

MARINE MAMMAL COMMISSION  
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17 February 2009

Public Comments Processing  
Attn: FWS-R7-ES-2008-0105  
Division of Policy and Directives Management  
U.S. Fish and Wildlife Service  
4401 North Fairfax Drive, Suite 222  
Arlington, VA 22203

To Whom It May Concern:

On 16 December 2008 the Fish and Wildlife Service published a *Federal Register* notice (73 Fed. Reg. 76454) requesting comments on a proposed rule to designate critical habitat for the southwest Alaska distinct population segment of northern sea otters. The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the request and accompanying information and offers the following recommendations and comments.

## RECOMMENDATIONS

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

- adopt a final rule designating critical habitat boundaries for the southwest Alaska distinct sea otter population segment that encompass all areas identified in proposed rule, and
- either (a) expand the proposed seaward boundary from the 20-m to the 30-m isobath off all shoreline areas identified in the proposed rule or (b) explain why foraging areas between the 20-m and 30-m isobaths, which include habitat rich in a primary constituent element (in this case, food), do not warrant protection that would to allow this sea otter population to recover.

## RATIONALE

The 16 December 2008 *Federal Register* notice states that, with certain exceptions, the Fish and Wildlife Service proposes to designate as critical habitat for southwest Alaska sea otters all nearshore waters from the mean high tide line out to the 20-m isobath or to a distance of 100 m from shore, whichever is greater, from Kamishak Bay on the west side of Cook Inlet west to the end of the Aleutian archipelago. This area includes almost all nearshore waters around Kodiak Island, both sides of the Alaska Peninsula, and all of the Aleutian Islands. Along the north side of the Alaska Peninsula, certain additional areas beyond those limits are included in Izembek Lagoon and Port Moller/Henderson Bay. The proposed designation excludes all developed areas with existing piers, docks, harbors, marinas, jetties, breakwaters, etc. The total designated area is estimated to include approximately 15,225 km<sup>2</sup> (5,879 mi<sup>2</sup>).

In its notice, the Service provides a commendable review and analysis of the “primary constituent elements” of habitat essential for southwest Alaska sea otters. Based on the regulations

governing the designation of critical habitat, the Service considers information pertaining to the following five habitat needs: (1) space for individual or population growth; (2) food, water, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, nursing, and reproduction; and (5) habitats protected from disturbance or representative of a species' historical or ecological distribution. The Service concludes that areas providing protection from marine predators are likely to be essential for conserving this population. In this regard, the Service states that kelp forests providing protection from marine predators occur primarily in waters less than 20 m deep, and that the 20-m isobaths and 100-m distance from shore overlap substantially (i.e., their offshore limits generally are very close to one another).

In support of its conclusion, the Service cites Estes et al. (1998), who provide evidence that the decline of sea otters in southwest Alaska is most likely the result of killer whale predation rather than food limitation, disease, or reproductive failure. The Service also refers to its own unpublished data indicating that sea otters have shifted their distribution toward the shoreline where they are safer from predation (i.e., of 811 sea otters observed in August 2007 in the Near and Rat Islands in the western Aleutians, 90 percent were within 100 m of shore). The Service also cites several other references concluding that kelp forests provide protection from marine predators and that most kelp forests occur in waters less than 20 m deep. Based on this information, the Commission agrees that nearshore waters less than 20 m deep and within 100 m of shore likely provide greater protection from predators than areas farther from shore and that the features of those nearshore waters should be considered primary constituent elements of that habitat. Accordingly, the Marine Mammal Commission recommends that the Fish and Wildlife Service adopt a final rule designating critical habitat boundaries for the southwest Alaska distinct sea otter population that include all areas identified in proposed rule.

The evidence that predation was the primary factor causing the decline of this sea otter population is fairly compelling but pertains only to the central Aleutian Islands. Some evidence suggests that disease (e.g., valvular endocarditis) also might have played a role in certain areas. In other parts of the population's range, the data is simply not sufficient to form well-founded conclusions. Food, for example, also could have been a factor in some regions.

In addition, the purpose of identifying constituent elements and designating critical habitat is not simply to address the factors causing the decline but also to identify and address the factors that might impede recovery. The two need not be the same, as is evident, for example, in the case of the Cook Inlet beluga whale population. To wait for evidence that potential risk factors are, in fact, having an adverse effect is essentially a reactive approach that poses a risk of slowing or undermining recovery and increasing the associated costs. A more proactive approach, which is important in cases confounded by uncertainty, is to designate critical habitat in a manner that ensures that all primary constituent elements have been identified and are adequately protected before problems arise. For that reason, the Commission believes that the designated critical habitat for this population should ensure adequate food resources. In this regard, the Service's notice is not clear as to whether the proposed boundaries adequately encompass foraging areas that are essential for maintaining and recovering this population. The notice does not cite references regarding depth-

of-dive studies in the range of this population and, to the best of the Commission's knowledge, scientists have limited or no information on the foraging depths of sea otters in southwest Alaska. Bodkin et al. (2004; referenced in the Service's notice) found that most foraging dives (84 percent) of sea otters in southeast Alaska occurred between 2 and 30 m, and that while almost all females foraged in water shallower than 20 m, male otters tended to feed in deeper areas. Off California, managers had to apply fishery restrictions out to 60 fathoms (110 m) to ensure adequate protection of sea otters, which indicates that they are clearly capable of foraging in habitat deeper than 20 m. In view of this information, the seaward limit of the proposed designated critical habitat boundaries may not include and adequately protect all foraging areas essential for maintaining and recovering the southwest Alaska sea otter population. Therefore, the Marine Mammal Commission recommends that the Fish and Wildlife Service either (a) expand the proposed seaward boundary from the 20-m to the 30-m isobath off all shoreline areas identified in the proposed rule or (b) explain why foraging areas between the 20-m and 30-m isobaths, which include habitat rich in a primary constituent element (in this case, food) do not need protection in order to allow this sea otter population to recover.

Please contact me if you have questions about the Commission's recommendations or comments.

Sincerely,



Timothy J. Ragen, Ph.D.  
Executive Director

Cc: Mr. Douglas M. Burn  
Rosa Meehan, Ph.D.

#### Literature Cited

- Bodkin, J. L., G. G. Esslinger, and D. H. Monson. 2004. Foraging depths of sea otters and implications to coastal marine communities. *Marine Mammal Science* 20(2):305–321.
- Estes, J. A., M. T. Tinker, T. M. Williams, and D. E. Doak. 1998. Killer whale predation on sea otters linking oceanic and nearshore ecosystems. *Science* 282:473–476.