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A LEADING Commercial Fishing Industry Association in New England

MAY 2025 NEWSPAPER • WWW.LOBSTERMEN.COM

EMERGENCY RULE MAKING TO IMPLEMENT ADDENDUM XXXII TO THE AMERICAN LOBSTER MANAGEMENT PLAN

TO: *Marine Fisheries Advisory Commission (MFAC)*

FROM: *Daniel J. McKiernan, Director, Massachusetts Division of Marine Fisheries*

STATUS OF ADDENDUM XXXII TO AMERICAN LOBSTER FISHERY MANAGEMENT PLAN

The Atlantic States Marine Fisheries Commission (ASMFC) Lobster Board ("Board") initiated draft Addendum XXXII to the American Lobster Fishery Management Plan (FMP) at its February meeting. This addendum seeks to repeal the gauge and escape vent size measures approved in Addendum XXVII to the FMP (Table 1, on page 19) given concerns raised by industry interests around potential economic impacts. The ASMFC held a virtual public hearing on Addendum XXXII on April 10, 2025 and I anticipate Addendum XXXII will be approved by the Board at their May 5, 2025 meeting.

PRIOR REGULATORY ACTION AND NEED FOR EMERGENCY RULES

In late 2024, Massachusetts adopted a suite of regulations to implement Addendum XXVII[1]. This included establishing compliant regulations for the commercial fishery (Table 2, on page 20) and extending complementary gauge size and escape vent rules to the recreational fishery in the Gulf of Maine and Outer Cape Management Areas (Table 3, on page 22). Whereas the commercial rules go into effect on July 1[2], as required by Addendum XXVII, the recreational rule changes were scheduled to go into effect at the start of the season on May 15.

In anticipation of the Board approving Addendum XXXII, DMF has initiated emergency rule making. This should allow DMF to repeal those relevant aspects of our rules by May 15 for recreational fishers and July 1 for commercial fishers and seafood dealers. This is consistent with my long-held position that DMF will work to ensure Massachusetts' fishers (and by extension seafood dealers and consumers) should not end up subject to stricter standards than fishers who fish the same Lobster Conservation Management Area (LCMA) (Figure 1, on page 19).

Given the tight timeline with the recreational fishing season, DMF has notified recreational permit holders[3] that they should expect that last year's rules will remain in place

for 2025 (Table 4, on page 22) and that the gauge and vent size amendments that were announced in December 2024 are no longer expected to go into effect. Formal notice will go out to commercial permit holders and seafood dealers once emergency rules are adopted and well in advance of the pending July 1 implementation date.

Once the emergency regulation is filed, DMF will have 90-days to hold a public comment period, public hearing, obtain MFAC approval, and file final rules with the Secretary of State. To meet these deadlines, I project that we will need to hold a short MFAC meeting in July to review and vote on a final recommendation. I anticipate this will be a short, virtual meeting to accommodate your various summertime schedules.

EMERGENCY RULE, Page 19

[1] Refer to page 16 of the October 2024 MFAC meeting materials for more details

[2] With commercial fishery rules going into on July 1, complementary rules for seafood dealers were scheduled to become effective simultaneously at the point of primary transaction. However, seafood dealers were to be afforded a 90-day window when they could possess non-conforming product lawfully purchased prior to the July 1 implementation date to allow for the sell off of inventory.

[3] See DMF's April 11, 2025 advisory.

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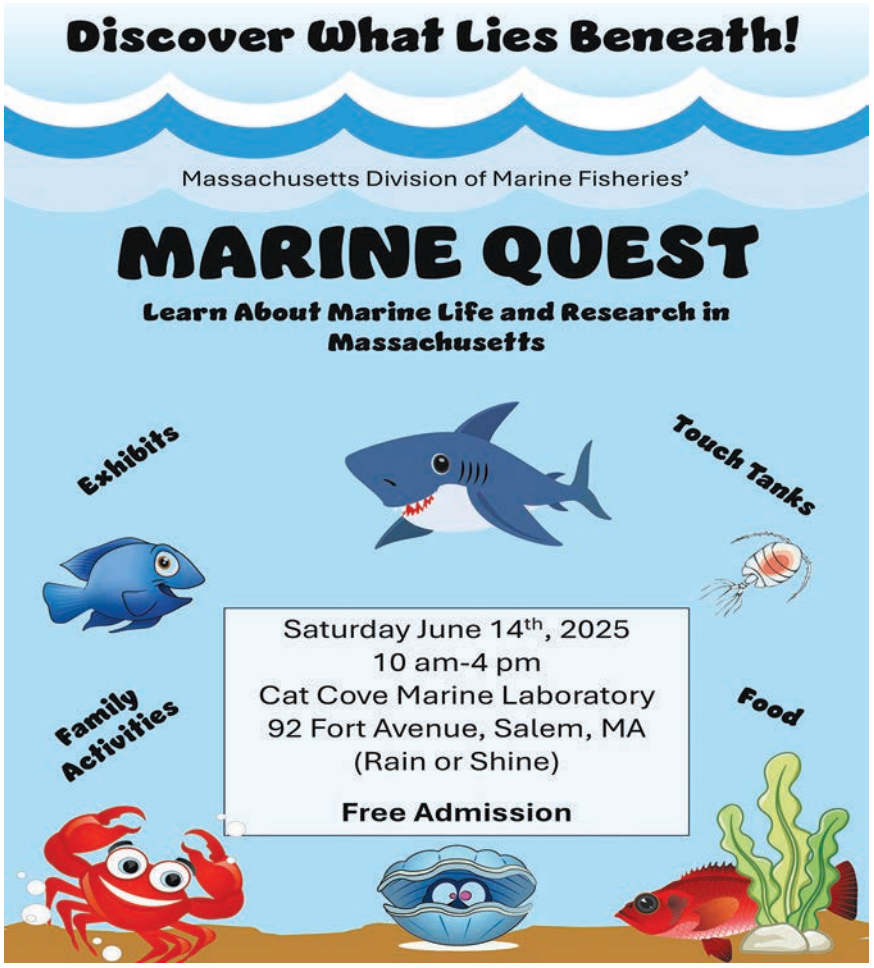

Survey of ongoing challenges and impacts in the lobster fishery

We are conducting a short online survey to better understand how regulatory, financial, and environmental challenges are affecting the American lobster fishery. We want to sincerely thank all of the lobstermen who have already completed our survey. This survey was developed in collaboration with the Massachusetts Lobstermen's Association, the Maine Coast Fishermen's Association, and other industry stakeholders and lobstermen.

The extent to which the above challenges have caused lobstermen stress, social disruption, and changes in trust in fishery management is not well documented. Our goal is to better capture these impacts to provide managers and decision makers with a clearer picture of how these issues are negatively impacting lobstermen and coastal communities. Your participation is invaluable to our study, and your input will help guide future decisions that impact the lobster industry.

For those who haven't had a chance to participate yet, we would greatly appreciate your insights. The survey takes only 10-15 minutes of your time, and you will be entered into a raffle to win $100. Please scan the QR code to complete the survey and make your voice heard.

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The Massachusetts Lobstermen's Association *would like to welcome the following new members to the Association. Your Association will continue its efforts on your behalf to conserve the resource, protect your livelihood, keep you informed, promote the industry and provide you with increasing benefits as they are developed. MLA stands ready to help you in anyway, at anytime — just let us know how! Safe on the water and good fishing!*

NEW MLA MEMBERS:

JAMES DOUCETTE
F/V: Susan Louise • Port: Manchester
Business: J&H Fishing

WILLIAM DOUCETTE
F/V: Mad Dog • Port: Manchester

JASON GRATTON
F/V: Tonya & Jodi • Port: Marblehead
Business: JMG Fisheries & Charters LLC.

BENJAMIN HANNAH
F/V: Romy Gwen • Port: Manchester

JARED MORRIS
F/V: TBD • Port: Gloucester

THOMAS O'BRIEN
F/V: Meghan Grace • Port: Weymouth

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As the HAULER TURNS

May, the month of holding our breath, waiting for the last of the right whales to leave the coastal waters of Massachusetts. During the last few weeks of waiting, I have heard from countless commercial lobstermen that continually state that they're being unfairly targeted to do more, give more, and lose more all in the name of conservation and it is unfair.

When Massachusetts commercial lobstermen are closed out to over ~12, 000 square miles for 3 months, even after they adopted whale-safe practices, such as rope diameter restrictions, numerous weak contrivances in vertical lines, gear marking, and real-time reporting of whale sightings, it seems to never be enough!

Despite these challenges, the seasoned Massachusetts' commercial lobstermen continue to show remarkable resilience, year after year. While the younger commercial lobstermen are slowly entering the fishery through apprenticeship programs, we are rallying to preserve working waterfronts, and cooperative efforts such as the John Carver Young Fishermen's Fund which was awarded to 5 individuals. The MLA continually advocates to hold these precious working waterfronts so the next generation will have a place to land their catch.

To offer some hope, President Trump signed an Executive Order, Restoring American Seafood Competitiveness on April 17, 2025, ***https://www.whitehouse.gov/presidential-actions/2025/04/restoring-american-seafood-competitiveness/*** that will start a series of deep reviews on the government and how it manages the fisheries. While this will not create any laws, we are hopeful that we can identify the key examples of economic harm and overreach from the federal regulations that have been put in place.

In the words of our former bookkeeper Chet Hill, "Follow the Money" and we intend to do just that. We will be sending a letter to the Secretary of Commerce spelling this all out and will be working with our attorney on this to ensure all our I's are dotted and T's are crossed. Stay tuned!

In closing, I just can't thank you all enough for your kind words of support over the past six months since my mother's

passing, it has been heartfelt and keeps me going. As we all know, life is a gift and we are only here for a short period of time, so we need to make it count and I intend to by helping you in any way possible whether it is answering the phone, writing a letter, talking to whomever will listen and taking the hits when they come. I am grateful to be working for you all and look forward to what tomorrow will bring. Stay salty!

May your pots be forever
full of hard-shells,

Beth Casoni

Executive Director

RECIPIENTS OF THE YOUNG FISHERMENS FUND

IN MEMORY OF JOHN CARVER

The John Carver Young Fishermen's Fund was created in memory of John Carver, at the request of his beloved wife, Karin. John was a lifelong resident of Marshfield and a dedicated member of the Massachusetts Lobstermen's Association. John passed away on June 21, 2023.

John's true passion was never found in an office or behind a desk. His heart was on the ocean, fishing for lobsters and honoring his heritage. Above all, he believed in living life to the fullest every day. John was a simple and kind man, always ready to lend a hand to others without expecting anything in return.

The funds raised have been matched by Karin Carver-Kaczarowski and the Massachusetts Lobstermen's Association as John's dedication to this organization was tireless. The hope for this fund is to support young fishermen who share John's passion for the sea and are committed to building a lifelong career in the fishing industry.

We are proud to announce that the recipients of this award are Noah Grey, Aidan Fuller, Andrew Collins, David O'Brien, and Olivia Michaud. Each of these young individuals comes from a fishing community and share the same passion as MLA's very own John Carver did.

Noah Grey from Plymouth f/v Deliverance - For the past 10 years Noah has been following in his father's footsteps, but it is now time for him to build his own lobstering business. Aidan similarly worked closely with his father out on the water and on the docks.

David O'Brien from Gloucester f/v Shoreline - David is excited to start his own business and make his ancestors proud, as he comes from a family of fishermen that can be tracked back more than four centuries.

Aidan Fuller from Marshfield f/v Forbidden Zone - After college Aidan learned the ropes of how to run a fishing business from MLA's very own John Barrett.

Andrew Collins from Cohasset f/v Tinman - Like Aidan, Andrew also worked under the watchful eye of Captain John Barrett. Taking all, he learned, Andrew is excited to apply his knowledge and pour his passion into the fishing industry.

Olivia Michaud from East Sandwich f/v Bugging Out - At a young age, Olivia was always intrigued with what her father, grandfather, and uncle were doing. Whether it was out on the water or tied up to the dock, Olivia was always fascinated by the commercial fishing life. She gave college a try, but her heart kept pulling her back to the sea, so she dropped out and followed her dream of becoming a commercial fisherman and has been full time for 5 years now.

We wish you all the best in your fishing career and look forward to watching you grow.


Noah Grey


Aidan Fuller


Andrew Collins


Olivia Michaud

What Is mCDR?

Marine carbon dioxide removal (mCDR) is any ocean-based process or technique designed to remove carbon dioxide from the atmosphere and store it for long periods of time in the ocean. Examples of mCDR techniques include adding alkaline materials to the ocean to increase the amount of carbon stored in ocean waters; adding iron or other nutrients to ocean waters to increase phytoplankton growth and export of carbon to the deep ocean; and sinking organic materials, such as kelp or crop residue, into the deep ocean.

Ocean Alkalinity Enhancement

Ocean alkalinity enhancement (OAE) refers to a variety of approaches that aim to increase the alkalinity in ocean water. OAE may be done for the purpose of removing carbon dioxide from the atmosphere and storing it for long periods of time in seawater, primarily in the form of bicarbonate ions, which are a major component of alkalinity in ocean water, or other uses, such as enhancing fisheries production. OAE may also provide the co-benefit of locally mitigating ocean acidification.

Several different methods of OAE are being explored, including:

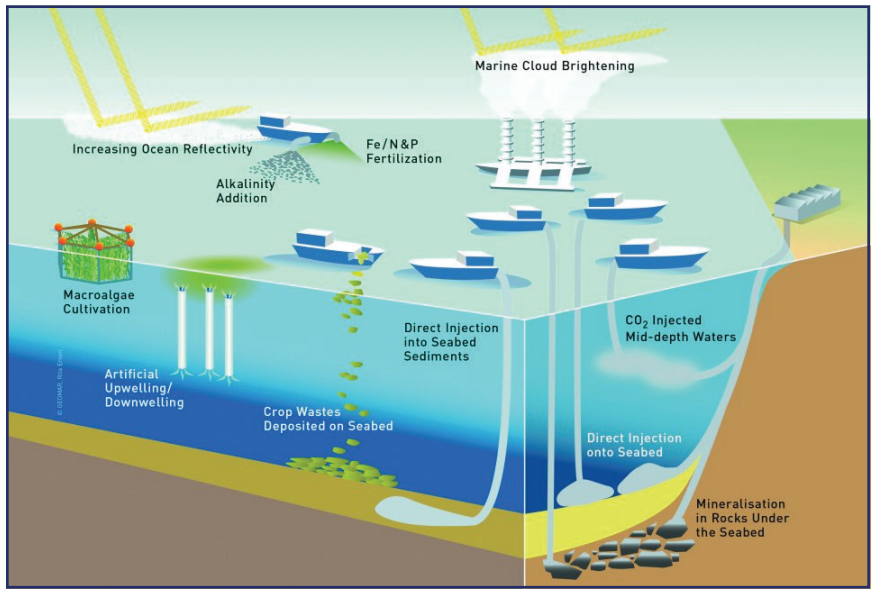
- Adding alkaline and/or basic solutions directly into seawater. Some proposed approaches involve removing acid components from seawater using engineered processes. For example, seawater can be processed using electrochemical or other engineered methods to split seawater into its acid and basic components. The basic component can then be returned to the marine environment, while the acid biproduct is removed and possibly used for other purposes.
- Adding certain types of mined alkaline minerals, such as olivine, to coastal and ocean waters. Under certain oceanographic conditions, alkaline minerals can dissolve into seawater and increase alkalinity.

For OAE to result in a removal of atmospheric carbon dioxide, several processes would need to occur:

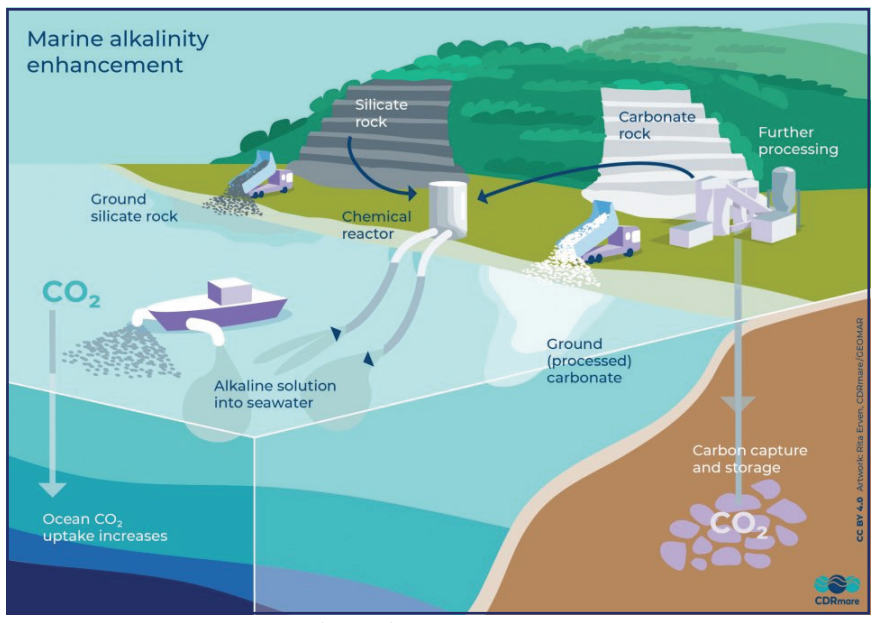
1. The addition of alkalinity (or removal of acid from seawater) must lead to a net increase in the concentration of alkaline ions in surface seawater. For solid alkaline materials, this would include the dissolution of the solid material in the seawater into its chemical components. Adding alkalinity to seawater (or removing acid from seawater) would lead to a temporary elevation in seawater pH.
2. The increase in seawater alkalinity must then result in a series of chemical reactions that convert dissolved carbon dioxide (already present in the seawater) into dissolved inorganic carbon, primarily in the form of bicarbonate. Bicarbonate is one of the most abundant components of seawater and is a relatively stable form of carbon.
3. To result in carbon dioxide removal, the seawater (now depleted in dissolved carbon dioxide) must then take up additional carbon dioxide from the atmosphere at the ocean surface and store the dissolved inorganic carbon on climate-relevant timescales. This movement of atmospheric carbon dioxide from the air to the ocean can only occur when the carbon dioxide depleted water is interacting with the atmosphere at the surface of the ocean.

Potential marine environmental impacts of this approach include:

- Toxic effects on marine organisms from exposure to trace metals contained in alkaline minerals or from interacting with mineral particulates in the water.
- Changes in habitat characteristics, ocean biogeochemical cycling, or ecological communities

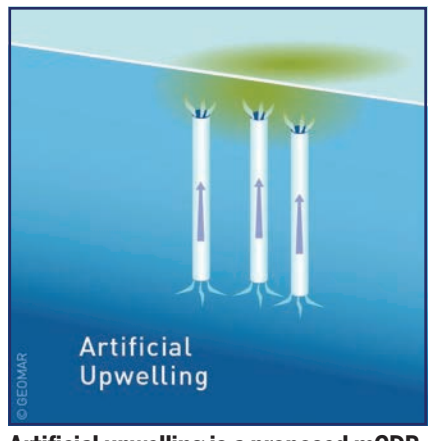


Examples of potential methods of mCDR. Refer to text for additional discussion of ocean fertilization, alkalinity addition and deep ocean biomass sinking. Image courtesy of Rita Erven, GEOMAR.

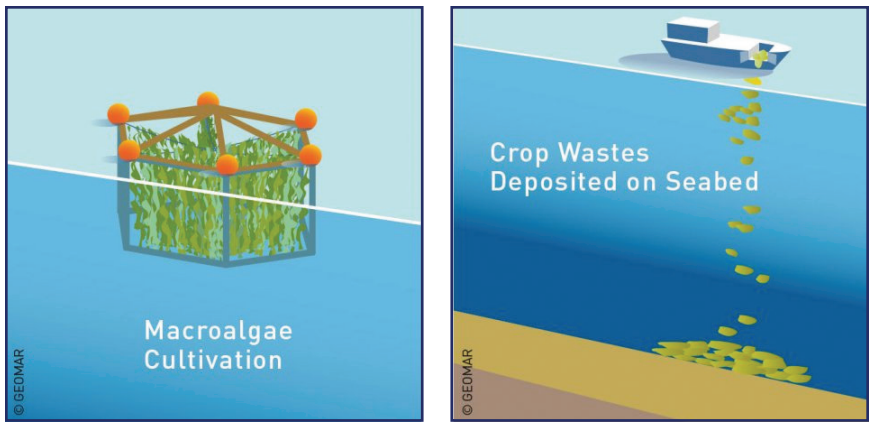


Potential methods of marine (ocean) alkalinity enhancement, including some associated land-based activities. Image courtesy of Rita Erven, GEOMAR.

Ocean fertilization would involve adding nutrients, such as iron, to the surface waters to increase phytoplankton growth. Image courtesy of Rita Erven, GEOMAR



Artificial upwelling is a proposed mCDR method that involves moving nutrients from the deep ocean to the surface. Image courtesy of Rita Erven, GEOMAR



Sinking terrestrial or marine biomass, such as macroalgae, into the deep ocean is a proposed method for carbon dioxide removal. Image courtesy of Rita Erven, GEOMAR.

due to localized peaks in seawater alkalinity or pH.
- Biogeochemical effects from the introduction of additional nutrients such as silicate or iron.

Ocean Fertilization

Marine plants such as phytoplankton (e.g., algae) use carbon dioxide from their environment during photosynthesis. Ocean fertilization activities aim to increase the growth of phytoplankton in the ocean (i.e., enhance ocean primary productivity) for the purpose of increasing carbon export to the deep ocean or other uses, such as enhancing fishery productivity. Ocean fertilization does not include conventional aquaculture, mariculture or the creation of artificial reefs.

Increasing phytoplankton growth could be accomplished by adding nutrients, such as iron, to the open ocean to create a phytoplankton bloom.

Nutrients for ocean fertilization could be added in the form of a liquid or solid material, or nutrients may be moved from the deep ocean to the surface ocean through a process called "artificial upwelling."

For ocean fertilization to result in a removal of atmospheric carbon dioxide, three processes would need to occur:

1. Ocean fertilization must lead to increased growth of phytoplankton, which consolidates carbon and nutrients together into organic material.
2. Organic material from the phytoplankton bloom must be transferred into the deep ocean so that it does not break down near the surface, releasing its captured carbon back to the atmosphere.
3. This transfer of carbon from the surface ocean to the deep ocean must result in a subsequent transfer of carbon from the atmosphere into the surface ocean.

Potential marine environmental impacts of this approach include:

- Growth of toxin-producing algae (i.e., harmful algal blooms).
- Deep ocean deoxygenation from biomass decomposition.
- Decreases in ocean productivity in adjacent areas of the ocean, also known as "nutrient robbing."
- Increases in oceanic production of greenhouse gases (methane, nitrous oxide).
- Changes to ecosystem structure and function.
- Acidification of the deep ocean.

Deep Ocean Biomass Sinking

Plants on land and in the ocean pull in carbon dioxide from their environment during photosynthesis. The carbon contained in terrestrial or marine biomass, such as crops or macroalgae, could potentially be sequestered from the atmosphere for long periods of time by sinking it in the deep ocean.

Potential marine environmental impacts of this approach include:

- Smothering of organisms on the seafloor.
- Acidifying the deep ocean as the biomass is broken down.
- Altering nutrient balances in the deep ocean.
- Other impacts to sensitive deep ocean ecosystems.

Last updated on November 21, 2024
https://www.epa.gov/ocean-dumping/about-mcdr#what

RIVERDALE

Jim Knott Named Manufacturing Champion

Recognized for Distinction and Excellence in Manufacturing

NORTHBRIDGE, MA – Riverdale Mills CEO James M. Knott, Jr. has been named a Manufacturing Champion by the Worcester Business Journal (WBJ). The award honors organizations and individuals who, through the adoption of innovative technologies and bold thinking, have made significant contributions, achieved notable accomplishments, and are redefining manufacturing excellence.

"James Knott, Jr. has been a vital figure in the Central Massachusetts manufacturing industry for decades," said WBJ editor Brad Kane said. "As the industry is on the precipice of another era of turmoil, Riverdale Mills and the region's entire economy will benefit greatly from Jim's thoughtful leadership and advocacy. It's an honor to present him with WBJ's Manufacturing Champion award."

Measured purely by economic output, no industry holds greater significance for the region than manufacturing. Contributing approximately $6.5 billion annually—about 14% of Central Massachusetts' total GDP—manufacturing narrowly surpasses the real estate sector (13.5%) as the region's leading economic driver, according to the U.S. Bureau of Economic Analysis.

"It is an honor to be recognized as a manufacturing leader in Massachusetts," said Jim. "This recognition reflects the hard work of our talented and dedicated employees, as well as the continued support of our loyal customers who inspire us to innovate and excel every day."

JODI HILTON PHOTOGRAPHY

Jim Knott, owner of Riverdale Mills, with spools of welded wire mesh fencing used to make lobster, crab and crayfish pots.

Jim has played a pivotal role in transitioning Riverdale Mills from a small start-up to an internationally recognized powerhouse. With diverse experience spanning finance, operations, and engineering, he has expanded the company's manufacturing capabilities, diversified its product lines, strengthened community engagement, and built a strong, sustainable business model.

Previous awards include the 2020 McArthur Award for Innovation and Best Practices, the National Association of Manufacturers 2019 Manufacturing Leadership Award for Visionary Leadership, the Worcester Business Journal's 2018 "Large Business Leader of the Year" award, and the 2016 Global Trade award from the Associated Industries of Mass. International Business Council (AIM-IBC).

About Riverdale Mills

Founded in 1980 and headquartered in Northbridge, MA, Riverdale revolutionized the lobster fishing industry with the creation of Aquamesh, a first-of-its kind marine-grade welded wire mesh designed specifically to withstand sub-sea conditions. Today, the company manufactures over 3,500 sizes of welded wire mesh for the security, marine, agriculture, and construction industries. Forty-five percent of Riverdale Mills products are exported to industrial and consumer customers around the world.

For more information, visit ***riverdale.com***

CONGRATULATIONS to the Massachusetts Lobstermen's Associations' class of 2025. The recipients in memory of the Robert Wheeler scholarship are given to MLA members' children who are graduating high school and entering their first year of college.

This year's recipients are as follows;

Alexis Amorello from Raynham, MA will be attending Endicott College to further their education.

Elly Thomas from Hull, MA will be attending Flagler College to study Criminal Justice.

Matthew Reardon from Winthrop, MA will be attending the University of Tampa to study Entrepreneurship.

Remus Ferent from Dorchester, MA will be attending the University of Rhode Island to study Marine Biology.

Richard Rade II from Montauk, NY will be attending Suny Maritime to study Maritime Industry.

We are certain that you all will have a fine future in your chosen fields of study and hope that you will keep in touch to let us know how you are doing.

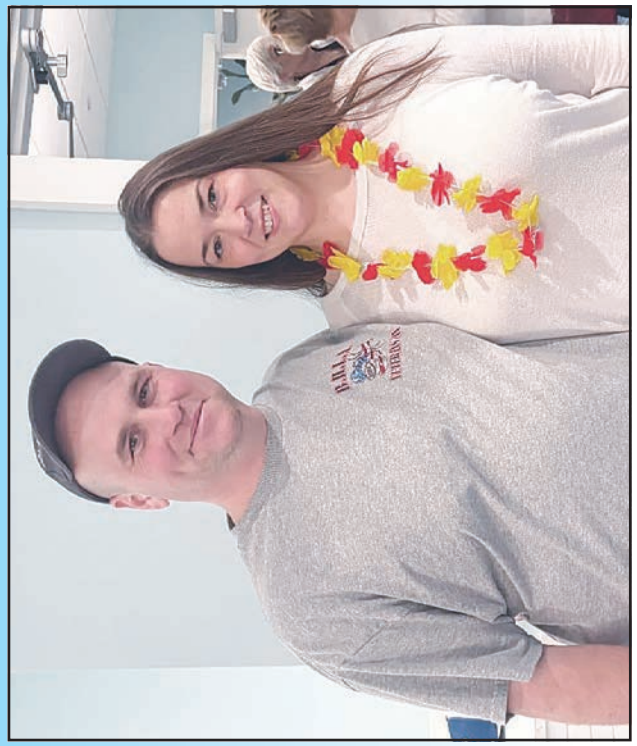
Best of luck to you all, your friends at the Massachusetts Lobstermen's Association.

Annual Weekend & Industry Trade Show 2025

January 30-February 2, 2025

EVEN MORE 2025 EVENT PHOTOS!






Emergency Rule

FROM PAGE 1

BACKGROUND

Development and Implementation of Addendum XXVII

The most recent stock assessment for American lobster dates back to 2020. The assessment concluded that the Gulf of Maine/Georges Bank (GOM/GBK) lobster stock was not overfished and overfishing was not occurring. However, survey and landings trends indicate the GOM/GBK lobster stock population was declining from the preceding period which featured record high abundance and recruitment indices demonstrated the stock was also likely headed towards a period of lower productivity. Declining recruitment is thought to be environmentally driven related to changing seasonal availability of copepods which lobsters feed on during the larval stage.

This raised concerns through northern New England (Maine, New Hampshire, and Massachusetts) about the long-term health of the resource and the fishery, particularly as more than 90% of lobster landings nationally come out of the Gulf of Maine. These concerns were particularly acute in Maine where officials feared the effect of declining landings and revenues across the state's maritime economy given its dependence on this resource. Consequently, there was interest at the ASMFC to get out ahead of expected declines and protect spawning stock biomass to buffer against environmental-driven changes in recruitment and productivity.

This resulted in the development of Addendum XXVII, which addressed management in the three LCMAs that fish on the GOM/GBK lobster stock—LMCA1, LCMA 3 (Offshore), and Outer Cape Cod (OCC) LCMA (Figure 1). This addendum featured two discrete components: (1) an index-based approach to track and respond to declining recruitment and trigger conservation measures designed to further protect spawning stock biomass; and (2) standardization measures to create more consistent rules within LCMA's to be adopted more immediately and irrespective of the trigger index.

To achieve the first feature of the addendum, ASMFC's Technical Committee (TC) for Lobster developed an index by blending data from ventless lobster trap surveys and state bottom trawl surveys as a mechanism to track abundance of recruit-sized (sub-legal) lobsters between stock assessments. This provided the Board with a mechanism to track and react to declining recruitment. This became the so-called "trigger index" whereby certain prescribed gauge size and escape vent mandates would occur gradually over a five-year period should a 35% decline in this index be observed from the 2016 – 2018 baseline.

The addendum also featured three discrete standardization measures. Historically, the management program for the OCCLCMA featured less restrictive maximum size and v-notch rules for state-only permit holders compared to those who also hold a federal permit.

Specifically, the state-only permit holders were not subject to a maximum gauge size and had a v-notch standard of a sharp "v" not to exceed ¼" depth and without setal hairs, whereas federal permit holders were subject to a 6 ¾" maximum size and a v-notch standard of any indentation with a depth not to exceed 1/8" with or without setal hairs. Considering the primary focus of the addendum was to take a precautionary management approach to enhance spawning stockbiomass, standardization focused on adopting the more restrictive 6 ¾" maximum gauge size and 1/8" v-notch rule across all participants (state-only permit holders and federal permit holders) in the OCCLCMA. The last standardization measure in the addendum prevented states (MA & NH) from automatically issuing additional (10%) trap tags to permit holders in LMCA 1 and LCMA 3 above their trap limit or trap allocation to preemptively account for in-season losses. This was intended to constrain permit holders from unlawfully fishing traps in excess of their trap limit or trap allocation and it would also

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Figure 1. Map of Lobster Management Areas Overlayed on Lobster Stock Areas

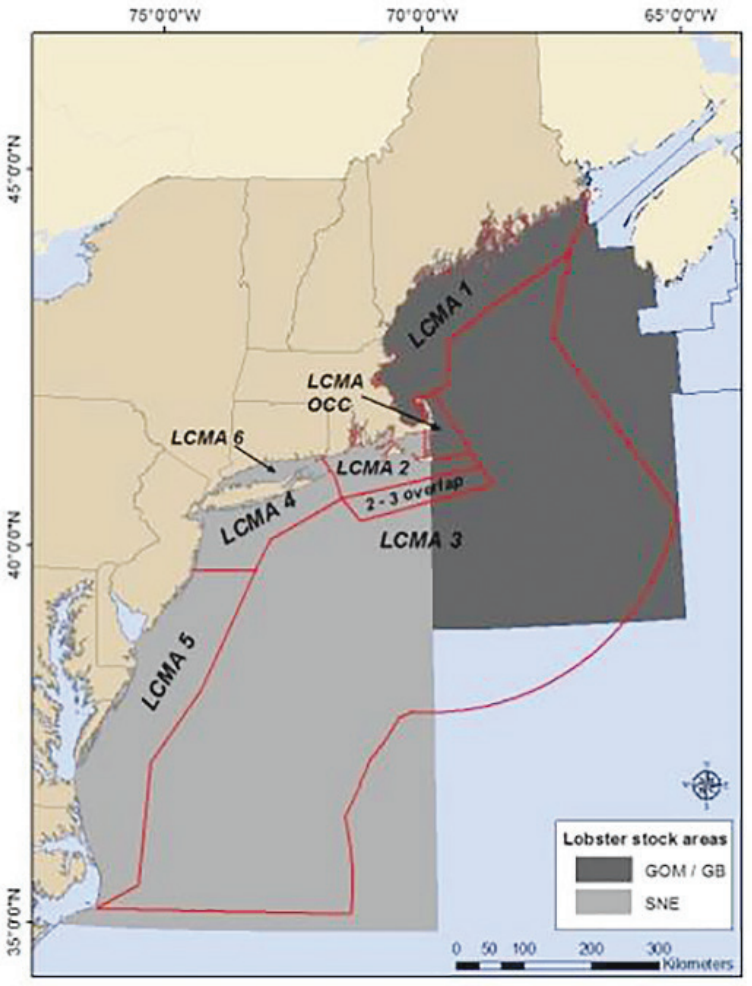

Table 1. Commercial Gauge Size and Escape Vent Rules to Be Rescinded by Addendum XXXII by LCMA

Implementation	LCMA 1	LCMA 3	OCCLCMA
July 1, 2025	~~Minimum gauge size increase from 3 1/4" to 3 5/16"~~ Maintains existing 3 1/4" minimum gauge size.	Maintains existing 6 3/4" maximum gauge size.	~~Establish 6 3/4" standard maximum gauge size for OCCLCMA.~~ Maintains existing 6 3/4" maximum gauge size for OCCLCMA federal permit holders and no maximum gauge size for state-only OCCLCMA.
July 1, 2027	~~Minimum gauge size increase from 3 5/16" to 3 3/8"~~	N/A	N/A
2028	~~Trap escape vent size increase to 2" by 5 3/4" rectangular to 2 5/8" diameter.~~ Maintains escape vent size of 1 15/16" by 5 3/4" rectangular or 2 7/16" diameter	N/A	N/A
2029	N/A	~~Maximum carapace size decrease from 6 3/4" to 6 1/2".~~ Maintains existing 6 3/4" maximum gauge size.	~~Maximum carapace size decrease from 6 3/4" to 6 1/2".~~

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bring the other states in the range into phase with what was already required in Maine.

The Board approved Addendum XXVII in May 2023[4] for implementation by May 2024. The expectation was that the standardization measures would be effective for the implementation date and the trigger-based measures would be on the books to go into effect at some future date should the index decline by 35% compared to the baseline. However, within five months, the TC informed the Board that the index declined by 39% compared to the baseline triggering management changes for 2024.

The unexpected and immediate triggering of management caused a wave of concern across industry and government. There was worry that gauge manufacturers would be unable to timely fabricate new gauges for industry, enforcement, and recreational fishers throughout the range. Additionally, there was interest pursuing the Canadian fishery to adopt complementary measures in the Gulf of Maine[5]. Complementary measures would help resolve legal issues regarding the importation of undersized product from Canada to the United States and address anxieties in Downeast Maine about equity as Canadian and US vessels would be fishing side-by-side in the so-called "grey zone" but subject to disparate conservation standards. Accordingly, the Board voted twice to delay implementation. The first vote was in February 2024 and delayed implementation from May 1, 2024 to January 1, 2025. The second vote was in October 2024 and delayed implementation until July 1, 2025.

In response, I proposed—and the MFAC approved—Massachusetts regulations to implement Addendum XXVII at its October 2024 business meeting. DMF's regulations were filed on December 20, 2024 and codified on January 3, 2025[6]. Throughout the regulatory development and approval process, MFAC members questioned how DMF would act if other states (namely Maine) failed to implement Addendum XXVII. I responded that I would work through the ASMFC process but intended to avoid any scenario whereby Massachusetts' fishers (and by extension seafood dealers and consumers) would end up subject to stricter standards than fishers who fish the same Lobster Conservation Management Area (LCMA). Additionally, I explained that should this occur, tight timelines for implementation would be likely and DMF would likely need to rely on emergency regulations to achieve this goal.

Unraveling of Support for Addendum XXVII

The scenario of noncompliance among our partner states came to fruition on January 9, 2025. Then Maine Commissioner Patrick Keliher announced he was "pulling the rule" to implement Addendum XXVII following two highly contentious public hearings where there was vitriolic outrage from some members of his industry towards Commissioner Keliher and his science and management staff regarding the pending minimum size increases and the perceived associated economic impacts. Video footage from a particularly out-of-control public hearing went viral on social media. Once word spread among the industry, newly elected New Hampshire Governor Kelly Ayotte announced on January 21 that New Hampshire would also go out of compliance with the minimum size increases[7].

The unraveling of Addendum XXVII is a prime example of history repeating itself. Back in the 1980's, there was a federal fishery management plan for lobster overseen by the New England Fishery Management Council and NOAA Fisheries. The federal plan adopted four 1/32" gauge increases scheduled over a five-year period. In the middle year, 1990, when no gauge increases were scheduled, industry groups (led by Maine industry) were successful in having each state legislature in the region block additional minimum size increases through state legislation. In response, NOAA Fisheries and the New England Fishery Management Council recognized lobster management was predominately a state issue and turned over management authority to the ASMFC[8]. The minimum gauge for LCMA1 has remained at 3 ¼" since.

February 2024 Lobster Board Meeting and Addendum XXXII

Soon after Kelliher's announcement, the Board recognized the challenge it faced as the largest lobster producing state in the country was intent on going out-of-compliance with the FMP. Accordingly, at its February 2025 meeting, the Board voted to initiate draft Addendum XXXII to "repeal all gauge and vent size changes in Addendum XXVII." Subsequently, the ASMFC held a virtual public hearing on the addendum on April 10, 2025 and the Board is expected to vote on the addendum at the upcoming May 5 Board meeting.

Table 2. Implementation Schedule for Commercial Fishing Gauge Size, Escape Vent, and V-Notch Rules Adopted in Addendum XXVII by LCMA

Implementation	LCMA 1	LCMA 3	OCCLCMA
July 1, 2025 (Regardless of trigger index)	Limit trap tag issuance to trap allocation with no extra trap tags awarded.	Limit trap tag issuance to trap allocation with no extra trap tags awarded.	Establish 6 3/4" maximum carapace size for state waters OCCLCMA. V-notch standard changes from ¼"sharp v-notch without setal hairs to 1/8" v-notch with or without setal hairs for state waters OCCLCMA
July 1, 2025 (Year 1 following 35% decline in trigger index)	Minimum carapace size increase from 3 1/4" to 3 5/16"	N/A	N/A
July 1, 2026 (Year 2 following 35% decline in trigger index)	N/A	N/A	N/A
July 1, 2027 (Year 3 following 35% decline in trigger index)	Minimum carapace size increase from 3 5/16" to 3 3/8"	N/A	N/A
July 1, 2028 (Year 4 following 35% decline in trigger index)	Trap escape vent size change from 1 15/16" by 5 3/4" rectangular or 2 7/16" diameter to 2" by 5 3/4" rectangular to 2 5/8" diameter.	N/A	N/A
July 1, 2029 (Year 5 following 35% decline in trigger index)	N/A	Maximum carapace size decrease from 6 3/4" to 6 1/2".	Maximum carapace size decrease from 6 3/4" to 6 1/2".

[4] Note that Massachusetts delegation voted against Addendum XXVII due to concerns about the standardization measures affecting the state--only permit holders in OCCLCMAA.
[5] Under Canadian rules, such a management action would have to be brought about by an industry petition because it was not mandatory conservation to respond to a stock assessment finding, which further complicated these negotiations.
[6] See DMF's December 19, 2024 advisory.
[7] Note that Maine and New Hampshire's rule-making processes were at different stages when these determinations were made. Maine was in its public hearing process and could simply not move forward final rules. Whereas New Hampshire had already codified rules and would have to initiate a process to amend and rescind them.
[8] Note that NOAA Fisheries does implement federal regulations for lobster management (often on a delayed schedule). This is done to support the ASMFC's interstate fishery management plan and not on their own volition through the Council process under the Magnuson-Stevens Act. NOAA Fisheries is also a voting member of the ASMFC's Lobster Board.

During the February Board meeting, I expressed my strong disappointment about what transpired—the industry's undermining of most of the conservation benefits developed through a multi-year management plan process at the 11th hour and the chilling effect this would likely have on the ASMFC process. I was especially frustrated because the states of Maine and New Hampshire—whose ASMFC delegations voted for these measures numerous times over the past two years—were the principal parties to this unravelling. While this sentiment was broadly shared among my colleagues at the Board, the draft addendum was supported if only to avoid a non-compliance scenario. For this reason, I fully anticipate the Board will also approve Addendum XXXII in May.

However, the Board also found it necessary and compelling to address the frustrations of its members. Accordingly, a second motion was also approved at the February 2025 meeting. This motion was for the ASMFC leadership to write a strongly worded letter to the states of Maine and New Hampshire, expressing disappointment in the outcome and the harm done to the ASMFC process, and putting those states and their industries on notice that the next round of conservation proposals must emanate from them. I moved this motion forward because, in my view, Maine and New Hampshire "broke it, so they own it". I very much look forward to hearing from my counterparts on how to proceed, particularly following the release of the 2025 stock assessment later this year.

As a state director and long-time fishery manager, I fully understand the challenges associated with managing by consensus. I also recognize these challenges are particularly acute in Maine where there are four very active fishing associations representing lobster fishing interests and state law carves up the coast into seven zones, each with its own Zone Council that provides management advice to Maine DMR. However, given the size of Maine's fishery and its obvious influence on region-wide lobster management initiatives, it is critical and sensible for Maine regulators and industry members to develop mutually acceptable conservation proposals before they are pursued at an interstate level. I believe a lesson was learned in Massachusetts (and New Hampshire) that Maine should provide leadership in lobster management and develop management options that the ASMFC can promulgate without being undermined by Maine interests.

Addendum XXXII and the OCCLCMA

While the focus of this memorandum so far has been primarily on the fallout from Maine's decision to pursue non-compliance, there are also challenges regarding the state-only OCCLCMA fishery that warrant further discussion.

The OCCLMCA is a unique lobster fishery. Permit holders fish on the GOM/GBK stock like neighboring LCMA 1 and LCMA 3. However, unlike LCMA 1, which is principally a recruitment fishery, the size frequency of its lobster catch in the OCCLCMA is large and remarkably similar to LCMA3. This is due to the fact that the area is a migratory corridor for sexually mature lobsters moving seasonally between inshore and offshore grounds, as demonstrated by lobster tagging studies.

It is also a very small fishery in terms of the total number of traps fished and total number of active participants. There are only 67 OCCLCMA lobster trap fishers permitted. Of these, 40 do

not have a federal permit and are "state-only". These participants fish the narrow three-mile band of waters around the eastern shore of the Cape primarily out of Provincetown Harbor and Nauset Inlet. The remaining 27 permit holders have a federal permit and can fish out into the federal zone and are primarily homeported out of the various harbors around Chatham and Harwich.

Beginning around 2000 with Addendum III, lobster management in the OCCLMCA began diverge from management in LCMA 1.

This included going from a 3 ¼" to 3 3/8" minimum gauge size (consistent with LCMA 3 at the time), very restrictive limited entry and individual (permit-specific) trap allocations based on historical performance, a 10% trap tax when allocations and permits are transferred[9], and a two-month wintertime trap closure[10].

Additionally, unlike LCMA 1, OCCLCMA fishers are also <u>not</u> required to v-notch <u>all</u> egg- bearing female, nor are the OCCLCMA permit holder subject to LMCA 1's very restrictive v- notch standard of any v-shaped notch (commonly referred to as "zero-tolerance").

In the past 25 years, ASMFC and NOAA Fisheries have pursued some additional changes to lobster management across the various LCMAs. While much of this effort has focused on the Southern New England stock (affecting LCMA 2 in Massachusetts), there have also been some changes affecting the offshore Gulf of Maine fishery. LCMA 3 permit holders have seen their trap allocations cut by about 25%, their minimum gauge size was increased from 3 3/8 to 3 17/32, and a maximum gauge size of 6 ¾" and 1/8" v-notch standard were adopted. These last two biological measures (size limit and v-notch possession standard) were also applied by NOAA Fisheries in 2010 to the OCCLCMA federal permit holders. However, those federal rules were not extended to the state-only fishery, resulting in the disparate limits within this LCMA that Addendum XXVII sought to resolve through standardization. As a result, the state-only fishers are the only fishers along the US coast that do not have a maximum gauge size and this fishery also has the least restrictive v-notch standard among all commercial fishers.

These management differences have frequently put the state-only OCCLCMA fishery at odds with interests at the Board and their industry peers along the coast. This tension is particularly acute among the state-waters-only OCCLCMA fleet and LCMA 1 fishers, particularly in Maine. Many LCMA 1 fishers have embraced v-notching as the preeminent conservation strategy, and since the early 2000's, have opted to mandate the v-notching of all egg-bearing lobsters and adopt the strictest v-notch possession standard (so-called "zero tolerance"). As such, they view the lax v-notching requirements in the state-only OCCLCMA fishery as undermining their conservation efforts ("they take the lobsters we v-notch"). These frustrations are also frequently aired while not fully

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[9] The 10% tax is no longer applied when a permit is transferred, only when trap allocation is transferred independent of a permit transfer.

[10] This effort control closure has now been subsumed by the February 1 – May 15 Massachusetts Restricted Area trap gear closure to protect right whales which affects all of LCMA 1 in Massachusetts.

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recognizing the small scale of the OCCLCMA fishery and the strict effort controls it functions under. This dynamic was clearly at play at the recent virtual ASMFC public hearing on Addendum XXXII. In response, I intend to develop a brief report on the status and performance of the OCCLCMA fishery which I will share with the Board and the MFAC later this spring.

It is important to put this dynamic into context when dissecting the development of Addendum XXXII. This addendum was drafted to repeal all gauge and vent size changes in Addendum XXVII. This means the other aspects of Addendum XXVII—v-notch standardization in OCCLCMA and trap tag issuance for LCMAs 1 and 3—are maintained and to go into effect as scheduled. Accordingly, while the state-only OCCLCMA fishery will get a reprieve from the maximum gauge size, they will still be subject to the 1/8" v-notch standard beginning on July 1, 2025.

At the February 2025 Board meeting, the Massachusetts delegation made a motion to pursue an option in the draft addendum that would repeal all aspects of Addendum XXVII. Chairman Kane and Representative Armini both argued that excluding the repeal of the v-notch standardization rule inequitably targeted a small number of fishers while giving reprieve to the primary harvest area. This motion was notable because it failed to obtain a second, which in my view, speaks to the above stated tension regarding the v-notch rules for these fishers and the lack of support for maintaining this management approach coastwide. Because the motion did not receive a "second", the management option was not included in the draft addendum. Accordingly, the repeal of the v-notch standardization requirement cannot be included in the final addendum, which was requested by certain state-only OCCLCMA lobster fishers and their representatives at the ASMFC public hearing. Repealing the v-notch standardization rule would require the initiation of an additional addendum.

Throughout both the development of Addendum XXVII and XXXII, representatives from the state-only OCCLCMA fishery (including the Outer Cape Cod Lobstermen's Association), have raised objections to both the conservation and standardization measures proposed for the OCCLCMA. The argument is generally that: (1) they are a small fishery and their impact on the overall stock is negligible; (2) their conservation contributions, particularly their effort control plan, is strict and should be honored given a previous agreement between the Outer Cape Lobstermen's Association, the ASMFC, and DMF; and (3) the economic impact of v-notch standardization (and maximum gauge size standardization) is significant. To this last point, some fishers have argued that the economic impact of v-notch standardization could exceed reach 25% loss in catch. Curiously, we have not heard much comment from the federal permit holders in the OCCLCMA who have been subject to the 1/8" v-notch standard and 6 ¾" maximum gauge size since 2010.

I do not intend to editorialize much on the arguments made by the state-only interests, as the Outer Cape Cod Lobstermen's Association and their attorney have made it known that they are considering pursuing legal action against DMF and the ASMFC over Addendum XXXII. However, I will reiterate several things that I have previously stated in public forums.

I understand the frustrations expressed by the state-waters only OCCLCMA fleet regarding Addendum XXXII and recognize that they operate at a fraction of the scale of the other LCMAs that fish on the GOM/GBK stock. However, the purpose of the v-notch rule is standardization within the LCMA, and the v-notch standardization measure (as well as the maximum gauge size measure for which they will get reprieved) were scheduled to go into effect for 2025 irrespective of the trigger-index-based conservation measures. As justified in the Statement of the Problem in Addendum XXVII, "increasing consistency across management areas may help to address some assessment and enforcement challenges, as well as concerns regarding the shipment and sale of lobsters across state lines." I support the logic set forth in this justification and have long been concerned that disparate rules within the LCMA challenge the enforcement of conservation standards in the federal OCCLCMA fishery, across Massachusetts and elsewhere. For this reason, I have favored the v-notch and gauge size standardization pursued by Addendum XXVII, as I believe it reasonably balances enforcement and compliance issues against the unique nature of the OCCLCMA fishery. This position is also informed by the fact that I think the economic impacts expressed by the state-only OCCLMCA fishery are significantly exaggerated for effect. DMF has sampled this fishery (both state-only and federal permit holders) since 1981, and sampling intensity has been ramped up over the past decade. The data we have collected demonstrate that only 2.2% of the catch by weight includes lobsters that would be otherwise legal (e.g., not egg-bearing) but have a v-notch between the ¼" and the 1/8" standard. This is an order of magnitude lower than estimates provided by industry.

FINAL THOUGHTS

I have stated previously that I intend to honor the ASMFC process and ensure Massachusetts fishers are not subject to stricter standards than fishers who fish the same LCMA but under rules enacted by another jurisdiction. I am resolute in the maintenance of this position, and this is evidenced by my intention to pursue emergency action to immediately implement Addendum XXXII. Given my respect for the ASMFC process, I also have no intention to pursue non- compliance (like Maine and New Hampshire threatened) so the state-waters-only OCCLCMA fishers can maintain a ¼" v-notch standard.

Table 3. Implementation Schedule for Recreational Fishing Rules by Management Area to Complement Addendum XXVII

Implementation	Gulf of Maine Management Area	Outer Cape Management Area
May 15, 2025	Minimum carapace size increase from 3 1/4" to 3 5/16"	Establish 6 3/4" maximum carapace size*
May 15, 2027	Minimum carapace size increase from 3 5/16" to 3 1/4"	N/A
May 1, 2028	Trap escape vent size change from 1 15/16" by 5 3/4" rectangular or 2 7/16" diameter to 2" by 5 3/4" rectangular to 2 5/8" diameter.	N/A
May 1, 2029	N/A	Maximum carapace size decrease from 6 3/4" to 6 1/2".
* Recreational v-notch rule is standardized across state at 1/8" indentation with or without setal hairs.		

Table 4. Anticipated 2025 Gauge Size, Escape Vent, and V-Notch Rules for Recreational Lobster Fishery by Management Area

Management Area	Minimum Gauge	Maximum Gauge	Escape Vent	V-Notch Standard
Gulf of Maine	3 1/4"	5"	A rectangular vent measuring at least 1 15/16" by 5 3/4" or two circular escape vents that measure at least 2 7/16" diameter.	1/8" indentation with or without setal hairs.
Outer Cape Cod	3 3/8"	N/A	A rectangular vent measuring at least 2" by 5 3/4" or two circular escape vents that measure at least 2 5/8" diameter.	1/8" indentation with or without setal hairs.
Southern New England	3 3/8"	5 1/4"	A rectangular vent measuring at least 2" by 5 3/4" or two circular escape vents that measure at least 2 5/8" diameter.	1/8" indentation with or without setal hairs.

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IODP³-NSF Expedition 501: New England Shelf Hydrogeology Project Summary

EXPEDITION LOCATION AND TIMING

This expedition seeks to core the sub-seafloor at 3 sites on the New England Shelf, approximately 20, 27 and 43 miles south and southwest of Nantucket Island (Figure 1, Table 1). Two boreholes spaced approximately 50m apart would be cored at each of the three sites, up to 550 metres below seafloor, with 6 boreholes in total. The expedition would start on approximately 1 May 2025, would continue for approximately 90-100 days, and would end before 8 August.

EXPEDITION OBJECTIVES

This expedition aims to recover cores of sediment and groundwater samples from the sub- seafloor offshore New England. These cores and groundwater samples would provide data for understanding the geological evolution of the shelf, and the processes driving the emplacement of freshwater reservoirs offshore New England and elsewhere globally. This would offer a better understanding of biogeochemical and elemental cycling in this worldwide hydrogeological phenomenon, essential for the protection and sustainable management of offshore freshwater systems.

EQUIPMENT AND METHODS

During the proposed 3-month effort, we would use the liftboat *L/B Robert*[1] (Seacor, Houston) carrying a Boart Longyear LF160 Drill Rig[2] to core into the seafloor to collect sediment and water samples. The drilling contractor is Matrix Offshore Services, Tennessee. The *L/B Robert* would temporarily stand on the seabed at each of the 6 boreholes in turn, for up to 25 days (cored borehole for sediment samples), or up to 12 days (drilled borehole for groundwater samples). At two boreholes, a passive Simple Cabled Instrument for Measuring Parameters In Situ (SCIMPI) would be deployed in the borehole, and left behind for long term monitoring of groundwater pressure, temperature and resistivity. The SCIMPI would have a buoyant control module on a 2-4 m cabled 'tail' on the seabed, to allow data download by remotely operated vehicle in future.

INSTITUTES AND AGENCIES INVOLVED

This multi-national scientific drilling project is International Ocean Drilling Programme[3] Expedition 501: New England Shelf Hydrogeology, which would be implemented by the European Consortium for Ocean Research Drilling[4]. The expedition is publicly co-funded by the US National Science Foundation and the research agencies of ECORD member governments (14 European countries & Canada).

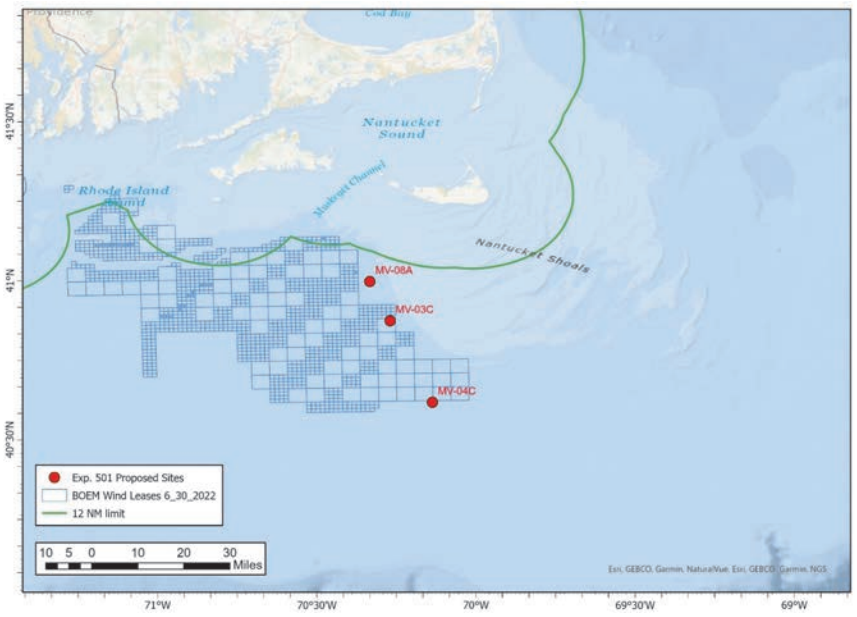

Figure 1. Overview location map of the Expedition 501 sites.

The British Geological Survey (BGS), leads the ECORD Science Operator collaboration, and is responsible for coordinating, managing and contracting for the expedition.

The Science Team includes 37 scientists representing 13 countries.

FREQUENTLY ASKED QUESTIONS

Under what regulations will this research be done?

The ECORD Science Operator, led by the British Geological Survey, is working with the US National Science Foundation (NSF), the US Department of State and the US Army Corps of Engineers (USACE) to ensure that all permissions are obtained before work commences.

As part of the permitting process, relevant stakeholders and interested parties were consulted (e.g., National Ocean Atmospheric Administration [NOAA], National Marine Fisheries Service [NMFS], Bureau of Ocean Energy Management [BOEM], Environmental Protection Agency [EPA], Department of Energy [DOE], Coastal Zone Management Offices, and Tribal Historic Preservation Officers). These interactions have raised awareness of the project and the proposed operations, and should ensure that all regulations are met and that best practices for environmental stewardship are followed.

Through the involvement of a federal agency in the project (NSF), a Draft Environmental Assessment was produced and is available online at the NSF Environmental Compliance website at ***https://www.nsf.gov/funding/environmental-compliance***. Please scroll down to New England Shelf hydrogeology study, NW Atlantic, 2025. The Draft Environmental Assessment addresses the project's potential impacts, and the measures we will put in place to mitigate and remove those impacts.

Do these aquifers contain water that could be used as a source of drinking or irrigation water?

We are not evaluating if or how this fresh-to-freshened water could be used. Our goal is to characterize the salinity of the water in this offshore aquifer system. We anticipate sampling water that may have near-zero salinity as well as water that will have salinity similar to the ocean. In addition to directly measuring the salinity, we would establish the distribution of water with differing salinity and evaluate how that distribution was created through natural processes including sea-level change and glaciation, and how it is responding to modern sea-level change.

Is there a risk of contaminating the aquifers?

There would be minimal impact to the offshore freshened groundwater system. Our boreholes would be 5.5 inches in diameter and would only be open during drilling. Once drilling is complete, the boreholes would naturally collapse, which would seal the subsurface aquifers from the seawater above.

Site	Lat	Long	Water Depth (m)	Seabed Penetration (mbsf)	Borehole	Work plan
MV-08A	40.9976	-70.3334	41	550	A	Core borehole for sediment sampling
					B	Drill borehole for groundwater sampling
MV-03C	40.8746	-70.2697	42	550	A	Core borehole for sediment sampling
					B	Drill borehole for groundwater sampling
MV-04C	40.6185	-70.137	52	550	A	Core borehole for sediment sampling
					B	Drill borehole for groundwater sampling

Table 1. Expedition 501 proposed site coordinates.

[1] *https://seacormarine.com/vessel/l-b-robert-335-class/*
[2] *https://boartlongyear.canto.com/direct/document/tsl8d10h4l4if9i134vq02163g/alut5RSdGutRwL8 zoWfmo8zFSKE/original?content-type=application%2Fpdf&name=LF160_DataSheet_Mar_2017_V4.pdf*
[3] IODP³, *https://iodp3.org/* [4] ECORD, *https://www.ecord.org/*

Will the drilling vessel be visible from shore?

Our three drill sites are approximately 20, 27 and 43 miles south and southwest of Nantucket Island. In general, a person can see approximately 2.8 miles (2.4 nautical miles) offshore, and an object elevated 66 feet above sea-level can be seen from approximately

9.9 miles (8.6 nautical miles), so operations are unlikely to be visible by a person standing on the shoreline. To see the liftboat from shore, a person would need to be standing 160 feet above sea level.

Is this project related to exploration for oil and gas?

Our research has no relation to oil and gas exploration, and safety evaluations of our drilling locations show no indication of oil or gas in the region. By intent, scientific ocean drilling avoids locations where oil and gas could be encountered.

Is this work related to wind farm activity?

Aside from geographic proximity and the use of specialized marine vessels for our drilling operations, this research has no relation to wind farm activity. Once we have completed our research there would be no visible evidence of our operations.

How will the expedition data be made available?

All data collected by the expedition will be freely available on the IODP[3] website ***https://iodp3.org/*** to anyone worldwide from early 2027.

Some initial results may be announced at the end of the offshore operation, but only a very small proportion of the analyses necessary would be possible at sea. The detailed scientific description would be carried out by the Science Team at a core analysis workshop that would be held in Bremen, Germany in early 2026. Here, the Science Team would undertake a detailed description of the cores and their properties.

After this Onshore Operation, the Science Team would have another 12 months to conduct in-depth research on the samples. This detailed scientific work would be published in scientific journals in the years after the expedition.

What are the origins of this project?

In the 1970's, the US Geological Survey conducted the Atlantic Margin Coring (AMCOR) Project[5] to understand the geological system of the US Atlantic Margin from Florida to New Hampshire. This included characterization of sediments, fluids in the sediments, and mineral resources along the margin. One surprising discovery

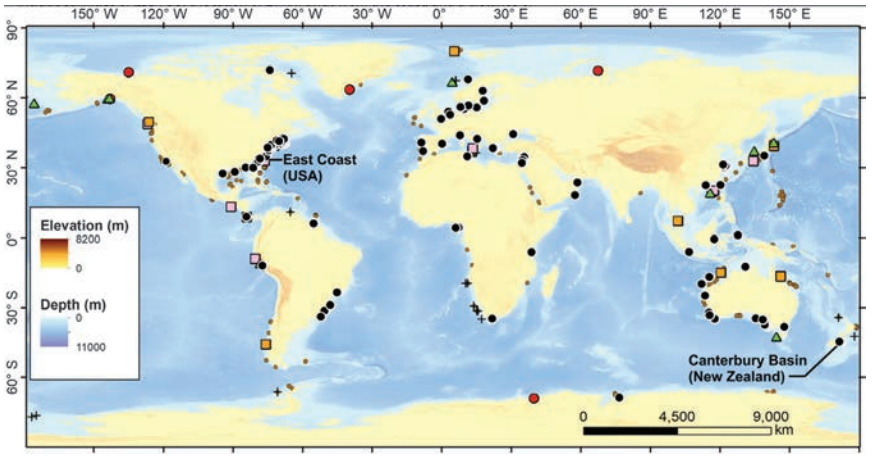

Figure 2: Locations of interpreted offshore freshened groundwater (symbols) around the world (image from Micallef et al., 2021).

was the presence of freshened/slightly saline water in seafloor sediments. Since this initial, anecdotal discovery, other studies have found similar phenomena around the globe (see Figure 2). To date, however, no dedicated, hydrogeological study of an offshore freshened groundwater system has been completed. This project will be the first dedicated study linking those early discoveries to the processes that created the freshened water. This will help us better understand the formation, evolution, and longevity of such systems globally.

How can I learn about the detailed science of this project?

General Readings and News Pieces

- East Coast has a giant offshore freshwater aquifer – how did it get there? By Hannah Richter https://arstechnica.com/science/2024/05/what-put-huge-quantities-of- freshwater-under-the-seabed/
- Off Martha's Vineyard, a mysterious pool of freshwater beneath the sea floor by Eve Zuckoff https://www.capeandislands.org/local-news/2023-06-02/off-marthas-vineyard-a-mysterious-pool-of-freshwater-beneath-the-sea-floor
- Found: Giant Freshwater Deposits Hiding under the Sea by Rob L. Evans https://www.scientificamerican.com/article/found-giant-freshwater-deposits-hiding- under-the-sea/
- A massive freshwater reservoir at the bottom of the ocean could solve Cape Town's drought – but it's going untapped by Evan Lubofsky https://www.theverge.com/2018/2/15/17012678/cape-town-drought-water-solution
- Fresh Water below the Seafloor? By Evan Lubofsky https://www.marinetechnologynews.com/news/fresh-water-below-seafloor-548449
- Tapping the Freshwater Ocean Under the Sea by Evan Lubofsky https://hakaimagazine.com/news/tapping-freshwater-ocean-under-sea/

Podcasts

- Unconventional Freshwater Resources on Longitude Sound Bytes with Emory Mckenzie https://longitude.site/unconventional-freshwater-resources/
- Under the Sea: Hidden Freshwater Reserves on What About Water? With Jay Famiglietti https://podcasts.apple.com/us/podcast/under-the-sea-hidden-freshwater-reserves-with/id1485919205?i=1000583909840
- There's Water Under the Water on This Week in Water on H2O Radio https://exchange.prx.org/pieces/195913?m=false

Scientific Publications

- Micallef, A., Person, M., Berndt, C., Bertoni, C., Cohen, D., Dugan, B., Evans, R., Haroon, A., Hensen, C., Jegen, M., Key, K., Kooi, H., Liebetrau, V., Lofi, J., Mailloux, B.J., Martin-Nagel, R., Michael, H.A., Müller, T., Schmidt, M., Schwalenberg, K., Trembath-Reichert, E., Weymer, B., Zhang, Y., Thomas, A.T., 2021, Offshore freshened groundwater in continental margins, Reviews of Geophysics, 58, e2020RG000706, https://doi.org/10.1029/2020RG000706
- Gustafson, C., Key, K., Evans, R.L., 2019, Aquifer systems extending far offshore on the U.S. Atlantic margin. Scientific Reports, 9(1), 8709, https://doi.org/10.1038/s41598- 019-44611-7
- Siegel, J., Person, M., Dugan, B., Cohen, D., Lizarralde, D., Gable, C., 2014, Influence of Late Pleistocene Glaciations on the Hydrogeology of the Continental Shelf Offshore Massachusetts, USA, Geochemistry, Geophysics, Geosystems, 15, https://doi.org/10.1002/2014GC005569
- Siegel, J., Dugan, B., Lizarralde, D., Person, M., *DeFoor, W., *Miller, N., 2012, Geophysical evidence of a late Pleistocene glaciation and paleo-ice stream on the Atlantic Continental Shelf, offshore Massachusetts, USA, Marine Geology, 303-306, 63- 74, https://doi.org/10.1016/j.margeo.2012.01.007

HOW TO FOLLOW THE EXPEDITION AND MAIN CONTACTS

Regular updates will be provided on the expedition website at ***www.ecord.org*** and our blogsite ***https://expedition501.wordpress.com/***

Additionally, updates and information will be regularly posted on:

YouTube – ***https://www.youtube.com/@ECORDESO***
Instagram – ***@ecord_iodp***
Bluesky - ***@ecord.bsky.social***

A daily report will be distributed from the ship. To sign up for this please visit ***https://www.jiscmail.ac.uk/cgi-bin/webadmin?SUBED1= ECORDSO&A=1***
The list should be auto-selected as "ECORDSO Public Announcement list for the ECORD Science Operator", but please check first along with the other sign-up options.

Our science and operations teams would be happy to offer video calls directly with staff on the vessel for educational or informational purposes. Please contact our Outreach and Public Engagement officer (details below) to arrange this.

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[5] *https://www.usgs.gov/publications/data-file-1976-atlantic-margin-coring-amcor-project-us- geological-survey*

Reminder on Buoy Line Marking, Configuration and Compliance Assistance for Commercial Lobster, Fish Pot, and Conch Pot Fishers

With trap fisheries beginning to open up throughout the state, this advisor serves as a reminder to commercial fishers about the various buoy line configuration and marking rules for trap/pot gear. These rules apply to all commercial lobster/crab trap gear, fish pots, and conch pots. Their purpose is to reduce the risk of potential entanglements with whales and make our gear uniquely identifiable should an entanglement occur.

BUOY LINE CONFIGURATION

All commercial trap/pot gear set in Massachusetts waters must be rigged with a buoy line that does not exceed 3/8" diameter and with a tensile strength of 1,700 pounds or less. This should allow the buoy line to part if a whale encounters it. There are several common ways to comply with this requirement. First, you can use approved fully formed weak rope and there are several varieties of this rope that are available for general distribution. Alternatively, in the top 75% of your buoy line you can insert an approved 1,700 lb weak contrivance once every 60' feet.

Approved weak contrivances include three-foot inserts of weak rope spliced into the buoy line; inline plastic breakaways; and three-foot long sections of the "South Shore" sleeve. To maximize the utility of these contrivances, DMF advises you do not place them in the top 12' of the buoy line ("surface system") adjacent to the buoy but rather below the surface system in the so-called body of the buoy line. Please note that 600-pound weak link at the buoy is no longer required but may still be used.

BUOY LINE MARKING

All commercial trap/pot gear set in Massachusetts waters must also be marked with at least five red marks. **If you are fishing with a buoy line that is red or candy cane colored (red and white), then all the marks must be white.** A three-foot solid mark must be present in the surface system. Solid marks are typically composed of materials such as tape, paint, or heat shrink tubing; non- solid marking materials such as twine or zip ties are not compliant in the surface system. In the body of the buoy line below, at least four additional two-foot red marks are required with two marks in the top 50%, two marks in the bottom 50% and no more than 60 feet between red marks. These marks in the body of the buoy line may be solid (e.g., paint, tape, heat shrink tube) or non-solid (e.g., twine, zip ties). Additionally, if you are using South Shore Sleeves with a red tracer or three-foot lengths of red or candy cane weak as your weak contrivances in the body of the buoy line, these contrivances can also double as a red mark.

In recent years, rope manufacturers have developed fully-formed weak rope with Tyvek tracers woven throughout the line. The use of weak rope with the "MASS LOBSTER" tracer is authorized to comply with both the 1,700-pound buoy line breaking strength requirement and the non-solid marking requirements for the body of the buoy line. However, a solid (e.g., paint, tape, heat shrink tube) three-foot surface mark in the surface system is still required. **If you are fishing with a rope that is red or candy cane color, then this solid mark must be white, for all other rope this mark should be red.**

The purpose of the solid-colored surface system marking requirement is to make the source of the gear potentially identifiable from aerial platforms, whereas the non-solid marking requirement in the body of the buoy line can help identify the source of the gear when examined after disentanglement and gear collection.

DMF recognizes that our February 2025 advisory on this subject contained some incorrect information regarding surface system marking requirements. We have subsequently further consulted with NOAA Fisheries to resolve these issues and are issuing this advisory to replace and correct the prior document. We apologize for the inconvenience or confusion this may have caused. DMF is dedicated to working with industry to assist in compliance.

BUOY LINE CONFIGURATION AND MARKING IN FEDERAL WATERS

Please note that there are different buoy line configuration and marking requirements for Massachusetts' trap/pot fishers fishing in federal waters. Lobster and Jonah crab trap fishers should consult NOAA Fisheries' Massachusetts Summary Guide for complete rules. Similarly, conch pot and fish pot fishers fishing in the federal zone should consult NOAA' Fisheries Northeast Trap Pot Fisheries Guide for federal rules governing Other Trap Pot Fishers in the Northern Nearshore Trap/Pot Waters (see pages 30-35).

COMPLIANCE ASSISTANCE

DMF is working to provide fishermen with complaint weak contrivance, weak rope, and buoy line marking materials free of charge. These materials are routinely available at both field stations in Gloucester and New Bedford. Please reach out to protected species gear specialist, David Chosid (***david.chosid@mass.gov***; 857-393-4026) to coordinate.

Additionally, the Massachusetts Lobstermen's Association (MLA), in coordination with DMF, is hosting a "Gear Distribution Day" on April 29 from 10AM to 2PM at their office located at 8 Otis Place, Scituate, MA. If the April 29 event is rained out, then the event will occur at the same time and place on April 30. Please contact MLA at 781-545-6984 for more information about this event.

Please visit our website at ***www.mass.gov/marinefisheries***

Legal Defense Fund Updates

The Massachusetts Lobstermen's Association (MLA) Legal Defense Fund (LDF) needs your support now more than ever. This dedicated fund is for the purpose of defending the Massachusetts commercial lobster fishermen from legal and fisheries management actions that could seriously impact our commercial lobstermen's ability to conduct their businesses and earn a living.

Currently, the MLA is actively engaged in lawsuits that could have negative impacts on the commercial lobster industry and is working with our lawyers in the Commonwealth and in Minnesota to fight for you and your industry.

UPDATE 4/28/2025 (District of Massachusetts / First Circuit Case) Case No. 1:24-cv-10332-WGY; MLA v. NMFS et al / First Circuit Case Nos. 24-1480 & 24-1481

In our last issue, we explained that the First Circuit had reversed our victory in the District of Massachusetts, ruling that NMFS was allowed to close the Wedge despite the fact that the Wedge Closure came after the Consolidated Appropriations Act, 2023's prohibition on further regulation. The case will now return to the District of Massachusetts after the MLA decided not to pursue a United States Supreme court Appeal.

That decision was issued on January 30, 2025. The mandate issued on March 25, 2025, putting the First Circuit's decision into effect. That means that, as of March 25, 2025, the Wedge was officially closed again for the season.

This means that the case now returns to Judge Young at the District of Massachusetts. MLA has four remaining grounds to challenge the Wedge Closure and intends to pursue those before Judge Young. The four remaining grounds are (1) NMFS's reliance on the same fraudulent science struck down by the D.C. Circuit; (2) failure to consider the real economic consequences of the regulations; (3) failure to conduct an economic impact statement; and (4) violation of the Non-Delegation doctrine, i.e., the idea that Congress did not give NMFS to power to close the Wedge in the legislation allowing regulation of the fisheries.

MLA also retains the option to pursue another preliminary injunction and is considering whether to do so.

Further, MLA leaders have met with Trump Administration officials to discuss the onerous regulatory burden imposed on it by NMFS over the decades. We are optimistic that positive developments will come from these conversations.

The commercial lobstermen's businesses are at stake as well as the thousands of jobs and shore side businesses that depend upon the continued success of the commercial lobster industry. The commercial lobstermen in Massachusetts are NOT to the problem and have done everything asked of them by National Marine Fisheries Service and have been working under the strictest conservation rules for the right whales anywhere in the world since 2014. Yet here we are, still fighting these lawsuits to keep the Massachusetts commercial lobstermen fishing.

The Massachusetts Lobstermen's Association has been actively involved in these lawsuits since 2018 and we need your generous support today to continue our fight to keep the commercial lobstermen fishing. As we all know, any legal action costs lots of money and over the last 5 years the Massachusetts Lobstermen's Association Legal Defense Fund has spent over $300,000 fighting these legal battles. These are real threats to the historic and iconic commercial lobster industry, and we are doing everything to keep Massachusetts commercial lobstermen fishing.

WHERE TO MAKE DONATIONS

Any contribution to the Legal Defense Fund is greatly appreciated.

Donate by mail:

MLA LDF
8 Otis Place
Scituate, MA 02066

Donate online:
lobstermen.com
Under Members, select Dues/Donate.

DONATE TODAY!
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APR 2025 SUPPORTERS
Eric Lorentzen
David Cataldo
Edward Desrosier
Therese Saugaveau

MLA Classifieds

Classified ads are a free benefit to MLA Members and Non-members are a flat $25.00. Ads run for 5 months & will be automatically deleted unless you call the MLA office to renew.
781-545-6984 or email ads to: **tracey.abboud@lobstermen.com**
**All ads are subject to review prior to placement*

Beware of SCAM calls. We are unable to filter calls. Please be cautious.

AD#1 (3/25) **FOR SALE** – Conch Pot Endorsement $35,000.00 or $40,000.00 w/ conch gear. Scup Pot Endorsement $10,000.00, all permits are transferable, paperwork in hand. Call 508-274-9383

AD#2 (4/25) **FOR SALE** – Hydraulic Components, parts, and service. Pumps, Motors, Valves and Accessories. Hydraulic Hoses are made while you wait. Great Prices–Same day service (in many cases)-Wide selection of in-stock items. Rebuilt items are occasionally available. ROSE MARINE, Gloucester, MA 877-283-3334

AD#3 (11/24) **FOR SALE** – 250+ lobster traps included buoys & line & 3'ft.$20.00-4ft.$35.00, located in Humarock. 6-boat stands $75.00 each. 978-815-1734

AD#4 (4/25) **FOR SALE** – Turnkey Outer Cape Lobster Business: 1981 31' BHM Volvo 63P–370 HP, 2 1/2:1Twin Disc, spare wheels, many spare engine parts. OC State permit w/270 tags+ 10%, many endorsements, 400+ traps, ground lines, end lines, flags, Go-Deeps, 200 totes, lids, + trap building tools & equipment. The boat is also set up for Dogfish & Mackerel w/all gear, 8×16 trap trailer, 5'x7'walk in bait cooler, 6000# mooring in Chatham Harbor, fiberglass skiff with 10HP Suzuki 4 stroke & trailer. $200k or BRO Steve 978-257-1062

AD#5 (4/25) **FOR SALE** – 1980 Bob Rich 40 wooden lobster boat. 471 Detroit diesel, twin disc gear, hydro-slave pot hauler w/diverter valve for other fisheries. Two 75-gal fuel tanks (fiberglass) under deck, full cabin, GPS, Furuno depth sounder, VHF radio, MA coastal Area 1 lobster permit, 800 traps. Federal Area 1 lobster permit with endorsements (ground-fish/dogfish) 800 pot limit. 140 wire lobster traps, some never used (brand new) 60-70 buoys, extra ropes, safety equipment, sea anchor, 12' fiberglass skiff misc.; lobster related equipment, spare propeller (never used) trap related repair equipment. $65,000. firm. Bill 781-834-7418

AD#6 (10/24) **FOR SALE** – 33 ft. lobster boat 1987 Novi/Scott 150 Ford engine. 600 traps N.H. lobster license 100+ traps, dingy, trap trailer, ropes & buoys. The boat has been out of the water for 3 years. Also, a mooring at Pierce Island. $54,900.00 Douglas 603-566-3654

AD#7 (12/24) **FOR SALE** – Airsep- air-cleaner 5" $100.00 Joel 781-581-0324 or email joel.w.marie@gmail.com

AD#8 (12/24) **FOR SALE** – 5" Superior hauling block-Aluminum construction with stainless sheave $250. Joel 781-581-0324 or email joel.w.marie@gmail.com

AD#9 (12/24) **FOR SALE** – Spare new stainless sheave for 5" Superior block-$150. Joel 781-581-0324 or E-mail joel.w.marie@gmail.com

AD#10 (3/25) **FOR SALE** – 28.2ft boat, built 1976, engine cat 3208, 265HP trans 2.1 twin disk fiberglass JC hull. Area 1 Coastal lobster permit, 800 traps, 700 3ft lobster traps with rope & buoys. Joe 978-239-5927.

AD#11 (4/25) **FOR SALE** – OCLMA permit for 645 tags. Serious inquiries only call 774-313-6287 or email joneSeven@aol.com

AD#13 (3/25) **FOR SALE** – 150 totes-$4.00 each. All in great condition. 508-951-6400

AD#14 (3/25) **FREE** – two large, heavy duty, plastic fuel tanks. Removed in working order from two boats that I rebuilt & put larger aluminum tanks into. 13.5" high x 26" wide x 47.5" long had gas in it & 22" high x 12.5" wide x 45.5" long had diesel in it. Located in Gloucester. Call/text 978-290-0905

AD#15 (4/25) **FOR SALE** – Traps – 50 3ft yellow shrimp mesh brand new, ergos, composite runners skid plate, all corners reinforced, stainless bait spike, seal proof door latches, 4 corner bumpers & plastic edging all around extra clips built to last $120 each. 50 -3' shrimp. 978-774-4074

AD#16 (4/25) **FOR SALE** – 2021 Eaton Boat Shop 25' custom built with Calvin Beal hull & new trailer. 200 Yamaha, flyby wire, under 55 hours -V berth, electric head, rubber deck, solar pad, full electronics boat launched May 2022 - Preston Anderson 603-235-5397 or e-mail di42na@gmail.com

AD#17 (4/25) **FOR SALE** – 500 36 – traps, rope, buoys, highflyers, grapple, bait bags. All equipment pertaining to lobstering. If interested, Kevin 508-951-6400

AD#18 (4/25) **FOR SALE** – Area 1 Commercial Lobster Permit-800 trap allocation-$20,000-Text Mike 781-854-6522 /call 781-665-5318 please no calls @ 6:00 p.m.

AD#19 (2/25) **FOR SALE** – lobster/fishing bait. Pogies gillnetted/cast netted. Lightly iced & salted. 60¢ per lb. Free local delivery in CT. Call/text Kory 203-824-8247

AD#20 (4/25) **FOR SALE** – 150 conch trawl wire pots. $40.00 each. Call 508-889-9180

AD#21 (12/24) **FOR SALE** – Lobster Permit Area 2- 420 trap allocation. $30k. Call 631-903-2063

AD#22 (4/25) **ATLANTIC TRAP**. Lobster - Crab - Eel - Conch - Scup - Sea Bass - Oyster Trays - Trap Kits - Heads - Trap & Fishing Supplies. Text / Call Ryan 508.762.2880

AD#23 (2/25) **FOR SALE** – Area 1-Federal Lobster Permit w/ 800 trap limit for sale $23,000. Text or call Ed 781-534-3794 before 7PM.

AD#24 (2/25) **FOR SALE** – 40 Danny Cement Conch Pots-rigged & ready $30 each or B.O. 508-367-0757

AD#25 (4/25) **FOR SALE** – 600-4ft Brooks/Friendship Aquamesh traps $100 each. 158 -never used 4ft traps Aquamesh $140 each includes new poly bridles. 40 barrels of 7/16 trap ground-lines w/ end-lines half of them Everson $250 a barrel. 100-Go deep 20m plastic buoys $8.00 each. 21-boxes 3ft Neptune plastic buoy sticks. $5.00 for each buoy stick. $4.50 for each buoy stick if you buy a whole box of 50. 30 ft Aluminum pulpit $4,000. 18 ft Aluminum 2 person flying bridge $4,000 Call 401-782-5118

AD#26 (2/25) **FOR SALE** – 1 pair of 14" SS pot hauler chives. $300.00 401-842-8165

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