

Marine Mammals



© Robin Baird
Courtesy Cascadia Research. Photo taken under
MMPA Scientific Research Permit No. 731

Other baleen whales

Balaenoptera acutorostrata (NT)
Balaenoptera borealis (EN)
Balaenoptera edeni (DD)
Balaenoptera musculus (EN)
Balaenoptera physalus (EN)
Eubalaena japonica (EN)

SPECIES STATUS:

Four Federally Listed Endangered
IUCN Red List - Various (see abbreviations below)
IUCN Data Deficient (DD)
IUCN Near Threatened (NT)
IUCN Endangered (EN)

SPECIES INFORMATION: Baleen whales are filter feeders and the largest whales found in Hawai‘i. They are the: minke whale (*B. acutorostrata*), sei whale (*B. borealis*), Bryde’s whale (*B. edeni*), blue whale (*B. musculus*), fin whale (*B. physalus*) and northern right whale (*E. japonica*). Bryde’s whale (*Balaenoptera edeni*) is the only baleen whale in Hawai‘i that is non-migratory. The others most likely feed at higher latitudes and migrate to Hawai‘i seasonally. Minke, Bryde’s, blue, and fin whales feed in separate events, most often lunging at large schools of fish. They are known as “gulpers.” Minke, Bryde’s, and fin whales feed on large schools of fish and krill, while the sei whale has a more diverse diet consisting of small fish, krill, squid, and copepods. The sei whale is the only baleen whale that uses both the skimming and gulping methods to feed. Northern right whales are known as “skimmers” constantly taking in water as they move and filtering out their food. The blue whale and northern right whale feed exclusively on plankton. Reproduction is relatively similar for these whales, although the mating behaviors of most of these whales are unknown. Northern right whales breed in winter months when females may mate with more than one male at a time. The others give birth in winter months and have calving intervals of two to three years. Gestation periods range from ten to twelve months. Females may mate with more than one male at a time. Calves are weaned between six and eight months. Baleen whales rarely form large social groups and are most often seen alone or in small groups, although each species may congregate in larger groups for feeding.

DISTRIBUTION: The distributions of the minke whale, sei whale, blue whale, and northern right whale in Hawai‘i are unknown because there have been very few sightings. Bryde’s whales are most often sighted to the northwest of the Main Hawaiian Islands. Most sightings of

fin whales have been off the North Coast of O‘ahu, although there have been sightings off the north coast of Kaua‘i and south of Honolulu as well as a stranding on Maui.

ABUNDANCE: Barlow (2003) estimates population abundances in Hawaii’s Exclusive Economic Zone (EEZ) as follows: sei whale 77, Bryde’s whale 493, and fin whale 174. There are no abundance estimates for the minke whale, blue whale, and northern right whale.

LOCATION AND CONDITION OF KEY HABITAT: The minke, fin, and northern right whale primarily inhabit coastal and shelf waters, but also can be found in offshore waters. Key habitat for the sei whale and blue whale are coastal, shelf, and oceanic waters.

THREATS:

- Fishery interactions such as entanglement in fishing gear are a significant threat to all of these whales. Large baleen whales such as the northern right whale were hunted for hundreds of years, while whales such as the minke, sei, blue, and fin were harvested only within the last hundred years as technology improved. This hunting has diminished populations around the globe;
- Ships often collide into baleen whales due to their size and habitat use causing injury or death;
- Scientific and aboriginal hunting occurs for minke and Bryde’s whales outside of Hawaii’s EEZ;
- Marine debris such as accumulated tiny, plastic particles that contain PCBs and DDEs is an important threat. This is particularly dangerous for baleen whales as they take in large quantities of water at a time. Only those that are feeding are at risk. Additionally, when these particles are ingested they also can cause a variety of effects such as internal injury and intestinal blocking. Marine debris such as derelict fishing gear can also harm the whales when they become entangled in it;
- Man-made noise from the many commercial, private, and military vessels traveling through Hawaiian waters using sonar can interfere with acoustic signals that are critical to whales’ reproduction. Man-made noises have also been shown to cause disturbance responses from far away, hearing loss, and physical harm. Feeding, breeding, and social behaviors can be disrupted by close range, high volume vessel traffic and more studies need to be conducted to quantify this threat.

CONSERVATION ACTIONS: In addition to common statewide and marine conservation actions, specific actions include:

- Establish a systematic fisheries monitoring system for interactions with baleen whales;
- Continue working to decrease marine debris;
- Continue to collaborate with NOAA on enforcement of the Marine Mammal Protection Act as it relates to preventing marine mammal harassment and disturbance;
- Continue collaboration with NOAA, agency partners, and stakeholders in the process of considering species for inclusion in the HIHWNMS;
- Work with partners to decrease pollutants and chemicals in the marine environment;

- Work with and assist local conservation organizations working on cetacean conservation, education, and marine debris clean-up;
- Establish a system of reporting and rescuing whales from ship collisions.

MONITORING:

- Cooperate in surveys of population structure and distribution of baleen whales;
- Monitor the number of whales entangled or otherwise impacted by fishery bycatch or marine debris.

RESEARCH PRIORITIES:

- Initiate studies to determine threats and minimize their impacts;
- Research habitat use and other biological characteristics;
- Study impacts of noise from ships on baleen whales.

References:

- Barlow J. 2003. Cetacean abundance in Hawaiian waters during summer/fall of 2002. Administrative Report. La Jolla, California: National Marine Fisheries Service, Southwest Fisheries Science Center. Report nr LJ-03-12. 20 pp.
- Carretta JV, Muto MM, Barlow J, Baker J, Forney KA, Lowry M. 2002. U.S. Pacific marine mammal stock assessments. La Jolla, California: National Marine Fisheries Service, Southwest Fisheries Science Center. NOAA-TM-NMFS-SWFSC-346. 290 pp.
- Donohue MJ, Boland RC, Sramek CM, Antonelis GA. 2001. Derelict fishing gear in the Northwestern Hawaiian Islands: Diving surveys and debris removal in 1999 confirm threat to coral reef ecosystems. *Marine Pollution Bulletin* 42 (12): 1301-1312.
- McDermid K J McMullen TL. 2004. Quantitative analysis of small-plastic debris on beaches in the Hawaiian Archipelago. *Marine Pollution Bulletin* 48: 790-794.
- Reeves RR, Smith BD, Crespo EA, Notabartolo di Sciara G. 2003. 2002-2010 Conservation action plan for the world's cetaceans, dolphins, whales and porpoises. Gland, Switzerland: International Union for the Conservation of Nature. 139 pp.
- Reeves RR, Stewart BS, Clapham PJ, Powell JA. 2002. Guide to marine mammals of the world. New York, NY: Alfred A. Knopf, Inc. 527 pp.