Environmental Police delivered and launched the F/V NANA MOLLY into Sandwich Harbor. The vessel owner signed a written release, his attorney E. James Veara signed a written Agreement For Judgement, and DMF issued a temporary authorization permit to the vessel owner for the limited purpose of hauling his remaining traps from the water provided he notified the DLE Radio Room prior to hauling, and returned to the sea any lobsters found in the traps. The case was concluded, *or so DLE thought.*

Surprisingly, and without any notice to the Attorney General's Office, DLE or DMF, Mr. Veara filed an emergency motion in Barnstable Superior Court seeking to void the agreement that he had just signed. Judge Connon of the Barnstable Superior Court, without notice or an opportunity for the Commonwealth to be heard, granted Mr. Veara's motion and in essence voided the written agreement at this time. Although the vessel owner has his fishing vessel back, DLE and DMF are left without an agreement and have no legal guidance on how to proceed with this case. The Attorney General's Office is reviewing the judge's action.

by Dan McKiernan

Comings and goings....

Director Phil Coates, a DMF employee for the past thirty-five years and director since 1979, has announced that he is retiring as of February 4, 2000. Phil has been a major player in developing fishery management plans along Atlantic coast. In the next DMF News we will feature more about Director Coates, his perspectives and his legacy.

As stipulated by Massachusetts General Law chapter 21A, section 8. DMF's new director will be appointed by David Peters, the Commissioner of Fisheries, Wildlife and Environmental Law Enforcement "with the approval of the Marine Fisheries Advisory Commission." The Commission is a nine-member board, appointed by the governor for three-year terms, and may be reappointed for similar terms. The Commission meets monthly and works closely with DMF and the Commissioner to regulate commercial and recreational fisheries in the Commonwealth. For more information, please contact Jeanne Shaw in DMF's Boston office at (617) 626-1531.

Fisheries Commission Chairman Tony Tolentino has left the Commission after nine years of service, and two terms as chairman. Tony, a former charterboat captain, worked diligently and passionately on behalf of fishermen throughout Massachusetts. Tony will be missed by all, and we at DMF wish him well.

The MFC voted **Mark Amorello** as its chairman for 1999-2000. Mark has been a Commission member since 1992, and he served as vice-chairman for the past two years. Mark says he is looking forward to his new role, especially since the Commission plays an important part in the approval of DMF's new director.

New Phone Numbers

The EOEA phone system has been replaced. Now the system is Y2K compliant and departments are more accessible to the public. It is now possible to reach employees via direct phone numbers, so that it should take less time for the public to access information. A partial list of new phone numbers follows:

DMF Main #	(617)	626-1520
DMF Fax #		626-1509
Licensing staff at Portland St.		727-3900

All individual staff members can be reached through an automated name directory.

Environmental watchdog Leigh Bridges retires

W. Leigh Bridges retired from DMF after almost 33 years of service primarily as Assistant Director of Research. He was responsible for DMF programs such as Fishery Resource Assessment, Pilgrim Power Plant Investigations, Contaminant Monitoring, Coastal Alteration and Environmental Impact Review. He was known as DMF's primary environmental watchdog – a tough protector of the Commonwealth's marine and estuarine waters.

Leigh represented DMF on the Coordinating Committee for the Massachusetts Cooperative Fish and Wildlife Unit at the University of Massachusetts, the MWRA Outfall Monitoring Task Force, the Gulf of Maine Council on Marine Environment, and the New Bedford Harbor Trustee Council. He also served on several technical advisory committees dealing with power plant operational impacts on the marine environment.

Leigh was in charge of the daily operation of DMF's new facility, the Annisquam River Marine Fisheries Station in Gloucester. He also was responsible for oversight of DMF's Martha's Vineyard Lobster Research Station.

Leigh served as DMF's lead expert in developing Commonwealth policy for reviewing coastal alteration projects, dock and pier development, and dredge and filling. Inappropriate coastal development was significantly deterred by Leigh and his colleagues in Coastal Zone Management, the Department of Environmental Protection, NMFS, and the Fish and Wildlife Service. He worked with the Attorney General's Office and other agencies to negotiate $100,000's in settlements and remediation with those responsible for marine environmental damage.

Leigh's technical expertise will be missed. His expertise served DMF well during agency reviews of potential impacts of various projects proposed for offshore waters, particularly oil and gas exploration on Georges Bank, gravel extraction on Stellwagen Bank, ocean dumping, and construction projects. We wish him well.

Leigh Bridges (center) with his gift decoy from his DMF colleagues along with Director Phil Coates (left) and Assistant Director Jim Fair (right).

DMF *Rules UPDATE*

Public Hearings • Regulations • Legislation

Notice of Public Hearings

Scheduled for November 22, 29 and 30, 1999

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 draft regulations and further details. After public hearings, DMF and MFC will consider all oral and written comments through Friday, December 3, and votes on these proposals will be taken at the December 9 Business Meeting of the Commission. If specific changes are not approved, current regulations will remain in effect.

1) DMF proposals for lowering the scup recreational possession limit (322 CMR 8.06). Daily possession/landing limits would be lowered from 100 to 25 per angler with a maximum of 100 fish per vessel. DMF seeks comments on whether this limit should apply to party/charter (for-hire) vessels.

2) DMF proposals to amend the summer flounder commercial fishery limits for summer/fall (322 CMR 6.22) The same seasons and possession limits would be maintained for 2000 but weekend commercial fishing would be prohibited after July 5.

3) DMF proposals to amend the recreational summer flounder rules (322 CMR 6.22) by changing bag limit, size limit, and/or closed season to comply with annual ASMFC and federal adjustments for 2000.

4) DMF proposal to amend V-notched Female Lobster Protection (322 CMR 6.02) to enhance enforcement by deleting language that allows fishermen to avoid penalty by relinquishing v-notched lobsters to enforcement officers.

5) DMF proposal to amend Lobster Maximum Size regulation (322 CMR 6.01) to allow vessels with state lobster licenses endorsed for Area I to possess lobsters larger than 5" carapace length when enrolled in the federal Gulf of Maine Cod Trip Limit Exemption Program.

6) Petition to open certain waters north of Cape Ann to surf clam and ocean quahog dredging (322 CMR 6.08).

7) DMF proposal to clarify Trap Tags regulation (322 CMR 6.31) to specifically prohibit fishermen from placing tags that were issued to other fishermen on their traps.

8) DMF proposal to amend Frozen Shell-on Lobster Tails regulations (322 CMR 6.32) by citing the authority of Public Health statute Chapter 94 section 77G and deleting references to federal HACCP plans.

9) DMF will accept comment on a recently enacted emergency action that postponed the opening of the urchin drag fishery (322 CMR 6.24) until November 1 to avoid conflicts with lobster gear and damage to shedding lobsters.

Three hearings have been scheduled:
November 22, 4:00 p.m. at the Tisbury Senior Center, Martha's Vineyard
November 29, at 7:00 p.m. at the Gloucester Sawyer Library
November 30, at 7:00 p.m. at Mass. Maritime Academy Auditorium in Buzzards Bay

Regulatory Update

During the period July through November, the following decisions were made by DMF and the MFC

Fluke: Beginning in 2000, commercial fluke permits will be issued specific to gear types (e.g. hook-and-line vs. net). Also the fluke fishery was closed for the year on August 16 when the annual quota was reached.

Urchin regulations changed by postponing the opening date of the urchin drag fishery from September 1 to October 1 and specifications defining the lightweight "green drag." In late September, DMF took emergency action to postpone the drag fishery until November 1 to protect molting lobster and reduce the likelihood of gear conflicts.

Groundfish regulations. New Regulations were enacted to complement federal groundfish measures. Trawl mesh was increased for nets suing square mesh from 6 to 6 1/2". Trawl roller and rockhopper size limit was dropped from 18" to 12". Also the spring-time rolling closures will be enacted in state waters to protect spawning cod. The current October-November rolling closure in Mass. Bay and upper Cape Cod Bay was **not** adopted for state waters. However federal permit holders are required to abide by the closure in state waters. No changes were made to the current 25 lb. fillet limit for commercial fishermen.

Lobster Trap Limits. DMF approved as a final action a rule that clarified lobster trap limits (322 CMR 6.13). The 800 pot limit per permit recently was redefined as per vessel to comply with the interstate lobster management plan.

Scup. DMF closed the scup commercial fishery on June 25 when the federally established interstate commercial quota was reached. Two weeks later, DMF filed another emergency action to prohibit the possession and/or sale of scup by dealers to improve compliance with the commercial closure. DMF had intended to take other action to lower the commercial trip limits for scup during the summer/fall fishery and established no-fishing days beginning July 1, but the fishery closed, unexpectedly.

Sea herring spawning regulations amended. DMF adopted the new ASMFC herring regulations to protect spawning herring in the Gulf of Maine. During August through October fishermen cannot possess quantities of herring with more than 20% in "spawning condition." Contact DMF for more details on this regulation and the criteria for determining condition.

Limited Entry Permit Transfers. New regulations have been established that govern the transfer of limited entry permits. These include fish and conch potting, surf clam, ocean quahog, fluke, and gillnet fisheries. Contact DMF's Licensing staff for more information at Portland St. 617-727-3900.

INSIDE...

Surfers • Surfers • Surfers

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

HTTP://www.state.ma.us\DFWELE\DPT_TOC.HTM

DMF NEWS

EDITORS: **Dan M[c]Kiernan**
David Pierce
Kevin Creighton
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 is available in alternative formats.

Philip G. Coates, Director, DMF
David M. Peters, Comm'nr DFWELE
Robert Durand, Secretary, EOEA
Argeo Paul Cellucci, Governor

Comments and suggestions for the newsletter are welcome. Please contact the Editors at (617) 626-1520, or write to DMF, 100 Cambridge St., Boston, MA 02202.

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