

MARINE MAMMAL COMMISSION
4340 EAST-WEST HIGHWAY, ROOM 905
BETHESDA, MD 20814

31 December 2003

Mr. Michael Payne, Chief
Marine Mammal Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3226

Dear Mr. Payne:

The Marine Mammal Commission held its annual meeting on 21–23 October 2003 in Newport, Rhode Island. Measures for reducing marine mammal mortality and serious injury from direct fishery interactions were discussed generally and with specific regard to mid-Atlantic coastal bottlenose dolphins and North Atlantic right whales. To that end, the Marine Mammal Protection Act prescribes a process beginning with marine mammal stock identification and abundance estimation, determination of potential biological removal level for each stock, estimation of fishery-related mortality and serious injury, identification of stocks in need of special protection (i.e., strategic stocks), convening of take reduction teams and development of take reduction plans when needed, and subsequent monitoring to determine if the plans achieve the goals established by the Act. The National Marine Fisheries Service has achieved considerable success implementing those measures for some species. Direct fisheries-related mortality and serious injury of marine mammals by some fisheries have been effectively reduced for a number of marine mammal stocks. Nonetheless, as was apparent in recent take reduction efforts for mid-Atlantic bottlenose dolphins, additional efforts are needed to achieve the potential biological removal and zero mortality rate goals established by the Act. As was also apparent, take reduction efforts have failed to reduce mortality and serious injury of North Atlantic right whales. With that in mind, the Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, provides the following commendations, recommendations, and comments.

Recommendations

With regard to ongoing measures to reduce marine mammal mortality and serious injury by fisheries, the Marine Mammal Commission:

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- Commends the Service generally for its ongoing efforts to investigate stock structure in marine mammals, to improve marine mammal stock assessments, and to improve the take reduction team process.
- Commends the Service for recent studies of stock structure and abundance of mid-Atlantic coastal bottlenose dolphins.
- Recommends continued investigation of bottlenose dolphin stock structure in the mid-Atlantic region to clarify (1) stock relations between coastal dolphins and dolphins in inshore waters (i.e., estuaries and bays), (2) stock structure of coastal dolphins in the southern portion of their range (i.e., off South Carolina, Georgia, and Florida), and (3), as recommended in previous letters, stock structure of coastal dolphins in the Gulf of Mexico.
- Recommends continued surveys of mid-Atlantic bottlenose dolphins to confirm recent estimates of abundance and investigate bias from overlapping distributions of coastal and offshore ecotypes.
- Recommends additional assessment of inshore dolphins to estimate abundance and fishery-related mortality and serious injury. Alternative assessment methods (e.g., photo-identification) have been used successfully in some regions. Such studies should be expanded to encompass wider geographic regions if aerial surveys are too costly or less effective for these animals.
- Recommends that the Service set standards for acceptable accuracy and precision of estimates of abundance and, particularly, mortality/serious injury, and develop alternative assessment methods when observer programs do not provide reasonably precise estimates of mortality/serious injury. Such standards should include rigorous, timely peer-review by regional scientific review groups, particularly when such information is needed for take reduction efforts.
- Recommends that the Service review and improve coordination of fishery management efforts (Office of Sustainable Fisheries, New England and Mid-Atlantic Fishery Management Councils) with conservation and take reduction efforts (Office of Protected Resources) to ensure that fisheries managers assume responsibility for adopting measures to regulate fishing in ways that provide needed protection for marine mammals.
- Recommends a fundamental change in the management strategy for reducing entanglement-related mortality and serious injury of North Atlantic right whales. Specifically, the Commission recommends that the Service immediately convene a scientific review team composed of experts in marine mammal conservation, fisheries management, and ecosystem management to develop medium-term (e.g., 0–

5 years) and long-term (e.g., 20–25 years) strategies to address fundamental changes in managing fishery interactions with the North Atlantic right whale.

Stock structure and assessment, and take reduction teams

Determination of stock structure is an essential precursor to stock assessment. Careful identification of the unit of conservation underlies virtually all conservation and management efforts, including those related to marine mammal/fishery interactions. Service scientists are leading the investigation of stock structure for marine mammals. The information they are providing is essential to characterizing demographic units within a species and ensuring that those units continue to function normally in marine ecosystems. The Marine Mammal Commission commends the Service for these efforts and encourages continued support for this important work.

Similarly, stock assessment provides information needed for effective conservation and management. At the Commission's meeting, Service staff provided an overview of ongoing efforts to improve stock assessments. These efforts are based on reviews indicating that (1) basic information needed to complete stock assessments is not available for many species, (2) supplemental data may be needed even when that basic information is relatively complete, and (3) considerably more data and information will be needed to make the transition from management based on single species to ecosystem-based management. We commend the Service for these efforts, request that the Service keep us informed of related progress, and offer our assistance whenever it would be helpful.

Finally, at the Commission's meeting, Service staff also described ongoing efforts to address problems encountered by take reduction teams. For example, consideration is being given to teams based on gear types rather than target stocks. Although the Commission has not formed conclusions regarding the utility of various proposed changes, it commends the Service for their attempts to continuously improve the take reduction process.

Stock structure and abundance of Mid-Atlantic coastal bottlenose dolphins

The need for stock structure and assessment information was apparent during recent take reduction efforts for mid-Atlantic coastal bottlenose dolphins. Specifically, three major types of information are needed by the take reduction team: structure of the affected stocks, abundance of each stock, and level of mortality and serious injury both before development of a take reduction plan and after its implementation. This information changed during the early stages of the take reduction process, leading initially to confusion, distrust, and delay in the development of take reduction measures. Service scientists did a commendable job of re-evaluating and collecting new data to meet the team's needs, but the confusion, distrust, and delay could have been avoided if the Service had dedicated the necessary resources to gather and analyze the appropriate data before the process was initiated.

Although the team was eventually presented with better data, considerable uncertainties remain. More studies are needed to investigate (1) stock relations between inshore dolphins, which occur in inland estuaries and bays and were excluded from the take reduction process, and coastal dolphins, and (2) stock structure of dolphins in the southern portion of coastal bottlenose dolphin range (e.g., off South Carolina, Georgia, and Florida). Similarly, additional studies are needed to (3) confirm recent abundance estimates of coastal dolphins and further characterize any bias resulting from the overlapping distribution of coastal and offshore ecotypes, and (4) estimate abundance and mortality/serious injury rates for inshore dolphins. It is our understanding that abundance estimates are available for inshore dolphins in some areas based on photo-identification studies by researchers outside the Service. Additional studies of this type, using all available scientific resources, are needed throughout the mid-Atlantic region to better characterize the stock structure, abundance, and fishery-related mortality and serious injury for all inshore dolphins. In a number of previous letters, the Commission has recommended similar studies for bottlenose dolphin stocks in the Gulf of Mexico, but such studies have yet to be completed in that region.

Mortality and serious injury of mid-Atlantic coastal bottlenose dolphins

Information on fishery-related mortality and serious injury of mid-Atlantic coastal bottlenose dolphins also was controversial in the early stages of the take reduction efforts. Evidence for such mortality and serious injury came from a number of sources, but primarily from limited observer records and additional stranding records documenting fishery interactions. Although the estimation procedure was refined, estimates of take levels were based entirely on observer reports. The reliability of those estimates remains questionable for characterizing current mortality/serious injury levels and for assessing the efficacy of measures implemented under the take reduction plan. The uncertainty in this information may have serious consequences either for efforts to conserve bottlenose dolphins (i.e., if take levels are underestimated) or fishery participants (i.e., if take levels are overestimated). Without reliable estimates of mortality it is not possible to determine with reasonable confidence if the goals of the Marine Mammal Protection Act are, in fact, being met. For that reason, the Marine Mammal Commission recommends that the Service develop and implement standards for accuracy and precision for mortality and serious injury levels and, when the standards are not met by existing observer programs, either modify those programs or develop alternative assessment methods. Although regional scientific review groups routinely review stock assessment reports, including estimates of abundance and mortality, the information provided to the mid-Atlantic bottlenose dolphin take reduction team had not always been reviewed by the scientific group. Such scrutiny seems essential to ensure that take reduction teams have the advantage of the best available information and that information has been peer-reviewed.

Coordination with fisheries management

During the Commission's annual meeting, it seemed apparent that mortality and serious injury of marine mammals in fisheries is viewed primarily as a "protected species"

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problem rather than a “sustainable fisheries” problem. The presentations and discussions were oriented toward biologists and managers from offices and divisions within the Service that are responsible for marine mammal conservation and bear the responsibility for measures to reduce mortality and serious injury. Representatives and perspectives from offices and divisions managing sustainable fisheries were noticeably absent, suggesting that the parties responsible for managing fisheries that cause these problems may not be participating appropriately in efforts to resolve them. This lack of involvement by sustainable fisheries also is apparent in take reduction efforts, which include participants in the fisheries, but do not necessarily include the appropriate fisheries managers. For that reason, the Marine Mammal Commission recommends that the Service (1) review the coordination between offices and divisions responsible for sustainable fisheries and protected resources and (2) ensure that managers responsible for fisheries causing conservation problems are suitably engaged in efforts to resolve them.

Take reduction process for the North Atlantic right whale

Finally, information presented and discussed at the Commission’s annual meeting indicated clearly that right whales continue to be killed and seriously injured from entanglement in fisheries gear. The take reduction process has not been effective for the right whale. While stakeholders debate this matter in an adaptive management framework, the right whale has continued to decline to perilously low numbers. The Commission believes that an adaptive management approach is simply inadequate in this case. In a separate letter to Dr. William Hogarth that we expect to send shortly, the Commission will likely recommend that the Service immediately convene a scientific review team composed of experts in marine mammal conservation, fisheries management, and ecosystem management to develop immediate and long-term strategies to address fundamental changes in managing fishery interactions with the North Atlantic right whale. A separate scientific team is needed to advise the Service regarding actions that are needed to reduce takes to a level that avoids jeopardizing the species, which is essential to allow this population to recover.

Please contact me if you wish to discuss the above recommendations and comments.

Sincerely,



David Cottingham
Executive Director