

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

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WESTERN JUMPING MOUSE

*Zapus princeps*

Family: DIPODIDAE  
M143

Order: RODENTIA

Class: MAMMALIA

Written by: P. Brylski

Reviewed by: H. Shellhammer

Edited by: R. Duke

Updated by: CWHR Program Staff, February 2008

#### DISTRIBUTION, ABUNDANCE, AND SEASONALITY

In California, the western jumping mouse is distributed in the Sierra Nevada from southeastern Shasta Co. south through Plumas Co. to Tulare Co. It also is found in north-central and northeastern California, and probably distributed throughout these regions, though confirmed locality data are sparse (see Hall and Kelson 1959, Hall 1981). Jumping mice are confined to wet areas in a variety of coniferous forest, riparian, and grassland habitats. Locally common to abundant in thick, herbaceous vegetation near water.

#### SPECIFIC HABITAT REQUIREMENTS

**Feeding:** Feeds on grass and forb seeds, although insects and the stems and leaves of herbaceous plants are eaten seasonally. In Colorado, arthropods became an important diet element as forb seed availability decreased (Vaughan and Pearse-Weil 1980), with arthropods comprising 63% of the diet in June samples. Seeds are thought to be an important food for fat deposition prior to hibernation.

**Cover:** Requires dense herbaceous cover near water. Moist soil is required for burrow construction. Hibernates in winter in nests of grass, leaves, and other vegetation, constructed underground, or beneath logs or brush piles.

**Reproduction:** Grassy nests are placed in depressions in the ground, beneath dense vegetation, slash, or in burrows.

**Water:** Probably requires free water for drinking, but close associations with water may reflect a requirement instead for dense herbaceous cover.

**Pattern:** Wet grassy areas near water.

#### SPECIES LIFE HISTORY

**Activity Patterns:** Nocturnal. Hibernates from about September to May, the exact dates depending upon snowfall and melt.

**Seasonal Movements/Migration:** None.

**Home Range:** In Colorado, home ranges averaged 0.17 to 0.31 ha (0.42 to 0.77 ac) for males, and 0.10 to 0.24 ha (0.25 to 0.6 ac) for females (Meyers 1969, Stinson 1981). In Wyoming, home ranges extended 100-400 m (328-1300 ft) along streams (Brown 1967b). In Colorado, the distance between captures was 96.5 m (318 ft) for males, and 78.5 m (259 ft) for females (Stinson 1981).

**Territory:** Stinson (1981) reported that males tend to be more tolerant of each other, whereas females are more territorial.

**Reproduction:** Breeds from June to August. Nesting is solitary. Gestation period 18-21 days in *Z. hudsonicus* (Godin 1977). Litter size average 5.4 young (range 2-8). Probably 2 litters per yr. Weaning occurs at 4 wk of age, and sexual maturity is attained in the spring following birth. Longevity is about 2 yr (Godin 1977).

**Niche:** A highly specialized granivore, eating mainly grass seeds, and hibernating for up to 8 mo each yr. The need for an abundant seed supply probably explains the restricted ecological distribution and patchy abundance. Despite the name, a jumping mouse generally moves about on all 4 feet. Predators include foxes, coyotes, mustelids, house cats, owls, hawks, snakes, and some fish. Jumping mice are good swimmers.

## REFERENCES

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