

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

9 April 2007

Rosa Meehan, Ph.D.  
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U.S. Fish and Wildlife Service  
1011 East Tudor Road  
Anchorage, AK 99503

Dear Dr. Meehan:

On 9 January 2007 the U.S. Fish and Wildlife Service published in the *Federal Register* a 12-month petition finding and proposed rule to list the polar bear (*Ursus maritimus*) under provisions of the Endangered Species Act (ESA) as a threatened species throughout its range. On 29 January 2007 the Service wrote to the Marine Mammal Commission asking for a review of the finding and proposed rule. After consultation with its Committee of Scientific Advisors on Marine Mammals, the Commission provides the following comments and recommendations.

## **RECOMMENDATIONS**

The Marine Mammal Commission recommends that the Fish and Wildlife Service—

- List the polar bear under the ESA as threatened throughout its range, as proposed in the *Federal Register* notice;
- Collaborate with other range states to develop, expand, and enhance both national and international conservation programs for polar bears, including protection of their habitat;
- Conduct a post-listing, arctic-wide review of future management and research needs to ensure that those needs are identified and proactively addressed;
- Designate as critical habitat those terrestrial areas on the North Slope of Alaska that are used by polar bears for maternity denning as soon as the ESA listing becomes final;
- Consider designating as critical habitat areas of multiyear or annual pack ice north of Alaska that may provide suitable maternity denning habitat for polar bears;
- Implement a long-term study to monitor the denning success and the survival rates of adult female polar bears in the most important terrestrial denning habitats in northern Alaska;
- Implement a study to evaluate the importance of terrestrial habitat for polar bears seeking summer refuge and to identify management actions needed to minimize the occurrence of human-polar bear interactions and maximize the probability of survival of the animals;
- Implement a study to identify important feeding areas and movement/migration corridors and consider designating those areas as critical habitat; and
- Consider ways in which the conservation benefits of allowing imports of sport-hunted polar bear trophies under section 104(c)(5) of the Marine Mammal Protection Act (MMPA) from well-managed populations in Canada (1) could be retained when the listing of polar bears under the ESA is made final and (2) could be strengthened to enhance, rather than diminish, the long-term viability of polar bear populations.

## **RATIONALE**

### **Listing of the Population**

The *Federal Register* notice thoroughly evaluates the applicability of the ESA listing criteria and how various factors may affect the risk of extinction of polar bears. The Service concluded that—

- Polar bear populations are threatened by ongoing and projected changes in sea ice habitat throughout their range;
- Overutilization for commercial, recreational, scientific, or educational purposes (including regulated hunting by indigenous peoples) as a singular factor does not threaten the existence of polar bears throughout all or a significant portion of their range;
- Disease and predation do not threaten the existence of polar bears throughout all or a significant portion of their range;
- Inadequate regulatory mechanisms to address the cause of sea ice recession is the principal factor that threatens the existence of polar bears throughout all or a significant portion of their range; and
- Other factors (contaminants, ecotourism, and shipping) as singular factors do not threaten the existence of polar bears throughout all or a significant portion of their range.

The Commission agrees that, at the present time, polar bears are threatened by loss of sea ice habitat as a consequence of continued climatic warming and that management mechanisms to address the problem of sea ice recession have been inadequate. Factors such as overutilization, disease, and contaminants may become important in the future although the Commission agrees that they are not known to be significant threats at this time. Given the polar bear's current relatively large population size and broad distribution, the Commission also agrees that the species is not presently in danger of extinction throughout all or a significant proportion of its range and does not qualify for listing as endangered under the ESA. However, we believe that the polar bear is likely to become in danger of extinction throughout all or a significant portion of its range within the 45-year time frame defined as the "foreseeable future" by the Service in the proposed rule. Our conclusions, like those of most scientists, are contingent on model predictions that the arctic climate will continue to warm as reported by the Intergovernmental Panel on Climate Change. The Marine Mammal Commission therefore recommends that the Fish and Wildlife Service list the polar bear under the ESA as threatened throughout its range, as proposed in the *Federal Register* notice.

### **Conservation Efforts with Other Range States**

Because of the wide distribution and far-ranging movements of polar bears, efforts to prevent further population decline and promote recovery will require large, sustained, and well-coordinated efforts by all nations with management jurisdiction over the bears and their essential habitats (range states). The Commission commends the Service for its leadership in fostering coordination and cooperation regarding polar bear management among the range states. As

described in the *Federal Register* notice, a number of existing national and international agreements address, or could address, short-term, site-specific threats to polar bears. However, the notice goes on to say “there are no known regulatory mechanisms currently in place at the national or international level effectively addressing threats to polar bear habitat.” We agree with this assessment, and the Marine Mammal Commission therefore recommends that the Fish and Wildlife Service collaborate with other range states to develop, expand, and enhance both national and international conservation programs for polar bears, including protection of their habitat.

### **Arctic-wide Review of Future Management and Research Needs**

Section 4(f)(1) of the ESA requires that a recovery plan be developed and implemented for a listed species unless the Secretary “... finds that such a plan will not promote the conservation of the species.” Section 4(f)(2) provides authority for the Secretary to appoint a recovery team to assist in the development and implementation of a recovery plan. Based on our experience with recovery programs for several ESA-listed marine mammals, the Marine Mammal Commission believes that recovery plans and recovery teams do promote conservation. Although there are reasonable arguments for and against the immediate establishment of a recovery team, we believe it is important that the Service make a concerted effort to anticipate and proactively address both management and research needs so that future efforts to conserve polar bears are as well informed as possible. Undoubtedly, the most important determinant of polar bear status in the foreseeable future will be the ability of human societies to reckon with the human contribution to climate change. Beyond that, additional conservation and research efforts will be needed to address the secondary or indirect effects of climate change, such as increasing arctic shipping, commercial fishing, oil and gas production, ecotourism, and coastal development. Important habitats must be identified and conserved and essential baseline information collected before secondary threats associated with climate change occur and become irreversible. Whether the Service decides to convene a recovery team to provide guidance on these matters or to use existing groups, such as the IUCN Polar Bear Specialist Group, is less important than ensuring that all reasonable management and research actions are taken in a timely fashion. With that in mind, the Marine Mammal Commission recommends that the Fish and Wildlife Service conduct a post-listing, arctic-wide review of future management and research needs to ensure that those needs are identified and proactively addressed.

### **Critical Habitat**

Section 4(a)(3) of the ESA requires that, to the maximum extent prudent and determinable, critical habitat be designated at the time that a species is determined to be endangered or threatened. In the *Federal Register* notice, the Service identifies essential habitat areas as being annual and perennial sea ice used for hunting, feeding, traveling, resting, and sometimes denning, and terrestrial habitats used for denning, reproduction, and resting. The Marine Mammal Commission agrees with the Service that identification of specific features and geographical areas that qualify as critical habitat is complicated and that these habitats and their values to polar bears are not fully understood at present and may change rapidly in their relative importance as the environment changes. However, the Commission does not agree that such considerations mean that the designation of certain areas within U.S. jurisdiction as critical habitat is not possible at this time.

Rosa Meehan, Ph.D.

9 April 2007

Page 4

Denning areas on the North Slope of Alaska have been known for several decades. Biologists with the U.S. Geological Survey have mapped the terrestrial sites known to be essential for polar bear maternity denning and resting. Studies over the years have further refined our knowledge of den locations and the ecology of denning. The characteristics that define appropriate areas include proximity to the shoreline and topographic features that trap snow in fall and early winter. Recent abundance estimates suggest that the southern Beaufort Sea population, which uses this area for denning, is probably declining and habitats in this region are very likely to see increased human use, particularly for oil and gas development. The Marine Mammal Commission therefore recommends that, as soon as the listing of the species under the ESA becomes final, the Fish and Wildlife Service designate as critical habitat those terrestrial areas on the North Slope of Alaska that are used by polar bears for maternity denning.

As the climate continues to warm, use of terrestrial areas for denning may change due to changes in the location of sea ice relative to shore and changes in patterns of winter snowfall and snowdrifts. Such effects may be manifested in changes in the general distribution and number of dens, specific denning locations, duration of time in dens, and survival of cubs and their mothers over the denning period. Ultimately, such changes are likely to affect rates of survival and reproduction and, thus, the status and trend of the population. The Marine Mammal Commission therefore recommends that the Fish and Wildlife Service, in conjunction with the U.S. Geological Survey and other collaborators as appropriate, design and implement a long-term study to monitor the denning success and the survival rates of adult female polar bears in the most important terrestrial denning habitats in northern Alaska.

Sea ice habitats essential to the conservation of polar bears and that may require special management or protection are more difficult to identify because of the dynamic, variable, and changing nature of sea ice. Nonetheless, bears from the southern Beaufort Sea population historically have denned on sea ice, and they may do so with increasing frequency as the distance widens between the summer pack-ice edge and traditionally used terrestrial denning areas. However, recent studies by the U.S. Geological Survey indicate that the stability, and thus the suitability, of offshore sea ice for maternity denning has declined in recent years with the result being that a higher proportion of pregnant females are now denning on land than was previously the case. Although this represents a bleak outlook, it is possible that a combination of the diminished extent of sea ice and the increased need to use ice for denning may result in relatively high densities of denning bears in some specific sea ice areas. If so, it will be important to manage human activities, such as shipping, in those areas to avoid adverse impacts. The Marine Mammal Commission therefore recommends that the Fish and Wildlife Service consider designating as critical habitat areas of multiyear or annual pack ice north of Alaska that may provide suitable maternity denning habitat for polar bears. We recognize that identifying, designating, and managing these areas will be a considerable challenge. The Service will need to work closely with sea ice scientists to predict where areas with appropriate characteristics may exist in future decades. Also, it may be necessary to develop a management system with dynamic boundaries that can be adjusted for variations in the ice.

### **Monitoring Terrestrial Habitat Use Other than Maternity Denning**

With the exception of denning females, Alaska polar bears generally spend little time on land. However, summer coastal surveys by Service biologists have already detected an increase in the use of terrestrial habitat, presumably related to the extensive pole-ward retreat of sea ice in recent years. Increased occurrence of bears on land has resulted in more interactions with humans in villages, industrial sites, etc. The Marine Mammal Commission therefore recommends that the Fish and Wildlife Service, in conjunction with the U.S. Geological Survey and other collaborators as appropriate, design and implement a study to evaluate the importance of terrestrial habitat for polar bears seeking summer refuge and to identify management actions needed to minimize the occurrence of human-polar bear interactions and maximize the probability of survival of the animals.

### **Protection of Feeding Areas and Migration/Movement Corridors**

Areas used by polar bears for feeding and traveling between habitats also are important to their conservation. Feeding areas will be determined by the distribution of prey, which are primarily ringed seals. Because many ringed seals use fast ice for reproduction, both their distribution and that of polar bears in late winter and spring are at least partially predictable based on the distribution and duration of fast ice. Additional management measures may be necessary to ensure the protection of fast ice areas. Also the bears may be forced to shift to other prey as sea ice habitat declines. To be prepared for this possibility, it will be important to anticipate what that prey might be so that it and its habitat also may be protected to the extent possible.

Similarly, as bears move between areas used for feeding and denning, they may tend to use certain migratory routes that warrant special protection. For these reasons, the Marine Mammal Commission recommends that the Fish and Wildlife Service design and implement a study to identify important feeding areas and movement/migration corridors and consider designating those areas as critical habitat.

### **Importation of Trophies from Polar Bears Taken in Canada**

Section 104(c)(5) of the Marine Mammal Protection Act allows polar bear trophies taken from approved populations in Canada to be imported into the United States. As required by the Act, the Service has developed criteria for determining which populations are approved based on whether Canada has a scientifically sound management program that will ensure the level of harvest from a population is sustainable and that is consistent with international conservation agreements. Such determinations are made in consultation with the Commission and after opportunity for public comment. The Commission believes that maintaining strong management programs in Canada and other range states is vital for polar bear conservation.

Allowing communities with polar bear quotas to allocate all or a portion of their quota to sport hunters who employ local guides has resulted in substantial economic benefits to Inuit in remote villages in Canada. As a result, those communities have a strong incentive for supporting the

Rosa Meehan, Ph.D.  
9 April 2007  
Page 6

science-based management program that underpins this arrangement. As polar bear populations decline due to changing environmental conditions, the benefits and costs of hunting (whether subsistence or sport) will have to be weighed carefully to ensure that hunting mortality does not become an impediment to population conservation. However, at present, the conservation benefits of hunting appear to outweigh the costs. For that reason, the Marine Mammal Commission believes that it is in the best interest of the species to continue to allow trophy imports from approved populations. The Marine Mammal Commission therefore recommends that the Fish and Wildlife Service consider ways in which the conservation benefits of allowing imports of sport-hunted polar bear trophies under section 104(c)(5) of the Marine Mammal Protection Act from well-managed populations in Canada (1) could be retained when the listing of polar bears under the ESA is made final and (2) could be strengthened to enhance, rather than diminish, the long-term viability of polar bear populations. The Service also should consider establishing pre-determined criteria for deciding if and when the costs of hunting outweigh such benefits. In all cases, the central goal should be to conserve polar bear populations.

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The Marine Mammal Commission recognizes that listing polar bears under the ESA because they are threatened by global climate change is no small matter. We believe that the Fish and Wildlife Service has done an admirable job compiling and evaluating relevant biological and ecological data and has come to a well-supported and appropriately precautionary conclusion. We compliment you and your staff, and thank you for your efforts. Please contact me if you have any questions about these recommendations and comments.

Sincerely,



Timothy J. Ragen, Ph.D.  
Executive Director

cc: The Honorable Dale Hall  
The Honorable Dirk Kempthorne  
Mr. Tom Melius  
Mr. Todd Willens