

# Navajo Mountain Mexican Vole

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**SCIENTIFIC NAME:** *Microtus mexicanus navaho*. From the Latin *microtus* meaning small ear, and *mexicanus*, referring to central Mexico, where the species was first found, in 1861. The subspecific epithet *navaho* refers to where this subspecies was first collected, Navajo Mountain, in 1933.

**DESCRIPTION:** A small, mouse-sized mammal measuring 4 to 5 inches (excluding tail) with a short (1 inch long), slightly-bicolored tail that is dusky to light brown above and paler below. Pelage cinnamon buff to light cinnamon brown on the back, paler buff-brown on the sides, and grayish buff underneath. Short legs, and small, rounded ears that are usually concealed in the long, loose fur. The 12 molar teeth are rootless, ever-growing, and flat-crowned, with alternating triangle enamel patterns. This subspecies is distinguished from other subspecies in Arizona by its smaller overall size, shorter body, slightly shorter tail, and paler dorsum.

**HABITAT:** Inhabits prostrate thickets of a variety of shrubs that provide dense cover. Also dry, grassy areas, usually adjacent to ponderosa pine forests but sometimes as low as juniper woodland or stands of sagebrush or as high as spruce-fir. Within preferred habitat, well-formed surface runways can be seen in grasses, sedges, and other ground vegetation.

**DISTRIBUTION:** The Navajo Mountain Mexican vole, one of 12 subspecies of the Mexican vole, is known in Arizona only from Navajo Mountain, and more recently, the south rim of the Grand Canyon and the Flagstaff and Williams area.

**BIOLOGY:** These voles may inhabit an area and leave little indication they are there. They can sometimes be detected



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by searching for tunnel-like runways, 1.5 to 2.0 inches in diameter, extending from one underground burrow entrance to another and to nearby feeding sites. Voles move along these paths like cars on a racetrack, carrying out most of their activities within them. They forage for grasses, forbs, and other vegetation which are clipped and eaten immediately or taken back to their burrows for late night snacks.

Unlike most other small rodents, voles are active day and night all year long, including under snow cover. In some places, they have two peaks of activity per day, one in the middle of the day and the other in early evening. Activity may be affected or regulated, in part, by temperature. Life on the lower end of the food chain means that voles are very vulnerable to predators such as foxes, raccoons, coyotes, and a variety of raptors (mainly hawks and owls).

There is little information on reproduction in the Navajo Mountain Mexican vole, however, the "facts of life" of these voles are probably similar to those of other members of the species. Preg-

nant females have been found from April to August and adults have been observed breeding from May through November, suggesting at least two litters per year. The average litter size is small (two to three young); females have only two pairs of mammae, which limits the number of young that can be nursed at onetime. Gestation ranges from 20 to 24 days. The life span of voles is very short compared to other animals but about the same as that of other rodents; an "ancient" vole lives to be three or four years old.

**STATUS:** Included on the Department's 1988 list of Threatened Native Wildlife in Arizona as threatened. Also listed by the U.S. Fish and Wildlife Service as a Category 2 species, about which too little is known to justify listing as threatened or endangered.

**MANAGEMENT NEEDS:** Intensive surveys are needed to document the range, habitat requirements, and life history of this subspecies in Arizona. The greatest threat is loss or degradation of suitable habitat. 🦉