

# Seabirds fitted with satellite tags to track movements in Gulf of Maine

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Researchers at NOAA's Stellwagen Bank National Marine Sanctuary are using satellite technology to learn more about the movement, life cycle, feeding and foraging habits of Great Shearwater seabirds in the Gulf of Maine ecosystem. Scientists have attached satellite transmitters to 10 birds and are tracking their movements this summer.

Shearwaters are one of more than 30 species of seabirds that can be found in the sanctuary. The birds winter and nest in the [southern hemisphere](#), usually appearing in the Gulf of Maine in April to feed. However, little is known about how they spend their time in the Gulf of Maine.

David Wiley, research coordinator for Stellwagen Bank National Marine Sanctuary, said seabirds are excellent indicators of ecosystem health, including changes that could occur due to climate change. The birds can be most affected by changes in their food supply, which is often dictated by water temperature, currents or other factors, he said.

"In the southern Gulf of Maine, sand lance is the primary food fish for most large predators, including whales, seabirds, Bluefin tuna, and other important commercial and recreational species," Wiley said. "For some reason, the numbers of this [forage fish](#) fluctuates and has been quite low over the past few years. We want to learn more about how seabirds react to changes in their primary food source and what factors cause changes in forage [fish abundance](#)."

The Stellwagen research team is using satellite tags manufactured by Microwave Technology to track the movement of 10 birds throughout the summer and beyond. The tiny tags were attached to the back of the birds with fine thread and compose only a fraction of the bird's total body weight. The team also collects body weight as an indicator of the bird's health and condition, and blood and feather samples for examining food habits.

Signals from the tags have allowed scientists to plot bird movements relative to oceanographic features such as water temperature, bathymetry, chlorophyll concentration, ocean fronts and other factors that might result in increased productivity or that aggregate prey.

Provided by NOAA Headquarters

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