



## Marine Mammals

# Nai'a or Bottlenose dolphin

*Tursiops truncatus*

**SPECIES STATUS:**  
IUCN Red List – Least Concern

**SPECIES INFORMATION:** Nai'a, or bottlenose dolphins, feed primarily on benthic fish and invertebrates. They feed cooperatively or alone and obtain prey using methods such as “fish whacking” and steering fish onto mudflats. Like other dolphins, nai'a give birth year round and gestation lasts approximately a year. Calves are weaned at 18 to 20 months old, but may remain with their mothers for several years after weaning. The minimum calving interval is three years. Nai'a often associate with other cetaceans, specifically pilot and humpback whales. They will surf waves and ride the bows of vessels, which results in interactions with humans.

**DISTRIBUTION:** Common throughout the Hawaiian Archipelago. In the Main Hawaiian Islands (MHI), they occur in shallow, inshore waters and in the deeper channels between islands. In the Northwestern Hawaiian Islands (NWHI), they are primarily found in shallower inshore waters. They also occur in temperate and tropical oceans worldwide.

**ABUNDANCE:** Four independent population stocks occur in Hawaiian waters; abundance estimates are as follows: Kaua'i/Ni'ihau 184, O'ahu 743, Hawai'i Island 128, 4-Islands (Maui, Lāna'i, Moloka'i, Kaho'olawe) 191, Hawai'i Pelagic 5,950. Population trends are unknown.

**LOCATION AND CONDITION OF KEY HABITAT:** Key habitat in Hawai'i includes nearshore shallow waters, which may be degraded by coastal development and pollution runoff.

### THREATS:

- **Fisheries interactions.** Hooking and entanglement of dolphins in fishing gear are known to cause serious injury and mortality, particularly from longline fisheries. The dolphins are known to take bait and catch from Hawaiian recreational and commercial fisheries, another potential source of injury or mortality.
- **Tourist interactions.** Close range interaction associated with swim-with-dolphin and dolphin-watching tourism in Hawai'i may disrupt critical social and resting behavior and decrease energy reserves, which may reduce forage efficiency and ability to care for young.
- **Marine pollution and debris.** Ingestion of marine debris can cause intestinal injury or blockage. Accumulation of tiny, plastic particles containing PCBs and DDEs can cause

toxic effects from ingestion.

- Underwater noise. Sonar transmissions from military vessels, underwater detonations during military exercises, and vessel noise may interfere with behavior and result in physical harm or loss of hearing sensitivity.
- Habitat degradation. Habitat is degraded as a result of coastal development and runoff into estuaries and bays.

**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 statewide and island conservation actions, specific actions should include the following:

- Reduce marine debris and pollutants in the marine environment.
- Continue to reduce vessel strikes and entanglement.
- Continue to collaborate with the National Oceanic and Atmospheric Administration (NOAA) on education and outreach, such as the “Ocean Etiquette” program that promotes dolphin-friendly ecotourism.
- Continue to collaborate with NOAA on enforcement of the Marine Mammal Protection Act as it relates to preventing marine mammal harassment and disturbance.
- Incorporate dolphins and other marine mammals in Hawaiian Islands Humpback Whale National Marine Sanctuary management.
- Collaborate with local conservation groups on conservation of cetaceans and related educational programs.

**MONITORING:**

- Monitor abundance and distribution of nai’a in Hawaiian waters.
- Continue monitoring entanglement and fisheries bycatch.

**RESEARCH PRIORITIES:**

- Evaluate impacts of tourist activities on nai’a in Hawai’i.
- Evaluate impacts of noise from ships in Hawai’i on nai’a.
- Evaluate impacts of plastics and marine debris on marine mammals.

**References:**

Baird RW, Gorgone AM, McSweeney DJ, Ligon AD, Deakos MH, Webster DL, Schorr GS, Martien KK, Salden DR, and Mahaffy SD. 2009. Population structure of island-associated dolphins: evidence from photo-identification of common bottlenose dolphins (*Tursiops truncatus*) in the main Hawaiian Islands. *Marine Mammal Science* 25:251-274.

Carretta JV, Oleson E, Weller DW, Lang AR, Forney KA, Baker J, Hanson B, Martien K, Muto MM, Orr AJ, Huber H, Lowry MS, Barlow J, Lynch D, Carswell L, Brownell RL Jr., and Mattila DK. 2014. U.S. Pacific Marine Mammal Stock Assessments, 2013. La Jolla, California: National Marine Fisheries Service, Southwest Fisheries Science Center. NOAA-TM-NMFS-SWFSC-532.

Constantine R. 2001. Increased avoidance of swimmers by wild bottlenose dolphins (*Tursiops truncatus*) due to long-term exposure to swim-with-dolphin tourism. *Marine Mammal Science* 17 (4): 689-702.

Constantine R, Brunton DH, Dennis T. 2004. Dolphin-watching tour boats change bottlenose dolphin *Hawai’i’s State Wildlife Action Plan*  
*October 1, 2015*

*(Tursiops truncatus)* behaviour. *Biological Conservation* 117 (3): 299-307.

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.

IUCN Red List of Threatened Species. 2015. Version 2014.3. Available at: [www.iucnredlist.org](http://www.iucnredlist.org). (Accessed May 2015).

McDermid KJ, and McMullen TL. 2004. Quantitative analysis of small-plastic debris on beaches in the Hawaiian Archipelago. *Marine Pollution Bulletin* 48: 790-794.

Reeves RR, Stewart BS, Clapham PJ, Powell JA. 2002. *Guide to marine mammals of the world*. New York, NY: Alfred A. Knopf, Inc.