

California Wildlife Habitat Relationships System
California Department of Fish and Wildlife
California Interagency Wildlife Task Group

BAILEY'S POCKET MOUSE

Chaetodipus rudinoris

Family: HETEROMYIDAE
M092

Order: RODENTIA

Class: MAMMALIA

Written by: P. Brylski

Reviewed by: H. Shellhammer

Edited by: R. Duke

Updated by: CWHR Program Staff, January 2008

DISTRIBUTION, ABUNDANCE, AND SEASONALITY

In California, occurs in the southeastern corner of the state from Banner (San Diego Co.) on the west of Salton Sea south to the border of Mexico, and along the eastern edge of Imperial Co. at the Colorado River. Locally abundant in California, inhabiting rocky or gravelly slopes with low to moderate shrub cover. Elevational range is 270-720 m (900-2400 ft). Riddle et al. (2000) used mtDNA to examine phylogenetic relationships within *C. baileyi* and concluded that populations west of the Colorado River and Sea of Cortez should be recognized as a distinct species, *C. rudinoris*.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Forages mainly on seeds of shrubs and forbs (Reichman 1975) but also eats insects and green vegetation seasonally. In Arizona, Bailey's pocket mouse foraged mainly in gravelly soil beneath large desert shrubs (Wondolleck 1978). Seeds are stored in abundance in burrow as well as in other places within the territory.

Cover: Species prefers desert scrub habitat with moderate shrub cover and sandy soils, but can inhabit sparse cover and gravel-pavement substrate.

Reproduction: Burrow excavated at the base of a bush. Underground nest of dried grasses and other plant parts is constructed in burrow.

Water: Water is obtained metabolically from green vegetation and seeds, and from moisture in food.

Pattern: Suitable habitat includes scrub flats or slopes. Agricultural uses preclude its existence. Its occurrence also may be determined by competitive interactions with other pocket mice (*C. formosus*, *C. penicillatus*, and *C. spinatus*).

SPECIES LIFE HISTORY

Activity Patterns: Yearlong activity, although individuals may become torpid over short periods during high summer temperatures. Nocturnal.

Seasonal Movements/Migration: None.

Home Range: Varies from 0.12 to 0.24 ha (0.30 to 0.59 ac), averaging 0.20 ha (0.49 ac) (Reynolds and Haskell 1949, O'Farrell 1978).

Territory: Pocket mice are aggressively solitary. Territory size unknown but probably

equal to home range.

Reproduction: Litter size averages 5 young. Gestation is approximately 3-4 wk. Under favorable conditions, young of the year may breed successfully.

Niche: Species is a nocturnal granivore, inhabiting extremely xeric habitats of the Colorado Desert in California. Predators include owls, coyotes, badgers, and snakes. Competitors for food resources include other desert-dwelling rodents (cricetids and heteromyids) and ants.

REFERENCES

- O'Farrell, M. J. 1978. Home range dynamics of rodents in a sagebrush community. *J. Mammal.* 59:657-668.
- Reichman, O. J. 1975. Relation of desert rodent diets to available resources. *J. Mammal.* 56:731-751.
- Reynolds, H. G., and H. S. Haskell. 1949. Life history notes on Price and Bailey pocket mice of southern Arizona. *J. Mammal.* 30:150-156.
- Riddle, B. R., D. J. Hafner, and L.F. Alexander. 2000. Comparative phylogeography of Bailey's pocket mouse (*Chaetodipus baileyi*) and the *Peromyscus eremicus* species group: historical vicariance of the Baja California peninsular desert. *Molecular Phylogenetics and Evolution* 17:161-172.
- Wondolleck, J. T. 1978. Forage-area separation and overlap in heteromyid rodents. *J. Mammal.* 59:510-518.

M092

Life history accounts for species in the California Wildlife Habitat Relationships (CWHHR) System were originally published in: Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California's Wildlife*. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.