By Melissa Waterman

The lobster fishery is integrated into the fabric of the Maine coast, giving its small towns and harbors a firm economic and cultural foundation. This wasn’t always true. Once Maine fishermen moved among fisheries based on the season of the year: lobster in the summer and fall, scallops and shrimp in the winter, halibut in the spring, clam digging year-round. But those options have shrunk and, in some cases such as northern shrimp, vanished entirely. The coast of Maine is in a “gilded trap,” as lobster biologist Robert Steneck wrote in 2011, largely dependent on one lucrative species, the American lobster.

Many factors suggest that the fishery will not be the same ten years from now. Conditions in the Gulf of Maine are changing with rising surface and deep water temperatures which influence the behavior and success of the lobster population. The most pressing threat comes from federal regulations designed to protect endangered North Atlantic right whales, whose numbers have diminished sharply in recent years. The National Marine Fisheries Service (NMFS) regulations, known as the ten-year whale plan, require Maine lobstermen to reduce the risk of gear entanglement to the whales by 98% by 2030.

How important is the lobster fishery to the Maine coast? What will be the economic impact of a reduction in the harvest due to regulations or to a changing Gulf of Maine? We begin this three-part series with a look at Downeast Maine and Stonington.

It’s a long drive on Route 15 until you see St. Mary’s Catholic church and the ocean beyond it. Clapboard houses lead to Main Street, Boyce’s Motel, the Harbor Café, a real estate office, and the Stonington Opera House. Behind the street, to the east, is the true heart of Stonington — a fleet of lobster boats at their moorings on a cold November afternoon.

Perhaps no community in Maine is as indebted to the lobster as the town of Stonington. Stonington is Maine’s number one port by value, and that value comes from lobster.

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WORKING WATERFRONT ACCESS UNDER ASSAULT

By Melissa Waterman

Having access to the water is fundamental to fishermen. You can’t make a living from the sea if you can’t get to it. Maine currently is suffering from an increasing erosion of that access which imperils the state’s lucrative fishing industries and the character of the state, according to a 2021 report commissioned by the Island Institute.

The Critical Nature of Maine’s Working Waterfronts and Access to the Shore notes that, “Any way you measure, whether raw economic data, heritage and history or community, Maine’s working waterfront and our ability to earn a living on the water is integral to who we are, and who we should be.”

The report highlights the many factors that are eating away at access to the water, chief among them the rapid rise in real estate prices. Waterfront properties have always been highly valued but the influx of new buyers from out of state precipitated by the 2020 coronavirus outbreak has resulted in a painfully sharp increase in price along the coast.

Continued on page 5
Maine lobstermen are entering the new year carrying a host of troubling issues with them. While the 2021 fishing season was a strong one according to many lobstermen, with high prices and robust landings, actions by federal agencies and environmental organizations threaten to fundamentally alter Maine’s lobster fishery.

Landing begins a three-part series this month that examines the integral role lobstering plays in the culture and economy of the Downeast. We turn first to Downeast Maine and the town of Stonington, Maine’s number one port by value. Lobster keeps the economic engine of the region humming. Stonington lobstermen earned more than $849 million from their catches in 2020; much of that money went to local businesses and taxes, keeping the region’s small towns economically prosperous. A reduction in the fishery due to the federal whale rules designed to protect the endangered North Atlantic right whales would have a profound effect not only on the Downeast coast but larger inland cities, such as Bangor and Ellsworth, as well.

As Ron Trundy, general manager of the Stonington Lobster Co-operative said, “Lobster is what keeps this island afloat. Tourism is nothing compared to what these guys spend.”

Another threat faced by all fishermen in Maine is a growing lack of access to the ocean from which they make their livings. Maine’s working waterfront is a small percentage of the state’s coastline yet it powers a very valuable sector of the economy. The Island Institute in Rockland released a new report on the topic — “The Critical Nature of Maine’s Working Waterfronts and Access to the Shore” — which highlights the many factors that are eating away at access to the water. The report notes the disparity between what Maine’s working waterfront provides to the state in terms of revenue, and the minimal amount of money the state and nonprofit organizations appropriate for its long-term preservation. To address this, the report calls for a comprehensive and strategic approach by the state in collaboration with the private sector.

While federal rules seek to curtail the Maine lobster fishery’s Department of Marine Resources (DMR) is energetically seeking to better understand the lobster stock. Kathleen Beardon, DMR lobster biologist, provides an overview of the department’s many surveys and other research activities conducted in 2021, all designed to provide state regulators and lobstermen with key information about Homarus americanus. DMR is also conducting research to better understand where and when right whales are using waters fished by Maine lobstermen, and working to innovate whale safe gear in collaboration with the lobster industry. Maine Sea Grant also supports increasing our understanding of lobster stocks, particularly within the context of a changing Gulf of Maine. It manages the American Lobster Initiative, begun in 2019. The Northeast Regional Lobster Extension Program, a component of the Initiative, recently received $1.4 million from NOAA for six research projects focused on the early life stages of lobster. “One reason it’s so important to study these early life stages is that understanding how they respond to a changing environment could help us better predict what the population and the fishery might look like in the future,” said Amelia Harrington, Northeast Regional Lobster Extension Project Coordinator.

Researchers in Canada studying right whales had interesting news in late 2021. Aerial and underwater surveys of the whales from 2015 and 2019 revealed that approximately 40% of all documented right whales spend long periods in the Gulf of St. Lawrence. In the summer and fall, 187 right whales feed and socialize, primarily in southern parts of the Gulf. There also has been an increase in the numbers of right whales using Cape Cod Bay in the late winter and spring and year-round in the area south of Martha’s Vineyard and Nantucket. These are just the latest indicators that the right whale population’s distribution patterns are fundamentally different than those of previous decades.

Landings continues its focus on lobstermen’s health with a look at the benefits of massage. Many lobstermen live in physical pain every day. Lobstering causes lobstermen to experience physical pain every day. Lobstering causes lobstermen to experience physical pain every day. Massage can reduce pain due to inflammation and also keep the body in proper alignment and prevent injury. Thomaston massage therapist Brenda Cotton, who works with local lobstermen, says “[Massage] can unlock those muscles so that the person is less prone to injury and not wasting energy trying to keep the misaligned structure working.”

Finally, what is a lobsterman without a boat? Commercial Fisheries News writer Brian Robbins provides readers with an overview of several new boats launched in 2021, from a Nova Scotian Dixon design to an Eastport fiberglass skiff built by Elijah Fricke. It seems a fitting way to bid goodbye to the old year and welcome in the new.

We welcome your thoughts and comments on this issue.
The DMR Lobster Research team was busy in 2021. Most fishermen have heard of our longest-running and largest data collection program, Commercial Sea Sampling, where samplers go on commercial trips to work with the captains and crew on a fishing day. Samplers measure the lobsters in the traps, not for enforcement, but to record the biological composition of the catch including the legals, shorts, V-notches, eggers, and oversize. This program completes three trips in each zone, May through November, and also does limited sampling in the winter to provide trends by zone and month over time for lobster catches, discard rates, V-notch rates, egg development, and shell disease rates. This program depends on the voluntary participation of captains. These data are essential to the ASMFC Lobster Stock Assessments by providing general biological and discard information to inform management models.

In addition to Sea Sampling, the DMR has multiple long-term monitoring programs that track the trends of lobster at different life stages through fishery independent data and feed into the Lobster Stock Assessment. The Settlement Survey is a SCUBA based survey completed in the fall. This survey uses small mesh traps without competitive bid to haul the survey traps. Tracts with nine industry boats through three zones and at three depths — 1-11 fathom, 12-21 fathom, and 22-32 fathom. The Maine-New Hampshire Trawl Survey is a multispecies survey developed to extend coverage of the federal bottom trawl survey into inshore waters. Data from the survey provide an important relative index of lobsters in the coastal waters out to 12 miles. The survey has been conducted in the spring and fall since 2000. It attempts to complete 120 randomly selected tows each season. With funding awarded from National Sea Grant, the survey started collecting samples this year to evaluate potential predators of juvenile lobsters. This project will continue until 2023 and will provide information for the stock assessment.

Our newest long-term survey, the Boothbay Larval Survey, started in 2017 and targets the larval stages of lobster at the surface with a fine mesh plankton net. The objective of this survey is to collect data on the timing of the larval season and abundance of the four larval stages starting in June and finishing in September or early October. Currently this survey only covers the Boothbay area, but, in 2021, with funding from National Sea Grant and a collaboration with Atlantic Offshore Lobstermen's Association, New Hampshire Fish & Game, Maine Maritime Academy, and Hood College, we explored the concept of seasonal larval surveys from fishing boats with two transects out to 24 miles from Boothbay and Steuben.

We sampled weekly and biweekly through the season as part of the larger project. In addition to this collaboration, DMR also continued research on another project.

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Stonington’s 143 commercial lobstermen last year hauled in more than $89 million worth of lobsters, according to Department of Marine Resources (DMR) figures, continuing the town’s standing as Maine’s most lucrative port. In previous years that figure danced around $106 million in 2019 and $114 million in 2018. Nearly every one of those dollars is spent in Maine, moving quickly in to the local and broader Downeast economy.

Ron Trundy is general manager of the Stonington Lobster Co-operative. In 2021 the Co-op’s 70 or so members hauled around 3 million pounds of lobster, which the Co-op sold for approximately $20 million, according to Trundy. “It’s been a good year. Poundage is up and the price is phenomenal,” Trundy said. At the end of the season, each Co-op member receives a dividend based on the number of pounds he or she has landed. That dividend adds many thousands of dollars to each member’s annual income. And where does that money go? “It trickles down everywhere, around here and up to Bangor and Ellsworth where they go to buy vehicles,” Trundy said. “Lobster is what keeps this island afloat. Tourism is nothing compared to what these guys spend.”

Money is like rain coming through a leak in the roof – it spreads invisibly throughout a structure. The money made by each individual lobsterman leaks away from him or her every day. One day it goes to pay down the bail bill, another day it flows to the fuel dock, yet another day it goes to repair the truck’s transmission. A lobsterman’s income also flows into the local property taxes that support local schools, to the grocery store, to the dentist, to the local diner, to Reny’s department store. It is everywhere and largely unseen. That flow of money is called the multiplier effect.

“The actual process of creating multipliers is quite complex,” explained Amanda Rector, Maine state economist, in an email. “It involves mapping out the relationships between each of the different sectors in a region’s economy determining how much of what is spent stays within the region and how much flows out of the region, and then applying those multipliers to an estimate of the actual amount being spent in the region for a particular purpose.” While the precise multiplier figure for Maine lobstermen’s revenue has not been established, the fact of it is evident on Deer Isle.

“If they have money in their pocket, they will spend it,” said a Barbor Lumber Co. employee who asked to remain anonymous. “Lobstermen spend money on a regular basis, to do things for the boat, upgrade their shop, re-shingle a roof. We have a lot of house accounts that are regularly paid off at the end of the year.”

According to Waypoints: Livelihoods, a report published by the Island Institute in 2018, the lobster fishery dominates nearly every coastal community in the state. Commercial licenses are held in every island and coastal town. Despite waiting lists to receive a lobster license in most of the state’s seven lobster zones, the report noted an increase of 735 licenses, or 15% growth, since 2015, “An estimated 3,262 are active licenses responsible for as many as 6,000 jobs on the water. Young people are still entering the lobster fishery despite volatility in landings and value,” the report stated.

Like their parents before them, new lobstermen are starting families, buying or building homes, serving on the local school board, volunteer fire department or as selectmen. They are putting their money into local banks and taking out loans from those same banks. Any change to the fishery would worry a bank like Camden National, according to Renee Smyth, chief marketing officer at Camden National.

Camden National is a $5 billion bank. It holds $20 to $30 million in loans to the lobster industry. “It is a very important industry to us because we are in those [geographic] areas. The fishery adds to our economy and our communities. We care a lot about the industry,” Smyth said. While Camden National Bank is a publicly traded corporation, it draws much of its business from small businessmen like lobstermen, offering commercial loans, mortgages, boat loans.

“The ripple effect would be very concerning. Even if the lobster fishery dropped by half, that would be very concerning,” Smyth said.

Jonathan Alley, Downeast and northern regional manager at Machias Savings Bank, echoes Smyth’s comments. “[Lobstermen] come to us for [loans for] new boats, gear, repairs, new engines. We provide financial assistance to someone, somewhere in this region every day,” he said. Approximately 10% of the $2 billion bank’s business customers are lobstermen; $85 million of the bank’s loans are to fishermen. Within Washington County those figures are even greater – 30% of the bank’s business loans in that county are for lobster fishing purposes.

 “[The importance of the lobster fishery] to the bank is hard to put into words. In Downeast Maine we would be in big trouble without it. Lobstermen are consumers for all these other businesses,” Alley said. “My dad’s a fisherman. My grandfather owns a store. Most of my close friends are fishermen. I was on the boat in the summers during college and while I was growing up. It’s the driver and foundation of everything down here.”

According to Mac Beckwith, general manager of Varney’s Auto in Bangor, lobstermen are as constant as the moon and stars in their annual search for a new vehicle, although 2021 has been slightly different.

“This year has been unique. There’s not as much inventory available. It’s hard to get vehicles,” he explained, due to kinks in the global supply chain. Varney’s sells trucks to people in different states, including blueberry growers and processors, forestry, and the lobster industry. “In different years different industries do well so we are lucky. We haven’t had a bad year recently,” he said.

Despite the diversification of the company’s customer base, Beckwith acknowledges that lobstermen are a core source of revenue. “If the lobster industry disappeared we would feel it, absolutely, no question,” he said.

Stonington lobstermen and hundreds more in Downeast Maine are facing an uncertain future. Regulations designed to protect the North Atlantic right whale leave them in a slowly tightening noose in terms of where, how and when they may fish. Offshore wind energy projects are moving ahead rapidly. The Gulf of Maine’s warming deep water temperatures have largely benefited Maine lobstermen. That warming will continue in future years, leading many to wonder what impact it will have on the harvest.

“Don’t waste your time thinking about the future. We don’t have enough information to even put bounds on that future,” said Carla Guenther, senior scientist at the Center for Coastal Fisheries in Stonington. From her perspective, state and federal authorities’ actions indicate that the lobster fishery no longer commands the authority it once did. Lobstermen are not fully aware of that shift.

“Lobstermen think that if they say ‘No’ or if they don’t show up at a meeting then [those projects] can’t go forward. That’s not the case. The Governor and federal forces are pushing for wind projects and yet lobstermen think they still hold a lot of power [over the process],” she said.

There’s a sense of caution within the Stonington fishing community, according to Guenther. Older fishermen who have paid off their boats and homes are waiting to see what happens. Younger fishermen who may have invested in offshore boats and gear are weighing their options. “I know four hard-working offshore boats who plan to sell out this year,” Guenther said. “These are young guys in their 20s and 30s. There are dark clouds on the horizon.”
The report cites data that show:

- In 2020, 30% of all homes sold in Maine were purchased by out-of-staters and the median sold price increased 13.8%.
- The number of home sales increased by 9.8% in 2020 and all median sold prices were greater than $100,000 for the first time.
- 2020 recorded the highest number of home sales and highest median sales price since record-keeping began in 1998.

"These statistics underscore a long existing trend of coastal real estate becoming too expensive for local residents to afford, and an influx of people coming to the state who may not understand or appreciate the importance of our marine industries," the report stated.

The ripple effects of higher priced waterfront property are many. Younger fishermen and their families may not be able to afford to live in a coastal town. Sternmen and those who work on the docks may have trouble finding affordable rental housing. For lobstermen who live inland, transporting gear to and from the shore becomes more problematic. In addition, an inland lobsterman’s right to “territory” — the part of the seafloor closely associated with a particular town and harbor — then comes into question.

The report notes that existing state programs and the efforts of communities to protect existing waterfront access are not coordinated nor funded well enough to address the problem. The Working Waterfront Access Protection Program (WWAPP) within the Land for Maine’s Future (LMF) program purchases the development rights in waterfront properties to ensure they stay in marine use. But, as the report points out, “…the application process is rightfully complicated, the funding is erratic by its nature (bond funded) and, as revealed in interviews with LMF’s director, there is no real data or strategy in place driving the selection of properties. The process is a passive one; WWAPP is not adequately staffed to seek out projects in the most at-risk locations, nor does the data for such a selection exist currently.”

The continued loss of access to the waterfront will have long-term impacts not just on individuals but on the state as a whole. The fishing industries of Maine produce a lot of revenue, more than $516 million in 2020 alone. Of that figure, nearly $406 million came from lobstermen, underscoring the importance of the fishery to the coastal economy. By contrast, in its most recent budget the state allocated $40 million for the LMF program. Of that total, only 10% (or $4 million over four years) is dedicated to protecting working waterfront.

The reports point out the disparity between what Maine’s working waterfront provides to the state in terms of revenue and the minimal amount of money the state and nonprofit organizations appropriate for its long-term preservation.

“What is most striking in the analysis of Maine’s working waterfront is how little is in place for protection of working waterfront and access when considered against the economic impact our working waterfront delivers (not to mention culture, heritage, community). Maine’s approach to protecting its working waterfront has not received the funding or attention it deserves from the private sector, particularly when compared to the support garnered for land trusts.”

To combat the scattershot approach to access protection, the report strongly suggests a comprehensive and strategic approach by the state in collaboration with the private sector. Needed is “a statewide foundation (or funding for an existing entity) which serves to assess the needs, buy and protect the real estate and otherwise spend time actively protecting Maine’s working waterfront” and “a comprehensive, statewide plan to protect Maine’s working waterfront and access to it.”

Because, as Chad Strater, owner of the Boat Yard, a boat service company in Yarmouth, was quoted in the report, “If the working waterfront goes away, it’s not coming back.”
SURVEYS REVEAL WHERE NORTH ATLANTIC RIGHT WHALES ARE NOW

By Melissa Waterman

Researchers from the Northeast Fisheries Science Center (NEFSC) in Woods Hole, Massachusetts, have identified 187 individual North Atlantic right whales in the Gulf of St. Lawrence during the summer. The whales comprise about 40% of the entire catalogued North Atlantic right whale population. The study was published in November in Endangered Species Research.

The team used photographs of right whales collected during whale surveys conducted between 2015 and 2019. The whales were identified by unique patterns of the rough patches of tissue, called callosities, on the top and sides of their heads. Other researchers deployed underwater hydrophones throughout the Gulf. They detected an increase in right whales in some areas beginning in 2015.

Many of the right whales remain in the area through the summer and autumn, feeding and socializing primarily in southern parts of the Gulf. Most of the 187 right whales return to the Gulf every year and stay for up to five months. Their travel route is not without peril. The northern and southern regions of the Gulf of St. Lawrence are separated by the Laurentian Channel and Hongsouo Strait. These shipping corridors connect commercial vessel traffic from the Atlantic Ocean to the St. Lawrence Seaway and the Great Lakes.

Leah Crowe, a NEFSC marine mammal researcher and lead author of the study, noted that during the last decade right whale distribution and habitat occupancy patterns have become less predictable. The whales spend less time in places where they have typically aggregated and are showing up in places where they were not found before.

Between about 1980 and 2010, many right whales spent the spring in Cape Cod Bay and waters off Cape Cod. During the summer, they moved north into the northern Gulf of Maine, Bay of Fundy, and Roseway Basin to feed on copepods and court. The historical patterns, however, began to change in 2010.

Continuing aerial and underwater surveys have confirmed right whales in larger numbers in the Gulf of St. Lawrence during the summer and with few in the Gulf of Maine. The surveys also documented an increase in the numbers of right whales using Cape Cod Bay in the late winter and spring; right whales also occur south of the islands of Martha’s Vineyard and Nantucket almost year-round.

Other interesting finds from the study are that in general, individual whales did not travel far each day while present in the Gulf of St. Lawrence. Some individuals spent time in both the northern and southern parts of the Gulf of St. Lawrence, and pregnant females were among the animals moving back and forth between northern and southern areas.

RIGHT WHALES TURNING UP OFF NEWFOUNDLAND

From the CBC

A Canadian marine mammal scientist says North Atlantic right whales are increasingly being spotted in waters off northern Newfoundland.

He says sightings are still relatively rare, but the federal Department of Fisheries and Oceans (DFO) is keeping a close eye on the whales to better protect them and manage their impact on fishing and shipping.

“I suspect that these whales have been here before and just probably not seen or identified as such in our waters,” said Jack Lawson, who is with DFO in St. John’s.

The endangered North Atlantic right whale population is now estimated at around 330, but they have been known to travel great distances for food, so it’s possible they have been in Newfoundland waters and not been seen, he said.

For example, a male named Mogul was seen off Newfoundland in 2019, but was also spotted off France, Iceland, Greenland and the east coast of the United States, Lawson said.

They also have dark-colored backs and may have previously been mistaken for the more common humpbacks.

But records show North Atlantic right whales were seen in waters around Baie Verte, Twillingate and Bonavista in November and another was spotted along the east coast off the Avalon peninsula.

Lawson said that has led to increased aerial surveys and the use of more acoustic measures, such as static listening posts on the ocean floor and underwater drones to keep track of the mammals’ movements.

“They’re still quite rare, at least in our waters, but we are spending a lot more effort to look and see if we can hear these animals or see them when we’re doing aerial surveys and patrols,” he said.

“We’ve always known that these animals are occasionally seen up and around this area. It’s just if we get a large aggregation like we’ve seen in the southern gulf, then it becomes a challenge,” Lawson said it’s too soon to say if right whales are permanently moving farther north.

“I think we’re always going to get these sporadic animals here, but with such a small number of animals and if they can keep finding food in the gulf as they have been, I’m hoping that they stay in an area where we are expending a lot of effort to try and protect them,” Lawson said.

Federal regulations are sinking Maine’s lobster industry.
We need your help to fight back. Donate today.

www.savemainelobstermen.org
funded by the National Science Foundation with Hood College, University of New England, and Bigelow Laboratory, exploring the differences between lab raised and wild caught lobster larvae. This work will help us understand how lobster larvae respond to a range of temperatures in the wild.

In the culmination of a three-year lobster maturity project to update and determine the size at which 50% of the female lobster population is mature in different areas (an important parameter in stock assessment models), the DMR is evaluating alternative maturity determination methods to make future updates more efficient and less labor intensive in an additional National Sea Grant funded project.

This project, building from the recent DMR research, will also develop manuals and plastic weak link that will allow fishermen to retrofit their current gear. A one option that has been approved by NOAA is a commercially manufactured plastic weak link that will allow for fishermen to retrofit their current gear. A small number of those weak points are available for testing (if interested, email kevin.w.staples@maine.gov) or John Higgins with NOAA Fisheries. The DMR has secured funding through Maine Outdoor Heritage Fund and Section 6 to try to make this option commercially available in early 2022.

The lack of spatial data for the lobster industry in the whale and wind discussions has also accelerated the development of boat tracker technology in 2021. The DMR has tested a number of low-cost options that transmit data through cellular networks rather than over satellite. The DMR is looking for volunteer boat captains to test these units, which are slightly larger than a smartphone, especially in harbors where cellular service is not as strong. You can contact Kevin Staples at DMR if you are interested in participating (kevin.w.staples@maine.gov).

DMR has secured funding from the Maine Community Foundation to collect better data on right whale distribution and habitat use in the Gulf of Maine. This funding has allowed the DMR and the University of Maine to place seven passive acoustic receivers in central Gulf of Maine, up to 75 nautical miles offshore, in addition to the eight inshore receivers deployed in state waters by DMR and NOAA in early 2020. Data from the receivers are retrieved every five months and the units re-deployed. The first offshore data will be downloaded in March 2022.

In 2021, the DMR Landings Program worked with Bluefin Data LLC. to develop a Maine Harvester app (VESL) to allow harvesters to report catch and effort information digitally to prepare for new management requirements in reporting. The app is currently going through the process to be approved by GARFO as an acceptable eVTB program. The app was created with the objective of collecting the necessary information in an intuitive and efficient way. This app is designed to allow harvesters to create a report whether or not they are connected to the Internet and then submit those reports once they have an active internet connection.

This app builds upon the success of the web-based data entry program built into DMR’s Maine LEEDS program that fishermen use to electronically renew their licenses. The DMR is also working on methods that use the aforementioned tracking units to automatically satisfy various harvester reporting requirements and reduce the time fishermen spend on this task.

Thank you to the industry for all the support and collaboration making this research possible. We look forward to sharing the results of our work and continuing the discussions of research questions we should be tackling in the future.
RESEARCH ON EARLY LIFE STAGE LOBSTERS RECEIVES FEDERAL FUNDING

By Melissa Waterman

In October, the American Lobster Initiative received $2 million from NOAA for its third year of funding. The Initiative was begun in 2019 to support a national research competition related to the lobster fishery and a Northeast Regional Lobster Extension Program. The Extension Program is a four-year program operating in six states that links lobster research with stakeholders who need and can use the results. The Initiative’s research and extension activities are designed to address critical gaps in knowledge about how American lobster is being impacted by environmental change in the Gulf of Maine, Georges Bank, and southern New England.

Six new lobster research projects are funded to begin in 2021 with $1.4 million of NOAA funding. The projects encourage research partnerships between state agencies, academia and industry to examine impacts from environmental change on lobster and the fishery. Most of these projects are focused on the early stages of lobsters. “One reason it’s so important to study these early life stages is that understanding how they respond to a changing environment could help us better predict what the population and the fishery might look like in the future,” said Amelia Harrington, Northeast Regional Lobster Extension Project Coordinator at Maine Sea Grant.

“We still don’t have a good idea of how changes in food availability, new predators, and warming temperatures will impact the survival of these critical early stages. These new research projects are going to take us one step closer to filling those gaps.”

Damion Brady at the University of Maine will expand decades-long work of modeling larval American lobster transport to include dynamics associated with prey availability. The project will model the distribution of lobster larvae and link that to trends in the distribution of the copepod Calanus finmarchicus and to the abundance and availability of recruitable habitats. Climate-induced changes in the Gulf of Maine may act to intensify a disconnect between larval and their optimal food source. Through the team’s work with the Maine Department of Marine Resources (DMR), Maine Lobstermen’s Association, and the Lobster Institute, the study will build a flexible ecosystem-based early life history model capable of answering fundamental questions regarding changes in ocean conditions, larval distribution, and their relationships to their food supply.

Rebecca Peters at DMR will collaborate with the Maine Center for Coastal Fisheries in Stonington to better understand what current and new predators of lobsters, particularly juvenile lobsters, exist in the Gulf of Maine. To answer this question, they will use current surveys to collect stomachs from five species that have recently been shown to be preying on lobster — Atlantic cod, white hake, red hake, Atlantic halibut, and Atlantic mackerel — and from two emerging species, black sea bass and striped bass. The research will provide data on potential lobster predators and allow managers to use these data to update lobster assessments and work on ecosystem models for the Gulf of Maine.

Researchers at the Wells National Estuarine Research Reserve will conduct a study to evaluate the overall health and quality of mature female lobsters with respect to their egg production and examine how environmental drivers of climate change may be affecting them. This work will address: 1) why lobster egg clutch sizes have declined and to what extent this limits egg production; 2) what factors have contributed the most to declines in egg production; and 3) what impact temperature, maternal history, and size have on egg production and viability. The data obtained from this project will be used to inform future stock assessments and lay the groundwork for long-term monitoring programs.

Former University of Maine professor Yong Chen, now at Stony Brook University in New York, will create a simulation framework to better understand the impacts of possible climate-induced changes in lobster life history and management implications for the Gulf of Maine and southern New England stocks. The project will develop a collaborative research team to help identify “what if” scenarios; develop a simulation framework for predicting the response of lobster stocks to these scenarios; illustrate the impacts of increasing temperatures on lobster stocks given status quo management; and compare the performance of different management regulations in a changing climate.

Northeastern University scientist Jonathan Gрабowski will study the impact of range-expanding species such as black sea bass and blue crabs which are entering southern New England and the Gulf of Maine due to warming water. The study will answer questions such as the prevalence of these species in the Gulf of Maine, which coastal New England habitats and depths they prefer, and if they overlap with and consume different life stages of lobster, such as early post-settlement and larger juveniles. Answering these critical questions will help evaluate the degree to which novel species range expansions are a potential threat to the lobster fishery.

New Hampshire Fish and Game biologist Josh Carloni will design and test a trap that effectively samples early juvenile lobsters, which are generally missed in the ventless trap survey but may act as an early warning sign of changes in future landings. Once this trap has been tested and calibrated it will be used in conjunction with SCUBA surveys and traditional ventless traps to explore the relationship between lobster density, temperature and catch. Further, the project seeks to better understand the degree to which ventless traps accurately reflect the size structure of the sublegal lobster population, and whether smaller lobsters may be excluded due to incompressive competition.
TMGETING UP TO MONITOR DEEP WATER LOBSTER HABITATS

From the University of Maine. Reprinted with permission

A group of businesses involved in the lobster fishing industry have teamed up with the University of Maine to fund the sixth consecutive field season in 2021. Red Lobster, Cranberry Isles Fishermen’s Co-Op in Islesford, and Ready Seafood Co., a supplier and processor headquartered in Saco, helped fund a program that monitors the settlement of baby lobsters in deepwater habitats in the Gulf of Maine.

The deepwater monitoring is an extension of the American Lobster Settlement Index, which samples shallow water lobster habitats throughout New England and Atlantic Canada.

"Red Lobster is committed to supporting efforts to ensure there’s seafood to enjoy, now and for generations," said Nelson Griffin, chief procurement and real estate officer at Red Lobster.

The American Lobster Settlement Index is led by the University of Maine and was initiated in 1989 by Richard Wahle, a research professor in the School of Marine Sciences and director of the Lobster Institute. Wahle expanded the monitoring in 2016 to include greater depths with novel bio-collectors deployed from fishing vessels, thanks to the collaboration with industry and the Maine Department of Marine Resources.

This new deepwater program has been powered by a combination of public and private support from its inception. Cooperating lobstermen hail from Casco Bay at the southwestern end of Maine’s coast to the Cutler shore Downeast. These locations represent contrasting thermal regimes in the Gulf of Maine.

“Our findings are improving our understanding of how the lobster’s earliest life stages respond to changes in the environment and the implications of those changes for the future of the fishery,” Wahle says. This year’s research will be made possible through gifts totaling $75,000 from Cranberry Isles Fishermen’s Co-Op, Ready Seafood and Red Lobster.

“’What I love about this project is that it is a real example of industry and science working together to improve the sustainability of Maine lobster,” said Curt Brown, a lobsterman and marine biologist with Ready Seafood. “We are humbled by the support of Red Lobster, Cranberry Isles Fishermen’s Co-op and UMaine.”

MAINE MARINE PATROL OFFICER RECEIVES NATIONAL RECOGNITION

The National Association of State Boating Law Administrators (NASBLA) has named Maine Marine Patrol Officer Tom Reardon as its 2021 BOAT Program Instructor of the Year.

The Boat Operations and Training (BOAT) Program provides maritime law enforcement personnel and emergency first responders with U.S. Coast Guard recognized training, qualification, and credentialing. Launched in 2009, the BOAT Program has a catalog of more than 27 nationally recognized courses and has taught more than 17,500 maritime professionals in 46 states and U.S. Territories.

Officer Reardon is one of more than 300 BOAT instructors nationwide. A BOAT instructor since 2019, Officer Reardon has proven to be a valued and capable instructor over the past two years. “Officer Reardon’s knowledge of his professional specialty and willingness to assist in any capacity has made him a valuable asset to the NASBLA BOAT Programs Instructor Cadre,” said John Fetterman, Deputy Executive Director of NASBLA.

“I have memories of the first time I met Officer Reardon as a new officer assigned to Stonington,” said Fetterman, who is also a former Chief Pilot and Deputy Chief of the Maine Marine Patrol.

“I had been asked to take him on a flight of his new patrol area and as soon as we met on the dock, Officer Reardon arrived with a smile on his face and an obvious passion of his new career. He made a lasting impression and carries those same qualities with him today,”

Officer Reardon was applauded for his high degree of professional excellence as a BOAT Program instructor. “Starting as a break-in instructor in 2019, Officer Reardon quickly earned the NASBLA Instructor Credential, teaching 8 courses in the last 24 months,” said Fetterman. “Officer Reardon consistently uses tact and leadership which promotes a genuine feeling of self-achievement and a desire to excel among the instructors who work with him.”

"Officer Reardon is deserving of this prestigious honor," said Lieutenant Troy Dow. "He is a leader among his peers in Marine Patrol and Maine law enforcement. This award recognizes his exceptional knowledge and skills as well as his unique ability to help others advance professionally. His work as a BOAT instructor also ensures coordination among the nations maritime law enforcement and responder community, which is critical for national security.’

Federal regulations are sinking Maine’s lobster industry. We need your help to fight back. Donate today.

www.savemainelobstermen.org
We may remember 2021 as the best and worst of times for Maine's lobster industry. Despite the ongoing pandemic, lobstering was the only way on the water with stable landings and historic lobster prices. The health of the lobster stock and strong market buoyed profits as lobstermen navigated skyrocketing bait prices, high fuel prices, a dwindling labor pool for crew, and shortages of marine supplies.

While the fishery itself provided a great reason for optimism, 2021 more likely will be remembered by Maine lobstermen as the year off shore wind development went from a distant threat into reality. Fueled by the introduction of draconian whale protection mandates and rapidly evolving plans to industrialize the Gulf of Maine's pristine fishing grounds with massive wind farms.

It is difficult to comprehend the gravity of how whales or wind will impact the lobster industry. The 10-year whale plan requires an incomprehensible 98% risk reduction, and comes with an unachievable timeline. The courts have made it clear that without the plan, the federal lobster fishery cannot operate. Maine's pledge to develop floating offshore wind farms as a central strategy to achieve a renewable energy economy through offering massive in-water impacts and increasing competition in the market for energy projects. We cannot undo our state or the nation's commitment to developing offshore wind projects.

The transformative nature of the whale and wind issues and the rapid pace with which they are evolving is a game changer for Maine's lobstermen. Gone are the days when the MLA would fight over dragger-caught lobsters or gauge increases. Today we must fight to stave off the elimination of our fishery as the government implements its misguided whale protection plan and offshore renewable energy projects.

We must be realistic in our expectations of what we can and cannot do. This absolutely does not mean surrendering in the face of these seemingly insurmountable challenges, but rather understanding how and where change can be made that will benefit the fishery. We cannot get rid of the strict federal laws that protect endangered whales. We can address, however, the flawed science and assumptions that have set the risk reduction goal post unrealistically high and inflate the burden on the lobster industry.

We cannot undo our state or the nation's commitment to reduce our reliance on fossil fuels or the rush to develop off shore wind farms. As a central strategy to achieve a renewable energy economy through offering massive in-water impacts and increasing competition in the market for energy projects. We cannot undo our state or the nation's commitment to developing offshore wind projects.

The MLA is leading this fight for Maine lobstermen. I can confidently say that in MLA's 67 year history, the issues facing the lobster industry from wind development were among the most complex and organization has never worked harder. The task is daunting and the stakes are high. But one thing is certain — if we don't fight, we could lose the lobster fishery entirely.

A look back at whales...

We literally rang in 2021 with the release of the Proposed Whale Rule and Draft Environmental Impact Statement (DEIS) on New Year's Eve. The Proposed Rule was a mixed bag for the Maine lobster industry. As expected, it included the trawling up, weak points and gear marking actions developed by Maine Department of Marine Resources (DMR) in collaboration with Maine's zone councils. But it also included an unwelcome surprise: a new 967-square-mile closure area along the Area 1/3 line.

This was followed two weeks later by the release of the draft Biological Opinion (Biop). This document packaged all of the bad news about the declining right whale population along with a new population projection model which predicted a dire future for the species. The draft Biop provided our first look at NMFS's goal to require a 98% risk reduction by the year 2025. And a brand-new model, introduced in the Biop, concluded that unless Canada achieves equally aggressive risk reductions as proposed for U.S. fisheries, the right whale population will remain in decline. And to the frustration of fishermen, the scope of the Biop is limited to U.S. commercial fishing interactions with right whales, and therefore requires no mitigation measures to reduce risk to right whales from vessel strikes or harmful interactions in Canada.

The MLA moved swiftly to hire a computer modeler to review NMFS's new right whale population projection model which identified many flaws in its assumptions and methods. Minor changes to those assumptions and use of more sophisticated modeling methods would produce more realistic and optimistic results. For example, the new population projection model assumed that right whales would continue to die at record high rates due to fishing and vessel strikes in Canada and from U.S. ship strikes. The MLA prepared written comments on behalf of twelve commercial fishing groups challenging NMFS's methods and findings.

The MLA also provided detailed comments to NMFS on the Proposed Whale Rule and DEIS, which included a survey of lobstermen to collect data to provide an alternative to NMFS's overestimating the economic impact of the measures on the lobster fishery.

As the MLA awaited the release of the final Biological Opinion and Final Whale Rule, the association continued to raise concerns over the scientific basis of NMFS's whale protection strategy with the DMR, the Maine Congressional delegation, NMFS, the U.S. Secretary of Commerce, the President's Council on Environmental Quality, and the White House National Economic Council. The MLA also submitted comments on NMFS's right whale stock assessment and NMFS's review of the Vessel Speed Restriction Rule.

NMFS published the final Biological Opinion in late May, meeting its court-mandated deadline. The final Biop was very similar to the draft. While it offered a few updated analyses, it included the same draconian 10-year whale plan to achieve a 98% risk reduction through three phases: 1) 60% risk reduction in 2021 through the Final Whale Rule; 2) an additional 60% risk reduction in 2025; and 3) an additional 50% risk reduction in 2030.

The Final Environmental Impact Statement (FEIS) for the Final Whale Rule was released in July offering a preview of the measures to be included in the Final Rule. The FEIS revealed that in addition to the trawling up and weak point measures, NMFS would close nearly 1,000 square miles of Maine's prime offshore fishing bottom for one-third of the year with the inclusion of the LMA 1 Closure. And in addition, NMFS caught the Maine lobster industry off guard in revealing a brand-new gear marking scheme for Maine's federal waters fleet which would require four 12" green marks in addition to the four purple marks. The MLA also submitted written comments to NMFS pointing out that the LMA 1 Closure would be eliminated from the Final Rule or, at a minimum, that its size and duration be reduced. The MLA also requested that NMFS not change the gear marking for Maine's federal waters fleet and instead adopt the gear marking that Maine fishermen and the President’s Office of Management and Budget (OMB) to request it uses its authority to require NMFS to address MLA's concerns in the Final Rule. The Final Whale Rule was
To continue its role as the leading critic of federal and environmental organizations’ overreach and to protect the Maine lobster fishery for future generations, in mid-November the MLA launched a three-year, $10 million capital campaign titled “Save Maine Lobstermen.” The funds are required for the MLA’s fight to halt the ever-expanding risk reduction mandate which threatens to eliminate Maine’s lobster fishery. To this end, the MLA is executing a four-pronged strategy including legal challenges to federal regulations through lawsuits and regulatory processes, scientific research, development of innovative gear solutions, and education. Learn more about and support this campaign at www.savemainelobstermen.org.

A look back at offshore wind:

There was already much tension between the state of Maine and the fishing industry over the Governor’s unilateral decision to move forward with commercial offshore wind development in the Gulf of Maine. The fishing industry had been informed that this plan would move forward with or without them, and the state hoped to work with the fishing community to minimize impacts of commercial fishing operations and identify priorities for research and monitoring.

Maine’s commercial fishing associations issued a joint statement in January outlining concerns and reiterating its opposition to the development of offshore wind in the Gulf of Maine.

As the state moved forward with its plan to develop a commercial offshore wind research array off the coast of southern Maine, DMR worked with fishermen to understand how the “Area of Interest (AOI)” identified by the Governor’s Energy Office was used by fishermen, and where within the AOI wind turbines could be placed to minimize impact on fishing operations.

The New England Aqua Ventus (NEAV) single turbine project at Monhaneg also moved forward as Fugro survey vessels were hired to conduct a survey of the subsea cable route to connect the turbine to the mainland. This survey proved frustrating and stressful for fishermen who received inconsistent and confusing communications about the survey vessels daily activities. Lobstermen reported losing gear as a result of the survey operating outside its advertised route; while NEAV accused lobstermen of deliberately setting gear in the survey route.

Continued on page 12

### 2021 Lobster and Right Whales Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tr>
<td>Oct. 12</td>
<td>Engso intervene in MLA case in U.S. District Court in Bangor</td>
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<tr>
<td>Oct. 14</td>
<td>MLA and ME Legislative Council file Amicus briefs in support of delay of implementation of LMA 1 closure in MLA case</td>
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<tr>
<td>Oct. 16</td>
<td>Judge Walker delays implementation of LMA 1 closure pending ruling on the MLA case</td>
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<td>Oct. 25</td>
<td>Right Whale population estimate for 2020 is 336 whales (down from 366 in 2019)</td>
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<td>Nov. 2</td>
<td>NMFS presents review of new right whale population and “cryptic mortality” to the TRT implying that the 60% risk reduction achieved under Final Rule is inadequate</td>
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<tr>
<td>Nov. 16</td>
<td>MLA launches 3-year, $10 million fundraising campaign to Save Maine Lobstermen</td>
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<tr>
<td>Nov. 16</td>
<td>Appeals court reverses Judge Walker’s ruling, ordering immediate closure of LMA 1</td>
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<tr>
<td>Nov. 24</td>
<td>MLA appeals to U.S. Supreme Court</td>
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<tr>
<td>Nov. 30</td>
<td>Mass Supreme Court dismisses Max Strahan Case against Mass lobster fishery</td>
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<tr>
<td>Nov. 25</td>
<td>MLA provides updated assessment of the cost to implement Final Whale Rule to Maine delegation estimated to be at least $50 million</td>
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<td>Dec. 3</td>
<td>U.S. Supreme Court Justice Breyer denies MLA appeal</td>
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<td>Dec. 8</td>
<td>eNGOs intervene in MLA case in DC District Court</td>
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<td>Dec. 9</td>
<td>Center for Biological Diversity petitions NMFS to mandate ropeless fishing in all trap/pot fisheries within 5 years</td>
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<tr>
<td>Dec. 16</td>
<td>DMR intervenes in MLA case in DC District Court</td>
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As of Dec. 20, NMFS Unusual Mortality Event (UME) website documents 5 serious injuries and mortalities (2 vessel strikes, 3 entanglement). Two were mortalities (1 vessel strike, and 1 CN snow crab) and 3 were serious injuries (1 vessel strike, 1 entanglement in 5/8" leaded sink line spliced into float (this whale just had a call in Dec.), and 1 entanglement in unknown large diameter blue line with trap attached. Additional cases will be added based on analysis of right whale photographs.
In late March, lobstermen staged a grassroots protest with a parade of more than 80 boats flying protest banners riding the survey route from Monhegan to the mainland. Instead of commending lobstermen for this well-organized, peaceful protest that occurred without incident, NEAV in turn accused lob- stermen of sabotaging the survey. Ultimately, DMR Marine Patrol stepped in to manage the high emotions surrounding this project.

At the end of March, the Biden Administration announced its goal to build 30 gigawatts of offshore wind by the year 2030, toutin that this initiative would create tens of thousands of good-paying union jobs and generate enough pow- er to meet the energy demands of more than 10 million American homes each year as it reduces carbon emissions.

During this time, the Maine Legislature was considering several legislative pro- posals with regard to offshore wind. Governor Mills proposed to ban offshore wind in Maine state waters (LD 1619), Representative Faulkingham proposed to ban all offshore wind development that would connect to Maine (LD 101), and Senator Lawrence put forward a bill to encourage and fund research to support offshore wind (LD 336).

These bills drew very divided audiences who testified either that offshore wind development in state waters, requiring an offshore wind strategic plan by 2023, establishes an OSW research consortium and requires and offshore wind strategic plan by 2023, creates an OSW research consortium, and establishes an OSW research consortium.

Despite concerns from the fishing industry, the Governor’s Energy Office (GEO) announced its preferred site to develop offshore wind. Fishermen expressed concern that Maine’s rush to be the first to deploy floating offshore wind technology in the U.S. could harm the Gulf of Maine’s fragile ocean ecosystem, trade Maine’s family-owned-and-operated fishing businesses for jobs with foreign energy companies, and risk eroding Maine’s fishing heritage which has sustained our rural coastal communities for generations. Maine’s fishing industry organized a successful rally in Augusta on April 28 to raise awareness over these concerns.

The Legislature ultimately adopted legislation prohibiting commercial off- shore wind development in state waters, requiring an offshore wind strategic plan by 2023, establishing an OSW research consortium, and tasking the Public Utilities Commission to develop agreements that encourage and fund offshore wind research. Despite concerns from the fishing industry, the Governor’s Energy Office (GEO) pressed forward. In July, GEO announced its preferred site to develop the offshore wind commercial research array and kicked off its Offshore Wind (OSW) Roadmap process through the creation of the Offshore Wind Advisory Committee. The MLA agreed to participate in GEO’s OSW Fisheries Working Group and serve on the Governor’s OSW Advisory Committee, not as a partner, but rather to address unanswered questions and concerns about OSW and to ensure interests of Maine commercial fishermen are voiced, heard, and under- stood.

In September, DMR’s report went to GEO, identifying bottom within the AOI that would minimize the impact of wind farm development on the fishing in- dustry. DMR did an admirable job under difficult circumstances characteriz- ing fishermen’s use of the AOI based on the information available. The DMR also documented the many concerns they heard from fishermen in its report. On October 1, GEO submitted its application to BOEM to obtain an offshore wind lease to develop its floating research array.

Less than two weeks later, BOEM announced its plans to hold seven new lease sales, including in the Gulf of Maine, by 2025. A week later, the fishing indus- try group RODA (Responsible Offshore Development Alliance) filed a notice of intent to sue the federal government over the Vineyard Wind project moving forward in Massachusetts.

In late November, BOEM issued a “request for information” seeking input from the fishing industry to inform development of a guidance document on avoid- ing, minimizing and, if needed, compensating for impacts from offshore wind energy projects on fisheries. As part of this project, BOEM held a series of on- line meetings. During the East coast meetings, fishermen involved in ongoing offshore wind project expressed anger that their concerns had not been heard during the process, frustration with working with wind developers, many inci- dents of lost fishing gear during survey work, lack of an effective process to be compensated for gear loss and other impacts, and a host of other frustrations.

In December, NEAV endured another mishap as a result of its poorly planned outreach when it began announced survey work for an underground cable in Boothbay and East Boothbay in November. Corporate representatives faced angry residents who expressed frustration over the company’s lack of trans- parency in its work and lack of respect for the community. Although NEAV officials apologized, it was clear that trust was broken as many expressed that they found NEAV’s apology disingenuous.

Finally, in mid-December, a coalition of commercial fishermen, trade associa- tions and shoreside businesses sued the federal government over the issuance of the offshore wind lease and approval of construction and operations plan for the Vineyard Wind project.
The MLA Board met on December 9. The Board reviewed the status of several lawsuits including the MLA’s lawsuit filed against NMFS over the Biological Opinion and Proposed Rule in D.C. District Court. Judge Boasberg denied a request to consolidate the MLA and environmental organizations’ cases. Proposed schedules for both cases are due in December, and it is expected that these cases will move forward early in 2022.

The Lobster Union’s appeal over the LMA 1 Closure to the U.S. Supreme Court was denied without comment. NMFS allowed a 2-week grace period to remove gear from the area; the closure remains in effect until January 31. The Union case challenging the legality of the closure in Bangor District Court has not yet been decided.

Max Strahan’s case against the state of Massachusetts was dismissed. The court ruled that Strahan did not have “standing” under the law to argue his case. The court stated, however, that it anticipates that Strahan will appeal the dismissal.

The Lobster Union’s appeal over the LMA 1 Closure to the U.S. Supreme Court was denied without comment. NMFS allowed a 2-week grace period to remove gear from the area; the closure remains in effect until January 31. The Union case challenging the legality of the closure in Bangor District Court has not yet been decided.

New England Aqua Ventus (NEAV) continues to ruffle feathers as it moves forward with its wind project off Monhegan. This time, NEAV began surveying land-based routes to connect the project’s planned electric cable from Bigelow Laboratory for Ocean Sciences (Lab) to the grid. The problem is that NEAV did not inform the town or residents that this work was being conducted. East Boothbay held two public meetings for residents to vent their frustration with NEAV.

The second session of the 130th Legislature will begin in the new year. There are approximately 10 bills of interest to the lobster industry, including a few that deal with federal whale rules and LMA 1 closure. The next MLA Board meeting will be in January, date and time TBD.

LOBSTER ADVISORY COUNCIL

The Department of Marine Resources (DMR) convened a virtual meeting of the Lobster Advisory Council (LAC) on December 15 to bring members up to speed on the many court cases underway that relate to the NMFS’s whale rules. DMR provided a detailed review of the measures required under the Final Whale Rule, including trawling up minimums, weak points, gear marking and the LMA 1 closure. The DMR explained that NMFS has approved three options for weak inserts: 1) inserting a 3-foot section of manufactured 1700 pound rope, 2) inserting a 3-foot-long 1700 pound braided “south shore” sleeve, or 3) inserting a manufactured 1700 pound manufactured weak link into the rope. There are currently three commercially available manufactured 1700 pound ropes approved by NMFS: 3) a Mount Reil (3/8”) and Candy Cane (3/8”), Neocorp polyester rope 1021 (3/8”), Seaway #10 braid (5/16”) available through Ketchum Trap in New Bedford. [NOTE: NMFS has removed Shippagan (3/8”) from the approved list.] DMR has heard that Everson plans to manufacture a 1700-pound weak rope. Lobstermen testing samples of the 1700-pound in-line manufactured weak link find that it works well. DMR anticipates these will be available for purchase in January.

The state must adopt all of the new federal whale rules into state regulations. Zones will address trawls maximums that conflict with new trawl minimums through this process. While NMFS has full authority to set standards for implementation of whale rules for all waters that fall under the federal whale plan (Maine’s non-exempt state waters or sliver and federal waters), the state of Maine has some flexibility in how it implements whale protection measures in Maine’s exempt waters. DMR informed the LAC that it plans to allow the use of 5/16” line with an approved knot to meet the weak link requirement in Maine’s exempt waters. DMR determined that 5/16” rope on its own does not consistently break below 1700 pounds. However, if fished with an overhand knot in the line, or if it is connected to stronger line with a fisherman’s knot or sheet bend, it does break under these conditions. DMR has also allowed companies to design knots to make the weak link requirement in exempt waters, in addition to those approved by NMFS. These include 1) a 5/16” toggle connected to a larger diameter line with a fisherman’s knot or sheet bend, 2) inserting a 5-foot section of 5/16” line to connect larger diameter lines with a fisherman’s knot or sheet bend, or 3) full 5/16” line with an overhand knot.

The DMR also informed the LAC that NMFS has signaled it will likely increase the risk reduction target required for the lobster industry due to a further decline in the right whale population. The published minimum would be that observed right whale mortality represents only about 1/3 of the number of right whales that actually die each year. The state will learn more when the TRT meets in January.

The Atlantic States Marine Fisheries Commission (ASMFC) is moving forward with mandatory vessel tracking for federal lobster boats. Online public hearings will be held on January 18 and 19 from 6 to 8 p.m. Written comments are due January 31.

The DMR informed the LAC that the cost of lobster trap tags will increase in 2022. The unit cost of trap tags has increased significantly in recent years. Without an increase the cost of trap tags, the Lobster Management Fund which pays for DMR’s lobster scientists and Marine Patrol Officers will be bankrupt. The cost per tag will increase to 75 cents. DMR anticipates that the cost of 2022 lobster tags will be covered with COVID relief funds. DMR will be holding Lobster Zone Council meetings in the new year, followed by another LAC meeting.

VESSEL TRACKING REQUIREMENTS FOR FEDERAL LOBSTER BOATS

The ASMFC will have scheduled two public hearings in Maine to take public comment on a draft plan to require all federally permitted lobster and Jonah crab vessels to use a vessel monitoring system. The permit holders would be required to install an approved electronic tracking device on their vessel prior to beginning a fishing trip to collect and transmit spatial data. The devices would collect vessel locations every minute, which would allow for the distinction between transiting and fishing activity, as well as the estimation of trap per-trawl. The draft plan also describes administrative processes at the Commission, state, and federal levels for successful implementation of the management program to ensure the data collected meet the needs of state and federal partners.

Public comment will be accepted until 5 p.m. on January 31, 2022 and should be sent to Caitlin Starks at comments@asmfc.org (Subject line: Lobster Draft Amendment XXIX). Maine DMR will be hosting two virtual public hearings on Tuesday, January 18, 2022 from 6-8 p.m. and Wednesday, January 19, 2022 from 6-8 p.m.

MAINE FISHERMEN’S FORUM CANCELLED

The Maine Fishermen’s Forum Board made the difficult decision to cancel the annual educational event and trade show, which had been scheduled for March 3 to 5, 2022. Forum Board President Steve Train explained, “We have concerns about ensuring health and safety in a venue that hosts thousands of attendees including families, fishermen, scientists, fishery regulators, trade show vendors and hotel staff especially given that COVID infections are currently on the rise in Maine. The decision to cancel did not come easy, but ultimately, we decided to err on the side of caution. We look forward to 2023 when we can once again fulfill our mission of providing opportunities to educate the public and the fishing industry about fisheries issues and to provide a neutral platform for constructive dialogue.”

COUNCILS SEEK TO ADDRESS CONCERNS OVER OFFSHORE WIND

To address concerns from commercial fishermen, the Mid-Atlantic and New England Fisheries Management Councils (MAFMC and NEFMC) have updated their Wind Energy Policies.

The NEFMC updated its offshore wind energy policy in a new seven-page policy document. “The Council is committed to ensuring that offshore wind projects in New England are developed in a manner that is compatible with the protection of Council managed species and their habitats, and with commercial and recreational fishing activities…” It continues, “This includes but is not limited to providing input to federal and state agencies on project siting, design, and execution based on a list of principles and best management practices.”

The MAFMC has requested that NMFS evaluate to what extent the process it recently announced with BOEM to address fisheries mitigation from offshore wind energy aligns with existing policies and best practices, including but not limited to National Standards and NOAA/NMFS policies related to environmental justice, social and economic impacts assessment, mitigation for trust resources, and scientific integrity. The MAFMC also recommends NMFS evaluate alternative or supplemental strategies that it could implement to improve fisheries analysis for mitigation efforts that would fully involve fisheries experts and stakeholders. If resources do not support such strategies in the near term, the agencies should prioritize items in the Request for Information (RFI) on “Guidance for Mitigating Impacts to Commercial and Recreational Fisheries...Continued on page 14
from Offshore Wind Energy Development” that can be appropriately addressed within the project timeline while effective, science-based approaches to the larger suite of topics can be developed.

BOEM SEeks INPUT ON MITIGATING IMPACTS ON FISHERIES

The Bureau of Ocean Energy Management (BOEM), working with NMFS and affected coastal states, is developing guidance to ensure fair, equitable, and predictable methodologies for mitigating impacts of offshore renewable energy projects on commercial and recreational fisheries and fishing. The first step in this process is to gain knowledge from the people and organizations who know and use these areas.

BOEM issued a “Request for Information” to obtain input from the public, especially the fishing community, on avoiding, minimizing and, if needed, compensating for impacts from offshore wind energy projects to commercial and recreational fisheries. BOEM is specifically seeking information among the following topic areas: Project siting, design, navigation, and access; safety; environmental monitoring; and financial compensation. BOEM hosted a series of workshops to solicit feedback; written comments are due on January 7 at https://www.regulations.gov/comment/BOEM-2021-0083-0001.

The U.S. Coast Guard is also soliciting feedback from fishermen to include in its comments to BOEM. You can contact the Captain of the Port at JNEWaterways@uscg.mil.

HERRING FISHERY DISASTER DECLARATION

In late November, the U.S. Secretary of Commerce Gina Raimondo declared a fisheries disaster for the 2019 Atlantic herring fishery. The herring fishery endured a 70 reduction in quota in 2019. Landings in 2018 were 43,878 metric tons, falling to 12,998 mt in 2019 and 9,368.5 mt in 2020. Fishery stakeholders will be eligible for disaster assistance, and some related businesses might also qualify for federal loans, according to the commerce department. Those allocations are yet to be determined.

NO SHRIMP FISHERY FOR AT LEAST 2 MORE YEARS

In December, the ASMFC’s Northern Shrimp Section (Section) extended the moratorium on commercial and recreational northern shrimp fisheries through 2024. The 2021 Stock Assessment Update indicates the Gulf of Maine northern shrimp population remains depleted. The 2021 summer survey indices of abundance, biomass, and recruitment were at time-series lows since this data began to be collected in 1984, and other environmental factors, such as warming water temperatures, continue to impact the ability of the resource to rebuild.

The Section did not pursue a limited commercial fishery or personal use fishery, as supported by several industry members, due to concerns about stock status, equitable access to the resource, the difficulty of preventing the illegal sale of shrimp, controlling effort, and monitoring harvest levels.

The Section tasked the work group with discussing options for maintaining stock assessment updates given the uncertainty of future funding for the summer shrimp survey. The work group will continue to discuss these topics in consultation with representatives from the NMFS, the Commission’s Interstate Fisheries Management Program Policy Board, the Northern Shrimp Technical Committee, and the Northern Shrimp Advisory Panel.

LOBSTER BILLS – 130TH LEGISLATURE, 2ND SESSION

The second regular session of the 130th Legislature begins January 5, 2022 and must complete its work by April 20, 2022. The Maine Legislature consists of two chambers: the Senate, led by President Troy Jackson, and the House of Representatives, led by Speaker Ryan Fecteau. The House consists of 151 members (80 Democrats, 61 Republicans, 4 Independents, 1 Libertarian, and 2 vacancies). The Senate consists of 35 members (22 Democrats and 13 Republicans). Maine’s Marine Resources Committee is composed of 16 members and is chaired by Senator David Miramant of Knox and Representative Jay McCauley of Harpswell. For this session, several lobster industry-related bills are under consideration. These relate to changing the legal start time for lobster fishing in the month of September, adopting routine technical rules to amend the minimum and maximum lobster size, and addressing the new whale whales including the LMA I Closure.

LD 1759 An Act To Extend the Legal Hours for Harvesting Lobster in the Month of September (Emergency), sponsored by Rep. Genevieve McDonald. This bill proposes to change the legal start time for lobster fishing to 4:00AM in the month of September.

LD 1742 An Act To Ensure Compliance with the Interstate Fishery Management Plan for American Lobster, sponsored by Senator David Miramant. This proposal allows the DMR Commissioner to adopt routine technical rules to address the minimum and maximum lobster size and the dimensions of vents in lobster traps when necessary to comply with changes to the Atlantic States Marine Fisheries Commission Interstate Fishery Management Plan for American Lobster.

LD 1796 An Act To Coordinate Marine Port Development, sponsored by Rep. Roland Martin. This bill proposes changes to the governance of marine port terminal facility development including expanding the scope of the Maine Port Terminal Facilities Marketing Program. Other changes include requiring the Maine Port Authority to hire an executive director and authorizes the executive director to hire certain other employees.

Bills submitted by not yet published:


LR 2289 An Act To Create the Office of Federal Liaison for Maine’s Heritage Lobster Industry, sponsored by President Troy Jackson of Aroostook.

LR 2166 An Act To Establish the Lobster Roll as the Maine State Sandwich, sponsored by Senator Eloise Vitelli of Sagadahoc.

LR 2192 An Act To Limit Eligibility for Commercial Menhaden Fishing Licenses, sponsored by Department of Marine Resources.

Many thanks to these fine businesses, the MLA’s Keeper members!


Novatec Braids LTD Pack Edge Port Clyde Fisherman’s Cooperative Port Lobster Co. RE Thomas Marine Hardware RG Tax Accounting and Resolution Riverside Mills Rope Razor Seacoast Tours of Freeport LLC Superior Marine Products Tenants Harbor Fisherer’s Cooperative Twin City Financial Group Varney Insurance Inc. Ynvalhaven Fisherman’s Cooperative William Coffin & Sons Winter Harbor Fisherer’s Cooperative Woxesters Lobster Bait

Photo courtesy of the Portland Press Herald.
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The delays we are experiencing in receiving supplies and materials continue, and in the meantime, we’re still rebuilding our workforce and focusing on our customers’ orders.

We’re all in this together and real assured: we are doing everything in our power to get back to our normal level of customer service as soon as possible.

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**2022 SCHOLARSHIP APPLICATION**

The Maine Fishermen’s Forum Board of Directors offers a scholarship fund to benefit children or grandchildren of a legal dependent of someone actively involved in harvesting wild or farmed Maine seafood or a Maine-based resource law enforcement officer regardless of financial need or academic achievement.

**Applications will be accepted through March 3, 2022.**

Scholarships will be awarded by a random drawing to be held on Friday, March 4, 2022.

You qualify for the scholarship drawing ONLY IF you check all 4 items below.

1. Are you in College now? or students who are in at least the second semester of their Certificate Program will be eligible.
2. Are you in at least the second semester of a Certificate Program
3. Did you provide an official transcript or Registrar’s letter of current standing?
4. Did you complete this application and send to the address at the top of this letter.

Undergraduates attending a two or four year college who are in at least the second year of their program or students who are in at least the second semester of their Certificate Program will be eligible.

**MAINE SEAFOOD INDUSTRY FAMILY MEMBER INFORMATION**

- **Student Name**
- **Relationship**
- **Street/Address**
- **City, State, Zip**
- **Email**

**COLLEGE Standing as of Sept 2021**

- **College/University Name**
- **Expected Year of Graduation**
- **Location of College**
- **Year Major**

**COLLEGE Standing as of Sept 2021 (circle one)**

- **Freshman**
- **Sophomore**
- **Junior**
- **Senior**

**SCHOOL INFORMATION**

- **High School Students are not eligible.**

- **School Name**
- **Address**

**SCHOLARSHIP DRAWING REQUIRES**

- Are you a child, grandchild or legal dependent of someone participating in Maine’s seafood industry?
- What is required? (Both of these items are required to be a valid candidate)
- Did you provide an official transcript or Registrar’s letter of current standing?
- Did you complete this application and send to the address at the top of this letter.

Due note that previous winners are not eligible.

**APPLICATION DEADLINE**

Applications will be accepted through March 3, 2022.

**Visit us online at:**

www.brookstrapmill.com
Burdensome Federal Regulations Threaten to End Maine’s Lobster Industry

New federal rules intended to protect the North Atlantic right whale have set a course to eliminate the Maine lobster fishery and end Maine’s lobsteroing tradition.

The plan will end the Maine lobster fishery but won’t save right whales.

The Maine Lobstermen’s Association (MLA) is fighting back! We are putting 65 years of experience as the leader of the world’s most sustainable fishery to work to find a solution that will protect right whales AND Maine’s lobsteroing heritage.

Join the Fight to Save Maine Lobstermen
Fighting the federal government and solving complex environmental problems takes resources. We must raise $10 million over the next three years to lead this fight.

What will funding support?
Funding will directly support legal efforts to challenge flawed federal regulations through lawsuits, regulatory processes, development of innovative gear solutions, and education to save Maine lobsteroen AND right whales.

Join The Fight Today!
SaveMaineLobstermen.org
The Issue:

In 2021, the National Marine Fisheries Service (NMFS) released a 10-year whale plan that requires the Maine lobster fishery to reduce risk to right whales by 98 percent. This is an achievable goal that the lobster industry cannot survive. Now the government is threatening to require these deep cuts even sooner.

The Challenge:

Maine lobstermen are not to blame. There has not been a single known right whale entanglement in Maine lobster gear in almost 20 years and Maine lobster gear has never been linked to a right whale death.

New research shows that right whales rarely visit the waters where Maine lobstermen fish. Simply put--the federal government is wrongly holding Maine lobstermen accountable for the decline of the right whale population.

The Solution:

The MLA is engaged in a four-prong strategy to Save Maine Lobstermen AND right whales.

**Legal and Policy** — The MLA is suing the federal government to stop the 10-year whale plan that will decimate Maine’s lobster industry. MLA has asked the court to fix the plan using accurate science so that we can save right whales without sacrificing the lobster fishery.

**Science** — MLA is engaging with scientific experts to ensure the most up to date, cutting-edge science is the basis of any whale conservation plan.

**Conservation** — MLA is working with Maine lobstermen to continue efforts to develop innovative gear solutions that protect right whales and support the continuation of Maine’s lobstering heritage.

**Communications** — MLA is building support to ensure that our community understands that Maine’s lobstering tradition is at risk and may disappear forever, erasing generations of locally-owned and operated fishing businesses and the economic engine of Maine’s rural coastal communities.

**WE NEED YOUR HELP**

TO MAINTAIN A ROBUST LOBSTER INDUSTRY TODAY AND FOR FUTURE GENERATIONS AND THE THOUSANDS OF FAMILIES THAT RELY ON IT

Join The Fight Today!
SaveMaineLobstermen.org
Help Us Fight Back.

Contributions to #SaveMaineLobstermen allow us to fight for the future of Maine's lobster fishery.

$100 - $299 continued
Carli Stewart
David Tarr
Elliot Thomas
Dana Tracy
Peter Vogell
Virginia Wadleigh
Ray Waite
Kachina Watt
Derek Webber
Bradley West
Richard Wilson
Joseph Wood
Donald Wright
Chris Young

Gifts Under $100
Robin Alden
Ames/Walsh Family
Terrence Ashton
Judith Baker
Stuart Bevin
Enoch Bohrman
Theodore Boyce
Norman Brazer Jr.
Kara Breese
Foy Brown
Linda Burley
James Coakley

Under $100 continued
Kathleen Couillard
Orville Darling
Damee DiBlase
Edgar Drew
Cara Dunn
Daniel Emerson
Jon Emerson
Corey Engle
Debra Furman
Brian Green
Jeffrey Greiner
Michael Gurtler
April Hart
David Hart
William Hart
Allison Hepler
Stephen Hewitt
Lindsay Hickox-Hauser
Linda Hooper
C Hutchings/BHS Special Svcs Team
Margaret Jicha
Paul Kinsella
Angela Lancerelli
Paul Lanore
Daid Lawrence
Ingrid Levassuer
Ken & Deb LaVoie/Central Maine Video
Barbara MacAdams

Under $100 continued
Chloé Massin
Michael McGlone
Mary Medina
Kathleen Menard
John Miller
Mark Minton
William Mitchell
George Munson
Must Be Nice Lobster Co
Gordon Murray
Ronda Nichols
Linda O’Brien
Robert Oberlander
Roz & Dolly Pachtner
Zoe Pellergrino
Evan Pinette
Susan Polvin
Bonnie Remar
John Rohrer
Andrew Rudalevig
Molly Samuels
Gynell Schopeee
Miranda Shin
Jim Smith
Michael & Mamie Stevens
Andrea Torok
Diana Tyler
Michael & Patricia Weare
Kenneth Weed

Under $100 continued
Mark White
Caleb Wiesing
Amber Wotton
Susan York

In Honor of Matthew Thomas
Joy, Swans Island
Bruce E. Johnson

In Honor of our lobstermen sons
Ronda Nichols

Gifts in Memoriam
In Memory of Gilbert Cullen Sr
Clinton Collamore

In Memory of Rick Knight Jr
Eric Brazer
Michael Flanigan
David & Dana Ranata
Michael & Patricia Weare

In Memory of Albert Osgood Sr
Lee Osgood

In Memory of Marc Bradley
Lee Osgood

In Memory of Rodney Dyer
Lee Osgood
Courtland Tolman

In Memory of Greg Hoyt
Alyson Ames
Calvin Bayley
Ellen Becht

In Memory of G. Hoyt (cont’)
BHS Special Service Team
Kara Breese
Cindy Boyt
Susan Boyt
Patricia Doherty
Linda Hooper
Rosalyn Pachter
Andrea Torok
The Walsh Family

The MLA is committed to raising $10 million in three years to fight back against unfair whale rules.

Will you pledge at least $1,000 to SAVE MAINE LOBSTERMEN in 2022 and receive a special “DONOR” sweatshirt?

☐ Yes! I pledge $1,000
☐ Yes! I pledge $100 per month ($1,200 total)
☐ Other options for supporting Save Maine Lobstermen

☐ $10,000
☐ $5,000
☐ $1,000
☐ $500
☐ $365 “a dollar a day”
☐ Other ______

Name: ________________________________
Business Name: ______________________
Address: _____________________________
City: ____________________________
State: ______ Zip: ________________
Phone: ____________________________
Email: _____________________________

“There are about 4,800 licensed lobstermen in Maine. If each of us gave just $1,000, we’d be $4.8 million closer to our goal.”
—Kristian Porter, MLA president

MLA Legal Defense Fund: 2 Storer St, Suite 203, Kennebunk, ME 04043
www.savemainelobstermen.org 207-967-4555
MLA Seeks Nominations for Board of Directors

**MLA Members** -- Don’t miss your opportunity to influence the future of your organization and your industry!

**Annual Meeting** to be announced

---

**Did you know?**
- MLA Directors are elected for a 3-year term
- MLA Directors meet monthly (except August)
- Board members expected to attend at least 4 meetings/yr

**Overview of MLA Board**
- Maximum # of Board members: 21
- Current Board: 21 members
- **Number of Directors with Terms expiring: 7**
- Average age of MLA Board: 49
- Youngest MLA Board member: 26
- Oldest MLA Board member: 73

**MLA Board representation**
- Zone A: 4 (1 expiring)
- Zone B: 3 (1 expiring)
- Zone C: 3 (1 expiring)
- Zone D: 3
- Zone E: 3
- Zone F: 2 (1 expiring)
- Zone G: 2 (2 expiring)
- Islands: 4

**2022 Board Priorities**
- Dedicated lobstermen who care about the future of the industry
- Lobstermen who can talk about the industry’s needs and priorities
- Balanced industry representation across the state

---

**MLA Director Nomination Form** (detach and return)

**Nomination Requirements**
- To make a nomination, you must be a MLA member in good standing.
- All nominees must hold a Maine lobster license & be a MLA member in good standing.
- Deadline for nominations: **February 4, 2022**
- Feel free to nominate yourself, or someone else.

---

**Nominee Information (must be MLA member)**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Fishing Port:</th>
<th>Zone:</th>
<th>Town of residence:</th>
<th>Please let us know how this nominee could contribute to the MLA Board:</th>
</tr>
</thead>
</table>

---

**Thank you for helping to keep the MLA strong!**

---

Mail your nomination to the MLA office: MLA, 2 Storer St, Ste 203, Kennebunk, ME 04043

Or feel free to call in your nomination to 967-4555 or email: patrice@mainelobstermen.org.

---

**MARKETING UPDATES**

In 2022, the MLMC will work on protecting Maine Lobster’s brand reputation with wholesale customers and consumers. The marketing effort will include proactive story telling around the industry’s commitment to protecting the ocean, right whales and the historic lobster fishery with:

- A video series that highlights the work fishermen and industry members do to collaborate on environmental science, sustain the resource and improve the marine environment.
- A satellite media tour and an editorial release to generate broadcast and print media coverage sharing the industry’s perspective in major media markets around the U.S.
- Public relations outreach including stories that emphasize the industry’s commitment to sustainability.

---

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info@duralite[dot]com
www.duralite[dot]com

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**INDUSTRY ORGANIZATIONS**

Maine Lobster Marketing Collaborative
2 Union St.
Portland, ME 04101
207-341-9110
info@lobstermaine.com
www.lobstermaine.com

**INSURANCE**

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www.fapeabody.com

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travis.thompson@atwoodlobster.com

Cranberry Isles Fishermens Coop
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207-244-5343
cranberrycoop@gmail.com
http://littlecranberrylobster.com

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**FARE DISCOUNTS**

Many thanks to our business supporters!

January 2022 | LANDINGS | Page 23
Show your MLA card to receive great discounts at these fine businesses!
No doubt the title of “Biggest New Fiberglass Lobster Boat” for 2021 goes to the 60’ Carpe Diem, owned by Ethan Whitaker of Corea.

Dixon’s Marine Group, located in Lower Wood’s Harbour, Nova Scotia built Carpe Diem, beginning with a 59’11”x 20’10” hull designed by yard founder Gary Dixon. As do the (relatively speaking) smaller Dixon designs, the solid fiberglass hull has a molded-in chine.

“I had a 45’ Dixon for nine years before this one,” says Whitaker, “and it was a really good sea boat. But fishing further out and staying overnight? I wanted something bigger.”

And big she is, topping out at 96,000 lbs. in the travelift at Billings Diesel in Stonington.

Billings was the source for Carpe Diem’s main engine — a V-12 MAN derated to 1200 hp — matched to a 2.5:1 Twin Disc 5146A gear. During sea trials, wide open throttle (2118 rpm) yielded a top speed of 19 knots; 1950 rpm gave 15.6 knots with a fuel burn of 47.8 gals per hour (gph); and at 1800 rpm the 60-footer was cruising 14 knots while burning 39.7 gph.

Once you get over the sheer size of Carpe Diem, probably one of the next things to catch your eye is her hauler setup, which Whitaker says was inspired by the Little Bay off shore lobster fleet. With a traditionally-placed davit acting as a leader block, trawls are actually pulled aboard by a 17” hauler located aft of a trap table situated alongside the cutout.

“I’ll be honest, I was nervous and excited all at the same time that first trip,” says Whitaker, “but the new hauler worked really slick ... everything did, really.”

Richard Duffy spent the summer of 2021 fishing the first B&R Duffy (“B&R” is for Richard and his late father Ralph — or "Riley" as he was known to friends) to roll out of the doors at SS Boats in Sedgwick and reports the boat to be “everything I hoped it would be.”

Duffy’s wish list specified a new 35-foot with a 14’ beam and no tumblehome aft; a 22’ cockpit; a low sheer (“Something that us older guys could climb over from a skiff”); good visibility from the helm; maximum platform area with the ability to hold up weight well (Lincoln ended up holding the transom to 12’6”); and a hull that would be steady when you cut around in your own wake to gaff a buoy ... all incorporated into a big boat that didn’t look bulky.

Richard Duffy sold the original Duffy molds to Atlantic Boat in 1995. Lincoln (whose body of design work also includes several of the BHM models and the Northern Bay 36) was responsible for eight of the original Duffy hulls: the 26, 30, 31, 35, 38, 42, 48 and 50 were all his.

2021 also marked the reunion of two names who definitely had an influence on the fiberglass age of boat building in Maine: designer Spencer Lincoln and builder Richard Duffy.

The pair hadn’t collaborated on a boat model since Duffy sold the original Duffy & Duffy molds to Atlantic Boat back in 1995. Lincoln (who’s work on the BHM models and the Northern Bay 36) was responsible for eight of the original Duffy hulls: the 26, 30, 31, 35, 38, 42, 48 and 50 were all his.

Duffy (who’d been lobstering since getting out of full-time boat building — and, by his own admission, had “too much time to think”) approached his old co-hort Lincoln a couple of years ago with a question: “Do you have one more boat in your head – one that’s better than anything you’ve done before?” As it turned out, Lincoln was up for the challenge.

Richard Duffy’s wish list specified a new 35-footer with a 14’ beam and no tumblehome aft; a 22’ cockpit; a low sheer (“Something that us older guys could climb over from a skiff”); good visibility from the helm; maximum platform area with the ability to hold up weight well (Lincoln ended up holding the transom to 12’6”); and a hull that would be steady when you cut around in your own wake to gaff a buoy ... all incorporated into a big boat that didn’t look bulky.

Richard Duffy spent the summer of 2021 fishing the first B&R Duffy (“B&R” is for Richard and his late father Ralph — or "Riley" as he was known to friends) to roll out of the doors at SS Boats in Sedgwick and reports the boat to be “everything I hoped it would be.”

Powered by a 450-horse QSL9 Cummins, the new model did everything her designer and owner wanted her to performance-wise, topping out at 25 knots; 1600 rpm yielded a “sweet spot” of 17 knots while burning a stingy 9 gals/hr. Although the average sizes of Maine lobster boats and the engines that power them have steadily crept up over the past few years, there’s still a place for the outboard-powered lobster skiff.

Young Elijah Brice of Brice Boatworks in Eastport is keeping the “mosquito fleet” tradition alive with the Eastporter model line of fiberglass skiffs, ranging from 17’x 6’6” up to a 24-footer that’s 8’6” wide. (Brice knows what his hulls are capable of. He fished Grand Manan Channel in a 20, alongside boats twice his size or more.)

“One of the 17’s went to an older lobsterman who wanted it to teach his grandsons about fishing,” says Brice. “With a 40-horse Yamaha, he says he can cruise 20 mph at half-throttle.”

For now, Brice is a one-man shop – which he prefers. “For the most part, I enjoy working on smaller boats. They’re more manageable for a single person.”

The 60-foot Carpe Diem makes the water fly off Corea. B.Robbins photo.

Elijah Brice at the tiller of an Eastport 17. B. Robbins photo.
For an interactive source of pending lease applications, please see DMR’s new "Table of Lease Applications Under Review" where you can find maps and documentation with just one click.

Go to: www.maine.gov/dmr/aquaculture/leases/pending.html and click INTERACTIVE DATA TABLE at the top of the list.

### Standard Lease Applications

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<thead>
<tr>
<th>Name of Applicant/Company</th>
<th>Site Description</th>
<th>Town</th>
<th>Size (acres)</th>
<th>Product</th>
<th>Duration (yrs)</th>
<th>Status</th>
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<td>Love Point Oysters, LLC</td>
<td>S of Crab Island</td>
<td>Freeport</td>
<td>4.15</td>
<td>Oysters</td>
<td>20</td>
<td>Public Hearing 10/26/21, 4 pm Freeport</td>
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<td>Love Point Oysters, LLC</td>
<td>S of Winslow Park</td>
<td>Freeport</td>
<td>4.78</td>
<td>Shellfish</td>
<td>20</td>
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<td>Johnson, Timothy</td>
<td>SE of Barnes Pt</td>
<td>Damariscotta</td>
<td>17</td>
<td>Shellfish</td>
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<td>Lease Granted 11/10/2021</td>
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<td>Hunt, Stewart</td>
<td>Upper Basket Island Ledge</td>
<td>Casco Bay</td>
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<td>Bar Harbor</td>
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<td>Ferda Farms LLC</td>
<td>New Meadows River, E of Lower Coombs Isl</td>
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<td>SE of Barlow Pt</td>
<td>Middle Bay</td>
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<td>20</td>
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<td>New Meadows River</td>
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<td>Application rec’d 11/4/2021, site review TBD</td>
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<td>Schoodic Seafarm LLC</td>
<td>Off Long Cove, Gouldsboro Bay</td>
<td>Corea</td>
<td>2.2</td>
<td>Shellfish</td>
<td>20</td>
<td>Application rec’d 9/24/21, site review scheduled</td>
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<td>Summit Point LLC</td>
<td>NE of Black Island</td>
<td>Casco Bay</td>
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<td>Marine Algae</td>
<td>20</td>
<td>Site Review pending as of 12/2/21</td>
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<tr>
<td>The Maine Scallop Co, LLC</td>
<td>E of Sturdivant Island</td>
<td>Casco Bay</td>
<td>5.36</td>
<td>Shellfish</td>
<td>10</td>
<td>Amendment granted to app (12/17/21)</td>
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<tr>
<td>Dickerson, Christopher</td>
<td>800 ft SW Hog Island</td>
<td>Damariscotta</td>
<td>1</td>
<td>Shellfish</td>
<td>20</td>
<td>Public Hearing 3/16/2021</td>
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<tr>
<td>Dodge Cove Marine Farm</td>
<td>NE of Dodge Pt</td>
<td>Damariscotta</td>
<td>12.26</td>
<td>Shellfish</td>
<td>20</td>
<td>Application rec’d 7/15/21, site review TBD</td>
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<tr>
<td>Coffin, Bailey</td>
<td>W of Sow &amp; Pigs Island</td>
<td>Casco Bay</td>
<td>6.84</td>
<td>Shellfish</td>
<td>20</td>
<td>Application rec’d 4/16/21, site review TBD</td>
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<tr>
<td>Harrarrell Oyster Co.</td>
<td>S of Bowman Island &amp; Stockbridge Pt</td>
<td>Casco Bay</td>
<td>3.2</td>
<td>Shellfish</td>
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<td>Lease granted 10/25/2021</td>
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<tr>
<td>Love Point Oysters, LLC</td>
<td>NE of Windmill Park, Casco Bay</td>
<td>Freeport</td>
<td>4.78</td>
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<td>Public Hearing 10/26/21, 4:30 Freeport</td>
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<td>Love Point Oysters, LLC</td>
<td>S of Crab Island</td>
<td>Casco Bay</td>
<td>4.15</td>
<td>Oysters</td>
<td>20</td>
<td>Public Hearing 10/26/21, 4 pm Freeport</td>
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<tr>
<td>Cooke Aquaculture USA, Inc</td>
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<td>Frenchboro</td>
<td>15</td>
<td>Shellfish</td>
<td>20</td>
<td>Public Hearing 11/8/2021, 4 pm, SW Harbor</td>
</tr>
<tr>
<td>Gaffney, Michael &amp; Mark</td>
<td>NE of Pheobe Island</td>
<td>Boothbay Cove</td>
<td>7</td>
<td>Shellfish</td>
<td>20</td>
<td>Application rec’d 11/24/2021, site visit TBD</td>
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<tr>
<td>Love Point Oysters, LLC</td>
<td>Middle Bay, Southeast of Upper Goose Island</td>
<td>Harpswell</td>
<td>3.2</td>
<td>Shellfish</td>
<td>20</td>
<td>Public Hearing 12/27/2021, 4pm Harpswell</td>
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<tr>
<td>Restorative Aquaculture LLC</td>
<td>Middle Bay, E of Scrag Island</td>
<td>Harpswell</td>
<td>9.89</td>
<td>Shellfish</td>
<td>20</td>
<td>Application rec’d 10/20/21, site review TBD</td>
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<tr>
<td>Islesboro Marine Enterprises, Inc</td>
<td>NE of Flat Island, Penobsbay Cove</td>
<td>Islesboro</td>
<td>6</td>
<td>Shellfish</td>
<td>20</td>
<td>Application rec’d 4/1/21, site review TBD</td>
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<tr>
<td>Moosabec Mussels Inc.</td>
<td>Off Pigeon Island, Jordan River</td>
<td>Lamoine</td>
<td>89.78</td>
<td>Shellfish</td>
<td>20</td>
<td>Lease renewal, comments due 6/28/21</td>
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<tr>
<td>I George Faux Inc</td>
<td>S of Great Salt Bay, Upper Damariscotta River</td>
<td>Newcastle</td>
<td>1.8</td>
<td>Shellfish</td>
<td>20</td>
<td>Scoping Session Nov 18, 2021, 5 pm</td>
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<tr>
<td>Maine Oyster Inc.</td>
<td>E and S of Lebanon Island</td>
<td>Upper Piscopic River</td>
<td>Newcastle</td>
<td>10</td>
<td>Shellfish</td>
<td>20</td>
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<tr>
<td>Hermit Island Oyster Co, LLC</td>
<td>Hermit Island</td>
<td>Plattsburg</td>
<td>2.56</td>
<td>Shellfish</td>
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<td>Application rec’d 5/26/21, site review TBD</td>
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<tr>
<td>Maine Fresh Sea Farms LLC</td>
<td>Clark Cove, Damariscotta River</td>
<td>South Bristol</td>
<td>3.6</td>
<td>Marine Algae</td>
<td>10</td>
<td>Application rec’d 5/4/21, site review TBD</td>
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<tr>
<td>Dewey’s Shellfish, LLC</td>
<td>NW of Peters Island, Damariscotta River</td>
<td>South Bristol</td>
<td>0.58</td>
<td>Shellfish</td>
<td>20</td>
<td>Application rec’d 8/16/21, site review TBD</td>
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<tr>
<td>Heron Island Oyster Company</td>
<td>Damariscotta River</td>
<td>South Bristol</td>
<td>1</td>
<td>Shellfish</td>
<td>20</td>
<td>Application rec’d 10/4/21, site review TBD</td>
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<tr>
<td>Morning Star Fisheries, LLC</td>
<td>Sheepscot River, W of Boston Island</td>
<td>Southport</td>
<td>4.5</td>
<td>Marine Algae</td>
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<td>Application rec’d 11/24/2021, site visit TBD</td>
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<tr>
<td>Brewer, Robert</td>
<td>E of Penobsay Cove SW of Andrews Island</td>
<td>Stonington</td>
<td>3.26</td>
<td>Shellfish</td>
<td>20</td>
<td>Application rec’d 10/20/21, site review TBD</td>
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<tr>
<td>Harvey, Brian</td>
<td>W of Haynes Pt, Goose Cove, Western Bay</td>
<td>Trenton</td>
<td>8</td>
<td>Shellfish</td>
<td>20</td>
<td>Site Review Pending as of 3/27/2020</td>
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<tr>
<td>Butterfield, Keith</td>
<td>East of Little Mosher Island, Casco Bay</td>
<td>Yarmouth</td>
<td>2.72</td>
<td>Shellfish</td>
<td>20</td>
<td>Lease amendment (12/24), comments due (12/24)</td>
</tr>
<tr>
<td>Henning, Thomas</td>
<td>Broad Cove, Casco Bay</td>
<td>Yarmouth</td>
<td>2.9</td>
<td>Shellfish</td>
<td>20</td>
<td>Application submitted 7/9/20</td>
</tr>
<tr>
<td>Maine Source Seafood</td>
<td>NE of Lane’s Island, Casco Bay</td>
<td>Yarmouth</td>
<td>3.48</td>
<td>Oysters</td>
<td>20</td>
<td>Public Hearing 3/16/2021</td>
</tr>
<tr>
<td>Nickerson, Travis</td>
<td>E of Laney Pt</td>
<td>Yarmouth</td>
<td>2.80</td>
<td>Shellfish</td>
<td>20</td>
<td>Application rec’d 10/16/21, site review TBD</td>
</tr>
</tbody>
</table>

### Experimental Lease Applications

- **Standard Lease**: term is up to 20 years, size is up to 100 acres and is renewable
- **Experimental Lease**: up to 3 years, 4 acres and is non-renewable

#### Experimental Lease Applications

<table>
<thead>
<tr>
<th>Name of Applicant/Company</th>
<th>Site Description</th>
<th>Town</th>
<th>Size (acres)</th>
<th>Product</th>
<th>Duration (yrs)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMR Bureau of Sea Run Fish</td>
<td>S side, E of Western Head, W of Little River</td>
<td>Cutler</td>
<td>4.0</td>
<td>Finfish</td>
<td>3</td>
<td>Application withdrawn (12/13/2021)</td>
</tr>
<tr>
<td>Sea Run Fisheries &amp; Habitat</td>
<td>S of Western Head &amp; L13 Rvr Isl, Cutler Hbr</td>
<td>Cutler</td>
<td>4</td>
<td>Finfish</td>
<td>3</td>
<td>Site Review Complete 3/20/2020</td>
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<tr>
<td>Muscongus Bay Aquaculture</td>
<td>NW of Gilideon Ledge, Damariscotta River</td>
<td>Edgecomb</td>
<td>3.93</td>
<td>Shellfish</td>
<td>3</td>
<td>App submitted: Comments due 11/6/2021</td>
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<tr>
<td>Whisky Stotes, LLC</td>
<td>E of Dogs Head, Harpswell Sound</td>
<td>Harpswell</td>
<td>0.481</td>
<td>Shellfish</td>
<td>3</td>
<td>App rec’d, Comments due 3/3/21</td>
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<tr>
<td>Doyle, Victor</td>
<td>E of Barlett Isl, Blue Hill Bay</td>
<td>Mount Desert</td>
<td>1</td>
<td>Shellfish</td>
<td>3</td>
<td>Public Hearing Postponed</td>
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<tr>
<td>Bracy, L and Lombardo, P</td>
<td>N of Coombs Cove, Pemaquid River</td>
<td>Pemaquid</td>
<td>1.6</td>
<td>Shellfish</td>
<td>3</td>
<td>Application rec’d 7/19, comments due 8/21/2021</td>
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<tr>
<td>Million, Mark</td>
<td>S of Eagle Island, Wheeler’s Bay</td>
<td>St. George</td>
<td>3.9</td>
<td>Marine Algae</td>
<td>3</td>
<td>Lease Granted 11/10/2021</td>
</tr>
<tr>
<td>Johnson, Ezra et al.</td>
<td>NE part of Burt Coast Harbor</td>
<td>Swans Island</td>
<td>1.6</td>
<td>Shellfish</td>
<td>3</td>
<td>App rec’d 5/24/21, comments due 6/26/21</td>
</tr>
</tbody>
</table>

#### DMR Rulemaking Proposal - Public Hearing January 5th at 5pm

**Chapter 2: Aquaculture Regulations**

DMR is proposing rule changes which would include: changes for lease fees and escrow accounts; re-structuring of section 2.90(2)(B) regarding stock and seed sources; changes to the species included in 2.95(A)(4)(a); and updates to gear marking that would go into effect January 1st, 2023. The public is invited to a hearing on January 5th, 2023, 5:00 PM. The hearing will be held remotely and in-person in Augusta. For more information, please visit www.maine.gov/dmr/aquaculture/.
Getting older is not much fun. You look in the mirror and see the telltale wrinkles, skin blotches and other signs of passing years. Then there are those annoying birthday cards, telling the world just how many decades have gone by!

Lobsters don’t have these problems. *Homarus americanus* simply sheds its shell every so often, forms a sprightly new one, and continues to grow, unmarked by the depredations of time. That makes it hard to figure out the exact age of a lobster.

Unlike fish, which have tiny stones called otoliths in their ears with rings that can be counted to determine age, there isn’t a clear method to tell how old a lobster is other than an estimate based on its size. But lobsters grow at different rates due to a variety of environmental factors so a size estimate is hardly a reliable marker of age.

Lobsters are known for their long lifespans. The crustaceans continue eating, reproducing and growing until the end of their lives. Like other crustaceans, such as crayfish and shrimp, lobsters have indeterminate growth. That means they don’t reach a set size limit — they will continue to grow until they die of natural causes or are killed.

One clue that a lobster is getting near the end of its life is that it stops molting. They just run out of the energy to shed their heavy shell.

A team of researchers at the University of East Anglia in Norwich, England believe they have found a new technique to accurately assess a lobster’s age. Their work was published in *Evolutionary Applications* this fall. Associate professor Martin Taylor and colleagues developed a DNA-based method of pinpointing the age of young lobsters to within 1.6 months.

The researchers raised the lobsters from eggs so they would know their exact age. They then took tissue samples from the legs and antennae of 155 lobsters and measured DNA methylation.

Methylation is a process by which molecules known as methyl groups attach one by one to strands of DNA over time. The accumulation of methyl groups on the DNA strands creates a type of clock that indicates how long the lobsters have been alive. In this study, researchers found that older lobsters had more methyl groups attached to their DNA than younger ones.

The known-age lobsters in the study were only up to 51 months old, or just over four years. Biologists believe that European lobsters — the type examined in the study — can live for 70 or more years, and American lobsters can live longer, possibly even a century.

“My quick take is that if the DNA methylation method can be shown to be stable in spite of varying environmental conditions, especially temperature, then it might be a useful tool. The benefits of the technique is that it is non-lethal and relatively quick and easy,” said Rick Wahle, director of The Lobster Institute at the University of Maine.

The study showed that using DNA can provide an insight into a lobster’s age, however, extracting and analyzing DNA is a time-intensive process, using expensive equipment found only in a lab.

So it may be that lobsters can continue to keep their real ages a mystery for just a while longer.
### Summary of Right Whale - Lobster Fishery Lawsuits

<table>
<thead>
<tr>
<th>Jan/Feb 2018</th>
<th>Sept 2021</th>
<th>Sept 2021</th>
<th>April 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Center for Biological Diversity, Conservation Law Foundation, Defenders of Wildlife vs Sec’y of Commerce &amp; NMFS</strong></td>
<td><strong>Maine Lobstermen’s Association vs Sec’y of Commerce and NMFS</strong></td>
<td><strong>Local 207 et al vs Sec’y of Commerce &amp; NMFS</strong></td>
<td><strong>Max Strahan vs Sec’y of Commerce, NMFS &amp; ASMFC</strong></td>
</tr>
<tr>
<td>US District Court for District of Columbia before Judge Boasberg Complaint [2018]</td>
<td>US District Court for District of Columbia before Judge Boasberg Complaint NMFS 10-year whale plan and new final whale rule are unsupported by best available science and commercial knowledge, do not account for reduced risk from existing measures and are otherwise based on arbitrary, unlawful speculation</td>
<td>NMFS 10-year season for lobster is illegal</td>
<td>US District Court for District of Columbia before Judge Kelley Complaint State and federal government illegally authorize the use of Vertical Buoy Rope (VBR) in lobster and gill-net fisheries</td>
</tr>
<tr>
<td>Case Divided into 2 Phases</td>
<td>Case Divided into 2 Phases</td>
<td>Request for Preliminary Injunction and Temporary Restraining Order</td>
<td>Request for Temporary Restraining Orders</td>
</tr>
<tr>
<td>Phase 1 — Is there a violation of ESA or NMMPA?</td>
<td>Phase 2 — What remedy is necessary if there is a violation?</td>
<td>October 2021 — Court grants temporary delay of implementation of the closure pending a full hearing on the merits of the lawsuit; denies request to impose conditions on future closure regulations</td>
<td>Court denies multiple requests to cease issuance of state and federal permits for lobster fishery</td>
</tr>
<tr>
<td><strong>Phase 1 Decision</strong></td>
<td><strong>Phase 2 Remedy</strong></td>
<td><strong>Defendants Appeal of Temporary Delay of LMA 1 Closure</strong></td>
<td><strong>Amended Complaint</strong></td>
</tr>
<tr>
<td>April 2020 — Court rules NMFS violated the ESA in 2014 Biological Opinion that lacked an Incidental Take Statement (ITS); NMFS is required to authorize the American lobster fishery</td>
<td>August 2020 — Court directs NMFS to issue valid Biological Opinion by May 31, 2021</td>
<td>November 2021 — Judge Walker denies Defendants motion for stay of temporary delay of closure until the Appeal decided</td>
<td>Nov 2021 Next Steps</td>
</tr>
<tr>
<td>May 2021 — NMFS completes new Biological Opinion and requests case be closed; Plaintiffs request immediate imposition of measures to restrict the lobster fishery</td>
<td>August 2021 — Court rejects immediate restrictions; Directs Plaintiffs to declare intent to amend complaint to address remaining issues by Sept 3</td>
<td>November 2021 — United States Court of Appeals ordered immediate reinstatement of the LMA 1 Closure</td>
<td>February 2022 — Deadline for Defendants to respond to amended complaint</td>
</tr>
<tr>
<td>September 2021 — Plaintiffs file an updated complaint claiming the new Biological Opinion and Whale Rule are illegal and protections should address risk in state and federal waters. Amended Complaint Timeline</td>
<td><strong>What Does MLA Ask the Court to Do?</strong></td>
<td>December 2021 — US Supreme Court Justice Breyer denied without comment MLA’s appeal of the First Circuit decision Appeals Court Timeline</td>
<td><strong>Cases Dismissed</strong></td>
</tr>
<tr>
<td><strong>Case Divided into 2 Phases</strong></td>
<td>MLA seeks to end a pattern of arbitrary actions by NMFS and its regulatory bias against the lobster fishery because of its size</td>
<td>January 18 — Appellants and Intervenors (NMFS) brief due</td>
<td><strong>Max Strahan vs Mass Div of Marine Fisheries [Feb 2018]</strong></td>
</tr>
<tr>
<td><strong>Phase 1 Decision</strong></td>
<td>MLA asks Court to direct NMFS to over haul the 2021 Biop and 10-year whale plan to:</td>
<td>February 16 — Appellees (MLU et al) brief due</td>
<td>Filed in US District Court for District of Massachusetts Assigned to Judge Talwani Complaint: Vertical Buoy Lines (VBR) are illegal and should not be permitted in Mass state and federal fisheries Case Summary (April 2020): Court orders state to obtain an ESA permit to continue to permit vertical buoy lines. A court trial was held in June 2020. Case Dismissed (November 2020): Court dismisses case because Plaintiff lacked standing. “Indicative ruling” issued that state must obtain an ESA permit to allow buoy lines to be fished.</td>
</tr>
<tr>
<td>April 2020 — Court rules NMFS violated the ESA in 2014 Biological Opinion that lacked an Incidental Take Statement (ITS); NMFS is required to authorize the American lobster fishery</td>
<td>(a) revise and correct use of speculative assumptions about risk from Maine lobster gear that are contrary to best scientific evidence,</td>
<td>February 25 — Appellants &amp; Intervenors (NMFS) response due</td>
<td><strong>Max Strahan vs Maine DMR &amp; NMFS [Sept 2019]</strong></td>
</tr>
<tr>
<td>May 2021 — NMFS completes new Biological Opinion and requests case be closed; Plaintiffs request immediate imposition of measures to restrict the lobster fishery</td>
<td>(b) rely on credible, documented evidence of the unmitigated known sources of harm to whales,</td>
<td>Bangor District Court Timeline A schedule for the original complaint has not been set</td>
<td>Filed in US District Court for District of Maine before Judge Assigned to Judge Walker Complaint: Vertical Buoy Lines (VBR) are illegal and should not be permitted in Maine state and federal fisheries Case Dismissed: In January 2021 court granted Plaintiff’s request to dismiss case</td>
</tr>
<tr>
<td>August 2021 — Court rejects immediate restrictions; Directs Plaintiffs to declare intent to amend complaint to address remaining issues by Sept 3</td>
<td>(c) assess and rely on evidence that Maine protective measures are working,</td>
<td><strong>Cases Dismissed</strong></td>
<td>Updated 12/20/2021</td>
</tr>
</tbody>
</table>
Lobstermen have one of the highest rates of job-related injuries in the country. For most it’s common to work in pain. The bending, reaching, and lifting, repeated over and over again year after year, takes a serious toll on a body.

The Northeast Center for Occupational Safety and Health surveyed 395 Northeast lobstermen recently about back pain. One-half of the lobstermen surveyed had low back pain and even more suffered from injuries in the upper extremities—shoulders, elbows, hands and wrists. One way to counter this overuse is through regular massage.

“Lobstermen put in long days, full of rigorous work. The overuse and over-exertion are pretty extreme. Every lobsterman lives in some level of pain and inflammation all the time,” explained Brenda Cotton, a licensed massage therapist in Thomaston. Cotton has treated numerous mid-coast lobstermen over the years, some on a regular basis for years at a time.

Massage can help alleviate acute pain on a temporary basis by stimulating the body to make natural endorphins, bringing oxygen to overtaxed tissues, and flushing out toxins produced by over exertion. By increasing circulation, inflammation is reduced, thus alleviating pain.

But massage can also treat long-standing dysfunctions in the body. Lobstering causes lobstermen to repeat certain motions, such as banding lobsters or breaking traps over the rail, over and over.

“When these motions are performed repetitively, inflammation develops in the involved soft tissues, and over time this can lead to painful tendonitis, muscle strain, and weakness,” Cotton said. “The body begins to recruit surrounding muscles to perform the task and will hold itself in a misaligned way in order to compensate around the areas of pain.”

Muscles adjacent to the overtaxed tissue will try to protect the damaged area by limiting its motion and will try to do those muscles’ work. That in turn causes neighboring muscles to become contracted and inflamed.

“This chronic pattern of strain, pain, contraction, and inflammation can cause structural dysfunction, leading to further pain and compensations,” Cotton continued. “Eventually everything gets locked up. Massage therapy becomes an unraveling process to help the body find alignment again, and to restore function so the muscles can move efficiently with minimal pain.”

Some of the lobstermen who come to her for relief are in constant pain throughout their bodies. The overtaxed muscles and those compensating tissues around them are in a constant state of partial contraction which leads not only to pain but to a loss of strength. “We can unlock those muscles so that the person is less prone to injury and not wasting energy trying to keep the misaligned structure working,” Cotton said.

“I’ve always felt that a lobster boat should be set up to haul on both sides so that a person can balance out because the work is so one-sided and goes on for so long. Even the captain stands at the helm in a weird position for hours and hours,” she added.

Anyone who uses their body in the wrong way over months and years will inevitably find themselves in pain or injured. “The fascia, or connective tissue, is what interconnects everything in the body. It wraps around every muscle fiber, every muscle bundle, every organ, every structure,” Cotton explained.

“When we move repetitively or hold postures for long periods of time, the fascia retains the memory of that. If this is imbalanced or misaligned, our body can’t function optimally.”

“The lobstermen who come to me and find the most improvement are those who follow through with doing a short stretching routine in the morning before they go out and at the end of the day,” she said. “Not long, just 10 minutes or so. This undoes the patterning that comes with the work they do. Taking that 10 minutes helps them get through the day and sleep better at night.”
New England Aqua Ventus officials met with East Boothbay residents in early December over concerns about recent unannounced survey work for an underground cable. Diamond Offshore CEO Chris Wisseman, Diamond COO David Deutsch and project manager Duncan McEachern were met by around 30 residents at the East Boothbay fire station December 2 and more than 50 at Boothbay Region YMCA on December 3. The Diamond Offshore/ RWE Renewables/University of Maine partnership hired teams from SGC Engineering and Ransom Engineering to conduct surveys and drilling samples for three proposed cable routes. The routes all start from Bigelow Laboratory; the first proposed route splits off onto Sunrise Road and the second continues onto Mass Avenue and up Virginia Street. Both proposed routes reach Ocean Point Road where they continue to the substation. The work began on November 11, however the only notice given to the public was a press release published on the same day. The Monhegan wind project has raised concerns among Boothbay Harbor and East Boothbay residents in the past.

The New England Fishery Management Council has called for a reduction of the commercial Georges Bank cod catch from about 2.4 million pounds to about 540,000 pounds next year. Georges Bank is one of two key areas where fishermen catch cod. The other is the Gulf of Maine, which would remain at about 590,000 pounds next year under the council's recommendation. The council said the Georges Bank and Gulf of Maine cod stocks remain overfished. The Gulf of Maine stock shows "few older fish in the population and few incoming recruits," the council said in a statement. The catch was less than 2 million pounds in total last year.

The New England Fishery Management Council updated its offshore wind energy policy, endorsing calls for the Bureau of Ocean Energy Management (BOEM) to establish "a compensatory mitigation fund for damages that occur to the marine environment and fish habitat," and losses to fishing vessels as turbine arrays are built. BOEM started a preliminary public comment process that closes on January 7 to prepare a "guidance" plan for fisheries mitigation measures.

The council's new seven-page policy document spells out its concerns in detail, including "potential impacts from construction, operations, and decommissioning to fishery species and fisheries from physical habitat conversions and losses, scour and sedimentation, construction and operational noise, electromagnetic fields, micrometeorological effects, and water-column hydrodynamic effects (including impacts to the Mid-Atlantic Cold Pool, as well as thermal changes and changes in currents that influence pelagic habitats)."

The council also stressed the need to consider "cumulative effects" of turbine arrays now planned from southern New England to the Carolinas.

A Chinese-owned lobster company in Nova Scotia has been fined $50,000 for illegally shipping U.S.-caught lobsters primarily to China and claiming they came from Canada. Between May and October 2019, the company’s holding facility on Cape Sable Island in southwest Nova Scotia imported 63,000 pounds of live lobster from the United States and exported it as a product of Canada. The lobster was sent from the Halifax Stanfield International Airport. Canadian food traceability and customs certificates are based on an "honor system" that allows the exporter to fill out country of origin in documents.

Maine Department of Transportation (DOT) released the Offshore Wind Port Infrastructure Feasibility Study, commissioned by Governor Janet Mills, in November. The study evaluated physical and technical characteristics of various locations in the Port of Searsport, identified multiple sites for consideration as part of a hub for offshore floating wind turbine projects, including Mack Point terminal and an area of state-owned Sears Island that is reserved for development. That site, according to the study, is recommended for further environmental analyses, geotechnical assessment, and preliminary design work to gauge environmental impacts and evaluations of alternatives, as would be required by federal and state permitting.

Based on the study recommendations, Maine DOT will conduct further environmental and geotechnical surveys in the area. A second study, of other Maine ports, is also underway. That study is evaluating how to strategically align Maine’s ports for offshore wind investment and infrastructure.

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Mack Point and a portion of Sears Island are among the sites identified by the Maine Department of Transportation to serve as the hub for future offshore wind developments. Photo courtesy of Waldo Village Soup.
From NOAA Fisheries

The LMA 1 Restricted Area created by the 2021 modifications to the Atlantic Large Whale Take Reduction Plan includes a 61-square-mile sliver of LMA 3 as highlighted in the attached map. We estimate that only one vessel may be displaced for a small number of trips in this sliver area based on a review of vessel trip reports from the last ten years.

The regulations state that the LMA 1 Restricted Area is bounded by the points identified on the map connected by rhumblines, which do not exactly align with the LMA1/LMA 3 boundary.

The previously released outreach maps did not include this sliver area.

The LMA 1 Restricted Area closure, including the LMA 3 sliver area, is now in effect, and will remain closed through January 31, 2022.
Owls Head lobsterman Micah Philbrook fishes hard. Aboard the 50-foot Claire Elizabeth he and his crew head offshore in the winter months when the weather allows. Philbrook does more than haul lobsters. While at sea he turns a keen eye to the elements of lobstering, showing others scenes they might otherwise never see.

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