



# MARINE MAMMAL COMMISSION

3 October 2011

Mr. Eric Schwaab  
Assistant Administrator for Fisheries  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910

Dear Mr. Schwaab:

The Marine Mammal Commission held its 2011 annual meeting in New Orleans, focusing on the Deepwater Horizon oil spill and issues related to the Gulf of Mexico. In addition, the Commission considered a small number of other pressing marine mammal issues from other areas. Among those were actions needed to promote the conservation of the Cook Inlet beluga whale.

The Cook Inlet beluga whale is a discrete, isolated stock listed as endangered under the Endangered Species Act. The most recent (2010) population estimate is 340 (C.V. = 0.13). The population declined precipitously during the 1990s, primarily due to overharvest, and was expected to rebound once subsistence hunting was brought under control. Since 1999, subsistence hunters reportedly have taken only five whales. However, the population has not grown as expected. In fact, the 2011 draft stock assessment report indicates that the Cook Inlet beluga whale declined by 1.11 percent per year between 2000 and 2010. To date, scientists have not been able to describe the factor or factors that are preventing recovery of this stock. As such, it is crucial that the Service intensify its efforts to identify and address the causes of this stock's decline.

## RECOMMENDATIONS

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

- give high priority to research aimed at identifying impediments to recovery and determining what management actions are likely to stop and reverse the decline of the Cook Inlet beluga whale;
- support the continuation of photo-identification work as a long-term monitoring program and expand that work, as appropriate, to help identify the factors that are impeding population growth;
- before committing to large-scale biopsy sampling of Cook Inlet beluga whales or expanded use of other invasive research techniques, convene a group of experts in these research techniques and in beluga whale behavior to make recommendations weighing the risks and benefits of such research and how it might best be structured and coordinated;
- develop a robust plan to expand its existing program for responding to beluga strandings, including: (1) assisting belugas in the event of a live-stranding and (2) being prepared to collect a comprehensive set of samples from beach-cast dead animals;
- continue to fund aerial surveys on an annual basis;

- develop a framework for assessing the cumulative impacts of the numerous activities occurring in Cook Inlet that could be affecting beluga whales or contributing to the observed population trend; and
- give high priority to management actions that will increase the size of the Cook Inlet beluga whale population.

## **RATIONALE**

The Service published its Conservation Plan for the Cook Inlet Beluga Whale (*Delphinapterus leucas*) in October 2008. That plan discusses 13 potential threats to the stock, most of which are human-induced factors. The plan also assesses the probability with which the threats are likely to occur, the level of impact to the stock if a particular threat occurs, and the feasibility of interceding to mitigate that threat. In addition, the plan outlines several needed conservation measures, including research to identify the factors that are limiting recovery. At about the same time as the Service published the conservation plan, it listed the Cook Inlet beluga whale as endangered. Since then, the Service has convened a recovery team to assist in the preparation of a recovery plan for the species under section 4(f) of the Endangered Species Act.

Some research specified in the conservation plan has been initiated, but much remains to be done. The basis for the delay is not clear; it may be because of funding constraints, because the Service is waiting for completion of the recovery plan, or for some other reason. Whatever the reason, the Marine Mammal Commission recommends that the National Marine Fisheries Service give high priority to research aimed at identifying impediments to recovery and determining what management actions are likely to stop and reverse the decline of the Cook Inlet beluga whale. The Commission does not believe that such research should be delayed pending the completion of a recovery plan. Much of the needed research has already been identified by the Service and any review of the identified tasks by the recovery team could be completed, at least on an interim basis, fairly quickly. The recovery team should be able to complete such a review either before or at the next meeting, which is scheduled for November.

At the Commission's meeting, the Service described progress toward building a photo-identification catalog for Cook Inlet beluga whales. If the markings on animals are as distinctive as it appears, this technique could be a valuable and relatively benign means of monitoring the abundance of the stock and tracking habitat use patterns and movements. The Marine Mammal Commission therefore recommends that the National Marine Fisheries Service support continuation of the photo-identification catalog on a long-term basis and expansion, as appropriate, to help identify the factors that are impeding population growth. We note, however, that disturbance is one of the factors that might be adversely affecting the population. As such, even a non-invasive research technique like photo-identification should be conducted cautiously to minimize disturbance and with sufficient safeguards to ensure that this research does not have adverse impacts.

The Commission also understands that in 2012 the Service may begin collecting biopsy samples from a significant number of beluga whales in Cook Inlet. Such a program has much to

offer: biopsy samples can yield valuable information on contaminants and reproductive status and insights into the population's genetics and demography. As with photo-identification, a sufficiently large sample size makes it possible to monitor the population's abundance and trends. However, collecting biopsy samples not only requires close approaches to animals but also carries the risk of disturbing animals. Since the existing level of disturbance is plausibly one of the factors impeding the population's recovery, the Service should use caution in close approaches to ensure that the research itself does not adversely affect the whales or alter their habitat-use patterns. The Marine Mammal Commission therefore recommends that, before committing to large-scale biopsy sampling of Cook Inlet beluga whales or expanded use of other invasive research techniques (e.g., satellite and suction cup tagging), the National Marine Fisheries Service convene a group of experts in these research techniques and in beluga whale behavior to make recommendations weighing the risks and benefits of such research and how it might best be structured and coordinated. Among other things, this group should provide recommendations concerning how researchers should monitor the effects of biopsy sampling and criteria that should be used to determine whether sampling should be allowed to continue if adverse effects are detected.

One factor that could be limiting recovery of Cook Inlet belugas is strandings. Providing assistance to live-stranded animals could help to reduce mortality and thus enhance recovery. If animals found on the beach are dead, a vast amount of information could be obtained from their carcasses. Results from a thorough bio-sampling program could shed light on the current causes of decline or impediments to recovery. The Marine Mammal Commission therefore recommends that the National Marine Fisheries Service develop a robust plan to expand its existing program for responding to live- or dead-stranded belugas.

The Service has been conducting annual aerial surveys of Cook Inlet beluga whales since the mid-1990s. The surveys provide useful data on the size and trend of this population. The Commission supports these surveys and was therefore concerned to hear that funding considerations might prompt the Service to discontinue them or reduce their frequency. The Marine Mammal Commission believes that these surveys are critical for monitoring the status of the population and recommends that the National Marine Fisheries Service continue to fund them on an annual basis. The cost of the surveys is relatively modest given their value at the current level of effort. Moreover, the Service's regulations governing subsistence hunting of Cook Inlet beluga whales (50 C.F.R. § 216.23(f)) are premised on continued access to annual abundance estimates of quality comparable to those currently provided by the National Marine Mammal Laboratory. Less frequent or less extensive surveys could work either to the disadvantage of Alaska Native hunters, who currently are precluded from taking whales until the five-year average population size reaches 350, or to the beluga stock, if harvest limits are set too high because of less reliable information.

With regard to threats to the population, a number of activities ongoing in or planned for Cook Inlet could have adverse effects on beluga whales. These include oil and gas-related seismic surveys; exploratory drilling, development, and production; maintenance and expansion of the Port of Anchorage (including dredging); commercial and recreational fisheries; use of the Eagle Flats firing range at Fort Richardson; sewage discharge from Anchorage; discharge of de-icing chemicals

from Ted Stevens Anchorage International Airport; planned construction of a bridge across the Knik Arm; and possible expansion of mining activities and related port facilities. Many of these activities are concentrated in the northern part of Cook Inlet, a fairly small area where virtually the entire beluga population aggregates during the summer months to feed on various fish runs at a number of tributaries. Available data suggest that the upper inlet also is an important wintering area.

The conservation plan identifies all of these activities as potential threats to the Cook Inlet beluga whale either specifically or under some general category (e.g., pollution, development, or noise). As reflected in the conservation plan, the information on the nature and impacts of any of these threats is not sufficient to consider them insignificant contributors to the observed population trends. In previous letters to the Service, the Commission has explained that one or more undetermined factors are adversely affecting the recovery of the beluga stock and, if allowed to persist, may be jeopardizing the continued existence of the species. This being the case, the Commission thinks that any increase in the level of disturbance, when added to the status quo, should not be viewed as having a negligible impact on the stock.

The Commission is particularly concerned about the potential for adverse cumulative impacts from the multiple activities occurring in Cook Inlet. That concern is heightened by the concentration of activities in the northern part of the Inlet, which overlaps or is adjacent to important feeding areas and migratory routes. Although some individual activities might be deemed insignificant, in combination they could be causing adverse effects at both individual and population levels. As the Service representative at the Commission's annual meeting explained, the high level of activity in the northern end of the Inlet creates a "gauntlet" that the whales must negotiate as they use and move between important feeding areas. Although assessing cumulative impacts from multiple activities is challenging, such impacts might be particularly relevant in the case of Cook Inlet beluga whales. As such, the Marine Mammal Commission recommends that the Service develop a framework for assessing the cumulative impacts of the numerous activities occurring in Cook Inlet that could be affecting beluga whales or contributing to the observed population trends. Among other things, the Service should assess the acoustic characteristics of the upper portion of the Inlet and determine where manmade sounds have the potential to disturb beluga whales and where those sound fields overlap with important beluga whale habitat. Once the Service has developed a suitable framework for assessing cumulative impacts, that framework should be used to assess the impacts of federal actions under the National Environmental Policy Act, in consultations under section 7 of the Endangered Species Act, and in making negligible impact determinations when reviewing requests for incidental taking authorizations under section 101(a)(5) of the Marine Mammal Protection Act.

As reflected in the discussion of Cook Inlet beluga whales at the Commission's meeting, certain management actions have been taken to promote recovery of this stock, most notably the adoption of regulations governing subsistence hunting. These actions alone have not successfully reversed the population trend and more needs to be done. Absent a better understanding of the factors that are contributing to the trend, however, it is not clear what additional actions should be taken. Thus, the initial focus of agency efforts must be directed toward evaluating those factors.

Mr. Eric Schwaab  
3 October 2011  
Page 5

Nevertheless, the Marine Mammal Commission recommends that, as research results become available, the Service give high priority to management actions that will increase the size of the Cook Inlet beluga whale population. In the meantime, the Commission believes that the Service should adopt a precautionary approach when evaluating requests for authorizations to take Cook Inlet beluga whales that considers the impacts of the proposed activities not only individually, but in combination with the other activities ongoing in Cook Inlet.

Please contact me if you have questions about our recommendations and rationale or if the Marine Mammal Commission can be of any assistance in furthering your agency's research and recovery efforts for the Cook Inlet beluga whale.

Sincerely,



Timothy J. Ragen, Ph.D.  
Executive Director