

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

## Endangered and Threatened Wildlife and Plants; Determination of Endangered Status and Critical Habitat for the Amargosa Vole

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** The Service determines endangered status and critical habitat for the Amargosa vole, a small mammal. This vole has been eliminated from portions of its range as a result of human encroachment and the burning and overgrazing of its habitat. It became so rare that it was once thought extinct, and is now known only from bulrush marshes near Tecopa and Tecopa Hot Springs in southeastern Inyo County, California. This rule implements the protection provided by the Endangered

Species Act of 1973, as amended, for the Amargosa vole.

**EFFECTIVE DATE:** The effective date of this rule is December 17, 1984.

**ADDRESSES:** The complete file for this rule is available for inspection during normal business hours, by appointment, at the Service's Regional Office, Lloyd 500 Building, Suite 1692, 500 Northeast Multnomah Street, Portland, Oregon 97232.

**FOR FURTHER INFORMATION CONTACT:** Mr. Wayne White at the above address (503/231-6131 or FTS 429-6131).

**SUPPLEMENTARY INFORMATION:****Background**

The species *Microtus californicus*, commonly known as the California vole, is a small mammal occurring in western Oregon, California, and northern Baja California; 17 subspecies are currently recognized (Hall 1981). The apparently most geographically restricted subspecies is *M. c. scirpensis*, the Amargosa vole. It was described by Bailey (1900) from specimens collected at a spring near Shoshone on the Amargosa River, southeastern Inyo County, California. It is isolated from the rest of the species by a broad expanse of unsuitable, arid land. It differs from most other subspecies by its brighter coloration. The upper parts are pallid neutral gray, the underparts are smoky gray, the tail is brown above and grayish below, and the feet are brownish gray. In six adult specimens, total length averaged about 8 inches (203 millimeters) and tail length averaged about 2½ inches (65 millimeters).

Not long after its discovery, the Amargosa vole was extirpated from the Shoshone area; the marsh that it inhabited was burned over and made into a hog pasture (Kellogg 1918). The

subspecies was considered extinct until additional specimens were collected in the 1930's, and then seemed to disappear again, but was rediscovered in the 1970's in marshes along the Amargosa River near Tecopa and Tecopa Hot Springs, southeastern Inyo County (Bleich 1979, 1980; Could and Bleich 1977). These marshes, the only currently known habitat of the Amargosa vole, are characterized by a dominance of bulrush (*Scirpus olneyi*) vegetation and have some open water nearby. In this otherwise arid part of California, bulrush marshes are restricted to the vicinity of springs or portions of the Amargosa River with permanent flow. This river is dry throughout most of its course. Human encroachment in the area, with consequent burning of marshes, overgrazing, and water diversion, is jeopardizing remnant habitat. Surviving colonies of voles are highly localized and contain small numbers of animals.

In the Federal Register of June 18, 1980 (45 FR 41172-41173), the Service published a notice accepting a petition to add the Amargosa vole to the U.S. List of Endangered and Threatened Wildlife, and announcing a status review of the animal. In the Federal Register of December 30, 1982 (47 FR 58454-58460), the Amargosa vole was included in category 1 of the Service's Review of Vertebrate Wildlife, meaning that there was substantial information on hand to support the biological appropriateness of a listing proposal. In the Federal Register of August 29, 1983 (48 FR 39090-39093), the Service published a proposed rule to determine endangered status and critical habitat for the Amargosa vole.

**Summary of Comments and Recommendations**

In the proposed rule of August 29, 1983, and associated notifications, all interested parties were requested to submit information that might contribute to development of a final rule. Appropriate State and Federal agencies, county governments, scientific organizations, and other concerned parties were contacted and requested to comment. A newspaper notice, inviting public comment, was published in the *Los Angeles Times* on September 15, 1983.

Five comments were received. The California Department of Fish and Game, the California Department of Water Resources, and the Friends of Wildlife Organization (Monterey, California) supported the proposal. The California Department of Transportation observed that there are Federal-aid

roadways within the overall boundaries of the proposed critical habitat, upon which repair work might become necessary, and requested to be informed of precautions that should be taken during such work. The Service greatly appreciates this concern, and has expressed its willingness to provide guidelines to the California Department of Transportation as specific cases develop.

The District Manager, California Desert District, Bureau of Land Management (BLM), questioned whether Federal listing of the Amargosa vole is necessary, considering that two detailed management plans have been developed for protection of wildlife and associated habitat in the involved area, and that the Bureau is cooperating with the Service and the California Department of Fish and Game to prevent adverse impacts to the vole from geothermal leasing activity. Should listing proceed, the District Manager recommended that the following components of the proposed overall critical habitat zone be excluded, because they do not contain wetland habitats necessary to support vole populations: T 20 N R 7 E NE $\frac{1}{4}$  and N $\frac{1}{2}$ SE $\frac{1}{4}$  Sec. 4, W $\frac{1}{2}$ W $\frac{1}{2}$  Sec. 5, SW $\frac{1}{4}$  Sec. 9, SW $\frac{1}{4}$  Sec. 10; T 21 N R 7 E Sec. 20, N $\frac{1}{2}$ , N $\frac{1}{2}$ S $\frac{1}{2}$ , and S $\frac{1}{2}$ SE $\frac{1}{4}$  Sec. 28, NE $\frac{1}{4}$ , NE $\frac{1}{4}$ SE $\frac{1}{4}$ , and W $\frac{1}{2}$  Sec. 29, W $\frac{1}{2}$  Sec. 32, N $\frac{1}{2}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NE $\frac{1}{4}$ , and SE $\frac{1}{4}$  Sec. 33.

The Service appreciates the efforts that BLM is making to protect the Amargosa vole and its habitat. However, management work being done by an agency is related to only one of the five factors discussed below that must be considered in making the determination of whether to add a species to the List of Endangered and Threatened Wildlife. The Amargosa vole was brought to the brink of extinction by a variety of problems, mostly not related to geothermal leasing or other activities by BLM. Federal listing will insure that protection is permanent, and will provide the basis for a coordinated recovery effort by all involved agencies. With regard to the critical habitat, the Service has reviewed the situation and now agrees that the following areas do not contain significant vole habitat: T 20 N R 7 E SW $\frac{1}{4}$  Sec. 9, SW $\frac{1}{4}$  Sec. 10; T 21 N R 7 E Sec. 20, N $\frac{1}{2}$  Sec. 28, NE $\frac{1}{4}$  Sec. 29. These areas are thus not being included in the overall critical habitat zone designated for the Amargosa vole. The other areas indicated by BLM, however, do contain springs, marshes, or other elements needed for the survival of the vole, and are thus being retained in the critical habitat designation.

#### Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that the Amargosa vole should be classified as an endangered species. Procedures found at section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (codified at 50 CFR Part 424; under revision to accommodate 1982 amendments—see proposal at 48 FR 36062, August 8, 1983) were followed. 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 Amargosa vole (*Microtus californicus scirpensis*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Within the arid region in question, most human activity occurs near permanent water sources. Therefore, the marsh habitat of the Amargosa vole has been reduced and modified by human encroachment. Burning and livestock grazing is occurring in much of the habitat. The spring at Shoshone has been diverted and channelized to allow for construction of a high school swimming pool. The development of springs in the Tecopa Hot Springs area for mineral baths, and the spread of mobile home courts, have greatly modified or eliminated suitable habitat in that area. Such modification of springs and marshes has already caused the extinction of the Tecopa pupfish, a small fish endemic to the area (see **Federal Register** of January 15, 1982 (47 FR 2317-2319)).

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Not known to be a problem.

C. *Disease or predation.* Not known to be a problem.

D. *The inadequacy of existing regulatory mechanisms.* The California State Fish and Game Commission lists the Amargosa vole as endangered and, therefore, regulations are in effect that prohibit taking. The main problem of the vole, however, is not direct taking, but loss of habitat. Moreover, although the Bureau of Land Management is taking the vole's well-being into account in developing its management plans for the area, there is a considerable amount of vole habitat outside of Federal ownership that thus remains unaffected by BLM planning.

E. *Other natural or manmade factors affecting its continued existence.*

Competition from introduced species may have been a contributing factor in the decline of the Amargosa vole at Shoshone. The house mouse (*Mus musculus*) was reported by Bleich (1980) as very common in marsh habitats around Shoshone.

The decision to determine endangered status for the Amargosa vole was based on an assessment of the best available scientific information and of past, present, and probable future threats to the species. Critical habitat is being determined because it would be prudent to do so and because the areas of habitat utilized by the species are generally well defined.

#### Critical Habitat

Section 4(a)(3) of the Endangered Species Act, as amended, requires that "critical habitat" be designated, "to the maximum extent prudent and determinable," concurrent with the determination that a species is endangered or threatened. Critical habitat, as defined by section 3 of the Act and at 50 CFR Part 424, means (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Act, upon a determination that such areas are essential for the conservation of the species.

The critical habitat of the Amargosa vole falls within an overall zone of 4,520 acres in southeastern Inyo County, California. Within this zone, the critical habitat consists of marshes and associated land and water along the Amargosa River, from just north of Tecopa Hot Springs to the Amargosa Canyon, just south of Tecopa.

In considering designation of critical habitat, 50 CFR 424.12(b) requires focus on the biological or physical constituent elements within the defined area that are essential to the conservation of the species involved. With respect to the Amargosa vole, the areas designated as critical habitat satisfy all known criteria for the ecological, behavioral, and physiological requirements of the species. The marsh vegetation (primarily bulrush) provides sufficient cover for escape from predators and also serves as a food source. Small populations of

the Amargosa vole are still able to survive and reproduce in the remaining suitable marsh habitat around Tecopa and Tecopa Hot Springs. These areas may not, however, include the entire habitat of the Amargosa vole, and modifications to the critical habitat designation may be proposed in the future.

Section 4(b)(8) of the Act requires that, to the maximum extent practicable, any determination of critical habitat be accompanied by a brief description and evaluation of those activities which, in the opinion of the Secretary, may adversely modify such habitat if undertaken, or may be affected by such designation. In the case of the Amargosa vole, such activities including burning or otherwise removing marsh vegetation, overgrazing of marsh or adjacent vegetation, pumping of ground water supplies, diverting or channelizing springs or the Amargosa River, road repair work, off-road vehicle use in or adjacent to marsh areas, use of herbicides or rodenticides, introduction of exotic plant or animal species, and exploration for and exploitation of geothermal resources.

Section 4(b)(2) of the Act requires the Service to consider economic and other impacts of specifying a particular area as critical habitat. In conjunction with the proposal to determine endangered status and critical habitat for the Amargosa vole, the Service notified Federal agencies that may have jurisdiction over the involved areas. These agencies and other interested parties were requested to submit information on economic or other impacts of the proposed measure. In response, the District Manager, California District, Bureau of Land Management (BLM) indicated that determination of endangered status and critical habitat for the Amargosa vole would result in consultation between BLM and the Service regarding the effects of geothermal leasing activity.

Additional information obtained by the Service indicates that approximately 2,060 acres of the overall critical habitat zone are administered by BLM. Neither the critical habitat zone nor immediately surrounding lands are now known to contain geothermal resources. However, three leases for geothermal exploration in the area have been issued by BLM, and applications for four others are under consideration. The three current leases are not active and are not expected by BLM to become a threat to the critical habitat. The four lease applications have stipulations to avoid disturbance of the habitat of proposed or listed endangered or threatened

species. In addition, BLM already has detailed management plans for the protection of wildlife and associated habitat in the involved area. For these reasons, designation of critical habitat is not expected to have significant economic or other impacts.

#### Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened pursuant to the 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 Act provides for land acquisition and cooperation with States, and requires recovery actions. Such actions are initiated by the Service following listing. The protection required by Federal agencies, and taking and harm prohibitions, 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. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402, and are now under revision (see proposal in *Federal Register* of June 29, 1983, 48 FR 29989). 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 a listed 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 activities that may be affected in this regard, with respect to the determination of endangered status for the Amargosa vole, are described above under "Critical Habitat."

The Act and its implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions that apply to all endangered wildlife. These prohibitions, in part, will 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 a commercial activity, or sell or offer for sale any Amargosa vole in interstate or foreign commerce. It also will be illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that was illegally taken. Certain exceptions will apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered wildlife under certain circumstances. Regulations governing such permits are codified at 50 CFR 17.22 and 17.23. Endangered species can be taken for scientific purposes, to enhance the propagation or survival of the species, or for incidental take purposes. 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.

The Service will now review the Amargosa vole to determine whether it should be considered for placement upon the Annex of the Convention on Nature Protection in the Western Hemisphere, and whether it should be considered for other appropriate international agreements.

#### National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined by 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).

#### Regulatory Flexibility Act and Executive Order 12291

The Department of the Interior has determined that designation of critical habitat for this species will not constitute a major action under Executive Order 12291 and certifies that his designation will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). These determinations are based on a Determination of Effects that is available at the Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240.

#### References

- Bailey, V. 1900. Revision of American voles of the genus *Microtus*. N. Amer. Fauna 17:1-88.
- Bleich, V.C. 1979. *Microtus californicus scirpensis* not extinct. J. Mamm. 60:851-852
- Bleich, V.C. 1980. Amargosa vole study. Final report to California Dept. Fish and Game, W-54-R-10, 8 pp.
- California Department of Fish and Game. 1980. At the crossroads 1980—a report on California's endangered and rare fish and wildlife. 147 pp.

Gould, G.I., and V.C. Bleich. 1977. Amargosa vole study. Report to California Dept. Fish and Game, W-54-R-9, 4 pp.  
 Hall, E.R. 1981. The mammals of North America. John Wiley and Sons, New York, 2 Vols.  
 Kellogg, R. 1918. A review of the *Microtus californicus* group of meadow mice. Univ. California Publ. Zool. 21:1-42.

**Author**

The primary author of this rule is Ronald M. Nowak, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235-1975 or FTS 235-1975).

**List of Subjects in 50 CFR Part 17**

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

**Regulations Promulgation**

**PART 17—[AMENDED]**

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is amended as set forth below:

1. The authority citation for Part 17 reads as follows:

**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.*).

2. Section 17.11(h) is amended by adding the following, in alphabetical order, to the List of Endangered and Threatened Wildlife under "MAMMALS:"

**§ 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						
Vole, Amargosa	<i>Microtus californicus scirpensis</i>	U.S.A. (CA)	Entire	E	166	17.95(a)	NA

3. Section 17.95(a), "Mammals," is amended by adding the critical habitat of the Amargosa vole after that of the Morro Bay kangaroo rat as follows:

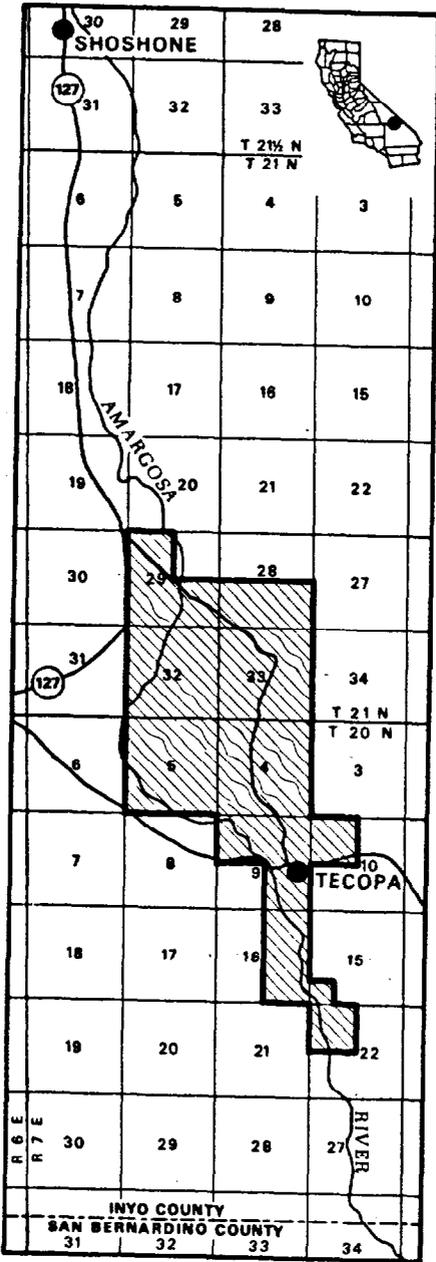
**§ 17.95 Critical habitat—fish and wildlife.**

(a) \* \* \*  
 Amargosa vole (*Microtus californicus scirpensis*).

California. Marshes and associated land and water in the following areas of Inyo County (San Bernardino Meridian): T20N R7E Sec. 4, 5, N½ and SE¼ Sec. 9, NW¼ Sec. 10, SW¼SW¼ Sec. 15, E½ Sec. 16, NW¼ Sec. 22; T21N R7E S½ Sec. 28, S½ and NW¼ Sec. 29, Sec. 32, 33.

Within these areas, the major

constituent elements that are known to require special management considerations or protection are marsh vegetation (primarily bulrushes of the genus *Scirpus*), springs, and some open water along the Amargosa River, which provide escape cover and an adequate food supply.



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Dated: September 25, 1984.

**J. Craig Potter,**  
*Acting Assistant Secretary for Fish and  
 Wildlife and Parks.*

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