U.S. Fish & Wildlife Service

Southwest Alaska DPS of the Northern Sea Otter

Draft Recovery Plan

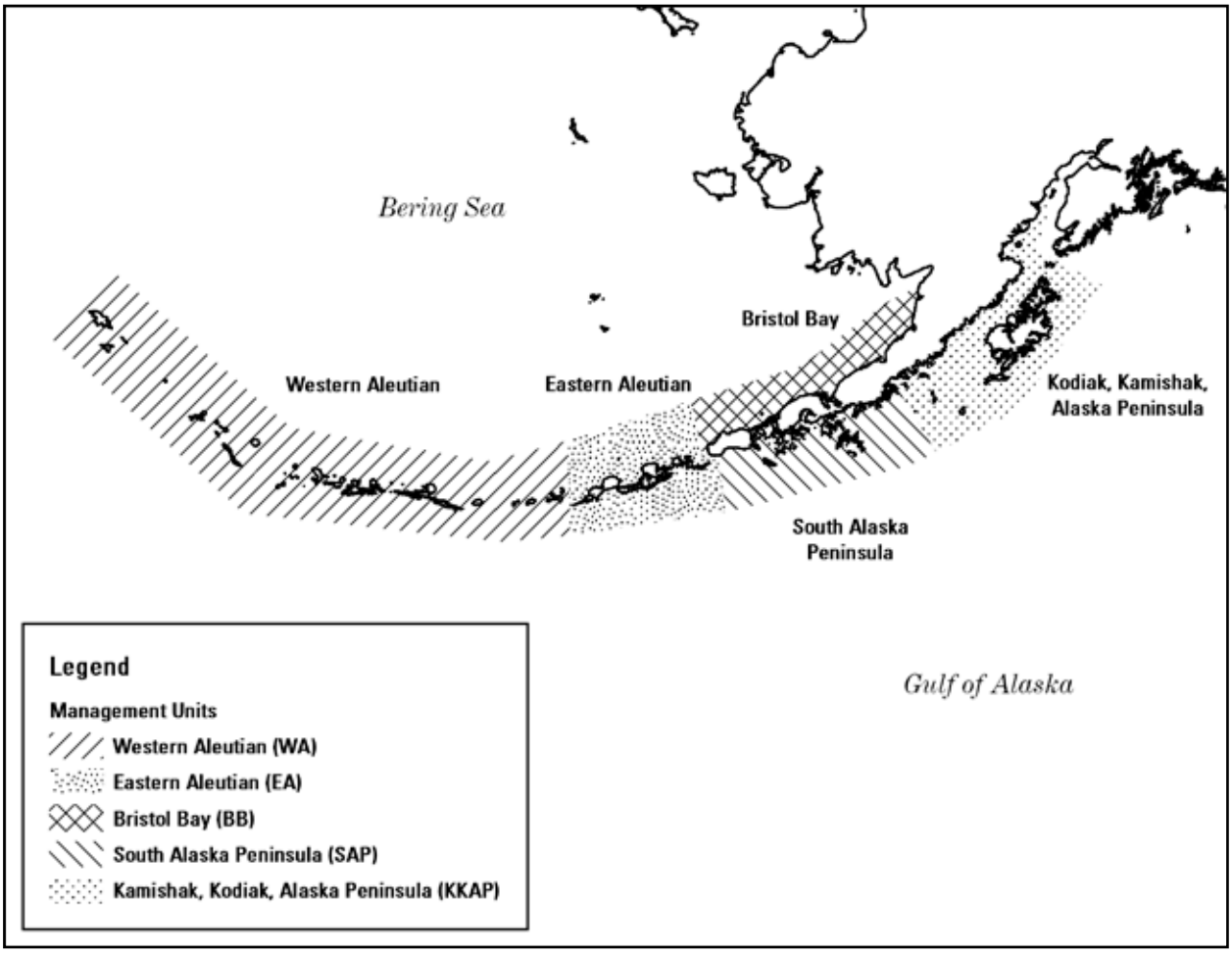
Based on survey information that indicated that the southwest Alaska population of northern sea otters (*Enhydra lutris kenyoni*) had declined in abundance by more than 50% since the mid-1980s, the U.S. Fish and Wildlife Service (FWS) listed this distinct population segment (DPS) as threatened in August 2005. Section 4(f) of the Endangered Species Act (ESA) directs the Secretary of the Interior to develop and implement plans (generally known as "recovery plans") for the conservation and survival of endangered species and threatened species. In March 2006, the Regional Director for the Alaska Region of the FWS formed a recovery team to serve in an advisory capacity to develop a draft recovery plan for the southwest Alaska DPS of the northern sea otter.

The sea otter is the largest species in the mustelid family, and one of the smallest marine mammals. It possesses a number of unique adaptations allowing it to exist in the nearshore marine environment. As the only marine mammal that lacks a blubber layer, the sea otter relies on a dense coat of fur as insulation from the cold waters where it occurs. To maintain the insulative properties of their fur, sea otters must groom themselves regularly. Their reliance on fur for insulation also makes them highly vulnerable to oil spills. In addition to using fur for insulation, sea otters have a relatively high metabolic rate that helps them maintain their body temperature. This requires them to consume large quantities of prey, as much as 20-33% of their body weight per day. With few exceptions, sea otter prey consists of benthic invertebrates. Sea otter habitat is partially defined by physiological limitations in diving depth, and the animals generally occur in or near shallow waters.

The discovery of large sea otter populations in Alaska by the Russian Bering expedition in 1741 resulted in a commercial fur harvest that lasted 170 years and extirpated sea otters from much of their historic range. When the species was finally given protection under the International Fur Seal Treaty of 1911, the worldwide population may have consisted of fewer than 1,000 individuals in 13 remnant colonies. Throughout much of the 20th century, these remnant colonies grew and expanded their range, eventually recolonizing much of the species' historically occupied habitat. In the late 1960s and early 1970s, the process of recolonization was enhanced by the translocation of otters from areas of high abundance to sites where they had been extirpated by the fur harvest. During the 1990s, sea otter surveys in the Aleutian archipelago indicated that the population trend had shifted from growth and expansion to decline. Additional surveys throughout southwest Alaska helped define the scope and magnitude of the population decline, which led eventually to the listing of this DPS as threatened.

The southwest Alaska DPS ranges from west to east across more than 1,500 miles of shoreline, and the otters occur in a number of distinct habitat types. The magnitude of the population decline has varied over the range. In some areas, numbers have declined by more than an order of magnitude, while in other areas no decline has been detected. To address such differences, this recovery plan identifies five management units (MUs) within the DPS: 1) Western Aleutian Islands; 2) Eastern Aleutian Islands; 3) South Alaska Peninsula; 4) Bristol Bay; and 5) Kodiak, Kamishak, Alaska Peninsula.

The cause of the overall decline is not known with certainty, but the weight of evidence points to increased predation, most likely by the killer whale (*Orcinus orca*), as the most likely cause. Predation is therefore considered a threat to the recovery of this DPS, but other threats, including infectious disease, biotoxins, contaminants, oil spills, food limitation, disturbance, bycatch in fisheries, subsistence harvest, loss of habitat, and illegal take, are also considered in this recovery plan. Threats are summarized in general, and their relative importance is assessed for each of the five MUs. Most threats are assessed to be of low importance to recovery of the DPS; the threats judged to be most important are predation (moderate to high importance) and oil spills (low to moderate importance). Threats from subsistence harvest, illegal take, and infectious disease are assessed to be of moderate importance in the Kodiak, Kamishak, Alaska Peninsula MU, but of low importance elsewhere.



The goal of the recovery program is to control or reduce threats to the southwest Alaska DPS of the northern sea otter to the extent that this DPS no longer requires the protections afforded by the ESA and therefore can be delisted. To achieve this goal, the recovery plan identifies three objectives: 1) achieve and maintain a self-sustaining population of sea otters in each MU; 2) maintain enough sea otters to ensure that they are playing a functional role in their nearshore ecosystem; and 3) mitigate threats sufficiently to ensure persistence of sea otters. Each of these objectives includes explicit criteria to determine if the objective has been met; these are known as "delisting criteria." They stipulate that in order for the DPS to be removed from the Endangered and Threatened Species List, at least three of the five MUs must have met the delisting criteria. The plan also contains criteria to determine if the DPS should be considered for reclassification as endangered; these are known as "uplisting criteria." Delisting should not be considered if any MU meets the criteria specified for uplisting to endangered.

Specific actions to achieve recovery and delisting of the DPS are specified in the recovery action outline and narrative. As demographic characteristics of the population constitute one of the three types of delisting criteria, population monitoring and population modeling are high priorities. Monitoring the status of the kelp forest ecosystem in the Western Aleutian and Eastern Aleutian MUs is also a high priority, as results from such monitoring will be needed to evaluate the ecosystem-based delisting criteria. Other high-priority actions include identifying characteristics of sea otter habitat, and ensuring that adequate oil spill response capability exists in southwest Alaska. As predation is considered to be the most important threat to recovery, additional research on that topic is also a high priority. The recovery implementation schedule provides details regarding the timing, costs, and agencies or entities responsible for implementing each recovery action. The full cost of implementing this recovery plan over the next five years is approximately $15M, of which $2.815M is for Priority 1 actions . Securing adequate funding to implement the plan is therefore also a high priority.

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Cover photo courtesy of Randall Davis, Texas A&M University

October 2010

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http://alaska.fws.gov/fisheries/mmm/seaotters/recovery.htm