



NEWS FROM NOAA

NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION • US DEPARTMENT OF COMMERCE

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Acoustic Buoys Listen for Whales on Stellwagen Bank *Researchers Ask Finders to Return Buoys if Found*

NOAA marine mammal scientists have deployed an array of buoys, packing equipment that will track large whales throughout NOAA's Gerry E. Studds Stellwagen Bank National Marine Sanctuary off Massachusetts by listening for their vocal sounds. Researchers want people to know what the buoys look like and how to return one, should it be found after an unintentional release.

The buoys are moored to the ocean bottom—remaining fully submerged—and “pop-up” to the ocean surface so that data can be downloaded and batteries refreshed. Although programmed to pop-up automatically after three months, a release can also be triggered by a retrieval team using a hand-held transponder.

Buoy data is critical to the success of the study. If a buoy is lost, then so are the data it has collected. “There are a number of ways that a buoy could slip its mooring. Storms, equipment failure, or snagging during fishing operations, are all possible,” said Dr. Richard Merrick of NOAA's National Marine Fisheries Service's Northeast Fisheries Science Center, one of the project partners.

The buoys are round, and encased in bright yellow “hard-hat” plastic measuring about 20 inches in diameter and weighing about 45 pounds. Buoys are marked with a red and white placard that gives contact information for returning the buoy if found. There is also a \$250 reward for returns.

The buoy locations were selected both for water depth and coverage area. “We tried to pick places that would be least affected by fishing or weather, but also had to make sure that whale sounds throughout the sanctuary could be captured,” said Dr. David Wiley, research coordinator for the sanctuary, and another partner in the work.

The buoys record a whale's vocalization, and the date and time it was made. By comparing the times when the sound was recorded by different buoys, researchers can also calculate the location of the whale when it made the sound. The effort is the first to attempt year-long comprehensive acoustic coverage of a national marine sanctuary and will focus on tracking Northern right whales, a highly endangered species. Scientists hope to create a portrait of localized right whale migrations throughout the year.

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“We’ve tracked right whales with these devices in the summer in Cape Cod Bay, and elsewhere off Massachusetts for months, but not a whole year,” said Dr. Chris Clark of the Bioacoustics Research Program at Cornell University’s Laboratory of Ornithology, a third partner in the project. Clark’s group developed the acoustic buoys being used.

Large whales, particularly Northern right whales, can be seriously injured or killed in collisions with ships and entanglement in fishing gear. This year’s work in the sanctuary is part of a larger project that researchers believe may lead to a practical way of keeping real-time track of large ships and whales in the area. “If we can do that,” said Merrick, “we then have a better chance of substantially reducing the risk of collisions with whales.”

NOAA Fisheries Service is dedicated to protecting and preserving our nation’s living marine resources and their habitats through scientific research, management and enforcement. NOAA Fisheries Service provides effective stewardship of these resources for the benefit of the nation, supporting coastal communities that depend upon them, and helping to provide safe and healthy seafood to consumers and recreational opportunities for the American public.

The NOAA National Marine Sanctuary Program seeks to increase public awareness of America’s ocean and Great Lakes treasures by conducting scientific research, monitoring, exploration and educational programs. Today, the program manages 13 national marine sanctuaries and one coral reef ecosystem reserve that together encompass more than 150,000 square miles of America’s ocean and Great Lakes natural and cultural resources.

The National Oceanic and Atmospheric Administration, an agency of the U.S. Commerce Department, is dedicated to enhancing economic security and national safety through the prediction and research of weather and climate-related events and providing environmental stewardship of our nation’s coastal and marine resources. Through the emerging Global Earth Observation System of Systems (GEOSS), NOAA is working with its federal partners and nearly 60 countries to develop a global monitoring network that is as integrated as the planet it observes.

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On the Web:

NOAA Northeast Fisheries Science Center: www.nefsc.noaa.gov

Stellwagen Bank National Marine Sanctuary: stellwagen.noaa.gov

NOAA Fisheries Service: www.nmfs.noaa.gov

NOAA National Marine Sanctuaries: <http://sanctuaries.noaa.gov/>

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