

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Animal Abstract

Element Code: AMAFF07021

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Sigmodon arizonae jacksoni*

COMMON NAME: Yavapai Arizona Cotton Rat

SYNONYMS: *Sigmodon hispidus jacksoni*

FAMILY: Muridae

AUTHOR, PLACE OF PUBLICATION: *Sigmodon hispidus jacksoni* Goldman, Proc. Biol. Soc. Washington, 31:22, 1918. *Sigmodon arizonae jacksoni* Zimmerman, Mich. State Mus. Publ., Biol. Ser., 4:446.

TYPE LOCALITY: 3 miles north of Fort Whipple, near Prescott, Yavapai County, Arizona.

TYPE SPECIMEN: For *Sigmodon arizonae jacksoni* collected in Yavapai County, Arizona US (sn).

TAXONOMIC UNIQUENESS: One of seven North American species in genus; one of four Arizona species in genus; one of five North American subspecies; one of four Arizona subspecies.

DESCRIPTION: For the species the dorsal pelage is a hispid blackish-brown and the ventral pelage is silvery or whitish with a base of hairs blackish. The underside of the tail is nearly the same color as venter, the tops of the feet are silvery gray and the skull is large. They are thick bodied, with a medium length tail slightly shorter than head and body and the ears barely project above the fur. For the species, the length is 8-12 ½ in. (202-317 mm), tail 3 3/8-5 7/8 in. (86-150 mm), and hindfoot is 1 1/8-1 ½ in. (29-38 mm).

AIDS TO IDENTIFICATION: Differs from other subspecies in small size and a reduced gap between the parietal and squamosal crests. Also, the hind foot averages longer than *S. hispidus*.

ILLUSTRATIONS: B&W photo of species (Hoffmeister, 1986: p. 391).
Color photo of species (Wilson 1999)

TOTAL RANGE: 3 miles north of Fort Whipple, Yavapai County, Arizona (known only from type locality). May be extirpated from this site; this subspecies has not been collected since the early 1900's.

RANGE WITHIN ARIZONA: See "Total Range."

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Circadian: active throughout the year. Predators include coyotes, foxes, weasels, hawks and owls. (NatureServe 2001).

REPRODUCTION: For the species it is assumed that young are born almost every month of the year. And the embryo count is high, e.g. 10 and 12. Gestation is about 27 days and weaning probably occurs after 15-25 days. The young are precocial and they run around looking and acting like miniature adults within a few hours after birth.

FOOD HABITS: Herbivore. *Sigmodon arizonae* is probably similar to other species within the genus, which feed chiefly on green vegetation, but also consumes some insects (NatureServe 2001). Cotton rats do not store food.

HABITAT: For the species of *Sigmodon arizonae* it is known that they live in desert areas, usually characterized by mesquite and tumbleweeds with a small amount of grass. Or they live in less arid areas along canals and banks of small streams with weeds and brush. The distribution of these rats corresponds rather closely to the waterways and drainages of southern Arizona. These rivers and an area 10 miles on each side of them would probably include 90 to 95 percent of all the places that they are known to occur.

ELEVATION: 5,000 ft. (1524 m).

PLANT COMMUNITY: Great Basin conifer woodland.

POPULATION TRENDS: Thought to be extirpated.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: SC (USDI, FWS 1996)
[C2 USDI, FWS 1994]
[C2 USDI, FWS 1991]
[C2 USDI, FWS 1989]
[C2 USDI, FWS 1985]

STATE STATUS: 2 (AZGFD, AWCS 2022)
[1C (AGFD SWAP 2012)]

OTHER STATUS:

MANAGEMENT FACTORS: A threat to this species is chemical animal damage control, and above ground grain baits set for other species.

PROTECTIVE MEASURES TAKEN: Unknown

SUGGESTED PROJECTS: Surveys need to be performed to determine if this subspecies still exists in Arizona.

LAND MANAGEMENT/OWNERSHIP: For the one occurrence in Arizona it was found on private land.

SOURCES OF FURTHER INFORMATION

REFERENCES:

- Arizona Game and Fish Department. 2012. Arizona's State Wildlife Action Plan 2012-2022. Phoenix, AZ.
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MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

The species *Sigmodon arizonae* was originally considered a subspecies of the Hispid Cotton Rat (*S. hispidus*), but was established as a separate species when genetic examination revealed it to have markedly reduced number of chromosomes. In appearance, however, the two species are nearly identical, and presumably have similar habitat. (Whitaker 1997).

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