

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

30 November 2007

Vice Admiral Conrad C. Lautenbacher, Jr., Ph.D.  
Undersecretary for Oceans and Atmosphere  
U.S. Department of Commerce  
14th and Constitution Avenue, NW, Room 5128  
Washington, DC 20230

Dear Admiral Lautenbacher:

On 28–30 August 2007 the Marine Mammal Commission and its Committee of Scientific Advisors met in Vancouver, Washington, to review information and issues related to the management of marine mammals and their ecosystems along the U.S. West Coast. During our meeting, National Marine Fisheries Service representatives provided exceptionally thorough and helpful presentations on research and management efforts for a wide range of species and topics. We are very grateful for their participation in the meeting. Several of the topics discussed at our meeting seemed pertinent not only to the Service, but also to NOAA generally. Accordingly, we offer the following comments and recommendations.

## **RECOMMENDATIONS**

The Marine Mammal Commission recommends that the National Oceanic and Atmospheric Agency—

- continue to support research on the causes of harmful algal blooms (HABs), as well as on methods to forecast and mitigate them and their harmful effects on marine mammals, fisheries, and human health;
- expand the research that it funds and conducts to understand and mitigate the effects of anthropogenic noise on marine mammals and other components of the marine environment; and
- enhance data management by (1) establishing marine mammal data archives needed to support conservation research and inform ocean resource management, (2) setting corresponding data standards for NOAA and National Marine Fisheries Service scientists and others contributing to the archives, (3) budgeting the necessary funds for infrastructure to maintain the marine mammal datasets, and (4) making the datasets broadly available to resource managers in other agencies, the scientific community, and the public.

## **RATIONALE**

### **Harmful Algal Blooms**

National Marine Fisheries Service staff participating in our annual meeting provided a very helpful and thorough review of ongoing efforts by NOAA to investigate HABs. Recent studies of the biochemistry of HABs and the processes that cause them will undoubtedly advance our

understanding of outbreaks and, importantly, provide insights regarding mitigation methods. Mitigation will likely be possible only insofar as human activities contributing to HABs can be identified and managed. Examples of potential mitigation methods include controlling discharges of human effluent or run-off into rivers and coastal waters and curbing the production and release of greenhouse gases to prevent or slow warming of the earth's atmosphere and oceans. Such efforts are essential to maintain the health and stability of marine ecosystems—which is the overarching goal of the Marine Mammal Protection Act—as well as to curb the harmful effects of HABs on commercial, recreational, and subsistence fisheries; conservation and management of protected species; and human health in coastal areas. For all these reasons, the Marine Mammal Commission recommends that NOAA continue to support research on the causes of HABs, as well as on methods to forecast and mitigate them and their harmful effects on marine mammals, fisheries, and human health.

### **Anthropogenic Sound**

During the past decade, the issue of anthropogenic noise in the marine environment has generated increasing public concern. Although much remains to be learned about the potential effects of sound and the appropriate measures for managing those effects, it is clear that the surrounding controversy has significant implications for a variety of human activities including military activities, oil and gas exploration and development, and geophysical research in support of tsunami and earthquake preparedness. Therefore, efforts to improve understanding of the effects of anthropogenic sound in the marine environment, and to develop effective mitigation tools for dealing with them, are vital to the national interest.

We believe NOAA has an opportunity to extend its leadership role with regard to anthropogenic sound. Despite efforts to secure more support for acoustics research, and congressional encouragement to redirect funds for that purpose, NOAA's budget for acoustics research remains exceedingly small. We believe NOAA should be leading efforts to assess ocean noise, to reduce noise from ship traffic, and to employ passive acoustic monitoring in support of marine mammal survey requirements, all of which would make significant contributions to our understanding of, and ability to manage, anthropogenic sound in the marine environment. Such leadership would be entirely consistent with the agency's responsibilities for marine stewardship. The Marine Mammal Commission therefore recommends that NOAA expand the research efforts that it funds and conducts to understand and mitigate the effects of anthropogenic noise on marine mammals and other components of the marine environment.

### **Data Management**

The Commission also urges NOAA to establish national marine mammal data archives and maintain them, as is done for many other NOAA national ocean data resources. At a time when modern information technology has enabled NOAA and other agencies to produce, archive, and provide public access to a wide range of ocean and atmospheric data products, almost all agency-generated marine mammal survey data remain inaccessible for years after they are collected. The

Vice Admiral Conrad C. Lautenbacher, Jr.  
30 November 2007  
Page 3

responsibility for analyzing, archiving, and generating analyzed data products is left to the National Marine Fisheries Service's science centers or regional offices, which must proceed according to their own standards with no resources other than their core budgets. A considerable body of data generated by cooperating scientists using agency funds also remains largely unavailable and underused for years after it has been collected (e.g., satellite telemetry data, survey data). These data should be archived in a consistent, standardized form and made available for ocean research, education, and resource management planning. Modern technology makes such a data archive system feasible. A number of independent organizations, perhaps with support from NOAA, are making data available on-line, such as the Census of Marine Life, OBIS SEAMAP and TOPP programs, and the Library of Marine Sound. To maximize the benefits of the extensive marine mammal data collected by branches of NOAA, the Marine Mammal Commission recommends that NOAA (1) establish marine mammal data archives needed for conservation research and ocean resource management, (2) set corresponding data standards for NOAA and National Marine Fisheries Service scientists and others contributing to the archives, (3) budget the necessary funds for infrastructure to maintain the marine mammal datasets, and (4) make these datasets more broadly available to resource managers in other agencies, the scientific community, and the public.

I hope these comments and recommendations are helpful. The Marine Mammal Commission looks forward to continuing to work with you and NOAA staff from various agencies to promote progress toward the objectives described above. If you or your staff has any questions, we would be happy to discuss the issues further.

Sincerely,



Timothy J. Ragen, Ph.D.  
Executive Director

cc: Mr. Alex Chester  
Douglas P. DeMaster, Ph.D.  
William W. Fox, Jr., Ph.D.  
William Hogarth, Ph.D.  
Mr. James H. Lecky  
Nancy Thompson, Ph.D.  
Usha Varanasi, Ph.D.