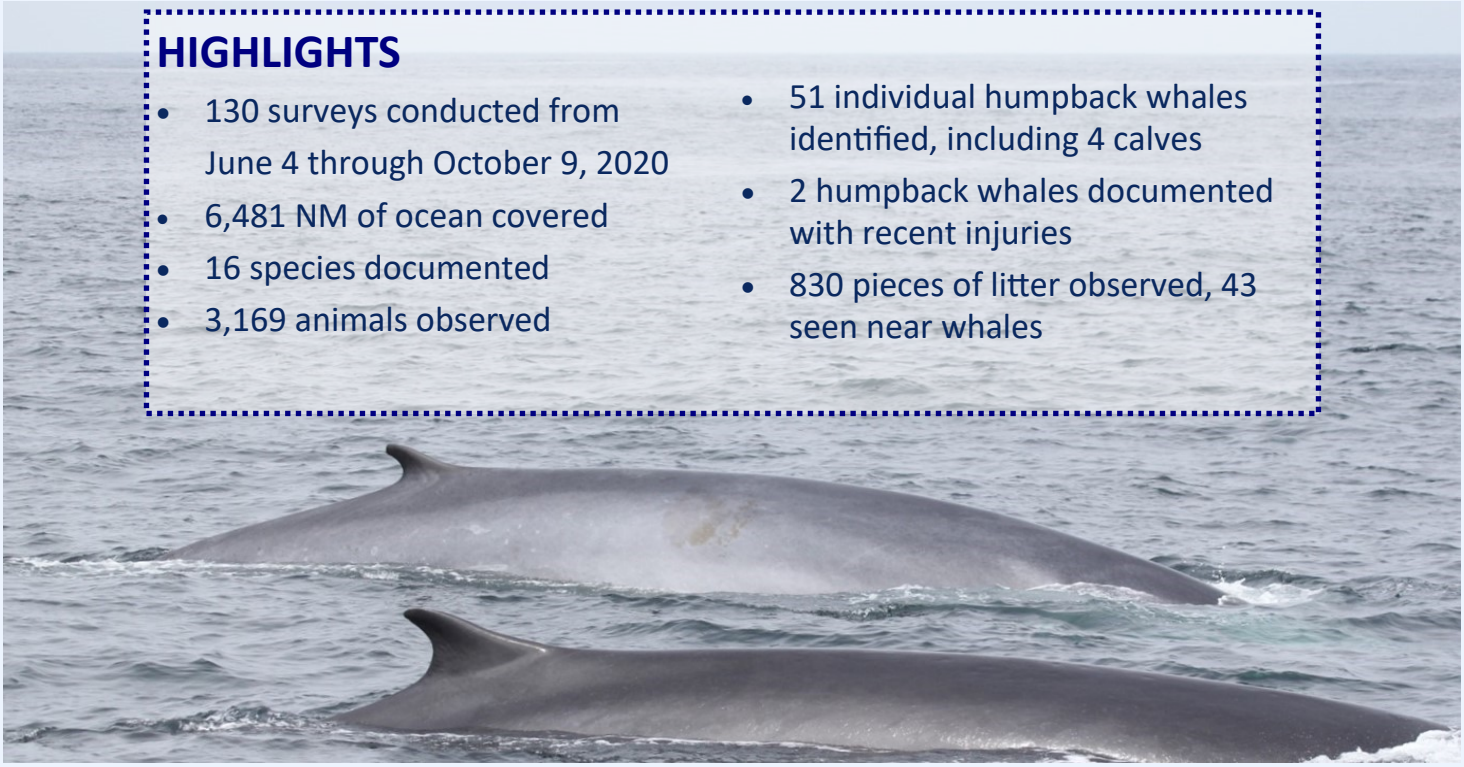
Protecting Marine Life

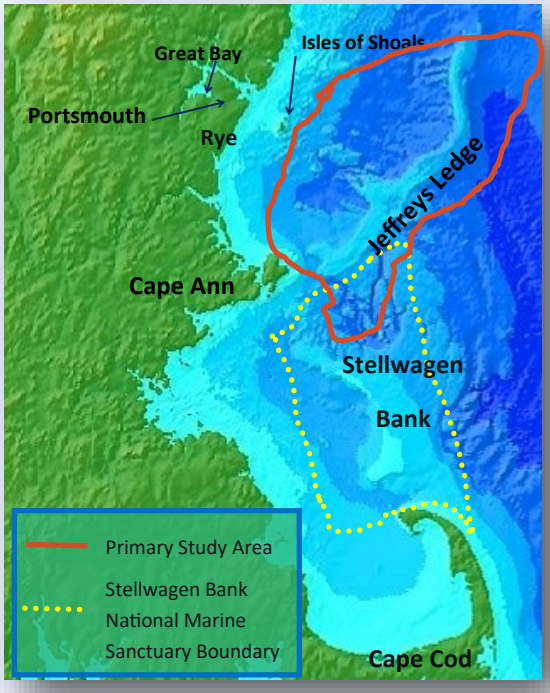
2020 RESEARCH HIGHLIGHTS AND IMPACTS

HIGHLIGHTS

- 130 surveys conducted from June 4 through October 9, 2020
- 6,481 NM of ocean covered
- 16 species documented
- 3,169 animals observed
- 51 individual humpback whales identified, including 4 calves
- 2 humpback whales documented with recent injuries
- 830 pieces of litter observed, 43 seen near whales



STUDY AREA



Key geographic features in our study area.
Base map by Ed Roworth and Rich Signell of USGS.

Our primary study area is the water on and around Jeffreys Ledge.

- Jeffreys Ledge is a rocky underwater feature in the western Gulf of Maine.
- It is located approximately 32 km off the coasts of Maine, New Hampshire and Massachusetts.
- The southern end of Jeffreys Ledge is included in the Stellwagen Bank National Marine Sanctuary (SBNMS) boundaries.
- The ledge is approximately 54 km long by 9 km wide. The water depth above the ledge is 45-60 m while the depth surrounding it is 90-150 m.
- Upwelling currents stir nutrients from the sea floor making for a more productive environment.

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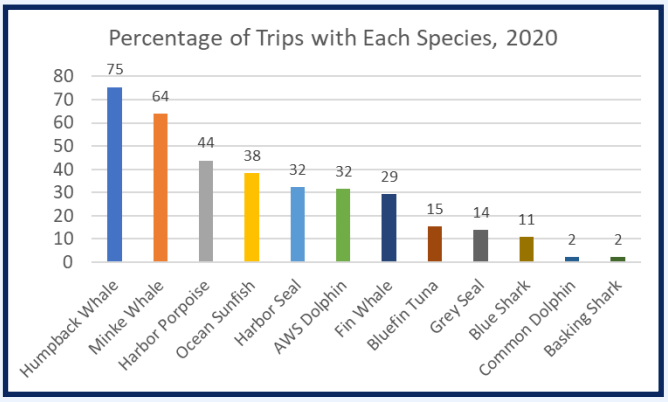
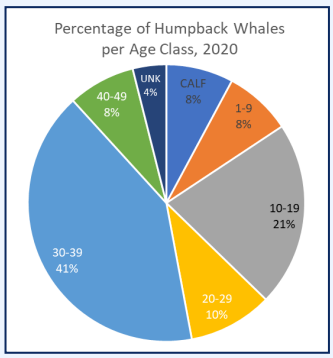
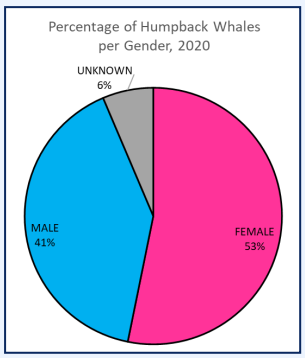
SIGHTINGS HIGHLIGHTS







- Humpback whales were the most commonly-sighted species, followed by minke whales and harbor porpoises.
- Forty-one percent of the humpbacks were aged 30-39.
- Fifty-three percent of the humpbacks were female, 41% were male and the gender of 6% was unknown.
- Fin whales were seen at 79 locations with a total of 96 fin whales seen. Associations of fin whales occurred during 12 sightings with the group size ranging from 2 to 3 individuals. One mother/calf pair was documented.
- Minke whales were sighted 205 times.

Sightings of note include a spike in ocean sunfish sightings (which also happened last year), 4 sightings of common dolphins, and 11 sea turtle sightings representing 3 different turtle species.

IMPACTS

- The whales we study are federally-protected. They face human-related threats including collisions with ships of all sizes and entanglements in fishing gear. By monitoring the whale population annually, injuries can be documented and brought to the attention of management.
- One humpback whale calf was documented with a new injury apparently caused by an entanglement. One adult humpback whale had injuries suggestive of an entanglement during the previous year.
- Over our 25 years of research, we have documented changes in species distribution and composition. This long-term research provides data that can help with siting projects (e.g., dredging, renewable energy) and in documenting the impacts of climate change.
- Litter data were collected, and can help point to solutions. Over 830 pieces of litter were documented, 5% of which were within 100 feet of a whale sighting. Balloons were the #1 item seen.

STEM EDUCATION AND WOMEN IN SCIENCE

- Eleven interns (8 in summer, 3 in fall) joined us from 9 states, 10 were women.
- Interns assisted with data collection and education aboard whale watches, attended weekly meetings with featured speakers, completed a research project and presented their project at an intern symposium.
- Summer and fall interns volunteered a total of 2,524 hours. The dollar value of this time plus mileage was $73,194.
- Data and whale watch experiences are also used to inspire and teach K-12 students in our educational programs and at our Blue Ocean Discovery Center.

RESEARCH PROGRAM

The goal of our research program is to study the behavior and distribution of whales in the Gulf of Maine and mitigate human impacts.

We have worked toward this goal since 1996, and are the only organization that regularly monitors marine mammals in the Jeffreys Ledge area.

Information is provided to other scientists, resource managers and government agencies to contribute to the local and global knowledge base of mammal science.

2020 INJURIES

We documented injuries in two humpback whales, one of which was a calf. These animals will be monitored in the future.

SUPPORTERS

- The Perkin Fund
- Granite State Whale Watch
- Mysticetus
- New Hampshire Coastal Program
- Private donors