**Marine Mammals**

**Naiʻa or Bottlenose dolphin**

*Tursiops truncatus*

**SPECIES STATUS:**
IUCN Red List - Data Deficient

**SPECIES INFORMATION:** Naiʻa or bottlenose dolphins (*Tursiops truncatus*) feed primarily on fish and invertebrates that live near the bottom of the ocean. They feed cooperatively or alone and obtain their prey using methods such as “fish whacking” and steering fish onto mudflats. Like other dolphins, bottlenose dolphins give birth year round and gestation lasts approximately a year. Calves may not be weaned until they are 18 to 20 months old. Calves may also remain with their mothers for several years after they are weaned. The minimal calving interval is three years. Bottlenose dolphins often associate with other cetaceans, specifically pilot whales and koholā or humpback whales. They like to surf in all types of waves and are bow riders, which can affect their interactions with humans. Recent studies show that there may be island or island group resident populations.

**DISTRIBUTION:** Bottlenose dolphins are found throughout the Hawaiian Archipelago. Throughout the Main Hawaiian Islands, they are found in shallow, inshore waters as well as in the deeper channels between islands. In the Northwestern Hawaiian Islands, however, they are primarily found in the shallower inshore waters.

**ABUNDANCE:** The 2002 NOAA Stock Assessment estimates abundance of bottlenose dolphins at 743, but this number underestimates the total population because it does not include the Northwestern Hawaiian Islands and only includes dolphins within 25 nautical miles offshore. Barlow (2003) estimates 3,263 animals in Hawaii’s Exclusive Economic Zone. There is no data to determine a population trend.

**LOCATION AND CONDITION OF KEY HABITAT:** Bottlenose dolphins in Hawai‘i have key habitat in moderately shallow waters. Their primary foraging areas are benthic habitats. Currently, their habitats are stable with no issues of concern. Because they live closer to shore than other cetaceans, their nearshore habitat could become compromised with an increase of nearshore development and pollution runoff.

**THREATS:**

- Fisheries bycatch is a significant threat for bottlenose dolphins in Hawai‘i, specifically in longline fisheries. The dolphins typically ingest the longline hooks leading to injury or death. Additionally, these dolphins are known to take bait and catch from Hawaiian recreational and commercial fisheries, including the day handline fishery for tuna and mackerel scad (opelu), the troll fishery for billfish and tuna, and the inshore set gillnet.
fishery. Whether injury or death results from these interactions is unknown, but these
interactions are on the rise and need to be investigated further;

- Close range interaction with the tourism industry’s swim-with-dolphin and dolphin-
  watching programs is another significant threat to bottlenose dolphins in Hawai’i. These
  interactions have been shown to disrupt critical social and resting behaviors in
  other areas. This reduction in rest can result in decrease energy reserves that in turn
  affect abilities to forage efficiently and provide care for their young. Altered social
  interactions can inhibit mating;

- Marine debris, such as tiny plastic particles that accumulate in the Hawaiian
  Archipelago, is a significant threat to bottlenose dolphins as well. Not only do these
  particles contain harmful chemicals such as PCBs and DDEs, but when ingested they
  also can cause a variety of effects such as internal injury and intestinal blocking. Marine
  debris such as derelict fishing gear entangles the dolphins often resulting in injury or
  death;

- Man-made noise is a threat that results from high vessel traffic and military vessels that
  use Hawaiian waters for operations involving sonar and explosions. This man-made
  noise can interfere with acoustic signals critical to dolphins’ reproduction and feeding.
  Man-made noises also have been shown to cause disturbance responses from far away,
  hearing loss and physical harm;

- Habitat degradation results from coastal development and runoff into estuaries and
  bays where bottlenose dolphins are found.

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. In
addition to common state-wide and island conservation actions, specific actions include:

- Establish a systematic fisheries monitoring system for interactions with bottlenose
dolphins;
- Continue collaboration with NOAA on education and outreach activities, such as the
  “Ocean Etiquette” program, to promote dolphin-friendly ecotourism activities;
- Continue to collaborate with NOAA on enforcement of the Marine Mammal Protection
  Act as it relates to preventing marine mammal harassment and disturbance;
- Continue working to decrease marine debris;
- 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.

MONITORING:

- Survey nearshore habitat for detailed population size and distribution;
- Monitor the number of bottlenose dolphins entangled or otherwise impacted by marine
  debris and taken as fishery bycatch.

RESEARCH PRIORITIES:

- Collaborate with NOAA to understand interactions with nearshore fisheries;
- Improve understanding of impacts from tourism related activities on bottlenose
dolphins in Hawai’i;
- Continue researching habitat use, feeding behaviors and other biological information;
- Initiate studies to determine threats and minimize their impacts;
- Research impacts and toxicity of small plastic pellet debris on marine mammals;
- Study impacts of noise from ships in Hawai’i on bottlenose dolphins.

References:


