

INVASIVE WILDLIFE



Norway Rat (*Rattus norvegicus*)

Most rat infestations in Alaska have resulted from rats escaping from ships while in port.

Because rats have a very broad diet, they can have a harmful affect on many different wildlife species. In Alaska, some of the worst problems have occurred in seabird colonies. The Aleutians, known as "Rat Island" because of its rat infestation, suffered significant losses to its seabird populations after a shipwreck accidentally transferred rats to the island over two centuries ago. An eradication program for the rats on Rat Island (2007- 2009) was successful, and bird populations on the island are already improving.

Aside from the predation pressure of rats on Alaskan wildlife, they also carry parasites, pathogens and diseases that can be harmful to other species as well as humans.

Elk (*Cervus elaphus*)

Elk in Southeast Alaska, this species may be considered as a possible invasive species outside of Etolin and Zarembo islands, due to their effects on Sitka black-tailed deer, which have similar habitat needs.



Elk were introduced on Etolin Island in Alaska in the mid 1980s to develop additional hunting opportunities. Elk have spread and a population occurs on Zarembo Island. Elk are a desired non-native species on Zarembo and Etolin islands. There have been reports of elk on other nearby islands including Onslow, Wrangell, Mitkof, Kupreanof, Kashevaroff, Prince of Wales, Brushy, Shrubby, and Farm islands. They have also been spotted on the mainland as far north as Cape Fanshaw, and one of the original transplanted and radio-collared elk was located at the mouth of the Stikine River (J. Brainard, USDA Forest Service biologist, Petersburg District, personal communication).

The main concern is competition with native Sitka black-tailed deer due to the high degree of dietary overlap of the two species (ADF&G 1999). This is primarily an issue on deer winter range, where deer may be limited by resource availability. Elk may reduce the available winter forage for deer through browsing, physically displace deer, alter predator-prey dynamics, and directly compete for food.



House Mouse (*Mus musculus*)

The introduction and spread of house mice are poorly documented in Alaska. Historical records indicate mice in Wrangell and Sitka around 1891 (MacDonald and Cook 2007), in Juneau forests in 1895 (MacDonald and Cook 2009), and mice were first recorded on St. Paul Island in 1872 (Manville and Young 1965).



American Marten *Martes americana*

The American marten, while not considered an invasive, was successfully on Prince of Wales in 1934. These stocks were introduced from Behm Canal and Thomas Bay on the mainland. Marten are now found on Kosciusko, Marble, Orr, Tuxekan, Heceta, Dall, Suemez, Long and Sukwaan Islands (MacDonald and Cook 2007).

There are many unknowns about their presence and potential ecological effects elsewhere. The ADF&G Division of Wildlife Conservation has prepared a draft elk management plan for Southeast Alaska to manage and better understand the elk population and its potential effect on native plants and animals (ADF&G 1999).



Raccoons and snowshoe hares have also been introduced; however, due to their small population size and limited distribution, these species are not currently considered a threat to coastal Alaska ecosystems (Schrader and Hennon 2005).