

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

25 January 2006

James W. Balsiger, Ph.D.
Regional Administrator, Alaska Region
National Marine Fisheries Service, NOAA
PO Box 21668
Juneau, Alaska 99802-1668

Dear Dr. Balsiger:

The Marine Mammal Commission held its annual meeting in Anchorage, Alaska, on 12–14 October 2005. The meeting focused on major issues affecting research and conservation of marine mammals in the Gulf of Alaska and the Bering, Chukchi, and Beaufort Seas. Representatives of the National Marine Fisheries Service's Alaska Regional Office participated in our discussions and provided much valuable information and useful insights into a range of issues pertaining to marine mammals and marine ecosystems. The Commission acknowledges and appreciates their contribution to the meeting.

This letter addresses issues related to coastal development and tourism. As discussed at the meeting, the Service's Alaska Region is taking a number of positive actions to address those issues, including development of marine mammal viewing guidelines and whale-watching regulations to limit human interactions with marine mammals generally and proposed rulemaking to limit public interactions with harbor seals specifically. The Marine Mammal Commission commends the Alaska Region for these efforts.

Based on the material presented at our annual meeting and other information available to us, the Commission recognizes that additional steps are needed to protect marine mammals and their ecosystems from the adverse effects of development activities in the coastal regions of Alaska. Below we highlight three general areas of concern, recognizing that they are just examples of the many development-related issues that could pose risks to marine mammals in Alaska.

Development in Cook Inlet

Cook Inlet provides important habitat for several marine mammal populations. The Cook Inlet beluga whale population declined rapidly in the 1990s and has failed to recover as expected after subsistence harvests were brought under control. The evident lack of recovery over the past few years suggests that other risk factors may be affecting the population and impeding its recovery. Data collected by Service scientists clearly indicate that the remaining whales in this population rely heavily on habitat in the upper regions of Cook Inlet. For example, from spring until fall, the entire population may be found at the mouth of the Susitna River and in Knik and Turnagain Arms. Activities that may affect beluga whale habitat and thereby impede recovery include infrastructure

development (e.g., construction of the Knik Arm Bridge; Port of Anchorage expansion; and improvements to Port MacKenzie, the Seward Highway, and the Alaska Railroad), oil and gas exploration and production, sewage discharge, storm water discharge, and military activity (e.g., the Fort Richardson bombing range).

The Service's Draft Conservation Plan for the Cook Inlet Beluga Whale states that current information is not sufficient to describe the habitat requirements of these whales and assess the potential effects of development activities within that habitat. These uncertainties may have important implications for this population and its recovery. To resolve the uncertainties, the Marine Mammal Commission recommends that the Service use its authority under the Marine Mammal Protection Act and other statutes to (1) investigate the habitat needs of the Cook Inlet beluga whale population, (2) clarify the nature of threats such as contaminants or loss of prey species, and (3) implement management measures to protect habitat identified as essential for recovery. The Commission further recommends that the Service inform developers of the requirement to obtain incidental harassment authorizations under the Marine Mammal Protection Act when they are conducting activities that are likely to harass marine mammals.

Tourism

Although much of Alaska's coast remains undeveloped, tourism is growing rapidly and coastal development projects are increasing in number, size, and type. Such activities are already affecting marine mammals at certain sites, and impacts are likely to increase as tourism activities expand. For example, cruise ships that approach the glacial fjords of Disenchantment Bay, Tracy Arm Wilderness Area, Glacier Bay National Park, and Aialik Bay disturb harbor seals, which use these areas for pupping, nursing, resting, and breeding. In 2002 the National Marine Mammal Laboratory, with support from the NorthWest CruiseShip Association, investigated concerns raised by Alaska Natives from Yakutat about declining numbers of harbor seals in Disenchantment Bay. The study revealed that (1) seals altered their behavior when vessels were closer than 500 m, (2) they were 25 times more likely to vacate ice floes when vessels were 100 m away versus 500 m, and (3) 90 percent of the animals entered the water when vessels were closer than 100 m.

The significance of such disturbance is not clear. If it is infrequent and results only in temporary displacement of the animals, meaning that the seals return to those sites and resume their normal behavior when the disturbance is over, there may be no effect on reproductive success or survival. If that is the case, then such disturbance by cruise ships may have only negligible effects on population status. If, on the other hand, repeated disturbance causes long-term abandonment of otherwise preferred habitat, the reproductive success and survival of the seals, particularly young animals and those in poor condition, may be adversely affected with subtle population consequences. The observations by Alaska Natives at Disenchantment Bay suggest that this is a real possibility that should be investigated further at this and similar sites.

The whale-watching industry in Alaska also has increased over the last few years and is affecting humpback whales foraging in Auke Bay and Lynn Canal and both humpback and killer whales in the Kenai Fjords area. In addition to the potential for disturbance, such activities pose a

risk of ship strikes. Data suggest that this risk is increasing throughout the state, particularly in southeastern Alaska where the majority of strikes have been reported. At least 36 ship/whale collisions occurred between 1986 and 2004, and an additional 12 collisions were reported in 2005. Whale-watch vessels, cruise ships, and small recreational pleasure craft are the vessels most frequently involved or implicated in ship strikes. If ship traffic from tourism and other commercial activities increases as expected in state waters, the risk of ship/whale collisions also will likely increase. In time this risk will be exacerbated by the opening of northern sea routes as the number of ice-free days in the Arctic increases because of climate change and receding sea ice.

Service representatives at our annual meeting indicated that the Service had taken and is taking a number of important steps to address those risks. The Commission understands that in 2001 the Service's Alaska Region instituted statewide approach regulations for humpback whales, the species most commonly involved in ship strikes. The Service also is working cooperatively with other agencies and organizations (e.g., the Forest Service, the National Park Service, the North Gulf Oceanic Society) to educate vessel operators and the public about the need for regulations and the requirements imposed by those regulations. The Marine Mammal Commission commends the Service for these efforts.

Nonetheless, recent trends in ship strikes and the projected increase in tourism support the Commission's view that additional protective measures are needed. For that reason, the Marine Mammal Commission recommends that the Service's Alaska Region expand its efforts to address the impacts of tourism on marine mammals in Alaska's coastal ecosystems. Specifically, the Commission recommends that the Service

- Ensure that effective monitoring and reporting systems are in place to characterize the nature and extent of tourism activities and their potential impacts on marine mammals. In some situations, such as the disturbance of harbor seals by cruise ships in glacial fjords, this will require the collection of baseline information on seal behavior and population parameters and the monitoring of trends in that information over time. In other situations, such as vessel interactions with large whales, this will require an effective reporting system for assessing the frequency and nature of interactions, where such interactions occur, and their consequences for marine mammal populations;
- Develop a monitoring and reporting system to identify "hot spots" where there is greater risk of whale/vessel collisions. This system should include cooperation with stranding networks;
- Establish additional regulations to avoid adverse impacts on marine mammals. Such regulations may require a variety of limitations including speed zones and no-entry zones;
- Monitor compliance with and enforcement of existing and new regulations;
- Develop and implement educational strategies to inform tourism companies and the public of the risks associated with their activities and their responsibilities for complying with the regulations aimed at reducing such risks; and
- Work with other federal agencies, state agencies, private organizations, and the public and private organizations (e.g., the Fish and Wildlife Service, the Forest Service, the National

Park Service, the Alaska Department of Fish and Game, the University of Alaska Sea Grant Marine Advisory Program, Watchable Wildlife, Inc.) to promote and achieve the above objectives. This may require a workshop or series of workshops to develop coordinated strategies for avoiding marine mammal disturbance and developing marine mammal viewing guidelines and a code of conduct for vessel operations. The Commission would welcome the opportunity to participate in such an effort.

Oil and Gas Activities

At the Commission's annual meeting, a representative of the Minerals Management Service described its five-year program and environmental studies program in the 15 Outer Continental Shelf oil and gas planning areas in Alaska. Since 1976 there have been 22 lease sales in 8 of those planning areas. Eighty-four exploration wells have been drilled, mostly in the Beaufort Sea, but in federal waters only one has resulted in a developed project (Northstar) and a second is pending development (Liberty). During the current five-year program, two lease sales occurred in the Beaufort Sea, and a third is scheduled to take place in one year. The Minerals Management Service also anticipates holding a lease sale in the Chukchi Sea in 2007 and is proposing to conduct two Cook Inlet sales, although those sales may not occur during the current five-year program.

The Minerals Management Service plans to publish its draft five-year program for 2007 to 2012 by early January 2006 and hopes to finalize it by July 2007. The Governor of Alaska has suggested to the Minerals Management Service that the new five-year program include sales in the Beaufort Sea, Chukchi Sea, Cook Inlet, Hope Basin, and Norton Sound. The Governor also is considering whether to request Presidential approval to allow a sale in the North Aleutian Basin. These sales will involve many areas that are important habitat for marine mammals and exploration and development activities could therefore have significant impacts on some marine mammal stocks.

As noted in past letters to the Service concerning industry requests for incidental take authorizations under section 101(a)(5)(A) and 101(a)(5)(D) of the Marine Mammal Protection Act, the Commission believes that in many instances the effects of individual projects on marine mammal stocks may be negligible. Nonetheless, we continue to be concerned that the cumulative impacts of these and other activities may be more than negligible, particularly when combined with predicted changes in Arctic and sub-Arctic regions due to climate change (see National Academy of Sciences report, *Cumulative Effects of Oil and Gas Activities on Alaska's North Slope*). Such cumulative impacts become even more likely if lease sales, exploration, and development occur in the regions of the Bering, Beaufort, or Chukchi Seas that contain essential habitat for marine mammals.

The Commission believes that monitoring for and mitigating against potential cumulative effects of current and future oil and gas exploration activities are essential. The Commission also believes that such efforts will require more than just site-specific monitoring. We recognize the difficulty of describing, quantifying, and measuring cumulative effects. Nevertheless, site-specific monitoring programs are inadequate for addressing the potential impacts of large-scale industrial development on the Alaska continental shelf, especially in the context of rapid climatic change. If oil and gas exploration activities are approved for the Chukchi Sea, walrus, polar bears, and several

species of cetaceans and seals could be affected. Given the potentially large scale of future oil and gas operations in the region, both nearshore and offshore, and our relatively poor understanding of the population status of marine mammals in the Arctic, we believe that current resources being used for site- or activity-specific monitoring would be better allocated to the development of a broadscale population monitoring and impact assessment program. Such a program is necessary to ensure that oil and gas activities are not having individual or cumulative adverse effects on marine mammal populations and are not adversely affecting the availability of marine mammals for subsistence use by Alaska Natives.

Therefore, the Marine Mammal Commission recommends that the National Marine Fisheries Service consult with applicants, the Minerals Management Service, the U.S. Fish and Wildlife Service, the North Pacific Research Board, and other industry and government entities, as appropriate, to develop a collaborative long-term Arctic monitoring program. The Commission further recommends that such a program be designed to collect data on changes in density and abundance, reproductive rates, prey availability, foraging patterns, distribution, and contaminant levels of potentially affected marine mammals where oil and gas exploration, development, and production occur. The Commission also recommends that the potential effects of climate change be explicitly recognized and assessed as integral components of this long-term monitoring program. We believe that such information is essential for ensuring that subtle impacts that may occur over short periods and in local areas do not have non-negligible cumulative effects over longer periods and broader regions.

Red Dog Mine

Construction activities proposed for the Red Dog Mine and the associated Delong Mountain Transportation System pose threats to marine mammals and ecosystems along Alaska's coastline in the Chukchi Sea. Recent studies have shown that the mine's harbor is near an area with one of the highest densities of ringed and bearded seals along the Chukchi Sea coast. Over the past several years, villagers from Kivalina, 15 miles north of the mine, have complained that vessel traffic and activities associated with the mine are, among other things, resulting in fish kills and changing the abundance and migratory patterns of beluga whales and bearded seals, thereby adversely affecting their availability for Alaska Native subsistence hunters.

The U.S. Army Corps of Engineers' draft environmental impact statement (DEIS) and feasibility study for the Delong Mountain Harbor expansion was published for public review on 28 October 2005. The Commission wrote to the Corps on 27 December 2005 (see letter enclosed) commenting on the alternatives examined and the potential effects of those alternatives. In its letter, the Commission recommended that the DEIS be significantly revised to (1) more accurately represent what is and is not known about the biology of marine mammals in the project area; (2) clearly describe the individual and cumulative effects of the recommended plan on marine mammals and their habitats; and (3) provide a thorough cumulative effects analysis that considers the potential impacts on all current and reasonably foreseeable human activities for all potentially affected marine mammal species. The Commission also recommended that the Corps or mine operators obtain required incidental harassment authorizations for activities that may harass marine mammals. Finally,

James W. Balsiger, Ph.D.
25 January 2006
Page 6

the Commission recommended that, unless the above analyses can conclude that the project will have negligible impacts on marine mammals and their habitats and will have no unmitigable adverse impact on the availability of marine mammals for subsistence hunters, the final EIS should recommend the no-action alternative. We understand that the Service also is providing comments to the Corps on the DEIS. We strongly encourage the Service to monitor the development of this harbor expansion proposal and to ensure that marine mammals in the region are not exposed to unnecessary risk.

* * *

We hope that these recommendations and comments are helpful to you. If you have any questions, we would be happy to discuss them with you and your staff.

Sincerely,

A handwritten signature in black ink that reads "David Cottingham". The signature is written in a cursive style with a long horizontal flourish extending to the right.

David Cottingham
Executive Director

Enclosure