MARINE MAMMAL COMMISSION
4340 East-West Highway, Room 700
Bethesda, MD 20814-4447

23 January 2009

Mr. P. Michael Payne, Chief
Permits, Conservation and Education Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway, Room 13705
Silver Spring, MD 20910-3226

Dear Mr. Payne:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the National Marine Fisheries Service's "Policy and Guidance for Implementation of the Steller Sea Lion and Northern Fur Seal Research Permits and Grants Programs under the Preferred Alternative of the 2007 Final Programmatic EIS," announced by the Service in the 19 December 2008 *Federal Register* (73 Fed. Reg. 77631). The Commission supports this initiative in principle, but it also believes the document could be strengthened by a clearer description of the role of the Permit Office in the recovery process for the Steller sea lion and northern fur seal, as well as other endangered, threatened, or depleted species. To that end, the Commission provides the following recommendations and rationale.

RECOMMENDATIONS

The Marine Mammal Commission recommends that the National Marine Fisheries Service—

- condition its permits to require researchers to identify and characterize potentially significant adverse effects of their studies whenever they or the Permit Office has reason to expect that such effects might occur and to coordinate their studies to avoid unnecessary duplication and adverse effects;
- review permit applications to identify situations where proposed research might affect reproduction and, when that is the case, condition the permits to require the researchers to collect the information needed to evaluate such effects;
- convene and consult with independent implementation teams to advise the Service on all research matters related to Steller sea lions and northern fur seals;
- work with the Commission and other responsible agencies to develop a plan for integrating the analyses required under the National Environmental Policy Act and section 7 of the Endangered Species Act with the permit review process; and
- come into full compliance with the Institutional Animal Care and Use Committee requirements of the Animal Welfare Act and ensure that those requirements have been met as part of the Permit Office's review of all scientific research applications that involve the use of invasive procedures or procedures that might harm or materially alter the behavior of the subject animals.

RATIONALE

The role of the Permit Office in the recovery of the Steller sea lion and the northern fur seal must be considered in the appropriate context. First and foremost, that context is provided by the legal framework (e.g., laws and regulations) that governs the issuance of permits for research on marine mammals and endangered species, including environmental assessments, impact statements, and institutional animal care and use committees when required. The pertinent statutes are the Marine Mammal Protection Act, the Endangered Species Act, the National Environmental Policy Act, and the Animal Welfare Act. Nothing said in this letter is intended to be inconsistent with or deviate from the framework set forth in those Acts.

The actions and decisions of the Permit Office also should be guided by the recovery and conservation plans developed and adopted by the Service. Those plans should be the thread that ties management, science, and permitting into a coherent recovery effort. With respect to the Steller sea lion and northern fur seal, the plans should provide the basis for coordination among the Alaska Regional Office, the Alaska Fisheries Science Center, Headquarters, and the Permit Office.

Risk-benefit analysis

The role of the Permit Office, in particular, is to determine whether potential risks and benefits associated with proposed research are consistent with applicable statutory and regulatory standards and with the provisions of any applicable recovery or conservation plan. In this regard, the Permit Office's role generally focuses more on an evaluation of potential risks associated with proposed research than on the expected benefits. The Service's 2007 environmental impact statement on Steller sea lion and northern fur seal research focused primarily on the potential adverse effects of such research and the need to monitor and measure those effects. As is readily apparent in the statement, the analyses of effects currently depend heavily on expert opinion rather than on empirical data. This may be necessary under present circumstances, but it generally is inconsistent with the practice of good science, particularly when, as in this case, the experts are passing judgment on matters in which they have a clear stake. Although the Commission does not believe that the Permit Office has the resources or responsibility for directing the overall research effort for these species, it does believe that the Office has the authority and responsibility to require scientists to better characterize the effects of their research and to coordinate their research to avoid unnecessary duplication and adverse effects. Doing so is necessary not only for the Office to meet its responsibilities but also to meet the humaneness requirement of the Marine Mammal Protection Act (i.e., to avoid unnecessary pain and suffering), for scientific reasons (to assess the potential influence of adverse effects on scientific results), and for conservation reasons (to ensure that scientific activities are not unduly contributing to population decline or impeding recovery). On that basis, the Marine Mammal Commission recommends that the Permit Office require researchers to identify and characterize potentially significant adverse effects of their studies whenever they or the Permit Office has reason to believe that such effects might occur and to coordinate their studies to avoid unnecessary duplication and adverse effects.

Assessment of risk and the potential biological removal level

The Commission recognizes that assessing the adverse effects of research is not a simple matter. The Service's environmental impact statement attempted to do so by comparing estimates of injury and mortality to the potential biological removal levels for Steller sea lions and northern fur seals. This approach falls short of what is needed in several important ways. Depending on the circumstances, injury and mortality can be difficult to document reliably. If, for example, researchers clear tens of thousands of animals off a rookery to assess pup mortality, the number of animals that might be injured or killed during the process may not be evident. In fact, researchers generally go to great lengths to avoid stampedes or prevent animals from falling or jumping off cliffs, but their ability to control such situations is limited at best. It is particularly difficult to identify those animals that might be injured but that do not die until days or weeks later.

An approach based solely on injury and mortality also is not sufficient because research may have other effects, such as altering behavior, habitat use, foraging success, or energetic balance in a manner that compromises the ability of animals to reproduce, even when they survive. For that reason, relying on estimates of mortality alone does not necessarily provide a full assessment of research effects. Reducing the recovery factor in the calculation of the potential biological removal level does not address this problem because the recovery factor is always positive and therefore does not account for those situations in which a population is declining. The Service's impact statement acknowledged that its scientists are not presently able to determine or estimate effects on reproduction. That does not mean, however, that reproductive effects can simply be dismissed when assessing the risks to populations, as seems to have been done in the environmental impact statement. It also does not rule out the use of the potential biological removal approach but, as described in a recent report by the National Research Council (2005), the Service would need to adjust that approach to account for effects that do not necessarily involve injury or mortality. The Permit Office has an important role in promoting the collection of better data in such cases. To that end, the Marine Mammal Commission recommends that the Permit Office review permit applications to identify situations where proposed research might affect reproduction and, when that is the case, condition the permits to require the researchers to collect the information needed to evaluate such effects. For example, those effects might result from excess research activity on specific rookeries leading to reduced birth rates (perhaps indicating females have changed their haul-out locations), reduced weaning weights (perhaps indicating excessive disturbance leading to less successful nursing), or fewer pups surviving to weaning. Assessing such effects is necessary to evaluate research effects and implement a well-conceived research strategy.

Implementation and tolerable levels of risk

In the Commission's view, the Humane Society's lawsuit challenging the Service's issuance of past permits authorizing research on Steller sea lions and northern fur seals did not reflect an intolerance on the litigant's part for any adverse research effects but rather a concern that the research efforts were not well-conceived or directed, leading to inefficient implementation and unnecessary adverse effects. Virtually everyone who follows this matter knows that it is not feasible to conduct many of the types of research that are needed without some risk to the animals.

However, tolerance for research-related risk quickly dissipates when the combined research effort is inadequately planned or coordinated or individual projects are irrelevant or aimed at low-priority questions when high-priority studies are ignored. In the Commission's view, this concern is at the heart of the debate over research effects on Steller sea lions and northern fur seals.

The Commission has made numerous recommendations to the Service regarding the value of an independent implementation team to maximize the value of Steller sea lion research. By "independent" we mean a group of scientists and managers who are not directly involved in Steller sea lion research and who have no conflicts of interest regarding that research. The revised Steller Sea Lion Recovery Plan is very clear on the need for effective implementation. Its three main objectives are (1) maintaining the current or equivalent level of fishery conservation measures, (2) designing and implementing an adaptive management program to evaluate fishery conservation, and (3) developing an implementation plan. To our knowledge, the Service has not adapted its recovery efforts to meet those objectives and therefore is compromising the benefits that might be obtained from a well-implemented management and research strategy. The fact that none of the research described in the environmental impact statement will have an impact on the Alaska groundfish fishery indicates that the Service is failing to comply with the second recovery plan objective of developing an adaptive management program to assess fishery effects. The Service's failure to convene an implementation team or develop a plan suggests that it is not taking the third objective seriously. Although the Commission does not believe that the Permit Office should assume primary responsibility for directing the types of research to be done on these stocks, the Office should serve as an important check on research that may not produce sufficient benefits to justify the anticipated risks. Perhaps the most disappointing aspect of this situation is that the important benefits that might come from an implementation team and an adaptive management approach are not being realized. For all these reasons, the Marine Mammal Commission recommends that the Permit Office, Alaska Fisheries Science Center, and Alaska Regional Office work together to convene and consult with independent implementation teams to advise the Service on all research matters related to Steller sea lions and northern fur seals. Such teams could provide independent and comprehensive perspectives on proposed research (i.e., including types of research called for in the recovery and conservation plans but not being undertaken by the Service), help integrate or coordinate multiple research efforts by different organizations, advise researchers on means for investigating research effects, and help ensure that the research addresses the highest priorities set forth in the recovery and conservation plans.

Analyses under the National Environmental Policy Act and Endangered Species Act

Although they require considerable resources to complete, analyses under the National Environmental Policy Act and section 7 of the Endangered Species Act play a vital role in clarifying the effects of proposed research and promoting informed decisions on whether that research should be allowed to proceed. Analyses under the two Acts serve somewhat different purposes, but they overlap to a certain degree and could be conducted in a more efficient manner. The Commission believes that such analyses could and should be integrated into a single process to avoid redundancy, reduce costs, and still provide a thorough description of environmental effects for decision-makers. Nothing in the two Acts precludes such integration and, in fact, the National Environmental Policy

Act regulations encourage such efficiency. Integrating the analyses required by those Acts will require some planning, and the Commission would be pleased to work with the Service to that end. Therefore, the Marine Mammal Commission recommends that the Service, the Commission, and other responsible agencies collaborate to develop a plan for integrating the analyses required under the National Environmental Policy Act and section 7 of the Endangered Species Act with the permit review process.

Institutional Animal Care and Use Committees and the Animal Welfare Act

Finally, the policy and guidance document does not address the use of Institutional Animal Care and Use Committees as required for certain types of research under the Animal Welfare Act. The Permit Office attempts to justify this omission by claiming that such considerations are "outside the scope of the permits and grants programs." The Commission strongly disagrees with this contention and has made numerous recommendations to the Service regarding the need to establish these committees and to consider their findings during the permit review process. We believe that the requirements of the Animal Welfare Act are clear. Therefore, the Marine Mammal Commission reiterates its longstanding recommendation that the Service come into full compliance with the Institutional Animal Care and Use Committee requirements of the Animal Welfare Act and ensure that those requirements have been met as part of its review of all scientific research applications that involve the use of invasive procedures or procedures that might harm or materially alter the behavior of the subject animals.

Please contact me if you wish to discuss the Commission's recommendations and rationale.

Sincerely,

Timothy J. Ragen, Ph.D.
Executive Director

Literature Cited

National Research Council. 2005. Marine mammal populations and ocean noise: Determining when noise causes biologically significant effects. The National Academies Press, Washington, DC.