

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for the Tipton Kangaroo Rat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to determine endangered status for the Tipton kangaroo rat (*Dipodomys nitratooides nitratooides*), a small mammal restricted to the Tulare Lake Basin of south-central California. Primarily because of the conversion of its habitat to agricultural production, this mammal currently occupies less than four percent of its historic range. Its survival is jeopardized by the continuing loss of native habitat for agricultural development and other human-induced, land-modifying activities. This proposal, if made final, will implement the protection of the Endangered Species Act of 1973, as amended, for the Tipton kangaroo rat. The Service seeks data and comments from interested parties.

DATES: Comments must be received by September 8, 1987. Public hearing requests must be received by August 24, 1987.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Regional Director, U.S. Fish and Wildlife Service, Lloyd 500 Building, Suite 1692, 500 NE Multnomah Street, Portland, Oregon 97232. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Mr. Wayne S. White, Chief, Division of

Endangered Species, at the above address (503/231-6131 or FTS 429-6131).

SUPPLEMENTARY INFORMATION:**Background**

Kangaroo rats (*Dipodomys*) are small mammals that travel rapidly by hopping on their hind legs, and that transport food in their external cheek pouches. They inhabit mainly dry, open country of western North America, where they construct burrows for shelter and often for storage of food. The Tipton kangaroo rat (*Dipodomys nitratooides nitratooides*) was distributed historically in the Tulare Lake Basin of the San Joaquin Valley, encompassing portions of Fresno, Kings, Tulare, and Kern Counties (Williams 1985). Merriam (1894) originally described it as a subspecies of the widely-distributed species *Dipodomys merriami*. Grinnell (1920, 1921) later separated it as a subspecies of the "Fresno" kangaroo rat (*D. nitratooides*). Adults weight is 1.2 to 1.3 ounces (35 to 38 grams), head and body length is 3.9 to 4.3 inches (100 to 110 millimeters), and tail length is 4.8 to 5.1 inches (125 to 130 millimeters). Adaptations for bipedal locomotion include elongated hind limbs, a long tail, a short neck, and a large head. Dorsal pelage is a dark, yellowish tan, while ventral coloration is white. A white stripe also extends laterally across each flank and along the sides of the prominently tufted tail (Williams 1985).

Valley grassland, and San Joaquin saltbush and sink scrub plant communities provide the habitat for the Tipton kangaroo rat. The dominant shrubs in the sparsely-vegetated scrub consist of iodine bush (*Allenrolfea occidentalis*), saltbush (*Atriplex lentiformis* and *A. spinifera*), Mormon-tea (*Ephedra californica*), red-sage (*kochia californica*), and seep-weed (*Suaeda fruticosa*) (Williams, in press). The kangaroo rat inhabits the soft, friable soils on the floor of the Tulare Lake Basin, which escape seasonal flooding. The subspecies, however, may also occur on surrounding, higher, sites

(Williams, in press). It excavates shallow burrow systems, which are often located on slightly-elevated mounds and around the bases of shrubs where wind-deposited soils have accumulated. This behavior apparently reduces the chances of inundation from seasonal flooding (Williams 1985). The Tipton kangaroo rat feeds primarily on seeds, though the animal also eats green vegetation and insects (Eisenberg 1963). The Tipton kangaroo rat plays an integral role in the valley plant communities. It distributes seeds and, thus, influences floral distribution. It also serves as prey for a variety of carnivores, such as the badger (*Taxidea taxus*) and kit fox (*Vulpes macrotis*). Its burrows serve to aerate soils and increase vegetative productivity. Moreover, these burrows are utilized as places of concealment and refuge for a variety of other small wildlife species, including the federally endangered blunt-nosed leopard lizard (*Gambelia silus*).

The geographic range of the Tipton kangaroo rat historically encompassed about 1,716,480 acres (695,174 hectares) within the San Joaquin Valley, extending from Lemoore and Hanford (Kings County) in the north; southeast along State Route 99 from Tipton to Pixley (Tulare County), Delano, Bakersfield, and Arvin (Kern County); westward to the southern, eastern, and northern shores of the former Buena Vista Lake (Kern County); and then northward through the Antelope Plain along a line marked by Buttonwillow, Lost Hills (Kern County), Kettleman City (Kings County), and Westhaven (Fresno County). As of July 1985, only 63,367 acres (25,665 hectares), encompassing 3.7 percent of its historical range, was still occupied (Williams 1985). Approximately 6,434 acres (2,606 hectares) of this remaining habitat is administered by local, State, and Federal governments. These lands contain low to moderate density populations of Tipton kangaroo rats that

are relatively secure from habitat loss (Williams 1985). The principal factor resulting in this reduction in habitat has been conversion of native wildlands for agriculture production.

The Tipton kangaroo rat was included in the Service's Review of Vertebrate Wildlife in the Federal Register of September 18, 1985 (50 FR 37958), as a category 2 candidate species. This categorization means that available information indicates that a proposal for listing as endangered or threatened is possibly appropriate, but that conclusive data on biological vulnerability and threat are not currently available to support a proposed rule. Completion of a subsequent status report for this rodent (Williams 1985) provided additional information on which to base this listing proposal.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal Lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the Tipton kangaroo rat (*Dipodomys nitratoides nitratoides* Merriam) are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

In a recent status survey, Dr. Daniel F. Williams (1985) of California State University, Stanislaus, concluded that habitat loss associated with agricultural development has been the principal factor contributing to the decline of the Tipton kangaroo rat. He attributed other habitat losses to construction of roads, canals, railroads, and structures. Mineral development may also be a problem (Williams, in press). The known historical range of this rodent, which encompassed approximately 1,716,480 acres (695,174 hectares), has been reduced to about 63,367 acres (25,665 hectares). Approximately 6,434 acres (2,606 hectares) of the remaining range harbors relatively secure populations. This area includes federally-administered lands at Pixley National Wildlife Refuge, State of California lands at the Allensworth Ecological Preserve, and lands owned and administered by the Natural Conservancy at the Paine Wildflower Preserve. Private individuals or corporations own the remaining

habitats. Although these habitats generally appear to be unsuitable for farming, land conversion of kangaroo rat habitat continues to occur.

Williams (1985) observed instances where remaining habitats were being converted to agricultural production, so-called ag-land. He also estimated rates of conversion of remaining habitats by comparing extant unmodified habitats within the Tulare Lake Basin. Approximately 110,031 acres (44,562 hectares) out of the total 2,556,288 acres (1,035,296 hectares) on the floor of the Tulare Lake Basin was undeveloped by late 1983; a subsequent comparison in June 1985 showed that 75,430 acres (30,549 hectares) remained undeveloped. The construction of evaporation ponds for diversion of salt-laden waters from adjacent cultivated fields also threatens extant habitat (Williams 1985). Remaining habitat typically consists of small, highly fragmented parcels on private land, where long-term protection is not assured. Consistent Tipton kangaroo rat populations are small in size, typically surrounded by ag-land, and highly vulnerable to extirpation from single catastrophic events such as flooding, inbreeding, disease, predation, or excessive application of rodenticides.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Not applicable

C. Disease or Predation

Neither disease nor predation is known to result in significant population declines. However, Williams (1985) noted that the high fragmentation and isolation of many remaining populations makes them increasingly vulnerable to extirpation from epidemics or heavy predation.

D. The Inadequacy of Existing Regulatory Mechanisms

Existing State and Federal regulations do not afford the Tipton kangaroo rat any protection. Agencies involved with permitting or funding ag-land conversion, which continues to reduce the animal's remaining habitat and increase the potential for the extirpation of increasingly isolated populations, are not presently required to confer with agencies knowledgeable about the distribution of this rodent. State and Federal governments also do not presently require implementation of protective measures for the species and its habitat during the application of pesticides.

E. Other Natural or Manmade Factors Affecting its Continued Existence

Many of the remaining "pockets" of habitat for this rodent are adjacent to or surrounded by ag-land. The small size and highly isolated nature of these remaining pockets could result in their eventual extirpation due to inbreeding. Williams (1985) estimated that the minimum contiguous block of habitat necessary to sustain a viable population on a long-term basis may be between 823 and 2,806 acres (333 to 1,136 hectares). Because the average size of extant contiguous habitat is less than half this size, probably many remaining tracts are too small to ensure the perpetuation of their constituent Tipton kangaroo rat populations. In addition to inbreeding, application of rodenticides may also kill Tipton kangaroo rats in areas where control of "target" species, such as the California ground squirrel (*Spermophilus beecheyi*), is required. Williams (1985) provided specific recommendations for control of "pest" species while reducing potential for inadvertent mortality of non-target species such as the Tipton kangaroo rat.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to propose this rule. Based on this evaluation, the preferred action is to list the Tipton kangaroo rat as endangered. Threatened, as opposed to endangered, status would not adequately reflect the drastic decline and continued problems associated with conversion of remaining valley-floor habitats. Critical habitat is not being designated for this species at this time for the reasons discussed below.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate any habitat of a species that is considered to be critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat for the Tipton kangaroo rat is not prudent at this time. As discussed under factors "A" and "E" in the "Summary of Factors Affecting the Species," the Tipton kangaroo rat is jeopardized by taking, prohibitions against which are difficult to enforce. Publication of precise critical habitat descriptions could make this species even more vulnerable, and, therefore, place its future in further jeopardy.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402. Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

Federal actions that may affect the Tipton kangaroo rat are issuance of leases for agricultural purposes on Bureau of Land Management holdings, development of evaporation ponds for salt-laden agricultural runoff by the Soil Conservation Service, issuance of permits for development of oil and natural gas reserves by the Environmental Protection Agency, and water-development projects for increasing agricultural conversion of remaining pockets of wildland habitats by the Bureau of Reclamation. Actions that may affect the Tipton kangaroo rat in these areas may also affect the federal endangered San Joaquin kit fox and blunt-nosed leopard lizard, which currently are protected under the provisions of the Act. No major conflicts

are known or expected at this time. The involved Federal agencies are already consulting with the Service, and additional impacts due to this listing are expected to be minimal.

Section 9 of the Act and implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered wildlife species under certain circumstances. Regulations governing permits are codified at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship that would be suffered if such relief were not available.

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning any aspect of this proposal are hereby solicited. Comments particularly are sought concerning:

- (1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to the subject species;
- (2) The location of any additional populations of this species and the reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act;
- (3) Additional information concerning the range and distribution of this species; and
- (4) Current or planned activities in the subject area and their possible impacts on this species.

Final promulgation of the regulation on this species will take into consideration the comments and any

additional information received by the Service, and such communications may lead to adoption of a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the date of the proposal. Such requests must be made in writing and addressed to the Regional Director as indicated in the above "ADDRESSES" section.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

References Cited

- Eisenberg, J.F. 1963. The behavior of heteromyid rodents. Univ. California Publ. Zool. 69:1-100.
- Grinnell, J. 1920. A new kangaroo rat from the San Joaquin Valley, California. J. Mamm. 1:178-179.
- Grinnell, J. 1921. Revised list of the species in the genus *Dipodomys*. J. Mamm. 2:94-97.
- Merriam, C.H. 1894. Preliminary description of eleven new kangaroo rats of the genera *Dipodomys* and *Perodipus*. Proc. Biol. Soc. Washington 9:109-116.
- Williams, D.F. 1985. A review of the population status of the Tipton kangaroo rat, *Dipodomys nitratoides nitratoides*. Final report prepared for the U.S. Fish and Wildlife Service, Sacramento Endangered Species Office.
- Williams, D.F. In press. Mammalian species of special concern in California. Report prepared for the California Dept. of Fish and Game, Nongame Wildlife Investigation.

Author

The primary author of this proposed rule is Mr. Ted Rado, U.S. Fish and Wildlife Service, Sacramento Endangered Species Office, 2800 Cottage Way, Room E-1823, Sacramento, California 95825 (916/978-4866 or FTS 460-4866).

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Proposed Regulation Promulgation

Accordingly, it is hereby proposed to amend Part 17, Subchapter B of Chapter

I, Title 50 of the Code of Federal Regulations, as set forth below:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*)

order under "MAMMALS," to the List of Endangered and Threatened Wildlife:

PART 17—[AMENDED]

1. The authority citation for Part 17 continues to read as follows:

2. It is proposed to amend § 17.11(h) by adding the following, in alphabetical

§ 17.11 Endangered and threatened wildlife.

* * * * *
(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
MAMMALS							
Rat, Tipton kangaroo.....	<i>Dipodomys nitratoides nitratoides</i>	USA (CA).....	Entire.....	E		NA	NA

Dated: June 22, 1987.
 Susan Recce,
 Assistant Secretary for Fish and Wildlife and Parks.
 [FR Doc. 87-15683 Filed 7-9-87; 8:45 am]
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