

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

**Animal Abstract**

**Element Code:** AMAFD01053

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Perognathus amplus cineris*  
**COMMON NAME:** Wupatki Arizona Pocket Mouse, Wupatki Pocket Mouse  
**SYNONYMS:** *Perognathus amplus ammodytes*  
**FAMILY:** Heteromyidae

**AUTHOR, PLACE OF PUBLICATION:** Benson, Proc. Biol. Soc. Washington, 46:109, April 27, 1933.

**TYPE LOCALITY:** Near Wupatki Ruins, Wupatki National Monument, 27 mi. Northeast Flagstaff, Coconino County, Arizona.

**TYPE SPECIMEN:** Male adult. Museum of Vertebrate Zoology (55771)

**TAXONOMIC UNIQUENESS:** *Perognathus amplus* is 1 of 9 species in genus found in North America, and 1 of 5 species found in Arizona. *P.a. cineris* is 1 of 4 subspecies recognized in the species, and one of two found in the state; the other subspecies is *P. a. amplus*. The subspecies are listed in Hall (1981), and were reviewed by Williams et al. (1993). (Wilson and Reeder, 2005).

**DESCRIPTION:** Based on Hoffmesiter (1986), this is a small **subspecies** of *Perognathus amplus* characterized by short body and small skull that is relatively broad interorbitally; tail relatively long. Color variable, blackish for those in cinder soil around Wupatki; paler elsewhere. The mean body length of 60-73 mm and mean hind foot length of 21.5-24.1 mm.

For the **species**, tail is more than 3/4 lengths of head and body. The total length is 13.5-17.3 cm (5.32-6.81 in); length of tail 7.5-8.8 cm (2.95-3.46 in); and weight 9.2-14 g (0.325-0.494 oz) (Wilson and Ruff, 1999). Hind foot length 160-222 mm (Whitaker 1996). *P. amplus* lacks stiff hairs on the rump. It has white or pale tan underparts, and orangish-tan upperparts sprinkled with black to varying degrees. The tail lacks a terminal tuff, is longer than the head and body, and is slightly darker on top. (Wilson and Ruff, 1999).

**AIDS TO IDENTIFICATION:** *P. a. cineris* has smaller body and skull, smaller zygomatic breadth, shorter hind feet, and relatively greater depth of skull than *P. a. pergracilis*. *P. a. amplus* has a larger body, and a pale color that is variable from pale pinkish buff to dark buff. *P. a. taylori* is the smallest subspecies of *P. amplus*, characterized by a short body and tail, short hind feet, and a pinkish buff color. (Hoffmeister 1986).

The species *P. amplus* can be distinguished from *P. flavus* and *P. parvus* by having a longer tail than the head and body; and from *P. longimembris* by generally larger size and a longer tail, although in some areas these two species are difficult to separate. No other small silky pocket mice share the range of *P. amplus*. (Wilson and Ruff, 1999).

**ILLUSTRATIONS:**

Black and White photo (Hoffmeister 1986: 264, figure 5.133).

Color photo (Whitaker, Jr. 1996: plate 65).

Color photo of species (Wilson and Ruff, 1999)

**TOTAL RANGE:** Endemic to Arizona. From Echo Cliffs in the north, south and east to the Colorado River and to the Little Colorado River, south of Wupatki National Monument.

**RANGE WITHIN ARIZONA:** See "Total Range"

**SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** A solitary rodent, that is most active at night, but may occasionally forage during the daytime. When temperatures cool in autumn, Arizona pocket mice retreat to their burrows, remaining inactive until temperatures warm again in the spring. While in the burrow, their body temperatures cool and their metabolic rate slows, an energy-saving strategy that may account for a lifespan-up to ten years in captivity. This torpor is not true hibernation, however, because individuals arouse from time to time to eat stored seeds. For the species the size of the population peak fluctuates considerably from year to year, depending on the amount of precipitation the previous winter, therefore, presumably, the availability of seeds. This correlation with precipitation suggests that food is what limits populations of the Arizona pocket mouse, either because it limits the number of young that females can produce, or because it determines survival probability, or both.

**REPRODUCTION:** For the full species, males emerge from winter inactivity before females do, in anticipation of breeding season which in late February or early March. During this season the mice emit a distinctive odor reminiscent of stale movie theatre popcorn, perhaps as a chemical signal of sexual competence. The young are born in late April to early May; average litter size is 1-5, with a mean of 3.25. (Hoffmeister 1986). Whitaker (1996) reports litter size of 1-7 (average 3-5).

**FOOD HABITS:** Arizona pocket mice feed extensively, almost exclusively, on seeds. For example creosote bush, *Pectacarya*, heronbill, and plantain. May occasionally consume insects and green vegetation. The animals apparently find the seeds by digging at random in the sand. They transport the seeds in external fur-lined cheek pouches to a storage area in the burrow that they defend vigorously against intruders. Judging from the behavior of individuals in captivity, Arizona pocket mice manage their seed storage carefully, moving them around frequently within the burrow. Not all parts of the burrow system are equally

humid, so this movement may optimize the free water content of seeds or reduce their spoilage.

**HABITAT:** For the species: found in various types of desert scrub habitats (greasewood, rabbitbrush, creosote bush, cactus, mesquite, palo verde, etc.). Along scattered scrub oak in some areas. (Hoffmeister 1986). Sleeps and rears young in underground burrows (NatureServe 2001). Sign includes small burrow openings with piles of sand, usually under a plant.

**ELEVATION:** Elevation ranges from 3,900 to 5,420 feet (1190-1653 m).

**PLANT COMMUNITY:** Cactus, Creosote, Rabbitbrush, Palo Verde, Mesquite, Greasewood, sometimes juniper.

**POPULATION TRENDS:** *P. a. cineris* is geographically isolated from other subspecies (Hoffmeister 1986). Trends are not well known.

## **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** SC (USDI, FWS 1996)  
[Category 2 USDI, FWS 1985]  
**STATE STATUS:** 1B (AGFD SWAP 2012)  
**OTHER STATUS:** None. USDA, FS Region 3, 2013  
[Forest Service Sensitive (USDA, FS Region 3 1999, 2007)]  
Group 4 (NNDFW, NESL 2005, 2008)

**MANAGEMENT FACTORS:** Unknown

**PROTECTIVE MEASURES TAKEN:** Unknown

**SUGGESTED PROJECTS:** Surveys need determine the status as well as life history.

**LAND MANAGEMENT/OWNERSHIP:** BIA - Navajo Nation; NPS - Wupatki National Monument; USFS - Coconino National Forest; Private.

## **SOURCES OF FURTHER INFORMATION**

### **REFERENCES:**

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**MAJOR KNOWLEDGEABLE INDIVIDUALS:****ADDITIONAL INFORMATION:**

**Revised:** 1999-06-23 (DAS)  
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