

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Animal Abstract

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CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Thomomys umbrinus intermedius*
COMMON NAME: Pajarito Southern Pocket Gopher
SYNONYMS: *Thomomys burti quercinus*
Thomomys umbrinus quercinus
OTHER COMMON NAMES: Pajarito Mountain Pocket Gopher
FAMILY: Geomyidae

AUTHOR, PLACE OF PUBLICATION: Burt and Campbell. 1934. Journal of Mammalogy. 15 (2): 150.

TYPE LOCALITY: Pena Blanca Spring, 4500 ft, Pajarito Mountains, Santa Cruz County, Arizona. Collected by Berry Campbell, July 15, 1933.

TYPE SPECIMEN: University of Kansas Museum of Natural History, Lawrence, Kansas.

TAXONOMIC UNIQUENESS: Described in 1934 as 1 of 3 Arizona subspecies of *T. burti*. *T. burti* was then reduced to synonymy with *T. umbrinus* while retaining the subspecies *quercinus* (Goldman 1947). Later Hall and Kelson (1959) and subsequently Hall (1981) combined several previously recognized species (including *T. bottae*) and assigned them to *T. umbrinus*. The subspecies *quercinus* was again retained, and in Hall (1981) was listed as 1 of 230 subspecies of *T. umbrinus* in North America and 1 of about 45 subspecies in Arizona. Hoffmeister (1986), however, considered *T. umbrinus* to be distinct from *T. bottae*; and after reviewing measurements and cranial features of the remaining 3 subspecies concluded that although there were some differences in size, color, and cranial characters, they were either as variable within populations as between populations or not sufficient to warrant subspecific designation. All 3 subspecies, including *T. b. quercinus*, were reduced to synonymy with *T. b. intermedius*, the oldest name.

DESCRIPTION: A small, cinnamon-colored gopher, the back is black along the median line from the nose almost to the base of the tail; black post-auricular spot usually large and confluent with black of back in some specimens. 6 mammae, 1 pair pectoral; 2 pair inguinal. The skull is slender, with brain case smoothly rounded. Nasal distinctly wedge shaped, narrowing posteriorly, the end usually emarginate. Upper incisors relatively broad and heavy, decurved in vertical plane at anterior ends of nasal in Arizona forms, strongly procumbent in numerous Mexican races. Male type measurements are total length 198 mm; tail 60 mm; hindfoot 27 mm. Type female measurements are total length 193 mm; tail 61 mm; and hind foot 25 mm.

AIDS TO IDENTIFICATION: Pocket gophers are distinguished from other rodents by their fossorial way of life; very small eyes; small, barely visible ears; fur-lined external cheek pouches (pockets) that open externally; enlarged incisors with lips that close behind them; short but well-muscled forelegs with long well-developed claws, short, nearly naked tail; and the skull without postorbital processes. *Thomomys* is the only genus of pocket gopher in Arizona. It is separated from other genera by the lack of vertical grooves on the incisors. Hoffmeister (1986) considers *T. umbrinus* to be distinguishable from *T. bottae* by the presence in *T. umbrinus* of a dark wide band of color on the back (as opposed to none); iridescent or purplish color of the sides below the band (as opposed to uniform color of back and sides); 1 pair of pectoral mammae (as opposed to usually 2); hind foot usually less than 29.4 mm (as opposed to more); and differences in chromosome numbers, baculum characters, and cranial characters. See Hoffmeister (1986:240) and Hall (1981:469) for discussion of hybrids between the two species.

In distinguishing *T. u. intermedius* from other subspecies Hoffmeister (1986) considers most characters and measurements too variable to be useful. He characterized the population as small-sized and having a V-shaped space between the pterygoid processes. The pterygoid bones are 1 of the pairs of bones of the ventral surface of the skull that form the roof of the mouth. They are located just posterior to the molars. Identification difficult and probably requires examination by experts and comparison with museum specimens.

ILLUSTRATIONS: Black and white photos (Hoffmeister 1986:239, 240; of species only)
Drawing and Photos:
<http://www.planet-mammiferes.org/drupal/en/node/38?indice=Thomomys+umbrinus>

TOTAL RANGE: At extreme northwestern edge of species' range which is mostly Mexican in distribution. Known only from type locality. Goldman (1947) indicated that it was found from that locality to about 6000 feet in the pass over the summit of the Patagonia Mountains in Arizona; however, neither Hall (1981) nor Hoffmeister (1986) make any mention of this.

RANGE WITHIN ARIZONA: At western edge of species' range in Arizona. Known only from type locality.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Little information for subspecies. Thought to be similar to other subspecies in Arizona and the Southwest. Elsewhere in Arizona this species makes relatively small tunnels probably due to its small size and the shallowness and rockiness of much of its habitat. It may often be found with *Sigmodon ochrognathus* and *Reithrodontomys fulvescens*. *S. ochrognathus* are small enough to use the abandoned tunnels while *S. hispidus* is probably too big to use them. Other pocket gophers are territorial and live alone in separate tunnel systems coming together only to breed. Tunneling by gophers in general can be beneficial and detrimental to their surrounding habitat. The digging of tunnels allows for soil mixing and aeration, both of which

make the soil more porous and thus reduces runoff. These effects plus seed dispersal can affect composition and growth of vegetation. The tunnels can also allow heavy erosion when built upon steep slopes.

REPRODUCTION: Based on finding pregnant females from February through April and a gestation period of about 30 days, the species in Arizona is thought to have 1 litter of 4-5 young per year and are probably born from March to May.

FOOD HABITS: Elsewhere in Arizona (Patagonia Mountains) one report of feeding on the core of an agave stalk by Hoffmeister (1986). Otherwise probably similar to other pocket gophers and feeds on the roots and tubers of a wide variety of grasses and forbs. Like other pocket gophers they probably sometimes forage on plants above ground or cut plant stems below ground and pull them down into their burrows. Pocket gophers meet their water need with the vegetation they eat and thus do not need to drink free water

HABITAT: At Pena Blanca Spring, Goldman (1947) found them "in gravelly soil along a broad wash." Elsewhere in Arizona, the species is generally found on rocky slopes in open oak woodland. In one instance it was found among agave and in another in a clearing among pines and Douglas-fir. Where found in Sycamore canyon in association with *T. bottae* the latter occupied the deeper, less rocky, easier digging soil lower down in the canyon. The species in Arizona is found primarily in the lower parts of the mountain ranges.

ELEVATION: 4500 feet (1372.5 m).

PLANT COMMUNITY: Oak belts in the Upper Sonoran Zone. Near Pena Blanca Spring they were found on slopes with oak, *Mimosa*, and thistle. Elsewhere in Arizona the species has been found in association with combination of oak, juniper, agave, mountain mahogany, sumac and grasses including *Andropogon*; on a high, rocky slope with agave; and in a clearing with pines Douglas-fir.

POPULATION TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None (USDI, FWS 1996)
[C2 USDI, FWS 1991]

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

OTHER STATUS: None. USDA, FS Region 3, 2013
[Forest Service Sensitive (USDA, FS
Region 3 1999)]
[Forest Service Sensitive USDA, FS Region
3 1988]

MANAGEMENT FACTORS: Limited distribution. Unresolved taxonomy.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Taxonomic clarification and distribution and population surveys.

LAND MANAGEMENT/OWNERSHIP: Coronado National Forest, Nogales Ranger District

SOURCES OF FURTHER INFORMATION

LITERATURE CITATIONS:

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

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ADDITIONAL INFORMATION:

Revised: 1992-02-24 (JSP)
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