

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

CALIFORNIA KANGAROO RAT

Dipodomys californicus

Family: HETEROMYIDAE
M105

Order: RODENTIA

Class: MAMMALIA

Written by: P. Brylski

Reviewed by: H. Shellhammer

Edited by: R. Duke

Updated by: CWHR Program Staff, September 1999

DISTRIBUTION, ABUNDANCE, AND SEASONALITY

In California, occurs from the Oregon border (Siskiyou and Modoc cos.) south to San Francisco Bay, and in the Sacramento Valley and Sierra Nevada foothills from El Dorado Co. north. Inhabits open areas, generally below 400 m (1310 ft) elevation, but found as high as 1300 m (4270 ft) in Shasta Co. Usually found in annual grassland habitat, but also occurs in clearings in mixed chaparral habitat on the lower slopes of foothills (Verner and Boss 1980). Has also been associated with sage habitats (James et al. 1984, Stangl et al. 1999).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Feeds on the seeds of grasses, forbs, and shrubs. Forbs, and other leafy vegetation, eaten seasonally. Cheek pouch contents of individuals from Oregon included berries and seeds of manzanita, ceanothus, rabbitbrush, lupine, burclover, wild oats, and small tubers (Verner and Boss 1980).

Cover: Burrows excavated in loose soils, often at bases of shrubs or edges of rocks. Where sandy soils are lacking, burrows may be excavated in spring, when soil is wet. Sands or silts required for dust bathing.

Reproduction: No data found.

Water: Water apparently obtained metabolically from food and from moisture in food.

Pattern: Open annual grassland to mixed chaparral preferred. Also present in valley foothill hardwood, and to a lesser extent in valley foothill hardwood-conifer habitats.

SPECIES LIFE HISTORY

Activity Patterns: Active yearlong, nocturnally.

Seasonal Movements/Migration: None.

Home Range: No data found. Kangaroo rats are aggressively solitary.

Territory: No data found.

Reproduction: Breeds February through September, with peak February through April (Kelt 1988). There are 2-4 young per litter.

Niche: Predators include foxes, owls, and snakes (Kelt 1988).

Comments: Grinnell (1922) and Hall (1981) considered this species to be composed of 3 subspecies of *D. heermanni*. Biochemical and morphological evidence support the specific status of *D. californicus* (Patton et al. 1976). Therefore, inferences on the biology of *D. californicus* that are based on studies of *D. heermanni* may be invalid.

REFERENCES

- Grinnell, J. 1922. A geographical study of the kangaroo rats of California. Univ. Calif. Publ. Zool. 24:1-124.
- Hall, E. R. 1981. The mammals of North America. Second ed. 2 Vols. John Wiley and Sons, New York. 1271pp.
- James, A. H., J. P. O'Brien and D. K. James. 1984. *Dipodomys californicus* in Sierra Valley, Plumas county, California. California Fish and Game 70:58.
- Kelt, D. A. 1988. *Dipodomys californicus*. Mammal. Species No. 324. 4pp.
- Patton, J. L., H. MacArthur, and S. Y. Yang. 1976. Systematic relationships of the four-toed populations of *Dipodomys heermanni*. J Mammal. 57:159-163.
- Stangl, F. B., G. F. Birkenfeld and S. M. Shoen. 1999. First record of the California kangaroo rat (*Dipodomys californicus*) (Rodentia: Heteromyidae) from Nevada. Southwestern Naturalist 44(2):240-241.
- Verner, J., and A. S. Boss. 1980. California wildlife and their habitats: Western Sierra Nevada. USDA, For. Serv. Gen. Tech. Rep. PSW-37. 439pp.

M105

Life history accounts for species in the California Wildlife Habitat Relationships (CWHR) 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.