

Presentation to the U.S. Commission on Ocean Policy  
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Good afternoon. My name is John Reynolds and I am Chairman of the Marine Mammal Commission, an independent agency with oversight responsibility for marine mammal activities in the United States. It is a pleasure to be with you today to review briefly issues pertaining to marine mammals. Before I begin, let me note that I have circulated to you a copy of the Marine Mammal Commission's most recent annual report to Congress. That report describes the duties of the Commission, relevant legislation, and key issues on which I shall speak today.

I shall divide my remarks into three components: 1) global issues affecting particular marine mammals; 2) issues of special importance to marine mammal conservation in the southeastern United States; and 3) over-arching issues related to process. The last are the most important and affect not only marine mammals but other living marine resources. In my opinion the single most critical deficiency in marine mammal conservation today involves the lack of a proactive, forward-looking approach to conservation and management of resources.

The Marine Mammal Protection Act was the first federal law to approach management of marine species from an ecosystem perspective. As such, it continues to address conservation and management of marine mammals in terms of the carrying capacity of the ecosystem. The Act has been amended several times to address new and emerging issues.

When it was originally enacted, the three key issues that Congress sought to address involved commercial whaling, harp sealing, and taking of dolphins in yellowfin tuna purse seines. Today the suite of issues is far larger, but resources with which to deal with those issues have not kept pace. That is an issue in itself.

A prevailing theme of marine mammal conservation involves declining quality of ecosystems and over-utilization of resources needed to maintain healthy marine mammal stocks. For example, according to a report prepared in 1998 by the federal agencies charged with overseeing ocean programs, the majority of fisheries in the United States and globally are fully or overutilized. As a result, the resources available to maintain marine mammal stocks have declined, and in at least two cases (endangered Hawaiian monk seals and the endangered western stock of Steller sea lions), fishing activity is thought to have led or contributed to population declines and/or a lack of recovery.

It should also be noted that some fisheries incidentally take large numbers of marine mammals, contributing to compromised stock or species status in some cases. As I noted, the taking of dolphins in tuna nets in the 1960s and 1970s was a factor behind

enactment of the MMPA in the first place. As a result of growing concerns about the extent of incidental taking associated with commercial fishing, the Marine Mammal Protection Act was amended in 1994 to require the responsible agencies to perform stock assessments for all marine mammal stocks that occur in U.S. waters and to determine a tolerable level of mortality, referred to as the potential biological removal (PBR) level that allows for some degree of human interaction while also allowing the recovery of depleted stocks and the maintenance of healthy ones.

It is simplistic to think that counts can tell the full story about a stock's status. To do a proper and thorough job, data on demographics and the health of individuals and populations must be factored in. Although data on numbers have been gathered to allow agencies to fulfill their mandates regarding stock status, few data exist regarding health and demography.

Yet, consider how vital such information is. Consider a group of 3000 college students, young men and women in the prime of life. Their potential for survival and perpetuation is high. What would the prospects be if the population of 3000 were all terminally ill? What would the case be if the age structure were lopsided, with only elderly individuals? Numbers may be important, but so are health and age and sex structure.

It is also important to know what factors threaten marine mammal stocks. Chemical pollution is a cause of concern in terms of health and reproductive potential in long-lived species, especially those at higher trophic levels. Marine mammals are perfect examples of the species most at risk due to chemical contaminants.

Many of these animals are also at risk due to their dependence on acoustics to communicate, navigate, forage, and orient themselves. Yet, increasing levels of noise in oceanic and near shore environments create measurable changes in behavior, habitat use, and even health.

Tied into the issue of chemical and noise pollution is coastal development, and especially oil and gas development. In certain locations, even exploration for oil and gas can cause shifts in travel corridors, habitat use, and energetics of marine mammals.

Global warming is another ecosystem-related factor whose effects are being felt, especially by Arctic marine mammals and Alaska Natives who depend on those species to survive. The Marine Mammal Commission recently held a workshop to address the suite of issues associated with this issue.

In summary, there are several factors that affect marine mammals globally---noise and chemical pollution, fishing, oil and gas development and other development activities, and global climate change. For certain stocks, directed taking remains an issue. All of these issues relate to the demands of a growing human population on limited marine resources. The consequences of these factors may be exacerbated by inappropriate assumptions that have been made about the resiliency of marine organisms

and ecosystems. And solutions to all are hindered by a lack of data, including data on the health and demography of marine mammal stocks.

In Florida and the southeastern United States, the global issues are evident. In fact, the southeast may provide a crystal ball to preview issues likely to become more widespread. In Florida, for example, the human population has increased seven-fold since 1950 and will double to 32,000,000 residents by 2030. Most of that population will live on the coast and much of it will rely on marine and estuarine ecosystems for its livelihood. If Florida can manage to balance dramatic human population growth with conservation of aquatic resources, including marine mammals, it will create a useful model for other states that will someday experience the same growing pains. If that balance cannot be reached, then we and our future generations stand to lose a great deal.

The best publicized issues in the southeast tend to involve manatees and North Atlantic right whales. There are more than 3000 manatees today, a much larger number than existed a few decades ago, when manatees were still hunted. Nonetheless, manatees are killed at a rate of more than 80 individuals per year in collisions with watercraft. Sublethal strikes further limit female reproductive potential. Red tides and cold weather also kill and impair immune function of manatees, and the potential for deregulation of the power industry could have devastating impacts during cold winter weather.

The North Atlantic right whale is seriously depleted, with only about 295 individuals left alive. In the southeastern United States, ship strikes occasionally kill right whales. Demographic models suggest that the loss of a single adult female a year could spell the difference between a right whale population that is stable and one in decline.

Bottlenose dolphin stocks are poorly defined, but they are not believed to be endangered or threatened. However, one putative stock along the eastern seaboard was declared depleted in 1987 following an enormous die off due to a virus, the effects of which may have been exacerbated by pollution or brevetoxin. Dolphins may have high levels of toxicants in their tissues, and compromise of the immune system of older males, in particular, has been suspected. They are also being killed by watercraft, by recreational fishing gear, and in several types of commercial fishing gear. An issue of growing concern involves people swimming with and otherwise interacting with free-ranging dolphins in ways that may constitute harassment. A take reduction team is meeting to attempt to reduce incidental taking of dolphins associated with commercial fishing along the Atlantic coast.

Noise-related issues exist in our area of the country. The deaths of several beaked whales, deep-water species that occur offshore, received considerable attention recently. Their deaths were associated with sonar use during naval activities. Elsewhere, whales that have died have had shattered ear bones, perhaps resulting from exposure to very loud anthropogenic noise levels. At a less traumatic level, noise disturbance has been shown to affect marine mammal distribution, habitat use, and

energetics. Noise pollution and chemical pollution are extremely critical in parts of the southeast.

I close with an ironic illustration of that point: Along parts of the Texas coast, residents are warned that they should consume locally-caught fish no more than once a week, I believe. The local marine mammals, whose mammalian physiology and lifespan rival ours, eat such fish daily.

I turn now to some pervasive issues, those associated with the process of management in the absence of crucial baseline information. I have alluded to assumptions that have been made that have caused problems for some marine mammals. In some cases these assumptions are necessary simply because baseline data for many marine mammals are lacking. To the extent such assumptions are necessary, I suggest a need to adhere to some established rules:

- Marine mammals have life history strategies that do not permit them to recover quickly from population declines. Management strategies based on species with high fecundity, which can recover quickly, do not work for marine mammals;
- The precautionary principle is an established approach that guides managers to err on the side of the resource, rather than on the side of short-term economic gain. Associated with this principle are ideas such as effective monitoring prior to and during activities that affect stocks. If the precautionary principle were used, even highly fecund fish stocks might not be in the precarious shape they are today.
- Placing the burden of proof on those seeking to utilize a resource as endorsed in the MMPA is not only an appropriate application of the precautionary principle, but it also saves taxpayers money by requiring users who can benefit financially to demonstrate that their activities will NOT adversely affect ecosystems or species, rather than agencies (using taxpayer dollars) to show that such activities WILL create problems.
- Marine mammal science and management tend to be reactive, focusing almost exclusively on yesterday's and today's critical issues. As a result, the term management-by-litigation lamentably applies all too often. Reactive approaches tend to be crisis-driven, to minimize available options, and to cost a lot. Proactive approaches are not only more effective; they are also more cost effective. More options exist before an issue becomes a crisis than afterwards. Thus, agencies should use all tools at their disposal to attempt to look ahead. Until agencies "get out from behind the eight ball," management will never be as effective or as cost-effective as it could be.
- Several powerful laws provide the authority to protect marine mammals and their habitat. Besides the MMPA, the Endangered Species Act and the National Environmental Policy Act may apply. Such laws, however, are rarely enforced as effectively as they could or should be in order to prevent or reduce damage to marine mammal stocks and other important ecosystem components. Thus, we need to make every effort to use the authority that exists to its fullest extent.
- Good stewardship should accompany use of natural resources. Our species has great power to destroy, and we have great responsibility not to do so.

- We need to balance traditional economic benefits with other value systems that take into account all user groups.

I hope that in the time allotted to me I have conveyed some of the issues the Marine Mammal Commission deals with daily. I would be happy to answer questions you may have. I would like to underscore the importance of creating an environment and an expectation that management and conservation will seek proactive, measured, and cost-effective options to problems, rather than the status quo of being reactive and crisis or litigation driven. In that regard, I note that the Marine Mammal Commission is planning in 2003 an international workshop to address proactive and applied marine mammal science.

Finally, I congratulate you as the founding commissioners for an extremely important new agency. I look forward to working with you in the future to address common goals and needs.