

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

3 August 2007

Ms. Kaja Brix
Assistant Regional Administrator
Protected Resources Division
National Marine Fisheries Service
P.O. Box 21668
Juneau, AK 99802-1668

Dear Ms. Brix:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the 30 April 2007 *Federal Register* notice published by the National Marine Fisheries Service proposing to list the Cook Inlet beluga whale as an endangered species under the Endangered Species Act (ESA) and offers the following comments and recommendations. In the Commission's opinion, the justification and need for listing the Cook Inlet beluga whale population has been apparent for several years, and we strongly support the Service in this action.

RECOMMENDATIONS

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

- move swiftly to complete the process of listing the Cook Inlet beluga whale population as endangered under the Endangered Species Act;
- expand its research efforts to investigate the factors that may have negative effects on the population and to identify possible remedial actions; and
- identify and designate critical habitat for Cook Inlet beluga whales as soon as possible.

RATIONALE

The proposed rule and status review make a strong and compelling case that the population of Cook Inlet beluga whales is in danger of becoming extinct in the foreseeable future and thus warrant listing as endangered under the ESA. The Commission made a similar case for listing this population in previous letters to the Service (dated 27 June 2005 and 24 April 2006). A 2006 status assessment prepared by the Cetacean Specialist Group of IUCN-The World Conservation Union concluded that the population is "critically endangered" under the IUCN criteria. Our letters and the IUCN review remain relevant, and we incorporate them here by reference. The status reviews by both the Service and the IUCN indicate with a high level of confidence that the population has been reduced to low abundance, has continued to decline despite elimination of over-harvesting, and faces other potentially significant threats in the foreseeable future. Scientists have not been able to explain the ongoing decline, but the evidence makes a strong empirical case that the decline will continue and the population's status worsen until the factors impeding the population's recovery are identified and addressed through management actions. For those reasons, the Marine Mammal

Commission recommends that the Service move swiftly to complete the process of listing the Cook Inlet beluga whale population as endangered under the Endangered Species Act.

We understand that some have raised questions regarding the adequacy of data used in the Service's population viability analysis and have argued that action to list the population should be delayed to allow for the collection of more data on population composition and further modeling. The Commission believes that the available data and analyses are more than sufficient to indicate that the Cook Inlet beluga whale population should be listed. The Commission also believes that delay in listing the population will result in further decline, thereby increasing the difficulty and expense of actions needed to achieve population recovery. Survey data indicate a 50 percent decline in abundance of Cook Inlet beluga whales between 1994 and 1998 and continued decline since then. The 2006 estimate of abundance (302) is not significantly higher than the 2005 estimate (278), and the large degree of uncertainty in the estimates means that trends can only be estimated reliably by using multiple years of data. An updated analysis by Dr. Dan Goodman, who participated in the IUCN review, reveals that the addition of the 2006 estimate actually increases the precision of the overall trend estimate and lends further strength to the argument that the population is declining. Using data through 2005, his model indicated a 71 percent probability that the population is declining. When 2006 data are added, that probability increases to 81 percent. The Service's population viability analysis, described in the status review, predicted a 26 percent chance of extinction within 100 years using the most likely model, which included an average mortality of one animal per year due to killer whale predation and allowed for unusual mortality events occurring on average once every 20 years. The longer the population remains at diminished levels, the greater the risks it faces from factors that act with special force on small populations, such as catastrophic events and loss of genetic variation. The apparent range retraction exhibited by Cook Inlet beluga whales in recent years makes the population even more vulnerable to catastrophic events. As noted in the IUCN review, the population "is already at a size range where eventual loss of genetic variability is expected." The Service concludes in its proposed rule that the Cook Inlet beluga whale constitutes a distinct population segment (DPS) for purposes of listing under the Endangered Species Act, and the Commission agrees.

The Service has done a commendable job of identifying the factors potentially affecting the Cook Inlet beluga whale. Whatever is causing the continued decline and preventing recovery undoubtedly fits within the scope of the five listing factors set forth in section 4(a)(1) of the Endangered Species Act and analyzed in the proposed rule. Potential risk factors warrant immediate and careful investigation and management, and the Commission reiterates past recommendations that the Service expand its research efforts to investigate those factors and identify possible remedial actions.

The *Federal Register* notice specifically requests information related to the identification of critical habitat and essential physical or biological features of such habitat for Cook Inlet beluga whales. The Commission believes that the scientific information available is sufficient to identify areas that should be designated as critical habitat for the population. The Service has conducted aerial abundance surveys each year since 1993, and data from those surveys give a clear picture of

current distribution and habitat use during mid-summer. During that time of year, most beluga whales are seen near shore (generally in water less than 18 m deep) in upper Cook Inlet (i.e., north of the East and West Forelands), with sightings offshore and farther south occurring only rarely (Rugh et al. 2000, 2005). In the winter, beluga whales disperse somewhat and are seen farther offshore (Moore et al. 2000, Rugh et al. 2000). Prior to the 1990s, beluga whales were more commonly sighted in lower Cook Inlet (i.e., south of the Forelands), but sightings in that region have been much less common from the early 1990s to the present, presumably due to range retraction as the population declined (Rugh et al. 2000, Speckman and Piatt 2000). Goetz et al. (2007) used those aerial survey data to predict areas of preferred habitat for Cook Inlet beluga whales based on bathymetry and distances to mudflats and rivers of various sizes. The resulting predictions identified essentially all of Turnagain and Knik Arms, as well as many other regions of coastal Cook Inlet both north and south of the Forelands, as habitat for beluga whales. Those predictions are consistent with historic observations of beluga whales throughout the Inlet. It is important to note that in their analyses Goetz et al. (2007) used only survey data collected during the summer when beluga whales aggregate near rivers, so it is not surprising that all the predicted habitat areas were coastal.

Hobbs et al. (2005) identified the areas used by a sample of 14 beluga whales (approximately 5 percent of the total population) that were tagged with satellite-linked transmitters during 2000–2002. The area used by tagged animals was limited primarily to the uppermost regions of Cook Inlet (i.e., Susitna River delta, Knik Arm, and Turnagain Arm) during August and September, but then spread out to cover essentially all the waters from Kalgin Island north during December through March. In addition, two animals visited regions farther south (namely Tuxedni and Chinitna Bays). These observations of tagged animals, some of which were followed for nearly eight months, provide a much more synoptic picture of habitat use than aerial sightings, and they clearly show that north of Kalgin Island beluga whales use the entire Inlet, not just coastal waters.

The nearshore concentrations of beluga whales in summer are probably for feeding on anadromous fish runs at specific river mouths (Huntington 2000, Moore et al. 2000). Why beluga whales target specific runs is not clear, but healthy runs of anadromous fishes are undoubtedly a primary constituent element of Cook Inlet beluga whale habitat essential to their conservation. Furthermore, a recovering beluga whale population will require access to more fish runs than the current depleted population, and some of the runs may be in portions of the Inlet south of those currently being used. The ecology of beluga whales has not been studied in the offshore and southern regions of the inlet, where tagged animals were observed, but primary constituent elements in those areas must include physical and biological features such as access to space, water, air, and food; shelter and protection from disturbance and predation; and sites for breeding, reproduction, and the rearing of offspring.

The Marine Mammal Commission recommends that the Service identify and designate critical habitat for Cook Inlet beluga whales as soon as possible. Based on the available scientific information described above, the Commission suggests that a reasonable designation would include all waters of Cook Inlet from Kalgin Island northward to the headwaters of Knik and Turnagain

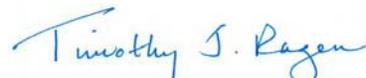
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Arms, and all coastal waters less than 18 m deep in the remaining portions of the Inlet. This corresponds to three key habitat types identified in the draft conservation plan for Cook Inlet beluga whales: high value/high sensitivity habitats (type 1), high value habitats (type 2), and winter habitat areas, secondary summering sites, and historic habitat sites (type 3). In its 24 April 2006 letter, the Commission recommended that the Service consider designating as critical habitat all areas identified in the draft conservation plan as high value/high sensitivity and high value habitats. Upon further consideration of the need to protect winter habitat, secondary summer habitat, and habitat that was used historically and will likely be reoccupied if and when the population recovers, the Commission has added those areas to our recommendation for critical habitat. We consider those areas to be essential for the conservation and recovery of the Cook Inlet beluga whale population.

Finally, the discussion of prohibitions and protective measures on page 19680 of the *Federal Register* notice describes the availability of incidental taking authorizations under section 10 of the Endangered Species Act. For listed marine mammal species an incidental taking authorization under section 101(a)(5) of the Marine Mammal Protection Act also is needed. Under the applicable regulations, the Marine Mammal Protection Act authorization constitutes a federal action that triggers a section 7 consultation under the Endangered Species Act. As such, incidental taking is authorized in a statement issued under section 7(b)(4). This should be clarified in the preamble to the final rule.

Please contact me if you would like to discuss any of these comments and recommendations.

Sincerely,



Timothy J. Ragen, Ph.D.
Executive Director

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