Injuries from fisheries

Pseudorca are the most frequently bycaught species of whale or dolphin in the Hawai'i longline fishery (an estimated 10-15 killed or seriously injured each year). The insular population has a high rate of dorsal fin injuries from line interactions as shown in the photos on the left, with one individual having lost its entire dorsal fin.

For more information on *Pseudorca* in Hawai'i see:

www.cascadiaresearch.org/hawaii/falsekillerwhale.htm

www.fpir.noaa.gov/PRD/prd_false_killer_whale.html

In 2012 the main Hawaiian Islands insular population of *Pseudorca* was listed as **endangered** under the U.S. Endangered Species Act. This came after a year-long review by a National Marine Fisheries Service team which found that the whales constitute a 'distinct population segment' that is in danger of extinction. In 2010 NMFS also established a Take Reduction Team to reduce by-catch of false killer whales in the Hawai'i-based long-line fishery, and a Take Reduction Plan was implemented in 2013 requiring use of weak circle hooks in the long-line fishery to reduce serious injury and mortalities.

What can you do to help the *Pseudorca*?

- **Eat sustainably caught fish**
- **Don't use pesticides or other household toxic chemicals**
- **If you fish, use circle hooks**

Skull illustrations from skullsunlimited.com
All other illustrations by Uko Gorter

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[3] Dan J. McSweeney/Wild Whale Research Foundation
Individual in cover photo is HIPc518

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Pseudorca

Hawai'i's False Killer Whales






Hawai‘i’s *Pseudorca* are in decline

Pseudorca are a rare, normally open-ocean dolphin. In Hawaiian waters there are three populations: an offshore population, and two island-associated (insular) populations, one in the Northwestern Hawaiian Islands and one around the main Hawaiian Islands. Due to ongoing research over the last 14 years, more is known about *Pseudorca* in Hawai‘i than anywhere else. The main Hawaiian Islands insular population is truly kama‘āina - they are long-term residents genetically different from *Pseudorca* elsewhere. This population has declined from about 500 individuals in the late 1980s to about 150-200 individuals.

What has caused the decline?

- Accumulating high levels of persistent organic pollutants in their bodies
- Reduction in available food
- Fishing gear entanglement and eating hooked fish
- Humans deliberately shooting the whales to prevent them from eating their catch

A group of *Pseudorca* sharing a tuna

Cool Fact!

***Pseudorca* cooperatively hunt and share their prey**, often passing it back and forth many times before starting to consume it. They have even been known to share their catch with human swimmers and people in boats. Since *Pseudorca* feed during the day on large fish and commonly bring them to the surface, more is known about their diet than any other marine mammal in Hawai‘i.

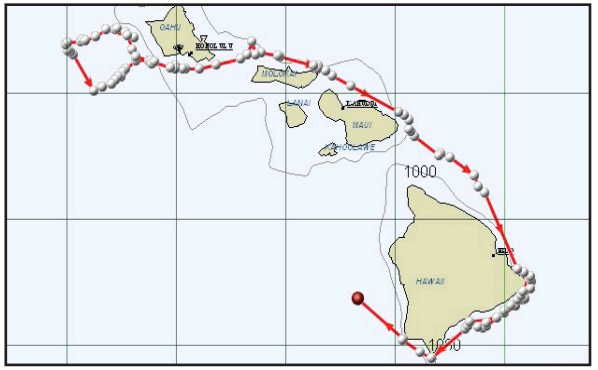
AT RISK - *Pseudorca* life history explains their vulnerability

- *Pseudorca* mature slowly and live for a long time - around 60 years. They are slow to reproduce (1 offspring every 6-7 years), and like humans, female *Pseudorca* go through menopause, having a long post-reproductive period.
- *Pseudorca* feed on large game fish like Ahi, Mahimahi, Ono, Opah, A‘u, A‘u Ku, Monchong, and Aku, which are high on the marine food web.
- Because they are long-lived and feed high on the food web, *Pseudorca* accumulate high levels of pollutants such as PCBs, DDTs, and flame retardants that have built up in the food they eat.
- Such high levels of pollutants in the body may impact the immune system and/or reproduction in *Pseudorca*.

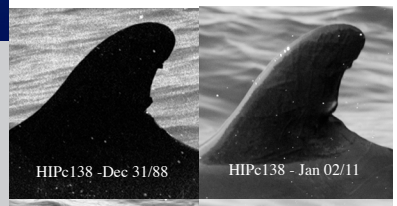
How scientists learn about *Pseudorca* in Hawai‘i

Tracking

Along with photo-ID, satellite tags are being used to understand movements and habitat use. This map shows 10 days of movements of HIPc200, a sub-adult male first documented in December 2004, tagged off O’ahu in October 2010.



Dorsal fin matching



Distinctive dorsal fins allow individuals to be followed over the years.

Did you know?

False killer whales were given the name *Pseudorca* because of similarities to killer whales in the skull and teeth.