

# USACE Natural Resource Management

## Mammals



### Fresno Kangaroo Rat

### FAST FACTS

**REASONS FOR CURRENT STATUS:** The Fresno kangaroo rat is one of three subspecies of San Joaquin kangaroo rat. Even at the time of its discovery in 1891, the Fresno kangaroo rat's existence was being threatened by cultivation of its habitat. This subspecies has been extirpated from three of the counties it historically occupied. By the early 1900's the subspecies' was considered to be extinct, but was rediscovered by 1933.

By 1974, the Fresno kangaroo rat's habitat had been reduced and fragmented into three major areas within Fresno County. This was primarily the result of agricultural development, urbanization, and transportation infrastructure. In 1985 the USFWS listed the Fresno kangaroo rat as endangered under the ESA. (USFWS)

**MANAGEMENT AND PROTECTION:** Previous to being federally listed by USFWS, the state of California listed the species as Endangered in 1980. When the USFWS listed the subspecies in 1985, the Service also designated 347 hectares as critical habitat.

Since its listing, additional studies on the Fresno kangaroo rat's life history, distribution, and threats to remaining populations have been conducted in order to better inform conservation efforts.

U.S. Environmental Protection Agency county bulletins governing the use of rodenticides have greatly reduced the risk of significantly mortality to Fresno kangaroo rat populations from state and county rodent control efforts. (USFWS)

**HABITAT NEEDS:** Historically this rat occupied areas of grassland and chenopod scrub communities on the San Joaquin Valley floor.

- Occupy sands and saline sandy soils in chenopod scrub and annual grassland communities.
- Associated plant species include seepweed, iodine bush, salt-bushes, peppergrass, filaree, wild oats, and mouse-tail fescue.
- Recently the subspecies has only been found in alkali sink communities between 61-90 meters in elevation. Topography is usually nearly level and consists of bare alkaline, clay-based soils subject to seasonal inundation. (USFWS)

**Appearance:** This subspecies can be distinguished from the other two subspecies of the San Joaquin kangaroo rat by its small size. It is the smallest of the three, average about 9 inches in length. Additionally this subspecies has elongated limbs, a tufted tail for balance, a shortened neck, and when compared to typical rodents, a large head. The fur is a dark yellow-buff on the upperparts and white on the underparts. Its whiskers are dark. (USFWS)

*Photos: California Department of Fish and Wildlife and U.S. Fish and Wildlife Service*

*Natural Resource Management (NRM)*

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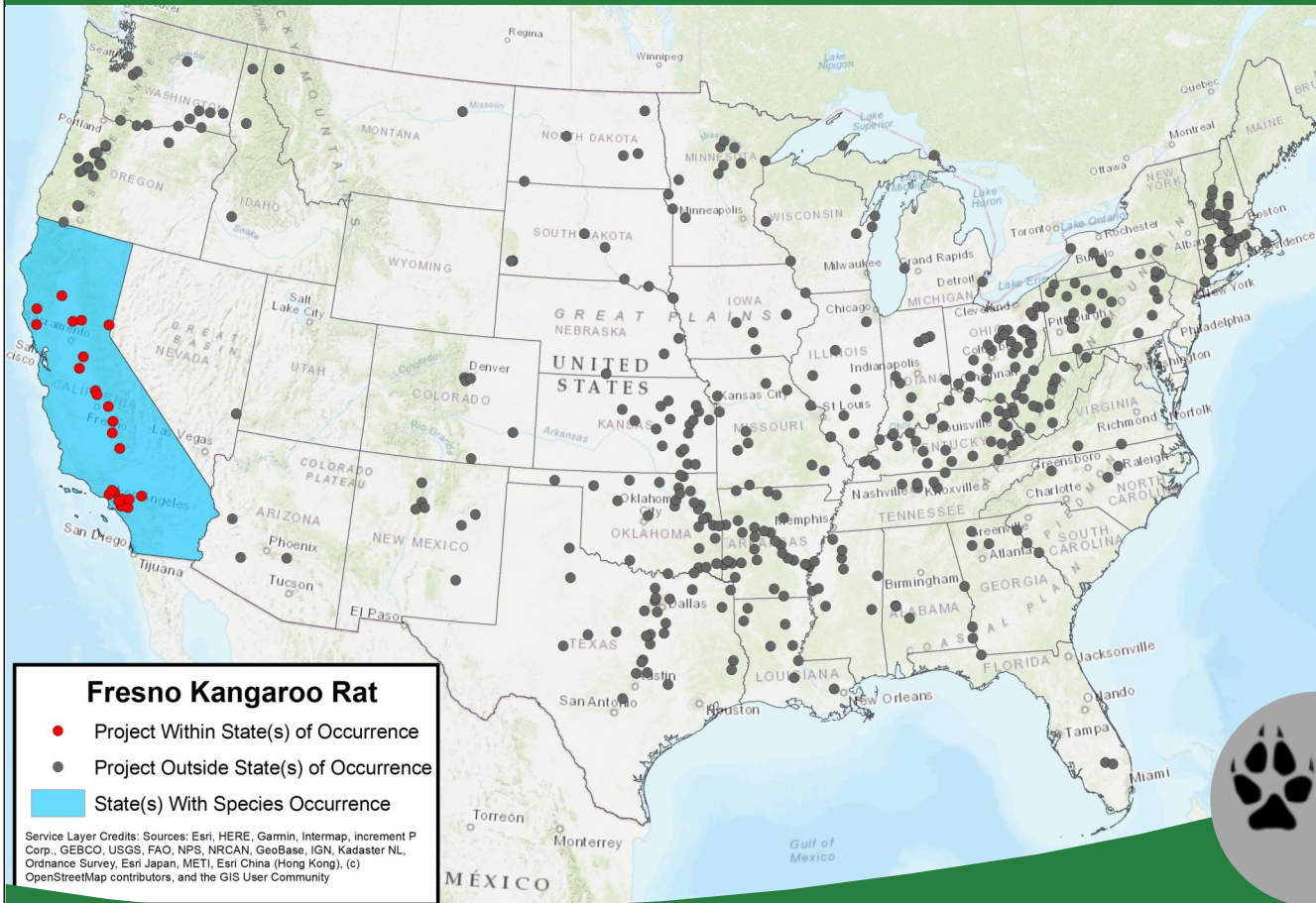
**USACE NATURAL RESOURCE MANAGEMENT ROLE:** According to the Engineering Research and Development Center's Threatened and Endangered Species Team Cost Estimates, since 2005 the USACE has expended over \$3,200,000 on efforts related to the Fresno kangaroo rat. Costs for this subspecies' have been incurred by multiple business lines ranging from Environmental Stewardship to Operations and Regulatory. Funded efforts include In-house Research as well as Inventory, Survey, and Monitoring efforts.

**WHAT IS USACE NRM**

**DOING:** Due to this subspecies' small, restricted range, it is only listed by a single project in the FY20 NRM Assessment. Buchanan Dam and Eastman Lake Project in Sacramento District of the South Pacific Division was noted to have the potential for the Fresno kangaroo rat to occur. At the Buchanan Dam and Eastman Lake Project and across the nation the USACE, works to ensure that no current or proposed work will negatively impacted federally listed species like the Fresno kangaroo rat or their habitats.



Photo Above: Eastman Lake was noted in the FY20 NRM Assessment to have the potential for the Fresno kangaroo rat to occur.



**Mammals**  
 Source: Map provided by Ashleigh Boss, ORISE Fellow, Institute for Water Resources



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