

The NOAA FISHERIES NAVIGATOR

Cooperative Research Partnerships: Highlighting the Commercial Fisheries Research Foundation's Lobster and Jonah Crab Study

he Commercial Fisheries Research Foundation (CFRF) developed the Lobster and Jonah Crab Research Fleet in 2013 to begin addressing data needs and inform the assessment and management of the lobster and Jonah crab resources. The project is a collaboration of fishermen, the CFRF, and state/regional/federal scientists and managers. NOAA's Sustainable Fisheries Division works with CFRF to issue Exempted Fishing permits to facilitate the work done under this project. The EFP provides exemptions to the regulations to allow participating fishermen to deploy ventless traps alongside their commercial traps. CFRF serves as the main entity to facilitate working partnerships, and organize and oversee the elements of the project. Vessels are strategically chosen to provide biological data from areas and times of year that are poorly sampled by traditional

To date, fishing vessels participating in the Lobster and Jonah Crab Research Fleet have collected biological data from over 202,740 lobsters and 119,570 Jonah crabs as well as coupled bottom water temperatures from the Gulf of Maine, Georges Bank, and Southern New England. Participants record lobster size, sex, shell disease severity, egg presence and stage, v-notch, shell hardness and disposition, and Jonah crab size, sex, egg presence, and shell hardness. Many of the lobsters sampled are from offshore areas and during times of the year that are not traditionally sampled by federal surveys. These data were incorporated into the 2018 and 2020 lobster stock assessments. In addition, the Jonah crab biosamples data were instrumental in the development of the 2015 Interstate Fishery Management Plan for Jonah crab and will be incorporated in the upcoming 2023 stock assessment.

Under these EFPs, CFRF is working with the Rhode Island Department of Environmental Management (RIDEM) and the University of Rhode Island (URI) to conduct a Jonah crab molting study to help inform a population simulation tool and contribute to future assessment efforts for the species. The lab study was disrupted due to a hurricane in August 2021 that caused severe damage to the RIDEM's laboratory water circulation system. A scaled-down version of the study resumed in February 2022 at the URI Graduate School of Oceanography's marine research facilities.

This project highlights the importance of cooperative research and the partnerships built between research institutions, industry, scientists, and managers. These partnerships provide avenues for sharing information, building relationships among stakeholders, and improving management of fishery resources. For more information on the CFRF Lobster and Jonah Crab Research Fleet, please visit http://www.cfrfoundation.org/jonah-crab-lobster-research-fleet.



Jay Swoboda, Captain of the F/V Karen Ann out of Point Judith, RI providing some Jonah crabs for the molting study.

New Mackerel Recreational Possession Limit

tarting February 1, 2023, there is a 20 fish per person Atlantic mackerel possession limit in federal waters. This possession limit applies to private anglers, anglers and crew on for-hire vessels, any vessel that doesn't possess a commercial Atlantic mackerel permit, and anglers using Atlantic mackerel as bait to catch other recreational species (i.e., striped bass, tuna, etc.). For example, a for-hire boat with four paying passengers and two crew are allowed to possess 120 Atlantic mackerel to use as bait for targeting tuna or striped bass.

If you find that this change in regulations is problematic for your fishing operations, we have another option for you. You can obtain an incidental open access Atlantic mackerel permit through Fish Online (apps-garfo.fisheries.noaa. gov/fishtank) in order to possess more than the 20 fish per person. If you decide to add one of these permits to your vessel, you will be required to report all Atlantic mackerel catch through a vessel



trip report within 48 hours of your fishing trip.

The states of Maine, New Hampshire, and
Massachusetts have also implemented a 20 fish
per person possession limit for Atlantic mackerel
in state waters. If you decide to get the incidental
open access Atlantic mackerel permit mentioned
above, please check with the state that you fish
to ensure you are in compliance with their
regulations as well. If you have any questions
please contact Carly Bari,Greater Atlantic Regional
Fisheries Office, at (978) 281-9150.

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Harbor Porpoise Pinger Use Low in Some Areas

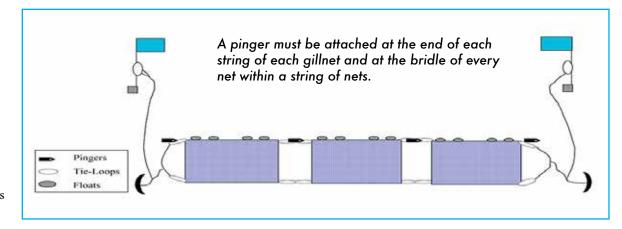
t the annual Harbor Porpoise Take
Reduction Team on February 10, 2023,
presentations provided updates on harbor
porpoise abundance, bycatch in gillnets, and the
fishing industry's adherence to the take reduction
plan regulations. While overall, harbor porpoise
takes continue to be relatively low, they are highest
in the New England sink gillnet fishery, particularly
in the fall and winter, and are still above the goal for
take reduction as required in the Marine Mammal
Protection Act

The fisheries regulated under the plan include the New England sink gillnet fishery, and all other gillnets capable of catching multispecies in New England waters from Maine through Rhode Island east of 72°30' W longitude. The plan requires that pingers, or acoustic alarms, be placed on nets in certain areas at certain times of the year. For more details, see the guides available on our Harbor Porpoise Take Reduction Plan website.

While overall pinger use is at about 70 percent, there are areas and times of year where pinger use is very low. In Southern New England in particular, only about 52 percent of the observed hauls had the correct number of pingers in the winter, and only about a third of the hauls had the correct pingers in the winter. In some cases, there were no pingers on the nets at all.

Areas and times where pingers are required:

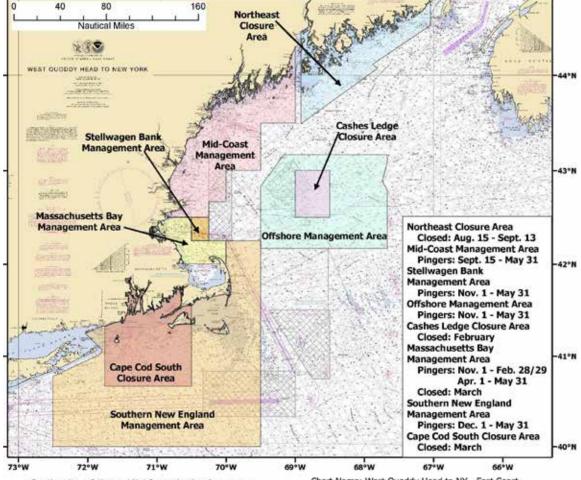
Massachusetts Bay Management Area -April 1-May 31, November 1-February 28/29 Midcoast Management Area - September 15-May 31



Stellwagen Bank Management Area -November 1-May 31 Offshore Management Area - November 1-May 31

In order to meet the goal of the plan, we encourage all New England gillnet fishermen to make sure that pingers are properly attached and in good working order. When used properly, pingers have proven to be very effective at reducing harbor porpoise bycatch. If you need help finding pingers or need certification (required only once) for using pingers, please contact Rob Martin, Northeast Gear Specialist: (617) 710-6322, robert.martin@noaa.gov.

For more information, please visit our website: https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-mammal-protection/harbor-porpoise-take-reduction-plan



Depth units = fathoms / Not for navigational purposes
 Northeast Multispecies FMP Year-Round Closures are depicted as gray cross-hatched areas
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Check out our podcast, Dive In With NOAA Fisheries!

OAA Fisheries conducts world-class science to support sustainable marine life and habitats. We manage millions of square miles of ocean (almost 100,000 miles of coastline), support a \$244 billion fishing industry, and protect and rebuild endangered marine species and habitats. It's a huge job. Our podcast, "Dive In with NOAA Fisheries," is about the work we do and the people behind it.

One facet of NOAA Fisheries' mission is to manage and regulate fish stocks and fisheries. And while the agency plays a large role in the process, the recommendations for things like catch limits or gear allowances and

which stocks to rebuild—the decisions that really impact how and what people can fish—is guidance that is created by independent citizen councils, known as



regional fishery management councils.

In a recent episode, A Citizen's Guide to Fishery Management, Kelly Denit, Director of NOAA Fisheries Office of Sustainable Fisheries, joins us to explore how these councils work, the important role they play in governance, and how you can and should get involved if you're impacted by these councils' decisions. In her position, she works closely with regional offices and science centers in partnership with the councils.

We also speak with some council members to get a better sense of the issues and challenges they face in different parts of the country.

The M2 Mobile Radar Unit: Enhancing Seasonal Management Area Speed Limit Enforcement to Protect North Atlantic Right Whales

OAA's Office of Law Enforcement has a new tool in its toolkit to help enforce speed restrictions that protect North Atlantic right whales along the East Coast: the land based, M2 mobile radar unit. Enforcement officers can now strategically deploy the M2 unit to monitor vessels' speeds in areas known to have endangered right whales.

Multiple Seasonal Management Areas are in place up and down the eastern seaboard during November through July to help reduce lethal vessel strikes, one of the species' major sources of mortality. During these times of year, most vessels 65 feet or longer are required to reduce their speeds to 10 knots or slower while transiting the designated areas. These speed restrictions help reduce the lethality of strikes, allow boaters more time to sight and respond to nearby whales, and allow whales more time to move away from oncoming vessels.

NOAA's Office of Law Enforcement is charged with enforcing these regulations and helping the public comply with the rules. To enforce the speed rule, we deploy a number of technologies and strategies, including:

Automatic identification systems to detect speeding;

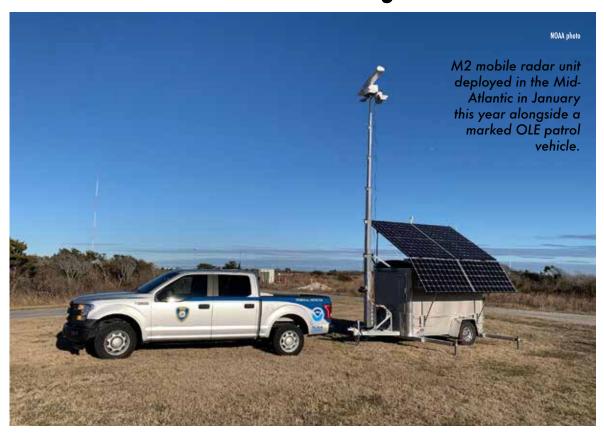
Portable radar units to detect speeding by vessels not carrying automatic identification systems (such as the M2 unit);

Active patrolling of Seasonal Management Areas (specialized equipment allows us to measure ocean current speed to determine if a deviation from the speed limit is warranted);

Industry and public outreach to help stop violations before they happen.

The M2 unit not only identifies the speed of a targeted vessel, but also identifies the specific vessel. A camera mounted alongside the radar antenna at the top of a telescoping mast can zoom in and capture photos of a radar-located vessel.

In addition, solar and battery power allows the unit to function for 5 days without additional power. Special agents and enforcement officers are able to



monitor the M2's readings and make adjustments remotely using a smart device. Lightweight trailer hitches can move the unit efficiently to different locations and the solar panels and mast easily retract for safe transport.

So far during the 2022–2023 Seasonal Management Area season, the M2 unit has been deployed multiple times, including two successful patrols in Chesapeake Bay and a recent multi-day operation in Delaware Bay. It will continue to add versatility to our enforcement capabilities in the current season and beyond.

Boaters of all sizes can play a role in North Atlantic right whale conservation by reducing the number of vessel strikes. Here's how to help.

Contact Us

It will take everyone's cooperation and contributions to save these endangered whales and put them on a path to recovery.

To report a violation, call the Law Enforcement Hotline, available 24/7 at (800) 853-1964

To report a whale or other marine animal in distress, call (866) 755-6622 in the Greater Atlantic Region (Virginia to Maine) and call (877-942-5343) in the Southeast Region (Florida to North Carolina)

For general law enforcement questions, contact our Northeast Division at (978) 281-9213 (ext. 2, compliance assistance) or Southeast Division at (727) 824-5344

Frequent Questions—Offshore Wind and Whales

requently asked questions about interactions between offshore wind energy projects and whales on the East Coast.

What does NOAA Fisheries do to minimize the impact of offshore wind development on whales?

NOAA Fisheries is a science agency, and like our marine mammal stranding network partners, we value marine life and strive to conserve these species. We are dedicated to minimizing risks to protected resources, habitats, and managed fisheries throughout the life cycle of offshore wind energy projects. The agency is responsible for several regulatory processes that help reduce impacts to marine animals and their habitats from human activities, including during offshore wind development.

Is U.S. offshore wind development linked to any whale deaths?

At NOAA Fisheries, we work with our partners to analyze and understand the causes of death when we are able, following the science and data. At this point, there is no evidence to support speculation

that noise resulting from wind development-related site characterization surveys could potentially cause mortality of whales, and no specific links between recent large whale mortalities and currently ongoing surveys. These are geological and geophysical surveys conducted by wind energy developers.

We will continue to gather data to help us determine the cause of death for these mortality events. We will also continue to explore how sound, vessel, and other human activities in the marine environment impact whales and other marine mammals.

Does NOAA Fisheries authorize the death of whales as it relates to offshore wind development?

No, NOAA Fisheries has not authorized—or proposed to authorize—mortality or serious injury of whales for any wind-related action. Offshore wind developers have not applied for, and NOAA Fisheries has not approved, authorization to kill any marine mammals incidental to any offshore wind activities.

Why is there currently a high number of large whales in the waters off New Jersey?

As the humpback whale population has grown, they are seen more often in the Mid-Atlantic. Along the New Jersey shore, these whales may be following their prey (small fish) which are reportedly close to shore this winter. These prey also attract fish that are of interest to recreational and commercial fishermen. This increases the number of boats in these areas. More whales in the water in areas traveled by boats of all sizes increases the risk of vessel strikes. As such, we advise boaters to go slowly (less than 10 knots) and keep a lookout for whales.

There is currently a voluntary slow zone in effect for the waters off New York and New Jersey due to recent detections of endangered North Atlantic right whales. There are also active Seasonal Management Areas (where all vessels 65 feet or longer must travel at 10 knots or less) off the ports of New York/New Jersey and Delaware Bay due to known seasonal distribution of endangered North Atlantic right whales.

See FAQ, next page



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FAQ C

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Is climate change a factor in the number of whales we're seeing close to shore?

We know that our climate is changing, and one of those key changes is the warming of our oceans. In response to this, we are seeing populations of many marine species adapting by moving into new areas where conditions are more favorable.

Changing distributions of prey impact larger marine species that depend on them, and result in changing distribution of whales and other marine life. This can lead to increased interactions with humans as some whales move closer to near shore habitats. Work is ongoing to investigate the increase in humpback whale deaths beginning in 2016, and certainly this most recent string of devastating losses.

The impacts of changing species distributions reach far beyond the individual species experiencing the shift, to affect entire ecosystems, as well as fisheries interactions, and coastal economies.

What are NOAA Fisheries and its partners doing to determine the cause(s) of recent whale deaths?

The local stranding network partner is responsible for leading the examination (necropsy), but large whale responses generally involve multiple agencies from across the network working together. These stranding network partners responded to each of the recent whales that came ashore to document and examine the carcasses. At a minimum, each carcass was documented with photos, measurements, and an external examination. Since the cause of death is not always clear at first examination, biologists took samples from these whales, and will work with laboratory partners to review them in the coming months. Decomposition can limit our ability to determine a definitive cause of death.

Why aren't all large whales necropsied?

Large whale necropsies are very complicated, requiring many people and typically heavy equipment (front loaders, etc.). Some whales are found dead floating offshore, and need to be towed to land for an examination. There can be limitations for access and using heavy equipment depending on the location where the whale stranded, including protected lands (parks or concerns for other endangered species) and accessibility (remote areas, tides that prevent access at times of day). Also, necropsies are the most informative when the animal died relatively recently. Some whales are not found until they are already decomposed, which limits the amount of information that can be obtained. Finally, funding is limited, and varies by location and stranding network partner.

Who are NOAA Fisheries' marine mammal stranding network partners?

Our marine mammal stranding network partners in New England and the Mid-Atlantic include: Allied Whale (Maine)
Marine Mammals of Maine (Maine)
Seacoast Science Center (New Hampshire/North Shore Massachusetts)



Whale and Dolphin Conservation (South Shore, Massachusetts)

International Fund for Animal Welfare (Cape Cod, Massachusetts)

Center for Coastal Studies (Cape Cod, Massachusetts) Marine Mammal Alliance Nantucket (Nantucket, Massachusetts)

Wampanoag Tribe of Gay Head Aquinnah (Martha's Vineyard, Massachusetts)

Rhode Island Department of Environmental Management (Rhode Island)

Mystic Aquarium (Connecticut/Rhode Island) New York Marine Rescue Center (New York) Atlantic Marine Conservation Society (New York) Marine Mammal Stranding Center (New Jersey) MERR Institute (Delaware)

Maryland Department of Natural Resources (Maryland)

National Aquarium (Maryland) Virginia Aquarium and Marine Science Center (Virginia)

What is NOAA Fisheries doing to minimize the effects of offshore wind development on endangered North Atlantic right whales?

NOAA Fisheries is heavily invested in the conservation and recovery of endangered North Atlantic right whales. NOAA Fisheries recently proposed a rule to modify existing vessel speed restrictions that would apply to many offshore wind-related vessels. In our permits and authorizations, we also require mitigation measures to avoid and minimize impacts from offshore wind development.

Finally, NOAA Fisheries and the Bureau of Ocean Energy Management recently released a joint draft strategy to protect and promote the recovery of North Atlantic right whales while responsibly developing offshore wind energy. This strategy is part of NOAA Fisheries' comprehensive Road to Recovery for North Atlantic right whales.

How can NOAA Fisheries determine if a whale death was related to or caused by offshore wind activity and the survey work that has been underway or other causes? Are there any signs or criteria?

NOAA Fisheries uses necropsies to determine the cause of a whale death. Necropsies can help determine if there is evidence from vessel strikes, entanglement, or acoustic trauma.

Vessel strikes are determined by cuts from

propellers, and/or bruising and broken bones from the impact with a vessel hull. However, we are generally not able to definitively determine what specific kind of vessel (i.e., the size or type of vessel or what it was doing) caused the strike without a report from a mariner or other observer such as a protected species observer.

Entanglement injuries are often

evident even in external examination even when rope or other fishing gear does not remain on a carcass. Acute injuries, such as areas where line or rope has rubbed through or broken the skin, can be very evident. In some cases tissue analysis is needed to confirm whether the injuries are old and healing or may have contributed to the whale's death.

Acoustic trauma, which could result from close exposure to loud human-produced sounds, is very challenging to assess in stranded cetaceans, particularly with any amount of decomposition. Scientists look for bruising or trauma to the ear and other organs, but linking it to a particular sound source is difficult, as certain parts of the ear decompose very quickly (within hours), even more so than some of the other parts of the animal. If the whale is already in moderate to advanced decomposition, then generally microscopic changes in the ears are no longer detectable.

NOAA Fisheries will be looking at samples collected from each necropsied animal to further understand other factors that may have contributed to the stranding, but we may not ever have a definitive answer for each of these cases.

Strandings and inconclusive necropsies have occurred long before offshore wind was a factor, so correlating the two now is not based in science.

What You Can Do

What should I do if I see a dead or injured whale from Maine to Virginia?

If you see a dead or injured marine mammal or sea turtle, please call the NOAA Greater Atlantic Marine Mammal and Sea Turtle Stranding Hotline at (866) 755-6622 to be directed to a trained responder. The best way to assist these animals, and keep them and yourself safe, is by calling trained responders and maintaining a distance of 150 feet.

Please remember that all marine mammals are protected by the Marine Mammal Protection Act, which makes touching, feeding, or otherwise harming these animals illegal. It is also illegal to take any marine mammal part from live or dead animals including bones and teeth.

What else can I do to help protect whales?

If you are a boater, download the Whale Alert app for real time updates on management areas and whale sightings on digital nautical charts. When you are boating in these areas, slow down and keep a watchful eye on the water.