Marine Mammals

Humpback whale or Koholā

Megaptera novaeangliae

SPECIES STATUS:
Federally Listed as Endangered
State Listed as Endangered
State recognized as Indigenous
IUCN Red List - Vulnerable

SPECIES INFORMATION: Koholā or humpback whales (*Megaptera novaeangliae*) migrate to Hawaiʻi in the winter to mate, give birth, and nurse their young. Gestation is 11 to 12 months. Females give birth every two to three years generally. Young are usually weaned in eight to twelve months. Females reach maturity at about five to seven years of age and the whales live to about 45 years of age or more. Males sing long duration and potentially long-distance songs that may aid in reproduction or other social communication. Little feeding is thought to occur while in Hawaiian waters.

DISTRIBUTION: The North Pacific population feeds in summer off Alaska, Russia, and British Columbia. Reproduction and birthing largely occur in Hawaiʻi, Mexico, Central America, and off Japan. Hawaiʻi has the largest sub-population, though there is some movement between breeding grounds among and even within seasons. The majority of the population occurs in the area between the islands of Maui Nui and on Penguin Banks off Molokaʻi. Most kohalā are found in Hawaiʻi from December through April, but individuals can be seen from September through June.

ABUNDANCE: In 1992, there were approximately 4,000 individuals in the Central North Pacific population that visited Hawaiʻi, but this estimate is outdated. Projections based on observed calves put the current number at about 7,000. A multi-partner study is underway with the acronym of SPLASH to provide an up-to-date estimate. Single individuals may stay in Hawaiian waters for as little as six weeks during the approximately six-month whale season. Thus, at any one time the abundance in Hawaiʻi is less than the total population size. An analysis based on aerial surveys estimates that the population of Hawaii's humpbacks is increasing at an annual rate of seven percent.

LOCATION AND CONDITION OF KEY HABITAT: Kohalā seem to prefer breeding areas that have warm and shallow waters with flat seabeds near deep water. This is part of what makes Hawaiʻi appealing to them. This preference probably makes conditions easier for young calves in their first weeks of life and may also decrease the risk of predation from large sharks, which may be less abundant in shallow water.

THREATS:

- Kohalā were historically threatened by commercial and aboriginal whaling, but neither type of whaling occurs today in large amounts;
- Injuries from boat strikes and marine debris entanglement are probably the main causes of human-induced kohalā mortality. In addition there is potential new mortality from proposed high-speed inter-island ferry;
- Underwater noise from sonars, vessel traffic, and unintentional harassment from ocean users may adversely affect kohalās' ability to communicate and use optimal habitat. This may stress individuals and decrease growth and reproduction or lead to alterations in habitat use.

CONSERVATION ACTIONS: The goals of conservation actions are to not only protect current populations, but to also establish further populations to reduce the risk of extinction. Kohalā are protected internationally by the prohibition on commercial whaling of the International Whaling Commission. Kohalā were protected by the Endangered Species Act in 1973 and conservation actions have been implemented since then, including the Final Recovery Plan in 1991. A Take Reduction Plan was implemented in the North Pacific in 1997 to reduce entanglements with fishing gear. In addition, kohalā in Hawaiʻi receive extra protection. Federal regulations prohibit approaches closer than 100 yards (91 meters) by any means. The Hawaiian Islands Humpback Whale National Marine Sanctuary is a partnership between the State and Federal government that provides greater whale protections within the Sanctuary including stiffer fines for violations of federal protections, and support for research and educational efforts. The Final Recovery Plan lists detailed conservation actions that can also be consulted. In addition to common statewide and island conservation actions, specific current and future actions include:

- Identify and reduce direct human-related injury and mortality, especially;
    - Vessel strikes;
    - Marine debris entanglement.
- Restoration of Hawaiian habitat;
- Continue Federal-State partnership for conservation, most visibly in the form of the Hawaiian Islands Humpback Whale National Marine Sanctuary;
- Improve administration and coordination of recovery program for humpback whales.

MONITORING:

- Continue surveys of population and distribution;
- Develop protocol to monitor physical and chemical factors that could decrease habitat suitability;
- Monitor parasite loads and toxin levels in whales.

RESEARCH PRIORITIES:

- Collaborate with NOAA to understand interactions with nearshore fisheries;
- Improve understanding of vessel-whale interactions;
- Continue to measure and monitor key population parameters;
- Continue studies to determine threats and minimize their impacts.

References:

National Marine Fisheries Service. 1991. Recovery plan for the humpback whale (*Megaptera novaeangliae*).

Silver Spring, Maryland: Humpback whale recovery team for the National Marine Fisheries Service. 105 pp.

NatureServe. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.3. Arlington, Virginia: NatureServe. 2005. Available from: http://www.natureserve.org/explorer.