
Terrestrial mammals of Prince William Sound and the North Gulf of Alaska coast: Research needs for the 1990's

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Research activities, pertaining to terrestrial mammals in Prince William Sound and the north Gulf of Alaska coast, should first identify the habitat base. Habitat types need to be quantified and distribution delineated, crossing all political boundaries. Systems used to quantify habitat types should provide adequate resolution to be capable of identifying unique habitat needs of terrestrial mammals.

Basic cataloging of species distribution stands out as an important second step. The terrestrial mammals of this region may include up to 35 native species and 4 introduced species. Many islands may have unique species or races, and islands may have lost native species to introduced predators. Arctic fox (*Alopex lagopus*), domestic mink (*Mustela vison* Var.) and marten (*Martes americana*) were introduced to islands in the region.

Interspecific relationships resulting from introductions of non-native species should be identified. Prior to species introductions, mountain goats (*Oreamnos americanus*) were the predominant ungulate in the region. Sitka black-tailed deer (*Odocoileus hemionus*) were introduced in 1916 and are now the most numerous ungulate. While small numbers of moose (*Alces alces*) were originally present in the region, the major moose population resulted from an

introduction on the Copper River Delta during the 1950's. Wolf (Canis lupus) have recently exploited the additional prey base provided by these introductions but appear to be affecting mountain goats to the greatest extent.

Identifying relationships, unique to this region, between human development and terrestrial mammals is one of the most important research needs. Expansion of human settlement and extraction of upland resources pose the greatest potential impact to terrestrial mammals through habitat loss. Timber harvest, as currently practiced, pose significant threats to mountain goats, sitka black-tailed deer, black bear (Ursus americanus) and brown bear (Ursus arctos). Oil spills pose significant threats to species relying upon the intertidal zone for food, refuge or travel.

Finally, economic values of wildlife resources need to be assessed. The public needs to be able to comprehend the value of losses of public resources risked by industrial exploitation. Valuation needs to include use, existence and option values by species.

**Research for the 1990's
in Prince William Sound
and the Copper River Delta**

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