



Threatened and Endangered Species

Northern Sea Otter

(Southwest Alaska Distinct Population Segment)

(*Enhydra lutris kenyoni*)

Sea otters are the smallest marine mammal and are most closely related to river otters. Adult sea otters can reach lengths of up to 6 feet (1.8 m) but average about 4.5 feet (1.4 m). Adult male otters typically weigh 70-90 pounds (32-41 kg), while females average 40-60 pounds (18-27 kg). Unlike other marine mammals, sea otters do not have a blubber layer; instead they depend upon a dense, water-resistant fur to provide insulation against cold.

Status

The world-wide sea otter population was drastically reduced to just a few hundred animals between 1742-1911, due to commercial harvest by the Russian and Russian/American fur trades. Three stocks of sea otters exist in Alaska today. The Southwest Alaska Distinct Population Segment (DPS), which inhabits the Aleutian Islands, Alaska Peninsula coast, and Kodiak Archipelago, is listed as threatened under the Endangered Species Act (ESA). This population once contained over half of the world's sea otters. Between 1992-2000, there was a decline of about 70% in this population. The population estimate in the draft recovery plan is about 54,000.

Range and Population Size

Historically, sea otters occurred in nearshore waters around the North Pacific rim from Hokkaido, Japan through the marine coastal areas of the Russian Far East and the Pacific coastal areas in the United States as far south as Baja California.

Life History and Habits

Sea otters live an average of 15-20 years. Females do not begin to breed until age 2-5 years; they may breed annually up until age 20. Males become sexually mature after 4-6 years, but may not hold breeding territories until several years later. In Alaska,



Nearshore marine areas provide protection from marine predators.

most pups are born in late spring. Sea otters generally have a single pup during each breeding cycle and the gestation period can be highly variable due to delayed implantation of the fertilized egg. A pup will weigh from 3-5 pounds (1.4-2.3 kg) at birth and stay with its mother for 3-6 months.

Sea otters compensate for having a small body size and no blubber layer by having an increased metabolism, which helps them keep warm in the cold water. Sea otters in captivity will consume up to 25% of their body weight per day. Sea otters eat primarily benthic (bottom-dwelling) invertebrates; for example, in the Aleutians their diet consists mostly of sea urchins, crabs, octopus, and some bottom fishes.

Threats

Although commercial harvest drastically reduced historical populations to a few hundred animals at the beginning of the 20th century, the cause(s) of more recent declines is uncertain. The weight of evidence suggests that killer whale (*Orcinus orca*) predation is the most likely cause of the sea otter's recent decline in the Western Aleutian Islands management unit, and it is presumed to be of moderate or high importance in the other management units as well. However, there are other potential threats that will require additional exploration to determine if and to what degree they are impacting the Southwest Alaska DPS. These include: oil spills (which foul sea otters' fur so that it does not provide insulation), pollutants, infectious disease, disturbance from recreational and industrial activities, fishery bycatch, illegal take, and subsistence harvest.



Critical Habitat

In 2009, the U.S. Fish and Wildlife Service (Service) designated approximately 5,900 square miles of nearshore marine waters as critical habitat for this threatened population of sea otters. The physical and biological features believed to be essential to sea otter conservation are those that provide cover and shelter from marine predators, especially killer whales. These areas primarily consist of shallow (less than 20 meters deep), nearshore (within 100 meters of the mean tide line) waters.

Federal agencies that undertake, fund, or permit activities that may affect sea otters are required to consult with the Service to ensure such actions do not pose a risk to the population, or adversely modify or destroy designated critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. It does not allow government or public access to private lands or limit public access to public or private lands and waters.

The Service does not anticipate that designation of critical habitat for the Southwest Alaska DPS of the northern sea otter will result in any closure of commercial fishing in the region. Because of their dependence on benthic prey items, sea otters spend the vast majority of their time in shallow water, typically close to the shore, and this preference is reflected in those areas designated as critical habitat.

Management and Protection

In the United States, the Northern sea otter is protected from hunting and harassment by the Marine Mammal Protection Act (MMPA) of 1972. Subsistence hunting is allowed under both the MMPA and ESA in Alaska. Re-introduction of sea otters reestablished populations in Alaska, Canada, and Washington, expanding their range back into places they were extirpated.

The Service is the Federal agency responsible for maintaining healthy populations of sea otters. In Alaska, biologists from the Service, Alaska SeaLife Center (ASLC), and U.S. Geological Survey (USGS), monitor their population health and status.

In March 2006, the Service formed a recovery team to develop a draft recovery plan for the Southwest Alaska DPS of the northern sea otter. The draft plan was released for public review and comment in October 2010. Recovery Team members were appointed from the following organizations: University of Alaska Fairbanks, University of British Columbia, Marine Conservation Alliance, USGS, Alaska Veterinary Pathology Services, Defenders of Wildlife, National Marine Fisheries Service, ASLC, Alaska Department of Fish and Game, Smithsonian National Zoological Park, The Alaska Sea Otter and Steller Sea Lion Commission, University of California (Santa Cruz), and the University of Alaska Sea Grant Program.

The goal of the recovery program is to control or reduce threats to the Southwest Alaska DPS to the extent that it no longer requires the protections afforded by the ESA. To achieve this goal, the draft recovery plan identifies three objectives:

1. achieve and maintain a self-sustaining population of sea otters in each management unit
2. maintain enough sea otters to ensure that they are playing a functional role in their nearshore ecosystem
3. mitigate threats sufficiently to ensure persistence of sea otters.

Predation by killer whales is considered a likely threat to the recovery of this DPS, but other threats are also considered in the draft recovery plan. Threats are summarized in general, and their relative importance is assessed for each of the five management units. The draft recovery plan contains a thorough analysis of available information relating to these potential threats, as well as tasks designed to gain additional information to fill data gaps.

We are currently revising the draft recovery plan to address public comments and will be releasing a final plan in the near future.

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