



U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Species Account
FRESNO KANGAROO RAT
Dipodomys nitratooides exilis



CLASSIFICATION: Endangered
Federal Register 50:4222; January 30, 1985
http://ecos.fws.gov/docs/federal_register/fr918.pdf

STATE LISTING STATUS: The species was listed as endangered by the State of California in 1980.

CRITICAL HABITAT: Designated
Federal Register 50:4222; January 30, 1985
http://ecos.fws.gov/docs/federal_register/fr918.pdf
See [Fresno kangaroo rat critical habitat map](#).

RECOVERY PLAN: Final
Recovery plan for the upland species of the San Joaquin Valley, California, September 30, 1998
http://ecos.fws.gov/docs/recovery_plan/980930a.pdf

5-YEAR REVIEW: Completed February 2010. No change was recommended.
www.fws.gov/ecos/ajax/docs/five_year_review/doc3214.pdf (127 KB)

DESCRIPTION

The Fresno kangaroo rat is one of three subspecies of San Joaquin kangaroo rats, distinguished by being smaller than the [Tipton](#) (*D.n. nitratooides*) and the short-nosed kangaroo rat (*D.n. brevinasus*). It has a head and body length of 211 to 267 millimeters (8.25 to 10.5 inches) and a tail length of 120 to 162 millimeters (4.75 to 6.25 inches).

San Joaquin kangaroo rats can be distinguished from other kangaroo rats within their range by the presence of four toes on the hind foot; other species have five toes. Kangaroo rats are in the family Heteromyidae. They are *not* really rats at all. At least, they are not like common nonnative household rats, which are in the Muridae family.

Kangaroo rat adaptations for two-footed hopping include elongated hind limbs, a long, tufted tail for balance, a shortened neck and a large, flattened head. Other characteristics include large, dorsally placed eyes and small, rounded ears. Fore-limbs are comparatively short with stout claws that facilitate digging burrows.

Fur is dark yellowish-buff dorsally and white ventrally. A white stripe extends across the hips, continuing for the length of the tufted tail. The base of the tail is circumscribed by white. The top and bottom of the tail are blackish. Dark whisker patches on each side of the nose are connected by a black band of fur.



Fresno Kangaroo Rat
Dr. Lloyd Glenn Ingles
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Fresno kangaroo rats eat mostly seeds, with small amounts of green, herbaceous vegetation and insects supplementing their diet when available. Most kangaroo rats gather seeds when they are available and cache them for consumption later. Typically, caches are made in small pits that hold the contents of the two cheek pouches. Caches are located on the surface of the soil, and are typically scattered over the home range of the individual. Fresno kangaroo rats may not cache seeds in their burrows to the same extent as other kangaroo rats. The soil where they live is damp much of the year, and seeds would spoil rapidly under such conditions. Therefore, Fresno kangaroo rats may be obligated to forage on the surface year round.

Little is known about San Joaquin kangaroo rat reproduction in the wild. Mating appears to begin in the winter. Most females seem to have one litter per year, although some have two or more. Young are born in burrows.

DISTRIBUTION

The historic range of the Fresno kangaroo rat encompassed an area of grassland and chenopod scrub communities on the San Joaquin Valley floor, from about the Merced River, Merced County, on the north, to the northern edge of the marshes surrounding Tulare Lake, Kings County, on the south, and extending from the edge of the Valley floor near Livingston, Madera, Fresno, and Selma, westward to the wetlands of Fresno Slough and the San Joaquin River. Documentation of historical distribution is scanty. An estimate of the historical range, within the area as outlined above, is about 888,459 acres. As Fresno kangaroo rats prefer nearly level, light friable soils, not all of this area would have been habitat

There are no known populations within the historical geographic range in Merced, Madera and Fresno counties. In spring of 1986 a levee on the south side of the San Joaquin River broke, flooding the Alkali Sink Ecological Reserve and other habitat designated as critical habitat. Water approximately 3 feet deep covered most of the area for several days. Trapping between 1988 and 1992 failed to locate any Fresno kangaroo rats on the Alkali Sink Ecological Reserve. In the autumn of 1992 a single male was captured twice; trapping in 1993, 1994 and 1995 has not yielded additional captures. Trapping at other sites in Merced, Madera, and Fresno counties between 1988 and 1995 has failed to locate other extant populations.

In Kings County, two populations of San Joaquin kangaroo rats have been found on about 371 acres in 1994 and 1995. One site, Lemoore Naval Air Station, is 97 acres. Whether these populations belong to the Fresno or Tipton subspecies is uncertain, but historically, their ranges were contiguous.

THREATS

Loss of habitat to cultivation, year-round grazing and conversion of land to other uses, coupled with the resulting fragmentation and isolation of populations increase the probability of extinction. Flooding due to levee failure also poses a high risk because of the proximity to the San Joaquin River. Other potential threats are the indiscriminate use of rodenticides, competition with Heermann's kangaroo rats and disease and predation, any of which could extirpate small, isolated populations.

REFERENCES FOR ADDITIONAL INFORMATION

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Brown, N.L. and D.F. Williams. Endangered Species Recovery Program. [Species account](#).

Thelander, C. ed. 1994. Life on the edge: a guide to California's endangered natural resources. BioSystem Books. Santa Cruz, CA. p 76-77.

U.S. Fish and Wildlife Service. 1998. *Recovery plan for the upland species of the San Joaquin Valley, California, September 30, 1998*. Portland, OR.

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