

Mammals

Importance

The American Southwest may have the greatest diversity of mammal species in the country. Information, however, is lacking on most mammal species. Many of the mammals in the southwest, such as shrews, pocket gophers, and pikas, are vulnerable to local extirpation due to their having geographic ranges that may be restricted to a single mountain top or other isolated island of habitat. Concern is also increasing for several species of mammals adaptive to arid habitats, such as kangaroo rats and pocket mice, and for several species of bats, many of which are now considered sensitive species.

Status and Trends

Pecos National Historical Park (PECO), 6,800 acres in size, lies in the Upper Pecos River Valley. The park's predominant vegetation is pinyon-juniper woodland. Other habitats include grassland areas, riparian habitat along the Pecos River and Glorieta Creek, and marsh habitats. An inventory of mammal species at PECO was conducted in the early 1990's by Robert Parmenter and David Lightfoot of the University of New Mexico (UNM). A 2002 biological inventory by the New Mexico Natural Heritage Program concluded that additional mammal sampling was not needed at that time due to the completeness of the UNM inventory.

Inventory and sampling in 1993 documented 25 species of mammals at PECO. Several additional species were not recorded but may exist at the park based on UNM Museum of Southwestern Biology records. Documented mammals consisted of the following: three bat species, two rabbit/hare species, fourteen rodent species in six families, five carnivore species in four families, and one species of deer. The rodents were dominant both in terms of abundance and the number of



Deer mouse

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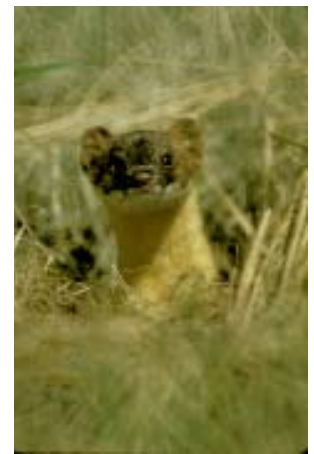


Black bear

species, with the deer mouse (*Peromyscus maniculatus*), pinon mouse (*Peromyscus truei*), and Mexican wood rat (*Neotoma mexicana*) among the most abundant rodents. Other mammal species observed (or inferred from indirect evidence) included the fringed myotis bat (*Myotis thysanodes*), black-tailed jack rabbit (*Lepus californicus*), muskrat (*Ondatra zibethicus*), silky pocket mouse (*Perognathus flavus*), long-tailed weasel (*Mustela frenata*), black bear (*Ursus americanus*), and mule deer (*Odocoileus hemionus*).

Discussion

No state or federally-listed endangered/threatened mammal species were documented during the 1993 surveys. Grassland habitat contained most of the same rodent species as woodland habitat, except for the addition of the silky pocket mouse. In the summer of 1993, an epidemic of the previously-unknown viral disease Hantavirus Pulmonary Syndrome occurred in the southwestern U.S. The main vector for the disease, the deer mouse, was one of the dominant and most widespread rodents at PECO. The small mammal sampling upon which the information here is based included sampling to assist medical research scientists in determining the nature, timing, and extent of the epidemic.



Long-tailed weasel