

NMFS proposed "List of Fisheries" (LOF) under MMPA section 118, Federal Register, 4/13/2004.

Excerpt from the notice:

NMFS proposes to reclassify the Hawaii Swordfish, Tuna, Billfish, Mahi Mahi, Wahoo, Oceanic Sharks Longline/Set Line Fishery (Hawaii longline fishery) as Category I under the MMPA primarily because of the level of incidental mortality and serious injury that occurs between this fishery and the Hawaiian stock of false killer whales (*Pseudorca crassidens*). However, NMFS also has information regarding incidental mortality and serious injury that occurs between this fishery and the Hawaiian stock of Risso's dolphins (*Grampus griseus*), Hawaiian stock of bottlenose dolphins (*Tursiops truncatus*), Hawaiian stock of spinner dolphins (*Stenella longirostris*), Hawaiian stock of pantropical spotted dolphins (*Stenella attenuata*), Hawaiian stock of short-finned pilot whales (*Globicephala macrorhynchus*), Hawaiian stock of Blainville's beaked whales (*Mesoplodon densirostris*), Hawaiian stock of sperm whales (*Physeter macrocephalus*) and the Central North Pacific stock of humpback whales (*Megaptera novaeangliae*).

In 2002, NMFS surveyed cetacean abundance, including the Hawaiian stock of false killer whales, in waters where the Hawaii longline fishery operated, a survey that would allow for a better estimate of abundance and a more reliable PBR level and better estimates of mortality and serious injury in marine mammal stocks taken by this fishery. This survey addressed the limitations of the earlier survey data, discussed in the 2001 and 2003 LOFs (66 FR 42780, August 15, 2001; 68 FR 41725, July 15, 2003) and the need for these data was emphasized in the 2001 LOF. The 2002 Pacific and Alaska SARs provided data about these stocks of marine mammals and calculated a rate of interaction between the Hawaii longline fishery and each stock based on observer data. As a result, false killer whales (Hawaiian stock) were determined to be a strategic stock in 2002. However, the surveys were not completed prior to the 2002 LOF and these data were not completely analyzed prior to the completion of the 2003 LOF. Further, the abundance estimate on which the PBR was based was considered an underestimate because it was based on 1993-98 aerial surveys conducted only within approximately 25 nautical miles of the main Hawaiian Islands, not throughout the entire range of the false killer whale stock. For these reasons, NMFS left in place the fishery's classification as a Category III fishery in 2002 and 2003 based on the limitations of available information, and the need to review other relevant sources in 2004.

Information Available for the 2004 LOF That was Not Available for the 2003 LOF Abundance information: The results of the 2002 surveys in the Hawaiian EEZ are now available (Barlow, 2003. Cetacean Abundance in Hawaiian Waters during Summer/Fall of 2002, referenced as PSRG-7), and these have been combined with the earlier aerial surveys within 25 nmi of the main Hawaiian Islands (Mobley et al. 2000) to produce an estimate of the abundance of false killer whales in the Hawaiian EEZ. The methods used in the surveys followed standard survey techniques and are described in the scientific papers cited above. The method for combining the results of the two surveys followed standard statistical procedures. The 2002 survey of the entire Hawaiian Islands Exclusive Economic Zone (EEZ) resulted in an abundance estimate for false killer whales (Hawaiian stock) of 268 individuals (based on the lower 85-percent confidence interval), a slight increase from the previous estimate. Mortality information: The results of an expanded observer program in the Hawaiian longline fishery are now available (Forney 2003. Estimates of Cetacean Mortality and Injury in the Hawaii Based Longline Fishery, 1994-2002. 11/4/2003). These mortality and serious injury estimates were based upon a long-term data set, with expanded observer coverage between 2000 and 2002 primarily in tuna-style fishing. These data allowed an evaluation of the suggestion that tuna-style fishing resulted in little to no (remote likelihood) injury or mortality of marine mammals. Since 1998, only one false killer whale has been observed killed in the Hawaiian EEZ.

As a result of these data, updated abundance and mortality estimates have been included in the 2004 draft stock assessment report for the Hawaiian stock of false killer whales (False Killer Whale (*Pseudorca crassidens*): Hawaiian stock, dated 11/15/2003). This report describes abundance, mortality and status of false killer whales and partitions serious injury and mortality of the stock within and outside the US EEZ. All of the above reports have been subjected to scientific review within NMFS and are the best scientific information available related to abundance and mortality of false killer whales in the area.

New Management Regime and Effort Reduction for the Fishery: NMFS approved a regulatory amendment under the Fishery Management Plan for the Pelagic Fisheries of the Western Pacific Region (FMP) submitted by the Western Pacific Fishery Management Council (Council), published a proposed rule on January 28, 2004, and issued a final rule on April 2, 2004 (69 FR 17329) to establish a number of conservation and management measures for the fisheries managed under the FMP in order to provide adequate protections for sea turtles. On February 23, 2004, NMFS concluded consultation and issued a biological opinion under section 7 of the Endangered Species Act on the pelagic fisheries of the western Pacific region as they would be managed under the measures implemented through this final rule. The biological opinion found that the fisheries are not likely to jeopardize the continued existence of any ESA-listed species under the jurisdiction of NMFS. That final rule reopened the swordfish-directed component of the Hawaii-based longline fishery with annual fleet-wide limits on fishery interactions with leatherback and loggerhead sea turtles, and an annual fleet-wide limit on fishing effort. The final rule also requires that operators of general longline vessels annually complete a protected species workshop and have on board a valid protected species workshop certificate.

To implement the regulatory amendment proposed by the Council, the final rule: (1) establishes an annual effort limit on the amount of shallow-set longline fishing effort north of the equator that may be collectively exerted by Hawaii-based longline vessels (2,120 shallow-sets per year) and (2) divides and distributes this shallow-set annual effort limit each calendar year in equal portions to all holders of Hawaii longline-limited access permits. The interaction limits for leatherback and loggerhead sea turtles may also limit, albeit indirectly, interactions with other protected species, such as false killer whales, in the shallow-set component of the Hawaii-based longline fishery. Furthermore, under the ESA, when any of the incidental take limits is exceeded, NMFS reinitiates consultation under section 7 of the ESA, at which point the need for more restrictive measures would be considered. The terms and conditions of the incidental take statement in the 2004 biological opinion also mandate 100-percent observer coverage in the shallow-set component of the Hawaii-based longline fishery and at least 20-percent coverage in the deep-set component. NMFS intends to implement these levels of coverage. Given the relatively long history of the deep-set component and our understanding of patterns of fishing, catches, and interactions with protected species, NMFS has determined 20 percent to be a sufficient level of coverage in the deep-set component of the fishery.

Tier Evaluation

Tier 1 Evaluation: The Hawaii longline fishery is the only fishery known to interact with the Hawaiian stock of false killer whales. Based on the currently available data, total annual incidental mortality and serious injury across all fisheries (in this case, just the Hawaii longline fishery) is greater than or equal to 10 percent of the PBR level for the Hawaiian stock of false killer whales. Therefore, the Hawaii longline fishery is subject to Tier 2 analysis.

Tier 2 Evaluation: Based on extrapolations from the currently available data, total annual mortality and serious injury (4.4 animals) of the Hawaiian stock of false killer whales exceeds 50 percent of the PBR level (PBR=1.2). The continued take of false killer whales and other cetaceans, including endangered humpback and sperm whales, warrant recategorization of the fishery. Therefore, NMFS recommends elevating this fishery to Category I in the 2004 LOF.

Justification for Category I Classification

A mathematical application of the regulations based on the currently available data indicates that the total annual mortality and serious injury (4.4 animals) of the Hawaiian stock of false killer whales exceeds 50 percent of the PBR level (PBR=1.2). Therefore, NMFS is proposing to recategorize this fishery to a Category I under the MMPA. However, as explained below, NMFS is concerned that such a categorization may not adequately reflect the impact of this fishery on false killer whales. Accordingly, during the public comment period for this proposed rule, the NMFS Pacific Island Region will convene a workshop to evaluate the information used in this proposed categorization. The workshop will consist of NMFS scientists and managers as well as other individuals knowledgeable in marine mammal population assessments and interactions with fishing gear. The workshop will provide guidance on the reliability and

adequacy of available information, including information on mortality and serious injury, used in the tier analysis and subsequent categorization decision. NMFS will consider the results of the workshop and public comments received on this proposed rule in its decision to classify this fishery in the final LOF for 2004.

In the case of the Hawaii longline fishery, the classification is affected most by incidental mortality and serious injury of false killer whales. The mortality estimate is considered reliable in recent years because it is based upon a relatively high level of observer coverage in the fishery. The single mortality of a false killer whale in 1998 within the EEZ is the basis for the expanded mortality estimate. The average mortality used in the LOF comparisons to abundance are based on a 5-year average. So if no further mortalities occur in 2004, this single event will no longer be considered in the 5-year average in 2005. The abundance estimate of 268 animals is currently the best available for this stock and represents a much better estimate for this stock inside the Hawaiian EEZ than estimates in previous years. However, the extent to which the abundance estimate may be lower than the actual abundance of false killer whales is unknown. As a result, the extent to which the PBR of 1.2 may also be considered an underestimate is unknown for this stock of false killer whales. The uncertainty in the abundance and PBR estimates likely overemphasizes the ratio between mortality and significant injury in this fishery to PBR; therefore, the impact of this fishery on false killer whales may be overemphasized. As noted above, the interaction limits for sea turtles may also limit, albeit indirectly, interactions with other protected species, including false killer whales, that occur in the shallow-set component of the Hawaii-based longline fishery. The extent to which these measures reduce interactions with marine mammal stocks is not known at this time. In summary, the abundance (and subsequently, the PBR) of false killer whales in the North Pacific Ocean is currently considered the best available estimate. However, it remains a minimum estimate because the surveys upon which the abundance estimate are based were limited in scope to a portion of the range, the Hawaiian EEZ, of the false killer whale stock. It does indicate that the stock abundance is low within the Hawaiian Island EEZ.

Mortality records indicate that false killer whales occupy international waters and the EEZ around Palmyra, areas outside the 2002 survey area. Clearly, the number of false killer whales in the North Pacific Ocean subject to injury and mortality by the longline fishery exceeds the minimum population estimate included in Barlow, 2003 but it is not known by how much it is an underestimate. Such a conclusion can be based simply upon the presence of false killer whales in international waters and in the EEZ surrounding Palmyra that were hooked and killed or seriously injured incidental to the longline fishery.

The proposed reclassification of the Hawaii Longline Fishery to a Category I is warranted based on the current information. However, NMFS intends to address the scientific bases for this conclusion at a workshop which will be held during the public comment period. As previously provided, NMFS will consider the results of this workshop and public comments received on this proposed rule in its decision to classify this fishery in the final LOF for 2004.