

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Animal Abstract

Element Code: AMAFB05092

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Spermophilus tridecemlineatus monticola*

COMMON NAME: White Mountains Ground Squirrel

SYNONYMS: *Citellus tridecemlineatus monticola*

FAMILY: Sciuridae

AUTHOR, PLACE OF PUBLICATION: *Citellus tridecemlineatus monticola* A. H. Howell, Proc. Biol. Soc. Wash., 41:214. 1928. *Spermophilus tridecemlineatus monticola* Hall and Kelson, Mamm. N. Amer., 1959.

TYPE LOCALITY: Marsh (=Big) Lake, 9000 ft., White Mountains, Apache County, Arizona

TYPE SPECIMEN: E. A. Goldman 1915, U. S. National Museum (209255, original # 22616)

TAXONOMIC UNIQUENESS: In Arizona, 1 of 5 species in the genus *Spermophilus*, and 1 of 13 subspecies in the species *tridecemlineatus*.

DESCRIPTION: The species *S. tridecemlineatus* is a small slender ground squirrel with alternate longitudinal stripes of dark brown and tan, extending from the nape to the base of the tail. The dark brown stripes are broader than the tan lines and have whitish rectangular spots along the midline. The thirteen lines consist of either seven broad dark brown stripes alternating with six thin tan bands or seven yellow stripes alternating with six broader dark brown stripes. Their length is 170-297 mm (6 ¾-11 5/8 in), tail 60-132 mm (2 3/8 – 5 ¼ in), hind foot 27-41 mm (1- 1 5/8 in) and weight is 110-270 grams (3 7/8 – 9 ½ oz). The ears are short, and the tail is thin and sparingly bushy. This squirrel often sits erect with head pointed up.

AIDS TO IDENTIFICATION: *Spermophilus tridecemlineatus monticola* is a subspecies of small size but not the smallest. They are also larger and darker than *S. t. parvus* with buffier underparts. *Spermophilus tridecemlineatus monticola* differs from *S. t. hollisteri* in dorsum paler, lighter dorsal stripes more whitish, underside of tail more buffy or reddish, nasals are shorter.

ILLUSTRATIONS: Color photo of species (Whitaker 1996: 177)

Color photo of species (*In*

<http://animaldiversity.ummz.umich.edu/media/phil/g2.jpg>)

Color photo of species (Wilson 1999)

Color photo of species (*In*

<http://sevilleta.unm.edu/data/species/mammal/socorro/prfile/thirteen-lined->

[ground-squirrel](#))

TOTAL RANGE: White mountains, Arizona. Although according to Wilson, the range is West central New Mexico and east-central (White mountains) Arizona.

RANGE WITHIN ARIZONA: East-central (White mountains) Arizona.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: *Spermophilus tridecemlineatus monticola* is a burrowing animal. They have two types of burrows, nesting and hiding. In late summer to early fall the squirrels start to store food and increase in weight for their upcoming hibernation. By late November they are hibernating in their burrows. They lay in a coiled up position where their body temperature normally 37 degrees Celsius drops to 3 degrees. The heartbeat is reduced from 200 to 350 beats per minute to a mere five. Their oxygen consumption is only 7 percent of the amount used by active squirrels. The best temperature in a den for safe hibernation is 41-54 degrees Fahrenheit. A fall to 5 or 6 degrees below freezing usually rouses the squirrel, whose body temperature then rises. If it does not awaken it will freeze to death. Potential predators for the White Mountains ground squirrel are coyotes, long-tailed weasels, snakes, badgers, red-tailed hawks and prairie falcons. At birth the young can produce audible sounds. The mother and the young use several different types of sound for alarm signals, distress signals, or keeping the family together. For the species they are diurnal and most active at midday and on warm sunny days. They molt twice yearly.

REPRODUCTION: The breeding season for *Spermophilus tridecemlineatus monticola* is early June to early August. For the species the females mate within 5 days of spring emergence from hibernation. Copulation stimulates ovulation within 1-2 days. Gestation lasts 28 days. The average litter contains 8-10 young. The young are blind, hairless, and toothless and weigh 4gm. The young gain 1.3gm/day, open their eyes at day 13, leave their burrow for the first time at 28-35 days, and are full grown in 90 days. At six weeks, offspring dig their own burrow, usually within 100m of where they were born. The males are capable of reproduction when they emerge from hibernation. Females have one annual litter. Up to 90% of newborns die from predation before hibernation begins.

FOOD HABITS: The White mountains ground squirrel is an omnivore. The staples of their diet include: insects, seeds, forbs, and meat. This squirrel hoards plant material underground, transporting it in cheek pouches.

HABITAT: The habitat for *Spermophilus tridecemlineatus monticola* is open short grass subalpine fields to open grass-sedge meadows. The highest number of burrows and squirrels were found to be in areas with few rocks and deep soil. Short grass is preferred but they may be observed in patches of taller grass. For the species it has expanded into mowed lawns, golf courses, cemeteries, well-grazed pastures, parks and roadsides.

ELEVATION: 2600-2900 m (8,500-9,500 ft).

PLANT COMMUNITY: Subalpine grassland.

POPULATION TRENDS: In 1982 it was recommended that *Spermophilus tridecemlineatus monticola* not be accorded federal status. These recommendations were based on the results of a study by the Arizona Game and Fish Heritage program. They determined that due to the large amount of burrows and the current available habitat that the population of *Spermophilus tridecemlineatus monticola* was viable and not being threatened. The current population of *Spermophilus tridecemlineatus monticola* is unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None (USDI, FWS 1991)
[C3 USDI, FWS 1989]
[C3 USDI, FWS 1985]

STATE STATUS:

None

OTHER STATUS:

Forest Service Sensitive (USDA, FS Region 3 1999)

MANAGEMENT FACTORS: Recreation is the main factor that needs to be considered for this species.

PROTECTIVE MEASURES TAKEN: Unknown

SUGGESTED PROJECTS: Surveys need to be performed to determine the population status of this subspecies.

LAND MANAGEMENT/OWNERSHIP: The land containing *Spermophilus tridecemlineatus monticola* is owned by the USFS Apache-Sitgreaves National Forest and the BIA Fort Apache Indian Reservation.

SOURCES OF FURTHER INFORMATION

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MAJOR KNOWLEDGEABLE INDIVIDUALS:**ADDITIONAL INFORMATION:**

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