**3rd and 4th Quarters** 

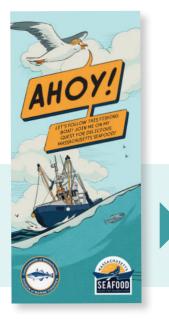
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## **DMF News**

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A new law will give DMF the authority to permit the removal and disposal of fishing gear debris from our waters and coastlines.

#### Law Amended to Enhance Clean Up of Derelict Fishing Gear

Massachusetts law now allows for the efficient and timely removal of abandoned, lost, and derelict fishing gear from our shorelines and waters. A new law has provided DMF, through its Marine Fisheries Advisory Commission, with the authority to regulate and permit certain removal and disposal activities. This amends an antiquated law—dating back to a time of salvageable wooden traps—that bestowed property rights to this gear at sea and on shore and afforded its owners 30-days to recover the gear washed ashore and 60-days before property rights were ceded to the upland owner.

The new law parses fishing gear—that which is intact, functions as intended, and is set during an open season—from fishing gear debris—that which is not intact, does not

#### **New Seafood Marketing Pamphlet Makes a Big Splash!**

DMF's Seafood Marketing Program created an exciting new children's pamphlet this summer. It's jam-packed with fun educational games and activities about seafood, including a word search, a crossword puzzle, a word scramble, a maze, and a name that fish game. Feedback has been overwhelmingly positive and currently this is being turned into a placemat. We hope you see it at a seafood restaurant near you in 2025!



A tangled mass of derelict fishing gear and other debris that washed ashore along the coast in Rockport, Massachusetts.

function as intended, or is set during a closed season. In doing so, property rights are afforded only to the former and not the latter. The law then allows DMF to permit the removal and disposal of fishing gear debris from our waters and coastlines. This will help us clean up our coasts and coastal waters, protect public health and safety, maintain navigable waters, minimize gear conflicts between fixed and mobile gear, address ghost fishing (the continued catching of animals in lost traps), and protect marine mammals and sea turtles from entanglements in this lost gear.

Modern fishing gear is generally constructed of synthetic materials that persist in the environment. Moreover, when this gear becomes abandoned or lost it is generally damaged beyond repair and not recoverable, particularly when swept ashore. However, the laws were slow to catch up with gear innovation and the protections which were once designed to afford fishers the ability to recover and reuse lost gear, now prevent efforts to keep our marine and nearshore environments free of derelict gear causing a myriad of downstream impacts. With change in state law, we can now begin to better address these impacts.

In 2022, DMF established a Derelict Gear Task Force to study the problems and develop potential solutions. The Task Force included government officials, fishing industry representatives, law enforcement, and conservationists with experience researching and retrieving derelict gear. The Task Force produced a <u>white paper</u> the next year advocating for amending the legal framework to enable clean-up efforts. This white paper was presented to the Massachusetts Legislature's Coastal Caucus, who championed the cause and worked to develop this amendment to state law.

In the coming months DMF intends to reconvene the Derelict Gear Task Force to develop draft regulations that will establish definitions of what constitutes derelict fishing gear and protocols for who can remove derelict fishing gear, and when and where it can be removed. We hope to bring draft regulations to public hearing and then to the Massachusetts Marine Fisheries Commission for approval by Summer 2025.

A special thanks goes out to the Legislative Coastal Caucus, Governor Healey and the Healey-Driscoll Administration, and all of the members of Derelict Gear Task Force—Raymond Kane, Outreach Coordinator for the Cape Cod Commercial Fishermen's Alliance and Chairman of the Marine Fisheries Advisory Commission; Arthur Sawyer, President of the Massachusetts Lobstermen's Association and member of the Marine Fisheries Advisory Commission; Beth Casoni, Executive Director of the Massachusetts Lobstermen's Association; Laura Ludwig, Manager of Marine Debris and Plastics Program at the Provincetown Center for Coastal Studies; Lt. Col. Chris Baker of the Massachusetts Environmental Police; Tori LaBate, Deputy General Counsel for the Department of Fish and Game; Bob Glenn, DMF Deputy Director; Jared Silva, DMF Senior Policy Analyst; David Chosid, DMF Conservation Engineering/Protected Species Gear Specialist; and Julia Kaplan, former DMF Policy Analyst.

By Bob Glenn, Deputy Director, and Jared Silva, Senior Fishery Policy Analyst

#### **DMF to Build a Passive Acoustic Monitoring Network for Right Whales**

DMF's Protected Species Program will be adding to our North Atlantic right whale surveillance efforts through the implementation of a passive acoustic monitoring network in state waters and adjacent federal waters. In 2023, Congress allocated funds to states with lobster permit holders to enhance their efforts to monitor the seasonal distribution of right whales, improve compliance with Atlantic Large Whale Take Reduction Plan regulations, and support innovative gear research. A portion of those funds received by Massachusetts are being used to implement a network of passive acoustic monitors which detect right whale vocalizations. This additional monitoring will include both real-time and archival detection methods and will enhance our understanding of the presence of right whales in Massachusetts coastal waters year-round. This acoustic monitoring will complement the aerial surveillance conducted by the Center for Coastal Studies and DMF during winter and spring, providing information about right whale presence outside those survey times and areas.

or absence, as well as assist in guiding aerial survey efforts. Archival data will be analyzed for seasonal and temporal patterns in detections, aiding in the estimates of right whale density and occupancy in New England waters, which can then be incorporated into the Duke University North Atlantic Right Whale Density Model and regional efforts to revamp right whale entanglement risk modeling.

#### By Erin Burke and Emma Fowler, Protected Species Program



In early 2025, DMF will deploy 10 bottom-mounted moorings equipped with hydrophones, or underwater recording devices, across Massachusetts state waters and adjacent areas. The hydrophones will be archival, collecting data over a four-month period before being called to the surface using an acoustic release. The data will then be accessed, and the hydrophones and moorings redeployed to continue recording right whale vocalizations. This array of recorders will be part of a regional acoustic monitoring network for right whales in the Northeast in collaboration with NOAA's Northeast Fisheries Science Center and other New England states. In addition, DMF is partnering with the Woods Hole Oceanographic Institution to operate two real-time passive acoustic monitoring buoys (one in Cape Cod Bay and one off Gloucester) which will relay right whale call detections via satellite to a publicly accessible website.

The data collected through this acoustic monitoring network will enhance our understanding of the spatial and temporal presence of North Atlantic right whales, aid in the development of occupancy estimates, and increase the efficiency of dynamic management of fixed gear closures meant to protect right whales from entanglement. Real-time detections will improve our confidence in the decision to extend or open the closure of the Massachusetts Restricted Area due to right whale presence

#### **Status of North Atlantic Right Whales**

In October 2024, the National Marine Fisheries Service released the updated population abundance estimate for the North Atlantic right whale. There were approximately 372 individuals in the population during 2023, which is a slight increase from the estimate of 356 individuals in 2022. The sharp decline in the population which began in 2010 appears to have slowed, due to reduced mortalities and increased births. While there are positive signs of population growth, the species still faces serious threats from entanglement and ship strike. There were 20 births in 2024, however, five of the calves have died or are missing and presumed dead. In addition, there were other serious injuries and mortalities in 2024 due to entanglement and ship strike. The species remains under an Unusual Mortality Event designation based on these continued impacts.

#### **Transitioning Toward Better Management of Atlantic Cod**

Atlantic cod has been a cornerstone of New England's fishing heritage, sustaining vibrant and economically significant fisheries in Massachusetts. Historically managed as two biological units—Gulf of Maine (GOM) and Georges Bank (GBK)—new research has revealed greater complexity in cod populations. A 2023 Research Track Stock Assessment (a periodic update to the science and methodology of stock assessments) confirmed that Atlantic cod in U.S. waters consist of five biological populations, later consolidated into four stocks: Eastern Gulf of Maine (EGOM), Western Gulf of Maine (WGOM), Georges Bank (GBK), and Southern New England (SNE). This new understanding marks the beginning of the Atlantic Cod Management Transition, a process aimed at aligning management with the best available science.

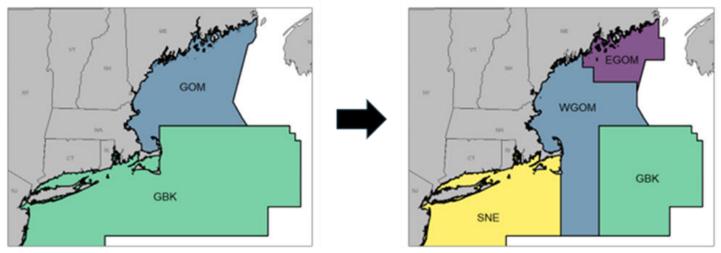
The Cod Management Transition Plan, developed by the New England Fishery Management Council (NEFMC), will occur in two phases. Phase One, beginning in 2025, incorporates the four new stock units into the Fishery Management Plan, establishes criteria for determining the status of stocks, and sets catch limits for fishing years 2025–2027. Phase Two, slated to begin in 2027, will introduce long-term measures, including adjusted quota allocations (the portion of the total allowable catch that a user group is permitted to catch) and enhanced protections for spawning cod. The fishing year beginning May 1, 2025 will see catch limits from four cod stock assessments apportioned into the old system of two management units. This change is temporary until Phase Two, when allocations will align with the new management units.

This transition has significant implications for fishery participants, particularly in Massachusetts which has historically harvested cod from both old stock units. Massachusetts ranks in the top two ports for commercial fishing revenue for all new cod stocks, except SNE. From 2019–2023 Gloucester and New Bed-ford alone accounted for 89% and 65% of cod landings from GBK and WGOM, respectively.

The new understanding of cod stocks highlights their declining populations, necessitating quota reductions. The reductions present challenges for fishers, as they limit opportunities to target other valuable groundfish species that co-occur with cod. To mitigate economic hardship, DMF is collaborating with industry partners to pursue temporary exemptions to certain closed areas for 2025. If approved, these exemptions would allow limited access to non-cod groundfish, while gathering critical data for refining spawning closures in future management actions.

Phase One of the Cod Transition coincides with reductions in cod quotas starting May 1, 2025, the first year where catch limits were based on the four new cod stocks. These reductions were informed by the 2024 Management Track Stock Assessments (routine assessments that produce catch advice) and reflect the challenges of updating our understanding of cod populations, notably that it is not accurate to compare fishery information (biology, catch history, management) between the new system (four stocks) and the old system (two stocks).

The 2024 Management Track Stock Assessments were also the first time catch advice for cod was produced using the Woods Hole Assessment Model (WHAM). WHAM is a technical improvement over past modeling frameworks, able to separate variability in data collection from variability in the biological processes being modeled. WHAM can incorporate environmental covariates, such as temperature, in a way which changes over time,



Change in management units for Atlantic cod as part of the Atlantic Cod Transition plan. Left panel shows the old cod stocks of Gulf of Maine (GOM) and Georges Bank (GBK). Right panel shows the new cod stocks of Eastern Gulf of Maine (EGOM), Western Gulf of Maine (WGOM), Georges Bank (GBK) and Southern New England (SNE). Source: NEFMC

allowing it to capture how changing conditions affect fish population dynamics. These features, among others, make WHAM adaptable to complex ecological and management scenarios, providing a more nuanced understanding of fish stocks. However, the flexibility of WHAM creates decision points where options must be carefully evaluated for sensitivity of the model results to different choices. Scientific and stakeholder expertise are critical to informing modeling decisions that are biologically accurate and make the best use of the available data. The 2023 Cod Research Track Stock Assessment, a collaborative effort between state, federal and academic partners, synthesized decades of research and expert opinions to inform these decisions.

DMF plays a critical role in cod stock assessments by providing essential data, conducting targeted research, and actively contributing to assessment processes. Through our recently enhanced port sampling program, DMF measured 683 commercially landed cod and collected otoliths (structures in fish ears which can be used to determine age) from 333 of them, in 2024 to date, to address critical data deficiencies. DMF staff survey anglers to characterize recreational fishing effort, participate in research track assessments, and serve on groundfish management bodies. DMF continues to advocate for integrating diverse data sources into assessments, such as our annual Resource Assessment Survey which has provided data on cod abundance and distribution in underrepresented inshore areas dating back to 1978. DMF conducts original research to fill key knowledge gaps in stock assessments and fishery management as well as to protect spawning cod. In particular, the Cod Industry-Based Surveys, conducted in collaboration with industry partners from 2003–2007 and 2016–2019 were crucial to informing the 2022 review of cod stock structure, the 2023 Research Track Stock Assessment, and spatial protection measures. Going forward, these efforts will facilitate the transition to a more accurate understanding of cod stocks and sustainable management in the region.

Despite the immediate challenges, this transition represents an essential step toward better aligning cod management with biological realities. By addressing the unique characteristics of each stock, these efforts aim to rebuild Atlantic cod populations and sustain one of Massachusetts' most iconic fisheries.

By Tara Dolan, PhD, Fisheries Biologist

### Exciting News: Online Renewal of Commercial, Seafood Dealer, and Special Permits is Here!

DMF has exciting news for the commercial permit renewal season. You asked for it, and we listened. You now have the option to renew your commercial, seafood dealer, or special permits securely online with a credit card (fees apply) from the comfort of your own home. It is important to note, however, that DMF offices will not be able to process any credit card transactions. The offices will only process applications with checks or money orders.

You can find the application link from our online <u>permitting</u> <u>website</u>. There is a two-step verification process when creating an account, so you will need access to your email to do so. Once you create an online account, you can complete your profile and connect to your existing permits. From there, you can renew your permits, make changes, or apply for a new permit.

Your first time logging in may seem a little confusing or cumbersome, but the process allows DMF to verify your contact information and confirm your access to the correct permits. We recommend that you use a computer or tablet. It is easier to maneuver through the prompts or upload necessary documents with your computer or tablet compared to your phone. Once your permit has been processed and your credit card charged, DMF staff will verify your permit application details. You will receive an email once your permit has been approved and processed. At that time, you can print your permit from your home printer or save an electronic copy to your phone.

All normal permitting renewal rules still apply such as renewal deadlines and reporting compliance requirements. In the event your specific situation needs DMF staff to assist, contact us at the number or email listed below and we will get back to you within 10 business days, either for more information, or to advise you to send in a paper renewal as you have done in the past.

Again, we are excited to bring this new service to our permit holders and hope you find the new online credit card option easy and convenient. If you need assistance, we ask that you have patience as we help you navigate the new online system. We have step-by-step user guides found on our website and DMF staff will do their best to assist you during business hours Monday - Friday.

If you run into problems, please call our help desk at 617-626-1520 or email <u>marine.fish@mass.gov</u>.

#### Untangling the Impacts of On-Demand Gear

Massachusetts lobstermen are subject to seasonal trap closures each year to protect North Atlantic right whales from entanglement. Ropeless or on-demand gear (ODG) fishing systems provide an opportunity for fishers to access these closed areas without the use of persistent buoy lines in the water column, which can cause entanglements of marine mammals and sea turtles. This technology replaces traditional buoy lines with stowed buoy lines and acoustic release systems. However, there is a wide range of concerns regarding the impacts of using this technology on a broad scale, including technological, operational, and economic issues, as well as impacts on gear density and gear conflict. DMF's Protected Species Program has been investing in and supporting research to understand how on-demand gear may impact the industry across these areas of concern. This on-demand gear research is largely funded through the Consolidated Appropriations Act of 2023, which provides opportunities for states to conduct innovative gear research. Four areas of focus are described below.

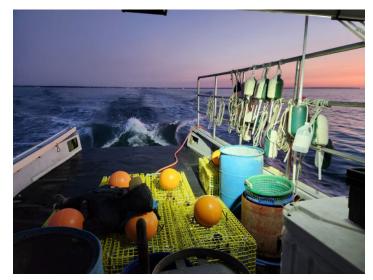
#### Support to fishers testing on-demand gear

Since 2019, DMF has provided Letters of Authorization to state permit holders to test the functionality and efficiency of ODG and to familiarize them with using the technologies. This testing is primarily conducted through an Exempted Fishing Permit held by NOAA's Northeast Fisheries Science Center (NEFSC). Through 2024, 25 MA-based fishers have been covered by DMF authorizations. In 2023, DMF began authorizing testing in certain portions of the seasonal restricted area during the closed season. Those operating ODG in state waters during the closed season must use specially marked stowed buoy lines and provide data on catch rates.

Results of this work to-date have shown an ODG recovery success rate of ~94% in 2023 and ~88% in 2024 (n=225 and 337 hauls, respectively) and identified areas of improvement such as mechanical failures (primarily encountered after storm events), operational errors, and technical interruptions. Also, technologies for gear avoidance were tested that displayed ODG locations to app users within a 5-mile proximity to the gear. While overall successful, feedback from users has furthered the advancement of the apps and the associated ODG live database, EarthRanger.

#### **Economic modeling of ODG implementation**

An important element of DMF's ODG research is our economic modeling project, conducted in collaboration with partners at Homarus Strategies, the NEFSC, and the University of Maine.



On-demand traps with stowed buoy lines.

This work, which is funded through grants from the National Fish and Wildlife Foundation, began in 2022 with the development of the modeling framework and continued in 2023 with the incorporation of additional data to the model to allow more detailed scenarios runs and support informed decision-making by managers and fishermen. To support the evaluation of ODG impacts, DMF began collecting timing data on the hauling efficiency (throughput rates per trawl) of ODG in 2024 using observer coverage by Protected Species Program staff. These data are being used to inform the economic model and to document hauling efficiencies of ODG and standard fixed gear. DMF staff have now collected timing data from 40 hauls in closed areas and 81 hauls in open areas on six vessels. Of these hauls, 61 were hauls with ODG and 60 with standard gear. DMF will continue to collect timing data in 2025 to better understand the potential hauling efficiency impacts of fishing ODG and what that might mean for through-put rates and revenue.

#### **Gear density studies**

To determine the feasibility of using ODG in densely fished areas, like some locations that are fished with standard gear, DMF is conducting density studies cooperatively with lobstermen. Our primary objective is to determine, in ideal conditions, the functional proximities of setting ODG without conflicts. Fishers are instructed to set five lobster trawls, with Edgetech's ODG on one trawl end, at defined trawl spacings and then to retrieve the gear in the same order, identifying any gear conflicts that occur. After completing 12 trials, the work is repeated at closer trawl spacings.

So far the density work has been completed on two lobster vessels operating in Buzzards Bay; trials included trawl spacings of 100, 50, and 35 feet. A third vessel is planned to be used to help identify any potential vessel effects. Initial results seem to identify increased numbers of conflicts with reduced trawl spacing; vessel effects may also exist. Future work could include identifying other factors that can contribute towards gear conflicts such as multiple vessels operating within an area, depth, bottom type, currents, winds, or other environmental factors.

#### **On-demand gear grant program**

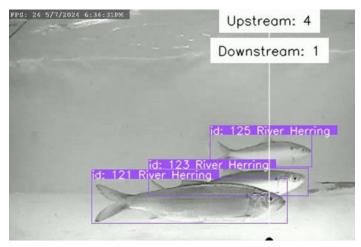
DMF is launching a grant program to assist fixed and mobile gear fishers in covering the cost of on-demand related equipment, such as satellite communication systems to provide info on ODG locations, installation of through-hull transducers, relevant software and device subscriptions, and the on-demand gear itself. The goals of the grants are to help fishers gain experience using ODG, invest in the equipment, off-set economic impacts of closures, and help prevent conflicts between the fixed-gear and mobile-gear fleets. DMF will reimburse costs up to \$25,000 for fixed-gear fishers and \$6,000 for mobile-gear fishers. More information can be found <u>HERE</u>.

By David Chosid and Erin Burke, Protected Species Program

#### DMF Diadromous Project Looks to Future Technologies for Monitoring Fish Populations

Monitoring alewife and blueback herring abundance during their annual spring spawning migrations from ocean waters to freshwater habitats is a vital component to the management of these species (collectively referred to as "river herring"). Currently, between 40 to 50 streams are monitored for river herring passage in coastal Massachusetts each year. Three rivers, the Monument River (Bourne), Back River (Weymouth), and the Mattapoisett River (Rochester) have been monitored dating back as far as 1980 and are among the longest time series of abundance estimates for river herring on the east coast. DMF and project partners have traditionally monitored these populations using visual counting programs or electronic resistivity fish counters. However, both of these monitoring techniques present challenges which has been leading diadromous fisheries biologists to test and adopt alternative approaches.

Visual counting is the most widely used method to estimate herring run size due to minimal costs in monitoring equipment. However, it presents several limitations including the reliance on large numbers of volunteers that must follow a randomized counting schedule which can be challenging to maintain over time. Also, while a statistical design is utilized, the population estimates derived from visual counts are less accurate than those derived from electronic and video systems largely due to a lack of continuous monitoring. For these reasons, only a few



Annotated video frame showing a machine-learning algorithm identifying and counting river herring as they pass the camera and move upstream in the Coonamessett River (Photo courtesy of Dr. Zhongqi Chen, Woodwell Climate Research Center).

rivers monitored with visual counts have been accepted for use in coastwide stock assessments (e.g., Back River, Weymouth; Nemasket River, Middleborough; and the Mystic River, Medford).

Electronic resistivity counters have also been used by DMF to monitor passage and estimate river herring spawning run size since the mid-1980s. These systems provide more accurate abundance estimates (greater than 90% accuracy) mainly due to their ability to monitor continuously. However, their downsides include requiring daily maintenance to ensure the counting tunnels are free of obstructions and are set at sufficient depth and velocity so fish can pass through safely and efficiently, and an inability to differentiate between species or provide information on diel movement patterns (time of day when fish are passing). Furthermore, the one company that designs these systems is no longer manufacturing new units, hence DMF along with other state and non-government agencies that utilize these systems will need to seek alternative technologies to maintain high-quality abundance estimates at these long-term monitoring stations.

Video monitoring is growing in popularity and use among state, federal and non-government agencies to count migratory fish. As with electronic resistivity counters, video systems can monitor continuously when properly maintained. They have the advantage over electronic counters in that they can monitor multiple species as well as record when they are passing. In addition, video systems are popular tools for outreach and education in that the public can view and count fish either onsite via a live feed to a viewing monitor, or in many cases, online via the internet.

DMF began to explore the use of video monitoring in the mid-2000s in a cooperative research study with the University of Massachusetts, Amherst. In this study, above water cameras were deployed in four locations to record the spring spawning run (Back River, Weymouth; Charles River, Watertown; Monument River, Bourne; and Town Brook, Plymouth). From this footage, video clips were randomly selected for passage counts and run size estimation using DMF protocols. The results identified several limitations which included water clarity, lighting and power requirements, as well as a high degree of variance in the estimates. This study was a first step to explore the application of video for monitoring and counting and the results led to strategies to improve protocols and the accuracy of abundance estimates.

The evolution of video monitoring in Massachusetts continued in 2013 with DMF's deployment of underwater cameras for field trials, first at three sites (Mill River, Taunton; Nemasket River, Middleborough; and Herring River, Harwich), and subsequently, at other locations in Newbury (Parker River), Orleans (Pilgrim Lake), and Aquinnah (Herring Creek). These sites were either monitored directly by DMF or in cooperation with local groups. In addition, video systems have been deployed by municipalities and watershed associations at several other locations. With the continuous monitoring provided by these systems, efforts were made to shift from run size extrapolation of full estimates to total run size counts. To do this requires reviewing hundreds of hours of video footage and manually counting all the fish in the videos, which has proven to be an incredibly time-consuming effort and a major limitation to current video monitoring efforts.

Enter artificial intelligence (AI) and machine-learning programs. These technologies have been expanded for use in a wide variety of applications, and in recent years, research has been conducted with regards to identifying and counting fish. In 2015, DMF, in collaboration with the Woods Hole Oceanographic Institution (WHOI) SeaGrant Program and UMass-Amherst, dipped their toes into these waters when they were awarded a grant to design a novel video monitoring system that could record and automatically identify and count juvenile river herring as they are emigrating from freshwater to the marine environment. The system was designed by WHOI scientists along with researchers from the University of Florida and was deployed in the Monument River, Bourne, for four juvenile emigration seasons (June through November) between 2017 and 2020. To process and analyze the footage, a machine-learning algorithm was developed by training several neural network models to detect and count fish in video frames randomly selected during the 2017 emigration season. To verify the accuracy of each model, the fish in each frame were counted manually by humans and the estimates compared to counts derived from each neural network model. The top performing model had an error rate of just 9.4%. This is one of the first studies applying AI to develop an automated fish counting system. The system not only has the capability to produce estimates of daily passage as well as estimates of juvenile abundance but can also be used to decipher environmental factors influencing the timing and behavior of juvenile emigration. Information on this study (Marjadi et al., 2024) is available on the DMF website: Contributions List.



DMF biologist John Sheppard presenting research on an automated video monitoring system for counting juvenile river herring at the American Fisheries Society annual meeting (September 2024).

This past September, DMF, in partnership with the Massachusetts Institute of Technology (MIT) SeaGrant Program and the UMass-Dartmouth, organized and hosted a symposium on advanced technologies for fisheries monitoring at the American Fisheries Society annual meeting. The above study, along with similar research being conducted, was presented in this symposium, which provided a forum for networking and future collaborations. As a result, DMF is currently working with academic institutions (MIT, Northeastern University Institute of Experimental Robotics, and the Woodwell Climate Research Center) to research and develop deep-learning algorithms to count and estimate adult river herring spawning runs in Massachusetts, including the Coonamessett and Santuit rivers. With the price of equipment decreasing and with further improvements to neural network programs, the potential for applying AI to fisheries monitoring shows great promise in developing high accuracy abundance estimates while greatly reducing the time invested in reviewing video and manually counting fish. In a rapidly changing world of technology, DMF is endeavoring to stay on the cutting edge to maintain high quality monitoring, data collection, and reporting.

By John Sheppard, Diadromous Fisheries Biologist

#### Striped Bass Recreational Management Update

In 2025, the recreational striped bass fishery regulations will not change. Recreational anglers will be able to harvest one fish per day in the slot limit of 28" to less than 31", maintaining the three-inch slot first enacted in 2023.

#### Why did DMF change the regulations in 2023?

The narrowing of the slot limit (formerly 28" to less than 35") was required by the Interstate Fishery Management Plan to reduce fishing pressure on the stock after recreational harvest experienced an unexpected, near doubling in 2022. Without additional restrictions, it was very unlikely we could meet our stock rebuilding goals.

#### Were the new measures successful?

Yes, at least in the short-term. The 2024 stock assessment confirmed that while the stock experienced overfishing in 2022, the narrower slot reduced recreational fishery removals in 2023, helping bring fishing mortality back to near the target rate. Furthermore, recreational harvest estimates for 2024 through October are tracking below 2023 levels. However, fishing mortality is predicted to increase in 2025 as the above-average 2018 year-class grows into the slot limit and becomes vulnerable to recreational harvest. It is unclear if this will knock the stock off its rebuilding trajectory.

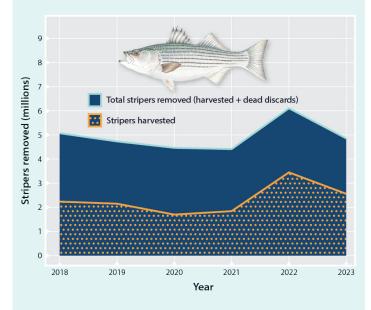
#### What comes next?

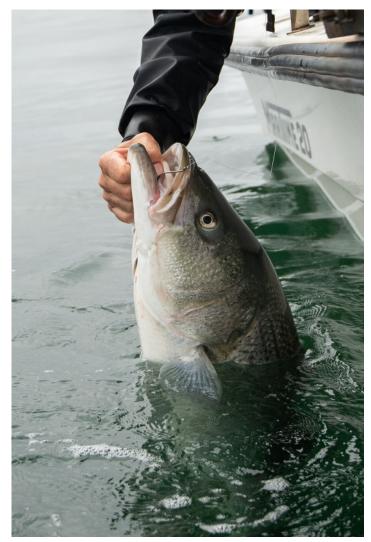
The Atlantic States Marine Fisheries Commission's Striped Bass Management Board has initiated an addendum to the management plan to consider whether additional measures should be implemented in 2026 to support stock rebuilding. DMF will engage the public through meetings and advisories as the addendum is developed and released for public comment.

#### Learn more

Our Striped Bass Frequently Asked Questions (FAQ) addresses common questions about the actions taken by the Striped Bass Management Board, why they were taken, and what will happen as a result. Visit the FAQ at <u>mass.gov/</u> <u>striped-bass-faq</u> to find out more about these changes and why they were adopted.

**Coastwide Striped Bass Recreational Removals** 





#### Increased Closures Around Wastewater Discharges Pose Challenges for Shellfishing in Massachusetts

Shellfisheries state-wide are being impacted by increasing closures associated with wastewater discharges from both combined sewer overflows (CSOs) and wastewater treatment plant (WWTP) outfalls. These are two distinct wastewater contamination issues subject to different management approaches. Potential public health risks associated with wastewater discharges factor into shellfisheries management as a requirement in the National Shellfish Sanitation Program (NSSP). The NSSP is governed by the Interstate Shellfish Sanitation Conference which meets every two years to update regulatory requirements and guidance for the sanitary control of shellfish sold into interstate commerce based on the best available science at that time.

The NSSP has long-required, permanent shellfishing closures around WWTP outfalls to protect public health. In addition, a conditional safety zone beyond the permanently closed area is required that can be closed immediately in the event of a treatment plant performance upset. In 2015, the NSSP adopted new criteria for determining the size and configuration of these required safety zones. DMF has been working since then to evaluate and reclassify these Prohibited and Conditionally Approved areas while trying to minimize the impacts on shellfishing activities and the aquaculture industry. In so doing, we identified a critical need for hydrodynamic modeling and partnered with Dr. Changsheng Chen from the University of Massachusetts School for Marine Science and Technology for technical assistance in modeling WWTP effluent dilution and dispersion to inform decisions on shellfish growing area sanitary classification around WWTP outfalls.

In the event of a WWTP discharge of untreated or partially treated sewage, the NSSP requires DMF to consider factors such as dilution and dispersion of effluent, microbial quality of effluent, time of transport, and volume of flow to delineate appropriate Prohibited and Conditionally Approved areas. Guidance for the permanently closed area around a WWTP outfall recommends a minimum dilution of 1000:1 (clean water:wastewater), and 100,000:1 for the adjacent conditional area that may remain open provided the plant is operating as expected and effluent quality is meeting permitted standards. These ratios can be reduced if justified by data; however, the Prohibited area cannot be reduced below a dilution ratio of 320:1 which is the national standard used by the Environmental Protection Agency, U. S. Food and Drug Administration, and Centers for Disease Control. Although many States have chosen to utilize the 1000:1 dilution ratio for Pro-



CSO pipe #003 in New Bedford, pictured here, is responsible for the highest number of harvest closures due to its proximity to shellfish growing areas that are classified as Conditionally Approved and support oyster aquaculture.

hibited areas, DMF is investing heavily in the available tools to collect data to justify smaller closed safety zones.

Advanced modeling and reclassification have already taken place for the Scituate WWTP discharging in the North and South Rivers in Scituate and Marshfield, and the New Bedford and Fairhaven WWTPs that discharge into Buzzards Bay. For Scituate and Marshfield, model results showed that effluent did not significantly travel upriver and achieved considerable dilution downriver once outside the embayment. Data collected on the Scituate WWTP's fully treated effluent also showed that it is a high performing plant. Additionally, DMF has established reliable communication pathways with plant operators there to ensure a timely closure of the adjacent Conditionally Approved area in the event of a treatment process disruption. These factors justified a reduced size for the Prohibited area of 2,000 acres based on a 320:1 dilution ratio, rather than almost 5,000 acres if the 1000:1 dilution ratio had been used.

In New Bedford and Fairhaven, modeling similarly showed how environmental conditions affect the dispersion of WWTP effluent in Buzzards Bay. While model results showed extensive areas of Buzzards Bay potentially impacted by the WWTP effluent, including longstanding aquaculture operations, DMF committed to expanding our lab capacity and testing efforts to justify classifying those important aquaculture areas as Conditionally Approved rather than Prohibited.

Currently both the Ipswich and Dartmouth WWTPs are in the process of being re-evaluated with this advanced modeling.

#### Shellfish harvest closures continued...

The modeling process is quite lengthy and has been ongoing for about a year at these plants. Preliminary results for both Ipswich and Dartmouth are expected by early 2025. Statewide, the Division is hoping to complete the re-assessments of the remaining WWTPs by 2030.

The other type of wastewater discharge that is causing considerable hardship for the shellfishing and aquaculture industry is CSO discharges which result in emergency closures as required by the NSSP. During rain events, stormwater runoff and municipal wastewater can combine in aging underground infrastructure and if the system is overwhelmed with high flows, portions of this combined effluent can release into the marine environment. Twentyone-day closures are required when untreated or partially treated sewage is released, and the size of the closure depends on the fecal concentration and volume discharged.

To determine the size of the required closure, DMF must calculate the volume of receiving water needed to dilute the CSO discharge to the NSSP standard for shellfish harvested for direct human consumption. Tide and wind direction are also considered when evaluating whether an area is potentially impacted by CSO discharges. Closures can be lifted sooner than 21 days using male-specific coliphage (MSC) testing on shellfish, but those samples cannot be collected in the first seven days of the closure. MSC is an indicator of viral contamination.

Emergency CSO closures occurred in portions of Buzzards Bay 20 times due to CSO activations in New Bedford in 2024, for a total of 210 days lost to harvest for the year. DMF has performed MSC shellfish testing and successfully lifted the closure sooner than 21 days every time a closure was required. Fortunately, most other areas in the State potentially impacted by CSOs are in already large enough Prohibited areas such that DMF does not anticipate significant impacts to productive shellfishing areas outside of Buzzards Bay.

While there may be a reduction in shellfish acreage for some areas of the state, DMF is hopeful that improvements in other areas will help to minimize impacts on shellfishing overall. As we gather more data through advanced modeling, increased testing, and assessing the efficacy of novel, real-time sensors near important shellfish growing areas, we will continue our commitment to our dual mandate to protect public health while supporting the shellfish industry.

#### DMF Set to Expand Coastal Habitat Restoration Program

As part of our mission to protect, restore and improve water quality, habitats and the marine resources of the Commonwealth, DMF is excited to launch a new statewide initiative that will dramatically increase the pace and impact of coastal habitat restoration efforts.

In partnership with The Nature Conservancy and the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS), the new program will develop a statewide critical coastal habitat restoration plan with a focus on the identification of suitable sites for oyster and other coastal habitat restoration projects. The overall goal of the program is to dramatically increase the rate of project implementation to increase biodiversity and climate resiliency in support of the Commonwealth's <u>Biodiversity Initiative</u>. Building off DMF's shellfish propagation, hard bottom habitat enhancement, and eelgrass restoration efforts, this program will develop tools for prioritizing potential oyster and other coastal habitat restoration locations and coordinate the planning, permitting, implementation and monitoring of restoration projects.

The new program was originally conceived in the Massachusetts <u>Shellfish Initiative</u>, a multi-year stakeholder-driven planning effort which sought to chart a course ahead for the future of the State's \$450-million shellfish industry, the largest in the Nation. The program will be guided in part by the Massachusetts <u>Shellfish Advisory Panel</u>, an official public body created by an Act of the Legislature to enhance communication in the Common-wealth amongst all stakeholders in support of the advancement, conservation, and benefit of shellfish in Massachusetts.

The program will be led by a new full time restoration specialist who will work within DMF's Habitat and Shellfish Programs and in partnership with peers at The Nature Conservancy and NRCS to oversee the effort statewide. The program will work with all other stakeholders involved in coastal restoration in Massachusetts including Federal, State and Municipal agencies, non-governmental organizations, educational institutions, fishers, aquaculturalists, and others to achieve project goals. The program is funded for at least five years, but it is expected the program will grow well into the future given the critical need for this work to combat climate change and the biodiversity crisis.

*By Mark Rousseau, Habitat Program Manager & Wayne Castonguay, Shellfish Program Regional Supervisor* 

By DMF Shellfish Program Staff

## Permit Dollars at Work: Salem Willows Pier Opens to the Public!

In 2012, DMF met with Kim Driscoll—then the mayor, now the lieutenant governor of Massachusetts—to discuss replacing the historic Salem Willows Park fishing pier. The original pier, first permitted to be built in 1894, was past its useful life and needed to be closed for safety reasons. Following that initial meeting, it has been a long and winding road of planning, designing, and permitting. But now, after a dozen years, there is a new Willows Pier open to the public in Salem.

This last year of the project has been especially exciting, with construction beginning in the spring and, after nine months, the completion of the new, fully ADA-compliant fishing pier. The pier opened to the public on November 3 and within hours word began to spread. It wasn't long before people carrying fishing rods descended upon the new fishing pier and started to catch mackerel. It was a fantastic sight to see anglers immediately enjoying the pier again. Saltwater anglers like these are a vital source of funding for public access projects like the Salem Willows Pier. A full one-third of all dollars from saltwater fishing permit sales are dedicated to funding public access projects for saltwater anglers in Massachusetts.

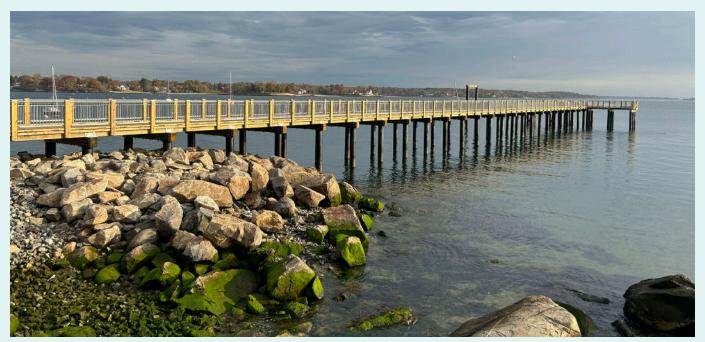
The official <u>ribbon cutting ceremony</u> took place on December 2, when we gathered with the City of Salem, Office of Fishing & Boating Access, Department of Fish and Game, local leaders and community members at the pier to commemorate



Mike Armstrong, former DMF Assistant Director, gave remarks at the ribbon cutting ceremony for the Salem Willows Fishing Pier.

this renewed opportunity to access and enjoy the waterfront. Bringing the project full circle, Lieutenant Governor Driscoll spoke to the many partnerships that made this project a success and then made a ceremonial cast following the ribbon cutting. Although we didn't land any fish that chilly morning in December, the rebuilt pier will continue providing anglers the opportunity to land popular species like pollock, striped bass, bluefish, mackerel, cunner, winter flounder, and squid for generations to come.

By Ross Kessler, Public Access Coordinator



The new fishing pier extends 343 feet into Salem Sound, matching the length of the original pier, but with the addition of a 60 x 16 foot "T" at its terminus, allowing for much more fishing frontage.

#### Diadromous Fish Run Update (Fall 2024)

Diadromous, or sea-run fish, are the migratory fish that switch between marine and freshwater habitats to complete their life history. Most diadromous fish populations have declined sharply from historical periods when valuable fisheries were supported. Presently, minor fisheries occur for a few diadromous species and collectively these fish remain important forage for a wide range of fish and wildlife. The DMF Diadromous Fisheries Project actively monitors river herring, American shad, American eel, and rainbow smelt spawning runs in coastal rivers to contribute to population assessment and management of these species and to inform restoration planning.

#### **River Herring Counts**

About 45 Massachusetts coastal rivers are monitored each spring for river herring passage. While most of these are visual counts led by local watershed groups (with run size extrapolations generated by DMF staff), there is a growing number of higher technology counts occurring here now with 12 electronic and 9 video counting stations active in 2024 (see accompanying article "DMF Diadromous Project Looks to Future Technologies for Monitoring Fish Populations" on **page 7**). With sufficient duration and data quality, these herring counts can contribute to coastwide stock assessments and local harvest management.

The most recent such coastwide stock assessment for river herring was completed in 2024, finding the overall resource for the East Coast to be depleted from historical levels with most indices of abundance not showing significant trends since the reference year of 2009. From 29 river herring counts in Massachusetts considered in the assessment, six "sentinel" counts (Nemasket, Monument, Town, Back, Mystic, and Parker rivers) were included as sites with suitable spawning run counts and biological data on size and age. The trends for these sentinel sites were largely neutral since 2009. The assessment also accepted five new stations as spawning run count indices of abundance (Mattapoisett, Agawam, Wankinco, Stony Brook and Herring River in Wellfleet). This is a welcome contribution to the assessment of a data-poor species and a credit to all those that participate in those counts.

The river herring count status in recent years has shown some volatility with some larger runs North of Cape Cod trending up and some smaller runs from Cape Cod west showing persistent low numbers. DMF implemented a river herring harvest ban in 2006 out of concern for uniformly declining runs following a series of droughts. Most coastal regions experienced improving spawning run counts soon after with increases during 2012–2019; however, during 2020–2022, declines and instability were seen in counts at many coastal rivers. The regional trend



River herring ascending the fish ladder over the Broad Street Dam at Lovell Park in Weymouth on Herring Run Brook that leads to the spawning grounds at Whitmans pond.

mentioned above was again apparent in 2023, with numbers up at many locations including five rivers with time series highs. The top three count stations in 2023 were repeated in 2024 at the Herring Brook, Pembroke (444,000); Herring River, Harwich (451,000); and the Mystic River, Medford (650,000). The Mystic River has come on strong in the last decade following fishway installations—it has now had the highest count among all stations during three of the last eight years. Congratulations to all the agency and local crews that have made the restoration effort in the Mystic River a large success.

The influence of droughts and low stream flow on the summer and fall juvenile river herring emigration to marine waters remains a significant concern in coastal Massachusetts. Several significant droughts have impacted coastal Massachusetts since 2016. The count records suggest that the serious drought of 2016 did not cause widespread reductions in returning adults. The jury is still out on the impact of the 2020 drought. This spring had elevated stream flows only to suffer from low rainfall during summer and fall that brought much of the state to a drought status. Nearly all USGS streamflow gauge stations were below their 25<sup>th</sup> percentile for the month of November. Stream flows remain low in many places even in early December. DMF staff was active this fall visiting sites with low stream flow to remove debris, treefalls, sand berms and leaf jams that can threaten juvenile herring emigration during reduced flows.

#### Stocking

DMF maintains a stocking truck capable of moving 2,000 herring and two portable tank systems for moving up to 250 herring. In 2024, herring were stocked at five locations related to recent or ongoing fish passage restoration efforts: Island Creek, Duxbury; Bourne Pond, Falmouth; Sandy Bottom Pond, Yarmouth; Tom Matthews Pond, Yarmouth; and Mill Pond, Barnstable. DMF also has an agreement with the USFWS to stock larval American shad in the Taunton River. This cooperative effort with the Division of Fish and Wildlife seeks to restore a recreational fishery for shad in the Taunton River by stocking three million shad larvae annually for five years. The project is off to a good start with over five million fish stocked each year from 2022 to 2024.

#### **Fish Passage Restoration**

Every year, numerous fish passage restoration projects are in development both by DMF and cooperatively under local, State and Federal partnerships. Project development in 2024 was higher than typical with many projects supported by federal infrastructure stimulus funding. This article does not have space to report on the large number of fish passage projects advancing through design stages presently. Instead, we will highlight several that were under construction in 2024 and annual efforts by the DMF Fishway Crew.

- South River, Marshfield. Construction is underway at the Veterans Memorial Park on the South River in Marshfield to replace an existing dam and fishway with a nature-like fishway and include park features such as a lagoon and water wheel. This project, led by the Town of Marshfield, has the unusual promise of benefiting at least six species of diadromous fish including one of the few small-river American shad runs in coastal Massachusetts.
- Sesuit Creek, Dennis. The Massachusetts Department of Transportation is replacing two culverts on Route 6A in Dennis to improve fish passage from Sesuit Creek to Scargo Lake. DMF identified that the undersized culverts and associated riprap blockages was causing significant fish passage and mortality impacts, and recognizing the need to also improve the roadway infrastructure itself, MassDOT fully funded the culvert replacement.
- Stony Brook, Brewster. The Town of Brewster is working with the National Resources Conservation Services and Cape Cod Conservation District to rebuild the fishway at Stony Brook. This iconic mill site is one of the most visited "herring parks" in Massachusetts, with generations of families holding fond memories of seeing herring at Stony Brook. The degree of difficulty, historic mill site, and large Cape Cod Bay herring run make this a regional priority for fish passage improvements.
- Fore River Watershed, Braintree. The long-running restoration effort to open passage for diadromous fish in the Fore River watershed was completed in 2024. Obstructions at four locations blocked river herring and other species from reaching over 200 acres of spawning and nursery habitat for over 200 years. The final step was the construction of a fishway at the Rock Falls in 2024. This followed the removal of the Armstrong Dam upstream of the falls in 2023. These two projects had held the regional ranks of first and second in the DMF Diadromous Fish Restoration Priority List in recent years. This milestone has come following years of dedicated efforts from the Town of Braintree and project partners. With the completion of two dam removals and two fishways, there will be much excitement to see how fish respond during the spring 2025 migration. And with these high-ranking projects done and off the list, these collective efforts can now focus on the next challenging projects waiting for their turn.



Rock Falls fishway in Braintree under construction during the summer of 2024.

• DMF Fishway Crew. The Fishway Crew had a solid 2024 season of repairing fishways with six jobs completed. Four jobs (Parker River, Newbury; Acushnet River, Acushnet; Depot Pond, Eastham; and Herring Creek, Aquinnah) were small physical repairs with minor costs. In each case, the time spend on travel, shop fabrication, and authorizations far exceeded the half day of field repairs. In addition, repairs continued at the Army Corps' fishway on the Cape Cod Canal. Concrete fishway weirs along the canal were built in the 1930s and are showing their age. The Fishway Crew reformed one of the weirs this past summer with plans to finish all replacements by 2026. The largest fishway job of the year was at Wings Pond in Falmouth, where 10 in-stream concrete weirs constructed by DMF in 1975 in cooperation with the cranberry bog owner and Town of Falmouth were showing their age. The stream flow had eroded the banks around several of the upper weirs and sea-level rise and foot traffic had eroded the banks around the lower weirs, causing improper functioning. With the same cooperative partners, the Crew spent two weeks to remove four of the weirs, reform one concrete weir, and repair the channel and bank at three weirs with rock weirs and fiber rolls. This project was a good example of blending DMF's capacity with fabrication, field equipment and hard labor to complete challenging repairs at low cost.

#### By Brad Chase, Diadromous Fisheries Project Leader

**NOTICE:** DMF will host a river herring counting workshop on March 12, 2025 at our New Bedford laboratory. The workshop follows a DMF workshop held 20 years ago in Gloucester that ushered the modern effort to count river herring in Massachusetts during their spring spawning migrations. The 2025 workshop will focus on updates and lessons-learned on volunteer visual count, electronic, and video counting methods. Stay tuned for a formal notice and agenda.

## Saltwater Angler Education Program Partners with MOOR to Distribute Free Fishing Gear at Clinics

Last summer, DMF's Saltwater Angler Education Program was awarded \$7,800 from the Inclusive and Accessible Outdoor Recreation Grant Program from the Massachusetts Office of Outdoor Recreation (MOOR). The extra funding went a long way to support our mission to teach basic angling skills and make saltwater fishing more accessible for kids, families, and other new anglers in Massachusetts. We partnered with the City of New Bedford to host a free family fishing clinic at the Fort Taber Fishing Pier, where participants learned to fish from the pier and were sent home with new rods, starter tackle kits, and educational materials to keep fishing. Overall, we were able to distribute over 120 rods and starter tackle kits at Fort Taber and numerous other free saltwater angler education clinics. Funding from the grant also gave us an opportunity to translate our most popular educational materials into Spanish to help make our events and outreach more accessible to all anglers.

In addition to our own MOOR-funded project, our program also provided support to three other MOOR-funded events: the Fairhaven Fishing Derby, Cops & Bobbers with the Fall River Police Department, and the Friends of Winthrop Accessible Adventures Day on Deer Island. Those were just a few of the highlights in a very busy year! DMF either hosted, participated in, or supported 17 different free saltwater angler education fishing clinics throughout the summer. At every DMF-run clinic, participants learned the basics of saltwater fishing, such as knot tying, casting, fish identification, proper handling, and catch and release fishing. This introduction to angling, along with our educational materials, sets up new anglers with the skills and confidence to continue fishing on their own.



A new angler learning how to saltwater fish during the Fort Taber fishing clinic.



DMF distributed over 120 rods and starter kits at the Fort Tabor fishing clinic.

Angler education clinics are a big part of our program, but we recognize that there are other ways to expand our reach. We loaned gear and provided training to three organizations throughout the summer through our rod & reel loan program. Our goal is to teach organizations how to use saltwater fishing gear and then support them in their efforts to teach and host their own saltwater fishing clinics. In doing so, we can extend the reach of our Angler Education Program and impact more communities. This past year, summer program staff from the Boys and Girls club of New Bedford went through the basic training and took kids to the Fort Taber pier to go fishing or practiced knot tying and casting at the organization's facility. We also loaned gear to the Buzzards Bay Coalition so they could offer their own Beginners Surfcasting Clinics at various locations on the South Shore. The third organization was Outside Mind, a black-led nonprofit organization committed to providing equitable outdoor recreation access and opportunity to underserved communities on the North Shore.

In 2025, the DMF Saltwater Angler Education Program plans to continue building and strengthening partnerships to grow the rod & reel loan program. After the success of the 2024 gear give-aways, DMF is eager to identify funding to purchase more gear and tackle to distribute at 2025 summer fishing clinics. We're looking forward to another amazing season getting into coastal communities and sharing the joy of saltwater fishing!

By Kim Fine, Recreational Fishing Clinics Coordinator

#### Some Familiar Faces Finish Atop the 2024 Saltwater Derby Leaderboard but 2025 is a Brand New Year



Lola Crisp was named Junior Angler of the Year for the second year in a row.

The Massachusetts Saltwater Fishing Derby has a longstanding history that adds a splash of competition to every fishing season in Massachusetts. The Derby, previously known as the Governor's Cup, was hosted by the Division of Tourism until 1983, when it was passed on to the Division of Marine Fisheries (DMF).

The 2024 Derby concluded on November 30. There was a lot of enthusiasm, and we wrapped up the season with a total of 30 winners. There were some exceptional catches entered this season, including several large tautog, bluefish, and false albacore, which was no surprise given the size of the albies off southern Massachusetts this year. There were several return winners this year, with Tom Moynihan repeating as *Adult Angler of the Year* and Lola Crisp repeating as *Junior Angler of the Year*. Captain Jason Colby took home the *Skillful Skipper* title for the second year in a row, after guiding his clients to many qualifying entries, including three derby winning fish.

Our annual Derby awards ceremony was held on January 11, 2025, at the New England Boat Show in Boston to celebrate the winners. Department of Fish and Game Commissioner Tom O'Shea, DMF Director Dan McKiernan, and DMF Recreational Program Leader Ben Gahagen presented awards and certificates to the winning anglers. An ice cream social followed for the lucky anglers and their families.

The 2025 Derby started January 1. Beyond a new year and blank leaderboard, DMF is excited to share changes to the Derby that range from how fish can be entered to a brand-new name, along with some other surprises. Make sure to keep an eye on our social media and your inboxes as we get closer to spring!



Tom Moynihan repeated as Adult Angler of the Year.

Until then, it's a good time to come up with a strategy for catching a pin fish or storming the leaderboard to unseat last years winners. Let's hope the new season brings us excellent fishing weather and plenty of anglers on the leaderboard!

By John Boardman, South Shore Recreational Fisheries Biologist

#### **Recent Publications**

The following publications are recent articles written or co-written by DMF staff and published in scholarly journals or the DMF technical series. A full list of publications can be found at **mass.gov/marine-fisheries-publications**.

**Nelson, G.A., Duprey, K.L.**, and **Elzey, S.P.** 2024. Aspects of the Population Dynamics and Biology of the Daubed Shanny (*Leptoclinus maculatus*) from the Gulf of Maine. *J. Northw. Atl. Fish. Sci.*, 55: 11–29. <u>https://doi.org/10.2960/J.v55.m747</u>.

Dean, M. J., Hoffman, W. S., Gahagan, B. I., Nelson, G. A., and M.P. Armstrong. 2024. Evaluating the conservation benefit of circle hooks for the Atlantic Striped Bass recreational fishery. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science*, 16, e10308. <u>https://doi.org/10.1002/</u> mcf2.10308.

Devine, M.T., Bittner, S., Roy, A.H., **Gahagan, B.I.**, **Armstrong**, **M.P.**, and A. Jordaan. 2024. Population density and zooplankton biomass influence anadromous juvenile river herring growth in freshwater lakes. *Environmental Biology of Fishes*. https://doi.org/10.1007/s10641-024-01565-8.

#### **Dish on Fish:** Manhattan-Style Fish Chowder



It's chilly out which means it's time for soup! Try this easy and healthy fish chowder recipe for your next night in.

Servings: 4 (serving size: 2 cups) Prep Time: 15 minutes Cook Time: 40 minutes

#### Ingredients

- 2 tablespoons olive oil
- 1 cup chopped yellow onion
- 1 cup chopped carrot
- 1 cup quartered baby new potatoes
- 1 tablespoon chopped garlic
- 1/2 teaspoon kosher salt
- 1/4 teaspoon black pepper
- 4 cups vegetable stock
- 1/3 cup dry white wine
- · 2 tablespoons fresh lemon juice
- 1 (28-ounce) can no-salt-added crushed tomatoes
- 16 ounces skinless Massachusetts fish fillets such as haddock, cod, pollock, halibut, or flounder cut into 1/2-inch pieces
- 1/3 cup fresh flat-leaf parsley
- Grilled whole-wheat baguette slices, for serving

#### Directions

- 1. Heat olive oil in a Dutch oven over medium heat, then add onion, carrot, potatoes, garlic, salt, and pepper. Cook, stirring often and until the onions begin to soften, 5 to 7 minutes.
- 2. Add stock, wine, and lemon juice and bring to a boil. Reduce heat to medium, and simmer for 10 minutes.
- 3. Stir in tomatoes, and simmer until thickened, about 10 minutes.
- 4. Add fish, cover, and simmer for 5 minutes.
- 5. Sprinkle with parsley and serve with grilled baguette slices.

Recipe by the Seafood Nutrition Partnership

#### **Accolades**

On The Water Magazine awarded DMF's **Mike Armstrong** their 2024 Striper Cup in recognition of his leadership on behalf of the sustainable management of striped bass. On the Water began an annual tradition in 2020 of bestowing this award during their StriperFest event, held each fall on Cape Cod, to an individual or organization that embodies the spirit of the event. Mike was honored for his dedication to science-based management of important fish species, particularly striped bass, and his instrumental contributions to developing regulations and management plans that have preserved the striped bass fishery while allowing anglers to enjoy this treasured resource.



Brian Castonguay (center) receiving his Certificate of Appreciation.

Brian Castonguay and Kim Fine were both recognized by the Department of Fish and Game's Performance Recognition Program in 2024. They were nominated and selected by their peers to receive a Certificate of Appreciate for their individual contributions to the agency's successful delivery of services to the citizens of Massachusetts. Brian has a 30-year history with DMF in which he has repeatedly gone above and beyond his required job duties in facilities management to provide a safe and productive environment for his colleagues while minimizing costs to the Commonwealth through his own extensive knowledge of construction, operations, and maintenance. Most recently, Brian's work ensured a successful full renovation of the Cat Cove Marine Laboratory in Salem and emergency repairs to the Shellfish Depuration Plant in Newburyport. Kim was recognized for her significant contributions to growing DMF's outreach and education programs for anglers, with a focus on inclusive and diverse programming to meet the needs of the citizens of the Commonwealth. This frequently includes many evening and weekend hours, to which Kim always brings a positive attitude. Recently, Kim successfully applied for external funding to expand the reach of the program with the purchase of additional fishing equipment to provide hands-on learning opportunities for the public.

#### **DMF Comings and Goings**

#### Comings



**Allison Myers** joined DMF in July as a Shellfish Classification Biologist. She will plan and conduct field investigations leading to the classification of shellfish growing areas, including collection and interpretation of water quality data, shoreline surveys to identify contamination sources, and completion of sanitary surveys in support of classification decisions. Allie graduated from University of Rhode

Island in 2015 with a B.S. in Marine Biology and has experience in the US Peace Corps in the Philippines and as a fisheries observer in Alaska. Most recently, she spent a season as a technician on the state of Connecticut's trawl survey and conducting horseshoe crab tagging studies at Cape Cod National Seashore before joining the Shellfish Program.



The Division welcomed **Emma Fowler** in November to the Protected Species Program. As a Protected Species Specialist based out of the New Bedford office, Emma will be working on all aspects of the agency's expanded protected species scope of work including passive acoustic monitoring, our Endangered Species Act Incidental Take Permit and associated Habitat Conservation Plan, and other entan-

glement reduction efforts. Emma has a bachelor's in marine science from Jacksonville University in Florida and has been working as a field biologist and lead scientist on the Gulf of Maine Bottom Longline Survey for the NOAA Cooperative Research Branch. She also has extensive experience as a fisheries observer and protected species observer.



**Cara Litos** joined the Division in October as our new Spatial Analyst within the Statistics Program, based out of the Gloucester office. Cara earned a BA in Geography with a focus in sustainability and a minor in geology from the University of Texas and worked for SWCA Environmental Consultants in Houston for the last 5 years. During that time, she analyzed wildfire risk data and worked on the

Cape Ann Community Wildfire Protection Plan, working alongside our local fire departments, particularly in Gloucester. She developed a public-facing website with interactive maps outlining risk to improve our community's wildfire preparedness and resiliency. Cara brings a unique perspective and extensive GIS experience to duties focused on the analysis of vessel tracking data.



# The Division welcomed **Manali Rege-Colt** in December to the Protected Species Program in the new role of Protected Species Acoustician. She will be working on all aspects of DMF's passive acoustic monitoring network for North Atlantic right whales, including hydrophone deployment and retrieval, and acoustic data analyses. Manali has a master's in biology from the University of Vermont and

has experience studying the acoustic communication of spotted dolphins in the Eastern Tropical Pacific. She also has experience with ecological genomics research and DNA extraction and sequencing.

#### Goings

In September, DMF wished a happy retirement to two long-time employees that both helped shape the Division as we know it – **Mike Armstrong** and **Stephanie Cunningham**. Mike's distin-



guished career with the Division began over 30 years ago, when as a graduate of VIMS and UNH, he joined DMF to work for the lobster project. After a short stint in Florida, he returned to his roots in Massachusetts to serve as a DMF stock assessment specialist working on herring and northern shrimp. Mike was subsequently elevated to a senior supervisory role overseeing numerous programs in-

cluding the recreational fisheries program, where he leaves his most notable marks. Mike helped shepherd the Division into new areas of research and specialization, growing DMF's signature in the scientific literature, establishing the Age & Growth Lab, advancing regional stock assessment methods, improving the quality of recreational fisheries data collection, shaping the use of recreational permit fees to give back to anglers, motivating the next wave of fact-driven fisheries scientists and managers, and much more. Among Mike's most recent initiatives was leading the refurbishing of the Division's Cat Cove Marine Laboratory to advance fisheries science, education, and outreach to visiting scholars and the public. Like Mike, Stephanie leaves an indelible mark on the Division, particularly on the many colleagues she helped mentor throughout her career. Stephanie started with DMF in 1989 (after a few years with the Division of Fish and Wildlife), as a shellfish classification biologist armed with a de-



gree from UMASS. Always willing to take on new assignments and continue to evolve her skills, Stephanie then joined the environmental review team, including serving on the first ever Ocean Planning Task Force for the state. Beginning in 2007, she became a federal assistance and grants coordinator, successfully navigating the federal grants system to secure and manage millions of dollars in

support of the Division's programmatic missions. Stephanie's understated leadership, compassion, and can-do attitude set her apart, and in 2022, she was promoted to Management and took on the challenge of running our Gloucester facility. DMF celebrated both Mike and Stephanie with retirement parties this past summer, and you only needed to hear the heartfelt tributes from their colleagues to know the value they brought to their roles and the depth of friendships they nurtured along the way.

#### **Staff Transitions**

In July, Matt Camisa was promoted to the role of south coast Regional Shellfish Program Supervisor, bringing over 25 years of experience on several Division projects including habitat, resource assessment, and shellfish classification. Also within the shellfish program, Terry O'Neil, with over 30 years of experience in shellfish classification, was promoted in September to Classification Supervisor for the south coast regional field station. In October, Story Reed, was promoted to the position of Deputy Director, having over 20 years of experience where he served in several roles including the head of permitting, statistics, and as the former Assistant Director for Policy and Management. Also in October, Anna Webb was promoted to Assistant Director and she now leads the Division's permitting & statistics programs after helping to develop many of the IT solutions used in those programs over the past decade. In December, Maren Budrow was promoted to the position of Federal Aid and Grants Coordinator, with over 10 years of grants experience for the Division and as a grants specialist for the National Marine Fisheries Service.

#### Massachusetts Marine Fisheries Advisory Commission

**Michael Pierdinock** attended his last Marine Fisheries Advisory Commission meeting as a Commissioner in September 2024.



During his eight-year tenure, Mike served as the MFAC vice-chair, and was one of the two MFAC members that also served on the state's Marine Recreational Fisheries Development Panel. Mike brought to his role considerable knowledge of the Commonwealth's marine fisheries garnered from his years as a for-hire vessel owner/operator out of Plymouth. Mike continues to serve the interests of the Commonwealth as a member of the New England Fishery Management Council, where his increased level of involvement led him to leave behind his Commission seat. DMF anticipates a replacement will be appointed to the Commission in early 2025.

#### **Atlantic States Marine Fisheries Commission**

Massachusetts's three-member delegation to the Atlantic States Marine Fisheries Commission has a new face. State Representative **Jennifer Armini** of Marblehead has been newly appointed to the Legislative Commissioner role, following Representative **Sarah Peake**'s decision to resign from the legislature and join Governor Maura Healey's team as a senior advisor for intergovernmental affairs this fall. Representative Armini represents the coastal states of Marblehead, Swampscott, and Lynn. Representative Peake was a valued member of the ASMFC for over a decade, bringing knowledge and attention to the marine fisheries management matters most important to Massachusetts stakeholders. Her trusted aide and frequent proxy to the ASMFC, Sarah Ferrara, has been helping Representative Armini get up to speed with all things ASMFC.

#### In Memoriam

#### by Director Dan McKiernan

During late 2024, we lost a pair of legacy fisheries professionals who led DMF during the 70s, 80s and 90s. **Randy Fairbanks** and **Phil Coates** were both pillars within state, interstate and federal fisheries management. Phil and Randy were true DMF "elders".

They witnessed the collapse of striped bass in the 60s and 70s and both were instrumental in the successful recovery during the 90s led by the Atlantic States Marine Fisheries Commission with congressional support through the historic Emergency Striped Bass Act. The success of the striped bass legislation created a new model for science-based interstate management that featured cooperation among the coastal states with mandatory compliance. Randy and Phil both were deeply invested in these processes.

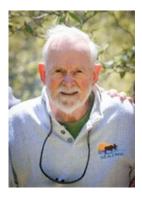
Randy retired as DMF's Assistant Director of recreational fish-



eries in 1991. In his career he saw the expansion of the federal Sportfish Restoration Act that provided federal funds to states through the Wallop-Breaux program (taxes levied mostly on fishing gear). With those increased funds he built the DMF Recreational Fisheries Program, including the hiring of new young talent that included renowned DMF biologists Brad Chase (diadromous fisheries ex-

pert) and Greg Skomal (the shark authority).

Phil Coates was one of the most popular and impactful profes-



sionals and fisheries management that many of us have ever known. He worked for DMF for 45 years including 21 years as Director. That is a record unlikely to be broken. He saw— and was involved with—the massive evolution of our fisheries and our management systems that many of us take for granted today. During his career, the so-called 200-mile limit was enacted and the regional fishery

management councils created by the Magnuson-Stevens Act. Phil dedicated his career to improving fisheries management for better outcomes for both the targeted fish species and the fishermen who pursued them.

In the early years of my career, I served under Director Phil in the Boston headquarters for over 12 years. Phil was famously dedicated to DMF and his very important role as Director. Phil taught us to be responsive to all stakeholders and be good listeners. Our public hearings back in the 90s were frequent—with at least four rounds per year—and typically went very long into the night as the public debated the pros and cons of DMF's management proposals.

Phil's retirement party in 2000 was attended by 250 people! What a testimony it was to his personal dedication to the job as Director and his good spirit to have so many attendees. Even after retiring, Phil stayed engaged in marine fisheries, often attending DMF's Marine Fisheries Advisory Commission meetings and Atlantic States Marine Fisheries Commission public hearings. He followed our progress closely and provided me with plenty of sage advice. Before his passing, he expressed deep concern for the striped bass stocks and the need for aggressive conservation.

Through his 25 years of retirement, Phil continued to give back: twice a year he would convene gatherings for any and all DMF retirees and friends of DMF to come together, get caught up, and maintain vital friendships. He was diagnosed with terminal cancer this past September and passed quicky. Incredibly, he took the time to reach out to many in the DMF family to share his news and express his appreciation to his friends and former colleagues.

Phil taught us to be optimistic about the chances for stock recovery, be kind to staff, fellow state Directors and other states' fisheries managers, be persistent to get laws changed, and be caring—by keeping his friends and colleagues coming together.

#### 2025 Quota Outlook

The quotas described herein are subject to change. Check the Division's <u>quota monitoring webpage</u> for updates.

#### Atlantic Herring: 5,974,527 pounds (coastwide quota)

The 2025 coastwide commercial quota for Atlantic herring represents an 86% reduction from 2024 and is the lowest quota ever set for the species. These 2025 specifications are based on the results of the 2024 stock assessment, which indicated the stock remains overfished with all-time low biomass being driven by continued poor recruitment. The coastwide limit is allocated among four management areas: 28.9% to Area 1A (inshore Gulf of Maine), 4.3% to Area 1B (offshore Gulf of Maine), 27.8% to Area 2 (south of Cape Cod), and 39% to Area 3 (Georges Bank). These new catch limits will not support a directed commercial fishery for Atlantic herring. A research track assessment is underway and is scheduled for review in March 2025. Research will evaluate new datasets that can either inform or be used in new or existing stock assessment models. The goal is to develop an improved stock assessment for Atlantic herring that can be used for future management track assessments. The next management track assessment is scheduled for June 2026 and would impact management specifications for 2027 and beyond.

#### Atlantic Menhaden: 10,838,902 pounds (MA quota)

2025 marks the third year of a roughly 10.8-million-pound Atlantic menhaden commercial quota for Massachusetts, the highest level since state-by-state quota management was established in 2013. Massachusetts receives a 2.12% allocation of the coastwide quota, which was set at roughly 515 million pounds in multi-year specifications for 2023–2025. The pending 2025 stock assessment will provide the foundation for setting the 2026–2028 quotas. The Massachusetts menhaden fishery, which provides bait for anglers and lobster harvesters primarily, performed very differently in 2023 and 2024 under the same guota level. In 2023, environmental conditions influenced the local distribution of menhaden and the fishery took little more than a quarter of the quota (about 3 million pounds landed), whereas in 2024, DMF acquired several transfers of additional quota from other states to allow continued fishing access amidst plentiful nearshore availability of menhaden (resulting in over 12.5 million pounds landed). DMF continues to adjust and fine-tune the fishery's regulations in response to fishery performance, changing quota levels, and management requirements under the interstate management plan. For 2025, DMF will be proposing several possible revisions to the trip limits and access levels.

#### Black Sea Bass: 787,216 pounds (MA quota)

The outlook for Massachusetts' 2025 quota is a 15% reduction from 2024 (when the quota was 926,338 pounds). The state's quota has ranged between 725,000 and 1 million pounds the

last five years. The decrease in 2025 is attributed to a shift in the resource's regional biomass distribution (north and south of Hudson Canyon), which is factored into the quota allocation formula. Whereas the 2021 stock assessment used in the allocation formula for 2022–2024 portrayed 85% of the biomass being north of Hudson Canyon and only 15% to the south, the 2024 stock assessment indicates a more equal distribution of the resource—52% north of and 48% south of Hudson Canyon. Consequently, Massachusetts share of the coastwide quota for 2025 is 13.12% rather than the 15.44% it has been the past three years. The underlying coastwide commercial quota for 2025 is the same as 2024 at 6.00 million pounds.

#### Bluefish: 262,663 pounds (MA quota)

The Massachusetts bluefish fishery will see a 33% increase in its quota for 2025 (compared to its 2024 allocated quota of roughly 198,000 pounds). This is on account of a 25% increase in the coastwide quota and a slight bump in Massachusetts' percent share of that coastwide quota. 2025 is the fourth year of a 7-year phase-in of revised state-by-state allocations which will ultimately take MA's share from its historical allocation of roughly 6.71% to just over 10.11%. Midway through a 7-year rebuilding plan, the bluefish stock's biomass is projected to increase from 2024 to 2025 hence the increasing coastwide quota. State landings in 2024 were below quota at roughly 150,000 pounds, most of which was caught between mid-July and mid-September, with lower amounts both before and after representing the season of bluefish availability. No changes to the commercial measures are expected.

#### Horseshoe Crab: 140,000 bait crabs and 200,000 biomedical crabs (MA quotas)

Massachusetts' two distinct horseshoe crab quotas will remain status quo with their 2023–2024 levels. The bait quota supports the harvest of horseshoe crab for use primarily in whelk pots, whereas the biomedical quota supports the catch and subsequent release of horseshoe crabs from which blood is drawn for use in testing the safety of biomedical products. Crabs harvested under the bait quota may also be borrowed from bait dealers for bleeding by biomedical firms prior to sale to bait users. Under these quota levels in 2024, the bait fishery for horseshoe crab closed on October 21. An automatic trip limit reduction based on quota use (more than 80% of quota taken on or before September 1) helped extend the season. The biomedical quota was also nearly taken in full.

#### Scup: 1,642,936 pounds (MA Summer Period quota)

At 19.54 million pounds, the 2025 coastwide commercial scup quota represents a 7.6% reduction from 2024 but remains at a very high level based on the stock biomass being well above target. The Winter I (January–April) and Winter II (October–December) Periods, which are open to all states at federally set trip limits, receive 45.11% and 15.94% of the quota, respectively; this equates to 8.81 and 3.11 million pounds for 2025. The Summer Period fishery (May–September) receives 38.95% of the coastwide quota (7.61 million pounds for 2025), which is further distributed into state shares, with Massachusetts receiving 21.6% (1.64 million pounds). No aspect of the commercial fishery is expected to be constrained by these quotas. For example, the 2024 Summer Period fishery in Massachusetts landed less than 600,000 pounds of scup. Public and private efforts are trying to increase market demand for this ample, yet underutilized, species.

#### Spiny Dogfish: 5,416,486 pounds (ME-CT Regional Quota)

The coastwide spiny dogfish quota for the 2025 fishing year of May 1, 2025–April 30, 2026 is expected to be set at roughly 9.34 million pounds, of which the Northern Region of Maine-Connecticut receives a 58% share. This coastwide quota represents a 9% reduction from the final FY2024 quota (after accounting for a 2023 overage), but is only a third of the roughly 30-million pound quotas set just a few years prior. Coastwide landings show an overall declining trend since peaking in 2012 at roughly 27 million pounds; landings in 2023 were below 10 million pounds and 2024 landings are tracking below this. The reduction in guotas reflects the assessment's finding of a less productive spiny dogfish stock. Concern has been raised about the solvency of the fishery under the declining quota. NOAA Fisheries and the regional fishery management councils have taken extraordinary steps to set the quotas as high as possible within legal limits the past two years (i.e., an emergency action for FY24 and suspension of the Council risk policy for FY25).

#### Striped Bass: 683,773 pounds (MA quota)

Massachusetts' allocated quota under the interstate fishery management plan remains 683,773 pounds at a 35" minimum size limit. 2024 landings came in just below this level (based on DMF's closure of the quota-managed fishery) so there is no overage to account for in 2025. The ASMFC Striped Bass Management Board has initiated an addendum to consider whether additional fishery restrictions (including a possible quota reduction) should be implemented in 2026 to support rebuilding the stock by 2029. The Board took this action in response to the 2024 stock assessment and associated projections, some of which indicated a less than 50% chance of rebuilding by the deadline (depending on the assumptions made). Rather than taking immediate action for 2025, which was also contemplated, the Board initiated the addendum to allow for full 2024 data to be incorporated into the projections, for management options to be further developed, and to provide for regular public comment processes. Note that if DMF were to change the size limit for the commercial fishery, this would affect the state's quota; for example, implementing a maximum size or reducing the minimum size would require a quota reduction to maintain spawning potential. DMF is evaluating the merits of such an action for 2025.

#### Summer Flounder: 571,147 pounds (MA quota)

The 2025 coastwide quota for summer flounder (8.79 million pounds) and MA's percent share of it (6.82%) remain unchanged from 2024. However, MA's baseline quota of 599,507 pounds for

the two years was adjusted downward in 2025 due to a small quota overage in 2024. The two-year specifications set for 2024– 2025 reduced Massachusetts' quota by 56% from 2023 on account of the most recent stock assessment correcting for prior overly-optimistic results, in conjunction with a reduction in Massachusetts share caused by a lowering of the coastwide quota below 9.55 million pounds. Amendment 21 established equal allocations of 12.375% for any coastwide quota above 9.55 million pounds, whereas quota below this amount remains allocated based on 1980-1989 landings, or 6.82% for MA. Under higher coastwide quotas in 2021–2023, Massachusetts allocation was between 8-9%. In 2024, under this lower quota, the summer flounder fishery closed effective August 28. DMF is considering management changes for 2025 to try to maintain some fishery access into September or later.

#### Tautog: 57,942 pounds (MA quota)

While Massachusetts's baseline tautog quota of 64,753 pounds has remained unchanged since 2008, the quota is often adjusted to account for a prior year quota overage. (The combination of the relatively low quota with highly variable daily catch rates makes closing the fishery at precisely 100% quota use nearly impossible.) A roughly 6,800-lb quota overage in 2024 results in an overage-adjusted quota for 2025 that is slightly lower than that in place in 2024 (59,981 pounds). The 2024 fishery ran from its September 1 opening date through October 5 before facing a quota closure.

By Nichola Meserve, Fishery Policy Analyst

#### **Adjudicatory Proceedings**

Under state law, DMF may sanction commercial and recreational fishing permits for violations of the state's marine fishery laws and regulations subject to a due process adjudicatory proceeding. These adjudicatory proceedings are held before a magistrate. They may be initiated by the agency, the Environmental Police, or municipal officials (constables) authorized to enforce the marine fishery laws of the Commonwealth. During the period of July 1–December 31, 2024, DMF did not initiate any new adjudicatory proceedings, nor were there any outstanding matters to be resolved.

#### **Regulatory Updates**

Below find the changes made to DMF fishing rules by regulation, emergency action, and in-season adjustment from July 1–December 31, 2024. Regulatory changes follow an extensive public process and remain in effect permanently unless otherwise amended; emergency actions go into effect immediately upon adoption without public comment but for a period of 90 days only (unless extended on a permanent basis following the public process); and in-season adjustments go into effect immediately upon adoption after a truncated public process but affect that calendar year only.

**Lobster Management (322 CMR 6.02).** DMF promulgated a series of regulatory changes affecting the harvest and possession of lobsters by commercial and recreational fishers and the possession and sale of lobsters by seafood dealers. This included a series of changes to be phased in over time affecting minimum and maximum carapace size standards, v-notch possession rules, and minimum escape vent sizes for traps. This action was taken to comply with Addenda XXVII and XXXI to the Interstate Fishery Management Plan for American Lobster. These addenda were developed to increase the spawning stock biomass of the Gulf of Maine/Georges Bank lobster stock by proactively implementing measures in response to declining recruitment trends and an anticipated decline in stock abundance driven primarily by environmental factors.

Commercial Fishery. Effective for the 2025 permit renewal season, permit holders authorized to fish traps in Lobster Conservation Management Areas (LCMAs) 1 and 3 will no longer be issued annual trap tags in excess of their trap allocation (i.e., an additional 10%) to pre-emptively cover trap loss. Then, the first in a series of changes to biological measures will go into effect on July 1, 2025 when the LCMA 1 minimum carapace size will be increased by 1/16" from 3 1/4" to 3 5/16" and a standard maximum carapace size of 6 3/4" and v-notch possession rule of 1/8" depth with or without setal hairs will be adopted for the Outer Cape Cod LCMA. Currently, the Outer Cape Cod LCMA has disparate rules for state-only permit holders and federal permit holders and this action brings the rules affecting state-only permit holders in line with the current rules for federal permit holders. Moving forward, a series of additional changes are scheduled to go into effect from 2027 to 2029. On July 1, 2027, the minimum carapace size for LCMA 1 will again be increased by 1/16" from 3 5/16" to 3 3/8". On July 1, 2028, the minimum escape vent sizes for lobster traps in LCMA 1 will be increased from 1 15/16" by 5 3/4" to 2" by 5 3/4" (rectangular vents) and from 2 7/16" diameter to 2 5/8" diameter (circular vents). This is consistent with the escape vents used in other LCMAs with a minimum carapace size of 3 3/8". Lastly, on July 1, 2029, the maximum carapace size for the Outer Cape Cod LCMA and LCMA 3 will be reduced from 6 3/4" to 6 1/2".

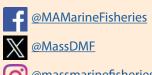
Seafood Dealers. With the above-described changes to the carapace size and v-notch rules affecting the commercial harvest of lobster, the corresponding standards for seafood dealers are also being amended. These changes will enable seafood dealers to continue to possess lobsters with the smallest minimum carapace size, largest maximum size, and least restrictive v-notch standard among the various US jurisdictions. The changes are being implemented in two parts. Immediately upon implementation of each change to the commercial carapace size and v-notch standards, seafood dealers who are primary buyers will be prohibited from purchasing non-conforming lobsters from commercial fishers. However, seafood dealers will be given a three-month grace period after each change to the commercial fishing regulations (i.e., through September 30 of that year) whereby they are allowed to possess lawfully purchased non-conforming lobsters to allow them to liquidate existing inventory.

Recreational Fishery. Persons who fish in the Gulf of Maine and Outer Cape Cod Recreational Areas will also be subject to changing minimum and maximum carapace size standards and escape vent rules to match what is occurring in the commercial fisheries in LCMAs 1 and Outer Cape Cod. However, these recreational changes will go into effect on May 1-for the start of the recreational fishing season-rather than in-season on July 1, like the commercial fishery. Accordingly, for May 1, 2025, recreational fishers in the Gulf of Maine Recreational Area will have a new minimum carapace size of 3 5/16", increasing from 3 1/4", and recreational fishers in the Outer Cape Cod Recreational Area will have a new maximum carapace size of 6 3/4". Note that statewide the recreational fishery is already subject to a v-notch possession standard of 1/8" with or without setal hairs, so this rule will not be changing.

2025 Period I Summer Flounder Limits (322 CMR 6.22). In response to recent fishery performance and quota expectations for the coming year, DMF enacted an in-season adjustment to reduce the 2025 Period I (January 1 – April 22) commercial trip limit for summer flounder from 5,000 pounds to 2,000 pounds. Additionally, DMF did not reauthorize the so-called "Multi-State Program" for 2025. In prior years, this program allowed vessels permitted to land summer flounder in multiple states to possess non-conforming quantities of summer flounder when offloading a state's limit provided fish destined for each state is segregated and clearly labeled and the limit for each state is not exceeded.

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