

MARINE MAMMAL COMMISSION
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23 May 2006

Mr. Stewart Harris
Acting Chief, Marine Mammal Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Dear Mr. Harris:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the National Marine Fisheries Service's proposed rule for the 2006 List of Fisheries under the Marine Mammal Protection Act and offers the following recommendations and comments.

Recommendations

Based on its review of the proposed 2006 List of Fisheries, the Marine Mammal Commission

- Commends the Service for providing a more detailed description of the basis for classification decisions in its 2006 List of Fisheries;
- Commends the Service for initiating an observer program for the American Samoa longline fishery;
- Commends the Service for conducting research to determine the distribution and stock structure of short- and long-finned pilot whales, estimate the abundance of each species, and identify which species is taken incidental to commercial fisheries;
- Commends the Service for its plans to convene a take reduction team for Atlantic trawl fisheries;
- Reiterates a previous recommendation that the Service describe the level of observer coverage for each fishery in the List of Fisheries;
- Recommends that the Service review all cases where serious injury or mortality has occurred but either the involved fishery or the affected stock, or both, is not known to determine if potential misallocation of take could result in misclassification of the potentially involved fisheries. If such misclassifications are possible, then develop alternatives for classifying the fishery or fisheries that ensure that potential risks to affected marine mammal stocks, particularly those that may be more vulnerable to fishery interactions, are evaluated in a precautionary manner;
- Recommends that the Service take the reasonable and precautionary step of reclassifying as category I gillnet fisheries in the southeast Atlantic, which may have caused the January 2006

death of a North Atlantic right whale calf in the calving grounds of that species, to assess fully their level of interaction with marine mammals;

- Recommends that the Service undertake a more complete investigation of interactions between marine mammals and the western Pacific squid jig fishery and reclassify the fishery if warranted;
- Recommends that the Service monitor aquaculture operations to characterize the rate of interactions with marine mammals and take the necessary steps to prevent, minimize, or mitigate potential impacts on marine mammals and the affected ecosystems;
- Recommends that the Service expedite its investigation of bottlenose dolphin stock structure in the Gulf of Mexico and reevaluate the blue crab trap/pot fishery, menhaden purse seine fishery, and other Gulf of Mexico fisheries whose classification may be affected by new information on bottlenose dolphin stock structure; and
- Recommends that the Service compare the distributions of the southeast Atlantic inshore gillnet fishery and marine mammals in the same region, particularly bottlenose dolphins that are known to inhabit estuaries along the southeastern U.S. coast, and reclassify the fishery as category II if those distributions overlap to an appreciable degree.

Comments and rationale for recommendations

General comments

In previous letters commenting on the 2003, 2004, and 2005 Lists of Fisheries (dated 10 February 2003, 14 June 2004, and 3 January 2005), the Commission recommended that the National Marine Fisheries Service describe in more detail the basis for its classification of the various fisheries. In the proposed 2006 List of Fisheries, the Service indicates which fisheries are classified as category I or II based on documented interactions with marine mammals and highlights those marine mammal stocks for which serious injury and mortality incidental to a given fishery exceed regulatory thresholds, resulting in the fishery's current classification. The Service also indicates which fisheries are classified by "analogy to other gear types that are known to cause mortality or serious injury of marine mammals." Previous Lists of Fisheries (prior to 2003) included similar information, indicating which marine mammal species or stocks were considered to be strategic and which were listed as threatened or endangered under the Endangered Species Act, but did not clearly indicate which fisheries were classified based on documented interactions or by analogy. The Marine Mammal Commission believes that this information is useful for evaluating the effects of fisheries and commends the National Marine Fisheries Service for describing the basis for classification in greater detail.

One important piece of information that the Service did not include in its proposed 2006 List of Fisheries was the level of observer coverage for each fishery. The Commission recommended in its 3 January 2005 letter that the Service provide this information, and the Service indicated in the final rule for the 2005 List of Fisheries that it would "consider this comment throughout the 2006 LOF [List of Fisheries] development process." The Service's stock assessment reports usually include estimates of observer coverage for fisheries known to interact with the subject marine mammal stocks. However, fisheries for which interactions have not been documented in recent years are not described in the stock assessment reports and, therefore, estimates of observer coverage for those fisheries are not readily available to the public. Without such information, it is

not possible to determine whether a given fishery was adequately observed and no marine mammals were taken or whether the fishery was not adequately observed and mortality and serious injury may have occurred but simply were not documented. To address this uncertainty, the Marine Mammal Commission reiterates its recommendation that the National Marine Fisheries Service describe the level of observer coverage in each fishery in the 2006 List of Fisheries.

Stock assessment reports developed by the Service include relevant information on serious injury and mortality estimates as well as descriptions of fisheries that are known to interact with marine mammals. Some of this information could be added to the List of Fisheries to provide the public with a more complete assessment of marine mammal take in fisheries. At a minimum, the Service should ensure that relevant fishery information is provided in stock assessment reports for each stock that is known to be taken incidental to a given fishery. The California anchovy/mackerel/tuna purse seine fishery provides an example where the level of take is not clear, due, at least in part, to inconsistent information provided in the List of Fisheries and stock assessment reports. This fishery is listed in the List of Fisheries as incidentally taking animals from the California/Oregon/Washington offshore stock of bottlenose dolphins, the U.S. stock of California sea lions, and the California stock of harbor seals. In the most recent stock assessment reports, that fishery is not mentioned as a source of mortality for California/Oregon/Washington offshore bottlenose dolphins; is mentioned as a historic source of mortality for California sea lions, but no recent data are provided; and is mentioned as a historic source of mortality for California harbor seals, with estimates provided from captains' log books from 1990–1992. Careful cross-referencing between the List of Fisheries and recent stock assessment reports should identify potential omissions in one or the other.

The California anchovy/mackerel/tuna purse seine fishery also provides an example where a description of the level of observer coverage would provide a better basis for public review of the List of Fisheries. In particular, the Service proposes to reclassify the California sardine purse seine fishery because of its similarity to the California anchovy/mackerel/tuna purse seine fishery, which purportedly is known to seriously injure or kill marine mammals. If the level of observer coverage for the California anchovy/mackerel/tuna purse seine fishery were reported, the public could evaluate the validity of the “analogy” used for the proposed reclassification of the similar sardine fishery. Based on the review of relevant stock assessment reports described above, the recent level of observer coverage presumably is zero, and the analogy seems to be based on an average annual mortality of 0.67 harbor seal reported in log books from 1990–1992 and an undescribed level of historic mortality of California sea lions in the California anchovy/mackerel/tuna purse seine fishery.

Allocation of serious injury and mortality

In an 8 March 2005 letter regarding guidelines for preparing stock assessment reports, the Commission described problems that may result from misallocation of serious injury and mortality estimates among marine mammal stocks when the involved fishery is known but the affected stock is not. Specifically, when the marine mammals potentially affected include stocks that are more vulnerable due to small population size, reduced growth potential, or increased likelihood of interacting with the fisheries, then the incorrect allocation of serious injury and mortality could result in an underestimation of the impact on those vulnerable stocks. Incorrect allocation also could result

in improper classification of the involved fishery in the List of Fisheries. The revised guidelines for preparing stock assessment reports, published in June 2005, indicate the following:

When biological information (e.g., genetics, morphology) is sufficient to identify the stock from which a dead animal came, then the mortality should be associated only with that stock. When a dead animal cannot be assigned directly to a stock, then mortality may be partitioned by the abundances of the stocks vulnerable to the mortality (i.e., based on the abundances of each stock within the appropriate geographic area), provided there is sufficient information on stock abundance. When mortality is partitioned among overlapping stocks proportional to the abundances of the affected stocks, the reports will contain a discussion of the potential for over or under-estimating stock-specific mortality.

The Commission believes that the Service should evaluate the effect of these guidelines on classification of involved fisheries in the List of Fisheries. To that end, the Marine Mammal Commission recommends that the National Marine Fisheries Service (1) review all cases where serious injury and mortality estimates are allocated among marine mammal stocks when the involved fishery is known but the affected stock is not, (2) determine in those cases whether potential misallocation of those estimates could result in misclassification of the involved fishery, and, if such misclassifications are possible, (3) develop alternatives for classifying the involved fishery or fisheries in a precautionary manner that ensures that potential risks to affected stocks, particularly those that may be more vulnerable to fishery interactions, are evaluated appropriately.

Allocation of serious injury and mortality estimates also can be problematic when the affected marine mammal stock is known but the involved fishery is not. For example, on 22 January 2006 a dead northern right whale calf was found floating off Jacksonville Beach, Florida, and its death was attributed to injuries caused by entanglement in a gillnet. Responders did not find fishing gear on the whale and could not attribute the death to a specific gillnet fishery. The Service implemented emergency rules on 15 February that prohibited all gillnets in the known calving area of right whales for the remainder of the calving season. It does not appear, however, that this recent mortality was considered in the development of the proposed 2006 List of Fisheries. The potential biological removal level for the North Atlantic population of right whales is zero, so any serious injury or mortality of a right whale incidental to a commercial fishery would result in that fishery being classified as a category I fishery. However, no southeast Atlantic gillnet fisheries are listed as category I in the proposed 2006 List of Fisheries.

The Commission wrote to the Service on 15 May 2006 to commend the Service for its quick response to the death of this right whale calf and to recommend that the Service permanently close the calving area where this death occurred to gillnet fishing unless and until measures could be taken that would ensure no additional right whales would become entangled in this area. If the Service implements such a closure, then classification of these fisheries as category I may not be necessary to protect right whales in this area. However, the Commission believes it would be prudent to reclassify these fisheries for the purpose of determining whether they may be taking other marine mammals in this area or elsewhere. For that reason, the Marine Mammal Commission recommends that the National Marine Fisheries Service take the reasonable and precautionary step of reclassifying the potentially involved gillnet fisheries in this region as category I to assess fully their level of

interaction with marine mammals. In addition, the Marine Mammal Commission recommends that the National Marine Fisheries Service (1) review all cases where serious injury and mortality estimates need to be allocated among fisheries when the affected stock is known but the involved fishery is not, (2) determine in those cases whether potential misallocation of those estimates could result in misclassification of the potentially involved fisheries, and, if such misclassifications are possible, (3) develop alternatives for classifying the potentially involved fisheries in a precautionary manner that ensures that potential risks to affected stocks from those fisheries are evaluated appropriately.

Pacific fisheries

The Service proposes to reclassify the Alaska Bering Sea and Aleutian Islands Greenland turbot longline fishery from category II to category III. This fishery was classified previously as category II based on the observed mortality of a single killer whale in 1999. No killer whale mortalities have been observed or reported since then, even with relatively high observer coverage during the succeeding five years. The Commission agrees that this fishery merits reclassification and encourages the Service to continue to provide similar levels of observer coverage through the North Pacific Groundfish Observer Program to ensure that future serious injuries or deaths of marine mammals are estimated accurately and with reasonable precision.

The Service proposes to add the American Samoa longline, western Pacific squid jig, and Hawaii Kona crab loop net fisheries as new category III fisheries. The Marine Mammal Commission commends the National Marine Fisheries Service for initiating an observer program for the American Samoa longline fishery and agrees that the fishery's classification should be reevaluated when new information becomes available. The Service describes the western Pacific squid jig fishery as unlikely to cause incidental marine mammal mortality "... if marine mammals are hooked, they would break the relatively weak squid lines before being brought to the boat." It is possible, however, that marine mammals, particularly those that prey upon squid, could be seriously injured or killed if they ingested a hook, became entangled, or swam away with substantial trailing line attached to an imbedded hook. The fishery description cites the Australian Fisheries Management Authority, which prepared a Bycatch Action Plan describing squid jigging as a highly selective fishing method. However, that plan also discusses a related study by the Australian Fisheries Management Authority that investigated the fishery's interactions with marine mammals (Arnould 2002). The study reported observations of Australian fur seals, common dolphins, and blue sharks near squid jig vessels and of fur seals taking squid from jigs, albeit infrequently. Although no fur seals or bottlenose dolphins were known to have been hooked on squid jigs, it is feasible, if not likely, that both may be hooked on the jigs or become entangled in lines, as was reported for blue sharks. Thus, there seems to be a clear potential for marine mammal interactions with the squid jig fishery. On that basis, and because squid are a common prey of many marine mammals, the Marine Mammal Commission recommends that the National Marine Fisheries Service undertake a more complete investigation of interactions between marine mammals and the western Pacific squid jig fishery and reclassify the fishery if warranted. Regarding the Hawaii Kona crab loop net fishery, the continual monitoring of sets by fishermen and lack of reported interactions suggest that the fishery is appropriately classified in category III.

The Service proposes to add three aquaculture fisheries as new category III fisheries: Hawaii offshore pen culture, California marine shellfish aquaculture, and California white seabass enhancement net pen fisheries. Aquaculture operations can have negative impacts on marine mammals or ecosystems through (1) entanglement of marine mammals and other species in nets or other structures used to retain fish or exclude predators, (2) legal and illegal actions (e.g., harassment or shooting of animals) taken to prevent depredation by marine mammals on penned fish, (3) modification of local productivity and associated changes in species assemblages as a result of localized fertilization, and (4) transmission of disease from aquaculture fish to animals in the surrounding environment. Although these three aquaculture fisheries may merit classification as category III fisheries based on bycatch rates, the Marine Mammal Commission recommends that the National Marine Fisheries Service monitor associated operations of these and other aquaculture fisheries to characterize the rate of interactions with marine mammals and take the necessary steps to prevent, minimize, or mitigate potential impacts on marine mammals and the affected ecosystems.

Atlantic fisheries

In its 3 January 2005 letter regarding the proposed 2005 List of Fisheries, the Commission recommended that the Service classify the mid-Atlantic bottom trawl fishery as category I based on incidental mortality and serious injury estimates for short- and long-finned pilot whales. Distinguishing between the two species is difficult in the field, leading to uncertainty regarding the actual level of take and abundance for each species. Depending on how it is distributed, take could exceed 50 percent of the potential biological removal level for either species. We understand that the Service is conducting research to determine the distribution and stock structure of short- and long-finned pilot whales, estimate the abundance of each species, and develop methods to reliably assign pilot whales incidentally taken by commercial fisheries to the correct species. We also understand that the Service plans to convene a take reduction team for Atlantic trawl fisheries in the fall of 2006. The Marine Mammal Commission commends the National Marine Fisheries Service for both of these actions, which are needed to ensure that neither pilot whale species is being seriously affected by the mid-Atlantic bottom trawl fishery.

In previous letters reviewing the 2003, 2004, and 2005 Lists of Fisheries, the Commission discussed two Gulf of Mexico fisheries: the blue crab trap/pot fishery and the menhaden purse seine fishery. The available stranding data indicate that the blue crab trap/pot fishery should be ranked as a category II fishery based on the level of bottlenose dolphin mortality and serious injury in the fishery. For that reason, the Commission recommended that the Service review the evidence and categorize the fishery accordingly. Similarly, the best available data indicate that a reclassification of the Gulf of Mexico menhaden purse seine fishery is warranted, and the Commission recommended that the Service designate that fishery as category I and institute an observer program to obtain more reliable information. The Service indicated that it intends to reevaluate these fisheries as new information becomes available, particularly information regarding the stock structure of bottlenose dolphins in the Gulf of Mexico. To our knowledge, however, little has been done in this regard. For that reason, the Marine Mammal Commission recommends that the National Marine Fisheries Service expedite its investigation of bottlenose dolphin stock structure and reevaluate these and other Gulf of Mexico fisheries whose classification may be affected by new information on bottlenose dolphin stock structure.

The Service proposes to reclassify the mid-Atlantic menhaden purse seine fishery from category III to category II based on documented interactions with bottlenose dolphins and observation of similar interactions with the Gulf of Mexico menhaden purse seine fishery. The Commission supports this reclassification and encourages the Service to implement an observer program to better characterize marine mammal interactions with this fishery. As was evident in recent efforts to reduce the take of coastal bottlenose dolphins in mid- and south Atlantic fisheries, an adequate understanding of the dolphin stock structure and take rate is necessary for effective management of this fishery. The Commission supports continued research by the Service to clarify bottlenose dolphin stock structure and identify those stocks taken incidentally in this and other Atlantic fisheries.

The Service proposes to reclassify the Chesapeake Bay inshore gillnet fishery from category III to category II based on analogy with similar gillnet fisheries in the mid-Atlantic that are known to incidentally take marine mammals. The Commission supports this reclassification and encourages the Service to initiate an observer program for the fishery to characterize its interactions with marine mammals.

The Service proposes to add the southeast Atlantic inshore gillnet fishery as a new category III fishery. It is not clear why this fishery should not be classified as a category II fishery consistent with the proposed classification for the Chesapeake Bay inshore gillnet fishery unless the southeast Atlantic fishery is known to not overlap with the distribution of any marine mammal stock. The Marine Mammal Commission recommends that the National Marine Fisheries Service compare the distributions of the southeast Atlantic inshore gillnet fishery and marine mammals in the same region, particularly bottlenose dolphins that are known to inhabit estuaries along the southeastern U.S. coast, and reclassify the fishery as category II if those distributions overlap to an appreciable degree.

If you or your staff has any questions about the Commission's comments and recommendations, please contact me.

Sincerely,



Timothy J. Ragen, Ph.D.
Acting Executive Director

Literature Cited

Arnould, J.P.Y. 2002. Southern Squid Jig Fishery—Seal Interaction Project. Australian Fisheries Management Authority, Canberra.