

False Killer Whale

Proposed False Killer Whale Take Reduction Plan Frequently Asked Questions

NOAA Fisheries Service is publishing a proposed rule to implement a False Killer Whale Take Reduction Plan under the Marine Mammal Protection Act (MMPA). The proposed Plan includes measures to reduce incidental serious injuries and mortalities (i.e., bycatch) of false killer whales in the Hawaii-based commercial longline fisheries. This is a separate action from the proposed Endangered Species Act (ESA) listing of the Hawaiian Insular false killer whale.

Q: What is a false killer whale?

A: The false killer whale (*Pseudorca crassidens*) is a member of the oceanic dolphin family. False killer whales are found worldwide, mainly in tropical and warm-temperate waters. They feed on tuna and other commercially-important pelagic fish species.

Q: How many false killer whales are there?

A: Three “stocks” of false killer whales have been identified in the central Pacific – the Hawaii Insular, Hawaii Pelagic, and Palmyra Atoll stocks. As defined by the MMPA, the term “stock” means a group of marine mammals of the same species or sub-species in a common spatial arrangement (e.g., animals that share the same habitat), that interbreed when mature.

The most recent U.S. Pacific Marine Mammal Stock Assessment Report provides a best estimate of abundance for each stock. The Hawaii Insular stock, which inhabits waters within 140 km (approximately 75 nmi) of the main Hawaiian Islands, has 123 individuals. The Hawaii Pelagic stock, which is found in waters greater than 40 km (22 nmi) from the main Hawaiian Islands, has 484 individuals. The Palmyra Atoll stock, which is found within the U.S. Exclusive Economic Zone of Palmyra Atoll, has 1,329 individuals.

Q: How do scientists know that the abundance of these false killer whale stocks is so low?

A: NOAA Fisheries and other scientists conducted eight months of ship-based surveys to estimate the abundance of marine mammals in waters surrounding Hawaii, Palmyra Atoll, and Johnston Atoll. These abundance estimates are based on accepted and peer-reviewed methods, and are published in the annual Stock Assessment Report.

In late 2010, NOAA Fisheries conducted four months of ship-based surveys in the waters surrounding Hawaii. Data from these surveys will be used to calculate updated abundance estimates of all marine mammals in the waters around Hawaii. NOAA Fisheries expects these estimates will be completed in 2012.

Q: What scientific data show that these stocks are separate and not part of one large population?

- A: 1) Genetic analyses of tissue samples collected from false killer whales by scientists and fishery observers revealed that animals found close to the main Hawaiian Islands are distinct from those found farther offshore.
- 2) Movement data from satellite-tagged false killer whales showed distinct movement patterns for animals from different populations.
- 3) Many nearshore false killer whales have been photographed by scientists and then re-identified years later, indicating that they are resident to the Hawaiian Islands.

Q: Are false killer whales endangered?

A: False killer whales as a species are not endangered. However, in a separate action, NOAA Fisheries proposed to



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July 2011





list the Hawaiian Insular false killer whale as an endangered distinct population segment based on an evaluation of risk to the population. Insular false killer whales' small and recently declining population size, exposure to environmental contaminants, competition for food with commercial fisheries, and incidental (accidental) hooking, entanglement, or intentional harm by fishermen contribute to a high risk of extinction. NOAA Fisheries expects to publish a final decision on whether to list the population under the ESA in late 2011.

Neither the Hawaii Pelagic stock nor the Palmyra Atoll stock of false killer whales is considered endangered. However, all three stocks of false killer whales (Hawaii Insular, Hawaii Pelagic, and Palmyra Atoll) are at risk of being hooked or entangled in commercial longline fishing gear, and will be managed under the proposed Take Reduction Plan.

False Killer Whale Stock

	Affected by the Proposed Endangered Species Act Listing?	Affected by the Proposed Take Reduction Plan?
Hawaii Insular	YES	YES
Hawaii Pelagic	NO	YES
Palmyra Atoll	NO	YES

Take of False Killer Whales

Q: What is “take”?

A: The MMPA defines “take” as “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.” The MMPA prohibits take of marine mammals. Serious injuries and mortalities are considered take.

Q: What is the problem?

A: During Hawaii-based longline fishing operations, false killer whales become hooked or entangled in fishing gear and, as a result, may become seriously injured or killed. This often occurs when false killer whales are preying on the longline catch or bait.

Currently, these takes are occurring at a level that is unsustainable for the Hawaii Pelagic stock (i.e., takes exceed a threshold called the Potential Biological Removal level), and take levels are very close to exceeding potential biological removal for the Hawaii Insular stock. In response, the MMPA requires NOAA Fisheries to convene a Take Reduction Team to draft a plan for reducing serious injuries and mortalities of false killer whales that occurs incidental to commercial fishing activities.

Q: How much take is occurring?

A: False killer whales are taken in both the Hawaii-based deep-set (tuna targeting) and shallow-set (swordfish targeting) longline fisheries, though take rates are higher in the deep-set fishery. Using observer data from 2004-2008, NOAA Fisheries estimates the Hawaii-based deep-set (tuna targeting) longline fishery had 7.3 incidental mortalities and serious injuries per year of false killer whales from the Hawaii Pelagic stock inside the U.S. Exclusive Economic Zone around the Hawaiian Islands, and an additional 5.3 on the high seas (waters outside of the U.S. Exclusive Economic Zone). Over the same time period, NOAA Fisheries estimates the deep-set longline fishery had 0.6 incidental mortalities and serious injuries per year from the Hawaii Insular stock, and 0.3 per year from the Palmyra Atoll stock. These figures are reported in the Draft 2010 Stock Assessment Report.

The Hawaii-based shallow-set (swordfish targeting) longline fishery has 100% observer coverage. From 2004-2008, one false killer whale was observed taken in this fishery, and it was not seriously injured. Therefore, the Draft 2010 Stock Assessment Report lists zero incidental mortalities and serious injuries of false killer whales in the fishery. A single observed serious injury of a Hawaii Pelagic false killer whale in 2009 will be reported in the next annual Stock Assessment Report.

Q: How can the take of a few animals per year be unsustainable?

A: A mortality or serious injury of more than a few false killer whales per year is more than the stocks can sustain, because each population consists of no more than a few hundred individuals. The reason these populations are so small is that false killer whales have only one calf every 2-4 years, and as top predators, they do not occur in high densities. Also, like other cetaceans in many parts of the world, false killer whales in Hawaiian waters live in small populations that do not interbreed.

Take Reduction Team

Q: What is a Take Reduction Team?

A: A Take Reduction Team is an advisory group tasked with developing a plan for reducing mortalities and serious injuries of particular marine mammal stocks. A Take Reduction Team includes appointed representatives from federal and state agencies, fishery management councils, academic and scientific organizations, environmental groups, and the commercial fishing industry. Take Reduction Teams provide advice on the development, implementation, monitoring, and evaluation of Take Reduction Plans. Take Reduction Team members participate in negotiation discussions, and represent viewpoints and relay information to their constituencies.

Q: How many TRTs are there in the U.S.?

A: NOAA Fisheries has convened 10 Take Reduction Teams, including the False Killer Whale Take Reduction Team. The False Killer Whale Take Reduction Team is the first Take Reduction Team in the Pacific Islands Region.

Q: Can I be on the False Killer Whale Take Reduction Team?

A: NOAA Fisheries already appointed Take Reduction Team members on the basis of their expertise regarding the conservation or biology of false killer whales, or the fishing practices that result in the incidental mortality and serious injury of such species (i.e., longline fishing), as required by the MMPA. However, all Take Reduction Team meetings are open to the public, and all interested stakeholders are encouraged to attend. Each meeting has a brief comment period during which members of the public may provide remarks directly relevant to the items presented or discussed during the meeting. NOAA Fisheries will announce upcoming Take Reduction Team meetings on the NOAA Fisheries Pacific Islands Regional Office website, including information on the dates, times, and location.

Q: What has the False Killer Whale Take Reduction Team done so far?

A: The False Killer Whale Take Reduction Team had four multi-day meetings between February and July 2010. At these meetings, the Take Reduction Team evaluated a wide range of data and analyses, and developed recommendations for a suite of measures to reduce serious injuries and mortalities of false killer whales in the Hawaii-based longline fisheries. On July 19, 2010, the Take Reduction Team submitted to NOAA Fisheries their consensus recommendations in the form of a Draft Take Reduction Plan.

The Draft Take Reduction Plan is grounded in several key recommendations such as changes to hook type and gear, and possible area closures. Other recommendations in the Draft Take Reduction Plan include conducting experiments, research, and mandatory marine mammal handling and release training. The False Killer Whale Take Reduction Team members agreed that the recommendations, taken together as a suite of actions, have a high likelihood of achieving the take reduction goal.





Q: How did NOAA Fisheries use the Take Reduction Team's recommendations?

A: NOAA Fisheries evaluated the Take Reduction Team's recommendations to determine whether they would achieve the MMPA's take reduction goals. Additionally, NOAA Fisheries considered a variety of other factors, including enforceability of the measures and any safety concerns. NOAA Fisheries then used the Take Reduction Team's recommendations (the Draft Take Reduction Plan) to form the basis of the proposed rule (the proposed False Killer Whale Take Reduction Plan or Take Reduction Plan).

Proposed Take Reduction Plan

Q: What is a Take Reduction Plan?

A: A Take Reduction Plan is a plan to reduce incidental mortality and serious injury of marine mammals stocks in commercial fisheries to specified levels. The MMPA states that the immediate goal of a Take Reduction Plan is to reduce, within six months of its implementation, the incidental serious injury or mortality of marine mammals from commercial fishing to levels less than potential biological removal. The long-term goal is to reduce, within five years of its implementation, the incidental serious injury and mortality of marine mammals from commercial fishing operations to insignificant levels approaching a zero serious injury and mortality rate, taking into account the economics of the fishery, the availability of existing technology, and existing state or regional fishery management plans.



Each Take Reduction Plan must include:

- A review of the final Stock Assessment Report for each marine mammal addressed by the Take Reduction Plan and any substantial new information;
- An estimate of the total number and, if possible, age and gender, of animals from the stock that is incidentally killed or seriously injured each year during the course of commercial fishing operations, by fishery;
- Regulatory or voluntary measures for the reduction of incidental mortality and serious injury; and
- Dates for achieving the specific objectives of the plan.

Q: Which marine mammal stocks are affected by the proposed False Killer Whale Take Reduction Plan?

A: The proposed False Killer Whale Take Reduction Plan addresses mortality and serious injury of the Hawaii Insular, Hawaii Pelagic, and Palmyra Atoll false killer whale stocks. These are the stocks that are known to be taken by the Hawaii-based longline fisheries.



Q: Which fisheries are affected by the proposed False Killer Whale Take Reduction Plan?

A: The proposed False Killer Whale TRP affects the Hawaii-based deep-set and shallow-set pelagic longline fisheries. The proposed False Killer Whale Take Reduction Plan also includes research recommendations specific to Hawaii's nearshore hook-and-line fisheries, though these fisheries are not affected by any of the proposed regulations. The scope of the False Killer Whale Take Reduction Plan may be expanded in the future to include other fisheries if information shows other fisheries have unsustainably high levels of false killer whale takes.

Q: What is in the proposed False Killer Whale Take Reduction Plan?

A: The proposed False Killer Whale TRP contains 8 regulatory measures (i.e., measures required by regulation) and 6 non-regulatory measures (i.e., measures that NOAA Fisheries and other partners will implement, but which are not required by regulation):

Regulatory Measures

1. Require the use of circle hooks with a maximum wire diameter of 4.0 mm, round wire, and an offset of 10 degrees or less in the Hawaii-based deep-set longline fishery;
2. Establish a 2.0 mm minimum diameter for monofilament leaders and branchlines in the Hawaii-based deep-set longline fishery, and require that any other materials used in leaders or branchlines must have the same or greater breaking strength (400 lbs);
3. Revise an existing longline prohibited area around the main Hawaiian Islands to prohibit longline fishing year-round where it is currently allowed only seasonally;
4. Require longline vessel owners and operators to attend and be certified for completion of a workshop on marine mammal interaction mitigation techniques;
5. Require a NOAA Fisheries-approved marine mammal handling and release informational placard to be posted onboard all longline vessels;
6. Require the captain of the longline vessel to supervise the handling and release of any hooked or entangled marine mammal;
7. Require a NOAA Fisheries-approved placard that instructs the vessel crew to notify the captain if a marine mammal is hooked or entangled, be posted onboard all longline vessels; and
8. Establish a “Southern Exclusion Zone” south of the main Hawaiian Islands that is closed to deep-set longline fishing for varying periods of time, when triggered by specific observed levels of serious injuries or mortalities of false killer whales within the U.S. Exclusive Economic Zone surrounding the Hawaiian Islands.

Non-regulatory Measures

1. Continue efforts to increase precision of bycatch estimates in the Hawaii-based deep-set longline fishery;
2. Notify the Take Reduction Team when there is an observed interaction of a known or possible false killer whale, and provide the Take Reduction Team with any non-confidential information regarding the interaction;
3. Expedite the process for confirming the species identification of animals involved in such interactions and for making serious injury determinations;
4. Make specific changes to the observer training and data collection protocols;
5. Expedite the processing of data from NOAA Fisheries’ 2010 Hawaiian Islands Cetacean and Ecosystem Assessment Survey and provide preliminary results to the Take Reduction Team; and
6. Reconvene the Take Reduction Team at regulator intervals following implementation of the Take Reduction Plan, depending on available funding.



In addition, the proposed False Killer Whale Take Reduction Plan includes a list of 35 prioritized research recommendations to better inform long-term solutions to reduce false killer whale bycatch.



Q: How does NOAA Fisheries' proposed False Killer Whale Take Reduction Plan differ from the Take Reduction Team's recommendations (the Draft False Killer Whale Take Reduction Plan)?

A: NOAA Fisheries' proposed False Killer Whale Take Reduction Plan contains nearly all of the Take Reduction Team's recommended measures, with some modifications that NOAA Fisheries believes will better ensure the False Killer Whale Take Reduction Plan will meet the take reduction goals specified in the MMPA. These differences include:

- No increase in overall observer coverage in the deep-set longline fishery. Instead, NOAA Fisheries is proposing to increase the precision of the bycatch estimate by adjusting its sampling strategy and observer allocation;
- No requirement for longline vessel crew to notify the captain in the event of marine mammal hooking or entanglement. NOAA Fisheries believes it is the captain's responsibility to establish procedures to ensure he or she is aware of any marine mammal interactions and could meet his or her regulatory requirement to supervise their handling and release; and
- A modified "trigger" and implementation schedule for the Southern Exclusion Zone closure. NOAA Fisheries believes the Take Reduction Team's recommendations as written would likely not achieve the take reductions required by the MMPA.

Q: How could the False Killer Whale Take Reduction Plan change between the proposed and final rule?

A: The proposed rule opens up the period for public comment. During this process, NOAA Fisheries receives public comments, concerns, and information. Following the public comment period, NOAA Fisheries works to address those comments and concerns as appropriate. During this time, NOAA Fisheries may use additional information pertinent to the decision-making process to modify the Take Reduction Plan as appropriate.

Q: If the False Killer Whale Take Reduction Plan is finalized, when would that happen?

A: The MMPA specifies that NOAA Fisheries publish a final Take Reduction Plan within 60 days of the close of the public comment period for the proposed Take Reduction Plan. NOAA Fisheries will strive to meet this deadline; however, the agency must comply with other laws and mandates in the rulemaking process, which may require more than 60 days to complete and delay the rule publication timeline. Additionally, the number and complexity of public comments received on the proposed Take Reduction Plan will affect the time required to develop and publish a final Take Reduction Plan.

Q: What happens after the False Killer Whale Take Reduction Plan is finalized?

A: Once the Take Reduction Plan is finalized and becomes effective, NOAA Fisheries will monitor its progress and ensure the Take Reduction Plan meets the MMPA goal of reducing false killer whale mortalities and serious injuries in the fisheries to appropriate levels. NOAA Fisheries will reconvene the Take Reduction Team on a regular basis during this monitoring phase, depending on available funding.

If the take reduction goals are not met, or if new information becomes available that indicates a change to the Take Reduction Plan is necessary, NOAA Fisheries will reconvene the Take Reduction Team to develop additional consensus recommendations for reducing mortalities and serious injuries. NOAA Fisheries would subsequently amend the Take Reduction Plan through a proposed and final rule.

More information

More information about this proposed False Killer Whale Take Reduction Plan, the Take Reduction Team, and other false killer whale issues may be found at: http://www.fpir.noaa.gov/PRD/prd_false_killer_whale.html

General information on the NOAA Fisheries Take Reduction Program may be found at: <http://www.nmfs.noaa.gov/pr/interactions/trt/>

Acronyms

ESA – Endangered Species Act

MMPA – Marine Mammal Protection Act

Photos were taken under NOAA Fisheries permit SWFSC 14097