



2024 WHALE RESEARCH SUMMARY



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Our Whale Research Program

The Gulf of Maine is warming faster than 99% of the rest of the world's oceans. Temperature changes shift the distribution of whales and their prey, making whales vulnerable to human activities. Documenting what is happening in our local waters is more important than ever.

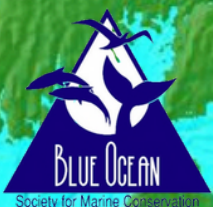
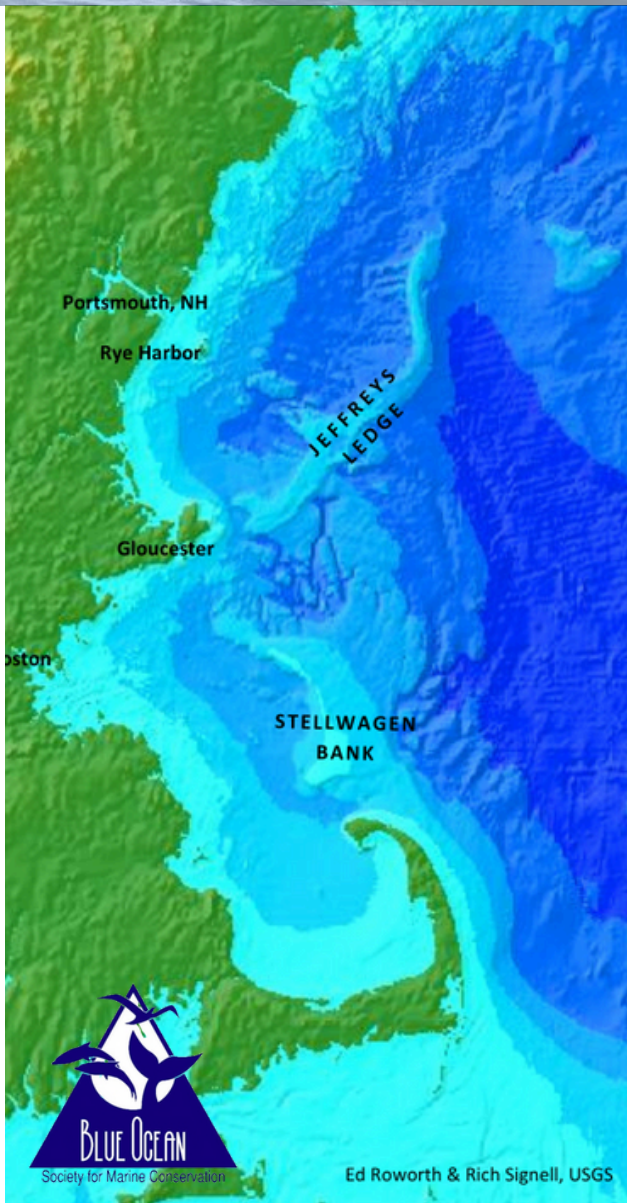
The health of local whale populations reflects the health of the Gulf of Maine as a whole. We aim to study whale behavior and distribution in order to mitigate human impacts.

About 20 miles off the New Hampshire coast lies an underwater mountain range teeming with marine life. We are the only organization that consistently studies whales in this region known as Jeffreys Ledge.

How do we study whales?

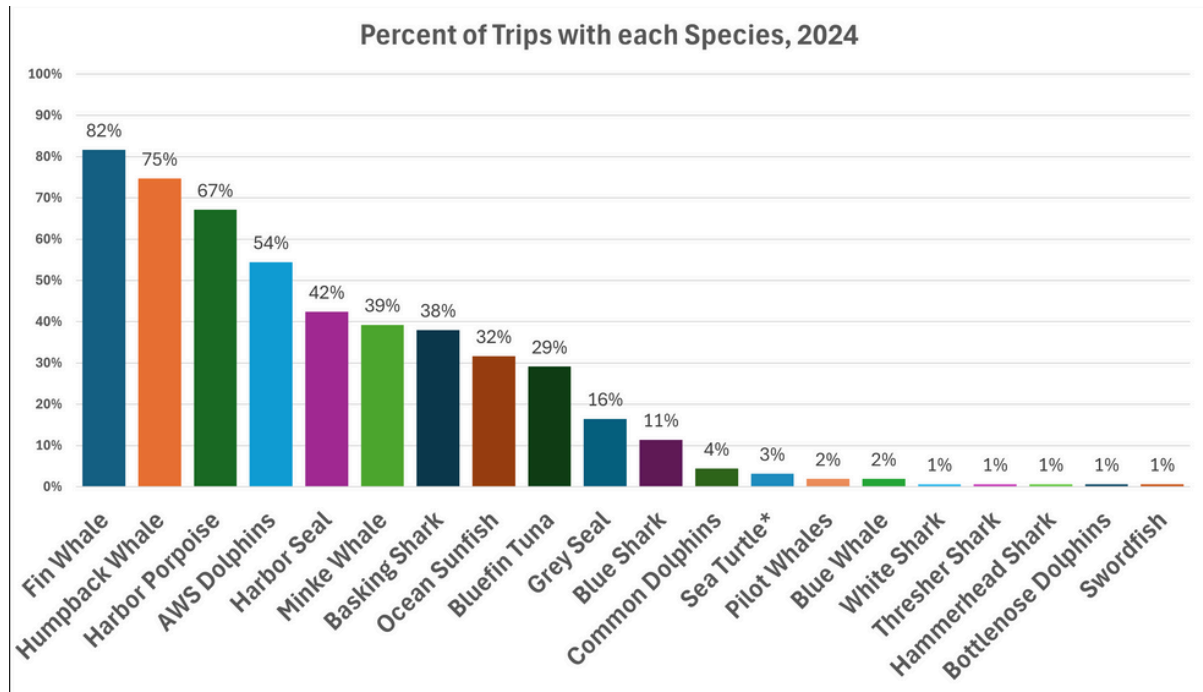


We tell whales apart by natural markings. For example, humpback whales each have a unique marking on the underside of their tail. Some whales return every year.



Ed Roworth & Rich Signell, USGS

Which Species Were Seen Most Often?



In 2024, we conducted 158 trips and saw a minimum of 8,291 animals. Fin whales were seen most frequently, followed by humpback whales and harbor porpoises.

An astounding 23 species were documented including:

- 4 species of baleen whales
- 5 species of toothed whales
- 5 species of sharks
- 3 species of large fish (non-shark)
- 4 species of sea turtles*
 - Green, Kemps Ridley, Leatherback, and Loggerhead
- 2 species of seals

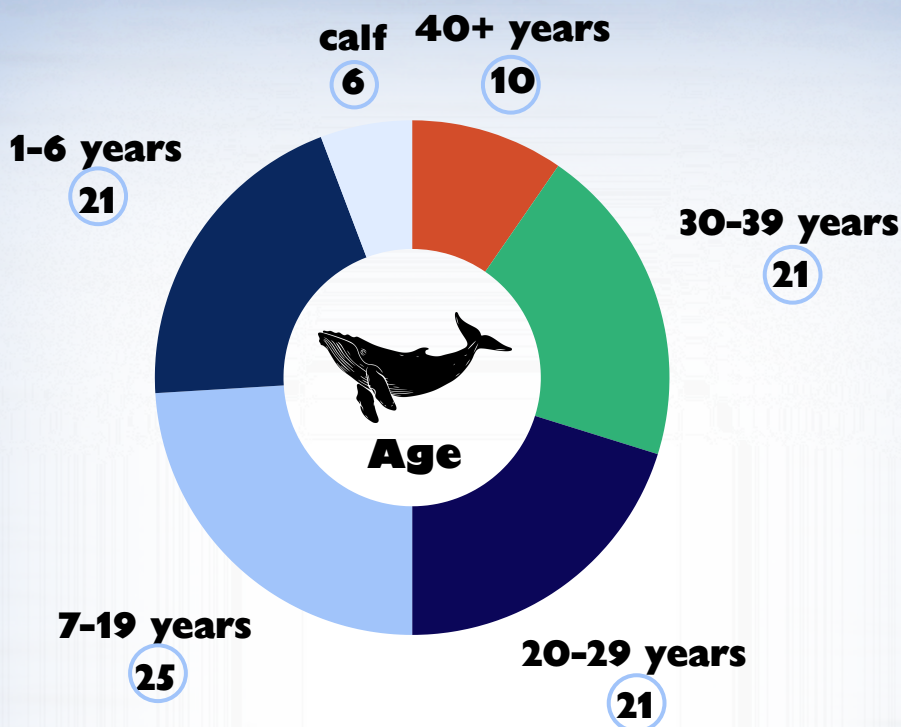
We spotted a blue whale - largest species on the planet - for the first time since 2016!



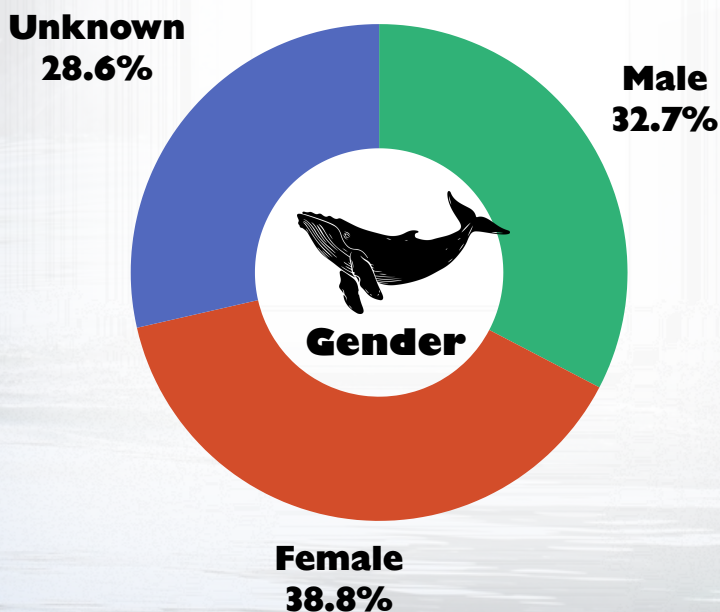
Humpback Whales

We observed 104 individual humpback whales, including 6 calves. Of the whales with known age, the majority were adults (7+ years old). Ten of the whales were estimated to be 40 years old or more. More females were seen than males.

Number of Humpback Whales in Each Age Class



Gender of Humpback Whales



Gender data does not include 2024 calves

Data on age and gender provided by the Center for Coastal Studies

Human Impacts

Throughout the season, several humpback whales were documented as being entangled with rope/buoys and/or monofilament line in our study area.

Several were seen by our staff before and/or after the entanglement event including Clamp's 2024 calf, Mudskipper, and Scylla and her calf. We continued to monitor these individuals and report our sightings to the Marine Animal Entanglement Response team (MAER) from the Center for Coastal Studies (CCS).



Dross' 2023 calf with raw entanglement injuries and a remnant of blue monofilament on fluke tip.

On August 16, 2024, Dross' 2023 calf was seen with fresh injuries to its peduncle and flukes, along with blue monofilament netting on its right fluke tip. The MAER team from CCS was notified the next day, and network members were alerted to keep an eye out for this whale to better assess the entanglement status. Blue Ocean Society did not see the whale again, and it is unknown if others did.



Pinball last summer seen near surface buoys, whose lines pose a serious entanglement risk to whales and other marine life.

A total of 12,050 buoys were recorded within 30 meters of marine life sightings. When buoys were seen near cetaceans, the average number of buoys present was 8.

Baleen whales are more likely to become entangled in the vertical line between the surface buoy and the fixed fishing gear than other marine species. Baleen whales accounted for 720 of the sightings where cetaceans and buoys co-occurred. The number of buoys near baleen whales was 4,491, with an average of 6 buoys per whale sighted.

Human Impacts

Humpbacks in Rivers and Jumping on Boats

In July, widespread media attention followed the unusual sightings of a humpback whale. The whale was first seen in the Piscataqua River off Kittery, ME. Later that month, presumably the same whale breached onto a small fishing boat.

We used this heightened public interest to raise awareness about the importance of operating vessels responsibly around whales, especially as these animals are increasingly venturing closer to shore. The event provided a valuable opportunity to teach boaters and the broader community about minimizing disturbances and entanglement risks.



Humpback whale spotted in Piscataqua River, July 2024.

Here is a statement from Dianna Schulte, our co-founder and Director of Research, about the incident:

 **Please Give Whales Space** 

Summer is the feeding season for many large whales, like humpbacks, who don't eat during their winter breeding season in the Caribbean. This whale wasn't "angry"—it was hungry. Boaters happened to be in the area at the same time.

If you see a whale, don't approach it or leave your fishing line in the water. Lines can entangle whales, and whales can damage your boat.



Photo: Colin Yager/The Mega Agency

'Pissed Off' Whale Topples Boat

That was one headline in July 2024 when we had an usual amount of humpback activity near shore.

It started earlier in the summer when a young humpback was feeding in a mooring field in the Piscataqua River off Kittery, ME.

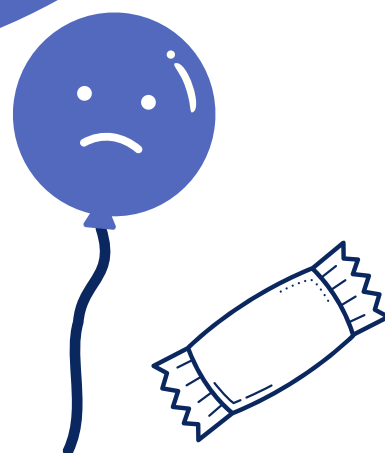
The whale was seen later even further upriver, on a weekend, and was surrounded by eager boaters. We reached out to our media contacts to advise boaters to give the whale space.

Later, presumably that same whale lunged onto a sportfishing boat, capsizing it. Thankfully, no humans were injured.

Marine Debris at Sea

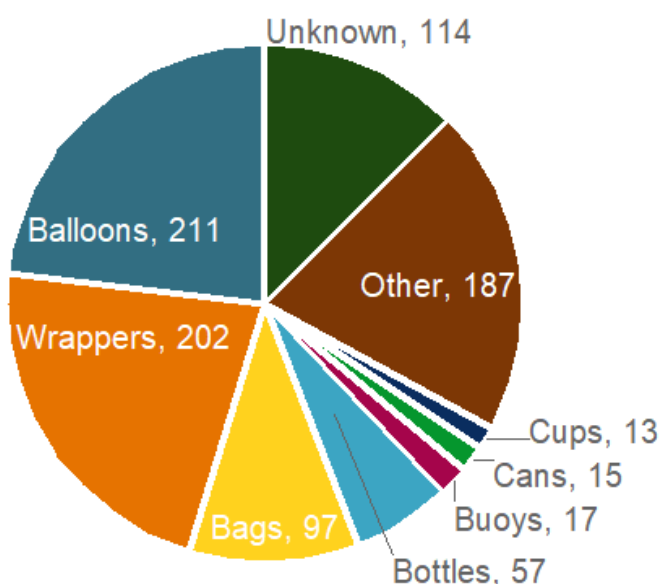
During each whale watch trip, we recorded sightings of marine debris. The debris was retrieved when practical.

On 158 trips, we documented 913 pieces of marine debris, of which 114 (12.5%) were located near whales. We use data on litter at sea, combined with our other litter studies, in our educational programs and to develop solutions.

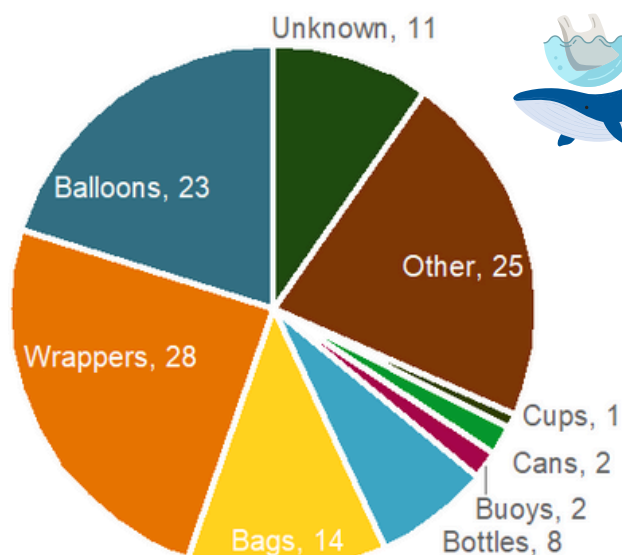


Balloons and wrappers were the top two litter items found on the water

2024 Pelagic Marine Debris Items



2024 Pelagic Marine Debris Items Near Whales



Whale research interns are tasked with recording sightings of marine debris that may pose a risk to nearby whales.



Want to Help Whales?

- Watch out for whales at all times when boating!
 - In recent years, whales have been seen in the Merrimack River, Piscataqua River, and within 3 miles of local beaches.
- Retrieve fishing lines from the water when whales are near!
 - Recycle used fishing line and spools in one of our shoreside recycling bins.
- Report whale sightings!
 - Contact us for more information.
- Support our research!
 - Donate boat time, give financially, adopt a whale, or sponsor an intern.

Thank You!

We are grateful to Granite State Whale Watch, the Seacoast Lady, our research affiliates and staff naturalists, and our 2024 whale research interns, Breanna Butland, David Hoppe, Nathalie Pare, Lulu Pumayalli and Summer Shifflett.

Thanks also to the Center for Coastal Studies for assistance with identifications and demographics.

Images in this report were taken by:
Matthew Mitchell, Melanie White, Dianna Schulte



**Our mission is to protect marine life in the
Gulf of Maine through research, education
and inspiring action.**

Join us for a beach cleanup, whale watch, or educational program,
and visit our Blue Ocean Discovery Center!

To learn more, visit us online or connect with us on social media!

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