

Wildlife Service, Suite 1692, Lloyd 500 Building, 500 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. Don Sada, U.S. Fish and Wildlife Service, Great Basin Complex, 4600 Kietzke Lane, Building C, Reno, Nevada 89502 (702/784-5227 or FTS 470-5227).

SUPPLEMENTARY INFORMATION:

Background

Hubbs (1932) described the genus *Crenichthys* and the species *nevadae* based on specimens collected from thermal springs in the Duckwater area of Railroad Valley in central Nevada. Since Hubbs described the genus *Crenichthys*, a second species, *C. baileyi* from the White River of eastern Nevada, has been placed in the genus (La Rivers, 1962; Williams and Wilde, 1981). Thus, *Crenichthys* consists of two species confined to separate valleys in central and eastern Nevada.

Railroad Valley springfish are native to four thermal springs near Lockes Ranch (Big, North, Hay Corral, Reynolds) and two thermal springs on the Duckwater Shoshone Indian Reservation (Big Warm and Little Warm), all in Railroad Valley, Nye County, Nevada. Additionally, the species has been introduced into Chimney Springs approximately 6 miles south of Lockes Ranch, and into a seepage area which forms small thermal ponds at Sodaville in Mineral County, Nevada. In these springs, it inhabits the springpools, their outflow, and the adjacent marshy areas.

The long term threat to the Railroad Valley springfish is the alteration of its thermal spring habitat and the introduction of exotic organisms, especially fishes. Most of the springs historically inhabited by the Railroad Valley springfish have been altered by man's activities and springfish populations have decreased in all habitats throughout its range. Diking of springpools, diversion of outflows, and channelization of outflow creeks have reduced suitable habitat for the Railroad Valley springfish at Big, Hay Corral, and Big Warm Springs. North Spring has been impacted by overgrazing cattle on adjacent range land by removing the vegetation causing the area adjacent to the spring to become silty. The area was also trampled by the large number of cattle watering in the spring. The thermal spring habitat of the Railroad Valley springfish is further threatened

accordance with Nevada State laws and regulations. This action is being taken because suitable habitat for this species has decreased since its discovery and the publication of the original description of *Crenichthys nevadae* in 1932. Primary threats to the species include the presence of exotic fishes, habitat alterations and ground water depletion in the Railroad Valley basin. The Railroad Valley springfish occurs only in thermal springs located in Railroad Valley, northeastern Nye County, Nevada. Critical habitat is included with this proposed rule. The proposed action would provide protection to wild populations of this species. Comments and information are sought from all interested parties.

DATES: Comments from all interested parties must be received by June 18, 1984. Public hearing requests must be received by June 1, 1984.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Regional Director, U.S. Fish and

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Proposed Threatened Status and Critical Habitat for the Railroad Valley Springfish, *Crenichthys Nevadae*

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to determine the Railroad Valley springfish (*Crenichthys nevadae*) to be a threatened species with critical habitat. A special rule is proposed which would allow take for certain purposes in

by pumping of underground aquifers, which may result in spring failures. The threat of reduced spring flows was realized during 1981 when the habitat of the introduced population at Chimney Springs was lost after the spring flows ceased. Efforts are presently being made to reestablish a population in Chimney Springs. Several other springs to the south of Lockes Ranch also failed during 1981. The adverse effects of ground water pumping of the Railroad Valley springfish continues to threaten this species.

The presence of exotic fishes in the extremely limited habitat of the Railroad Valley springfish represents a serious threat to this species. Guppies, *Poecilia reticulata*, have become established in Big Warm Spring and appear to have eliminated springfish from the main springpool area. The development of the outflow of Big Warm Spring as a catfish farm has almost eliminated the remainder of the population. The presence of guppies and channel catfish in Big Warm Spring greatly increases the possibility that these species will be introduced into nearby Little Warm Spring. The release of largemouth bass into springs inhabited by the Railroad Valley springfish has been considered in the past but no introduction was made.

On December 30, 1982, the Service published a Notice of Review of Vertebrate Wildlife for Listing as Endangered or Threatened Species (47 FR 58453-58460). The Railroad Valley springfish was included in the review as a category 1 taxon indicating that the Service has substantial information on hand to support the proposal of this fish for protection under provisions of the Endangered Species Act. On April 12, 1983, the Service was petitioned by the Desert Fishes Council to list the Railroad Valley springfish. The Service reviewed and evaluated the petition and determined that it did present substantial information that the petitioned action might be warranted. The notice of finding for this petition was published in the *Federal Register* on June 14, 1983 (48 FR 27273-27274). This proposed rule represents the Service's finding that the petitioned action is warranted in accordance with Section 4(b)(3)(B)(ii) of the Act.

Summary of Factors Affecting the Species

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) 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 Railroad Valley springfish (*Crenichthys nevadae*) are as follows:

A. The present or threatened destruction, modification, or curtailment of its habitat or range. Most of the thermal spring habitats of the Railroad Valley springfish have been altered by man's activities. These alterations have resulted in the loss of habitat for the springfish and reduced population levels throughout the species' range. The following springs have been most severely impacted by man: Big Spring (diversion and channelization of outflows), North Spring (overgrazing and trampling by cattle), Hay Corral Spring (dikes and diversion of flows), and Big Warm Spring (diversion and channelization of outflows). In addition to the physical alterations, the thermal springs are further threatened by reduced spring flow. The loss of spring flow resulted in the extirpation of the introduced population of springfish in Chimney Springs in 1981. The adverse impacts resulting from decreased spring flow due to ground water pumping continues to threaten this species.

B. Overutilization for commercial, recreational, scientific, or educational purposes. There is no indication that the Railroad Valley springfish is overutilized for any of these purposes.

C. Disease or predation. The development of a catfish farming operation at Big Warm Spring in 1982 has drastically altered Railroad Valley springfish habitat. The loss of habitat associated with construction of this project was a significant threat, but the introduction of channel catfish, *Ictalurus punctatus*, was an even greater threat to the springfish. Operation of a catfish farm adjacent to Big Warm Spring will permit the predacious channel catfish to become established in the spring and its outflow. This could result in the total loss of Railroad Valley springfish in Big Warm Spring. A natural barrier, a waterfall, prevents the movement of channel catfish from Big Warm Spring into Little Warm Spring which is located approximately 1 mile away.

D. The inadequacy of existing regulatory mechanisms. The State of Nevada lists the Railroad Valley springfish as a protected species. This classification by the Nevada Department of Wildlife prohibits taking without a scientific collecting permit. However, no protection of the habitat is included in such a designation and no

management or recovery plan exists for this species.

E. Other natural or manmade factors affecting its continued existence. Guppies, *Poecilia reticulata*, have become established in Big Warm Spring and appear to have eliminated Railroad Valley springfish from the springpool area. Guppies compete with the Railroad Valley springfish for habitat and food resources. Establishment of exotic fishes in aquatic habitats of the southwestern United States often results in elimination of or severe decrease in native fish populations (Deacon *et al.*, 1964; Hubbs and Deacon, 1964; Williams and Wilde, 1981).

The proposed action is the result of a careful assessment of the best scientific information available, as well as the best assessment of the threats faced by this species. Based on this evaluation, it was determined that the status of the Railroad Valley springfish was threatened, as defined in Section 3 of the Act. Threatened status seems appropriate because of the severely reduced range of the species, and because of the threats to the fish and its remaining habitat. If this species is not listed, it could reasonably be expected to become endangered within the foreseeable future and thus would be a violation of the Act's intent. Since the species is still extant in several locations and the threats to the species are generally localized, the species is not currently in danger of extinction and this endangered status would not be appropriate at this time.

Critical Habitat

Critical habitat as defined by Section 3 of the Act means: (1) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection, and (ii) specific areas outside the geographical area occupied by a species at the time it is listed upon a determination that such areas are essential for the conservation of the species.

The Act in Section 4(a)(3) 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 is being proposed for the Railroad Valley springfish.

Critical habitat for the Railroad Valley springfish includes 6 springs, their outflow pools, streams and

marshes, and a 50 foot riparian zone around the springs, their outflow pools, streams, and marshes located in 2 areas of northeastern Nye County, Nevada. The riparian zone is necessary to protect and maintain the physical and chemical characteristics, such as temperature, clear water, pH, etc., of the aquatic environment. The Service believes that the riparian area is essential for the conservation of the Railroad Valley springfish and it is therefore included as critical habitat. The proposed critical habitat is located in the following areas: (1) Duckwater area: Big Warm and Little Warm Springs and (2) Lockes area: Big, North, Hay Corral, and Reynolds Springs.

The area proposed does not include the entire habitat of this species and modifications to critical habitat descriptions may be proposed in the future. Railroad Valley springfish occur in marginal habitat in the outflow creek of Big Warm Spring downstream from the proposed critical habitat. Also, no critical habitat is proposed for the introduced populations near Sodiville in Mineral County, Nevada, and Chimney Springs in Nye County, Nevada.

Section 4(b)(8) requires, for any proposed or final regulation which designates critical habitat, a brief description and evaluation of those activities (public and private) which may adversely modify such habitat or may be affected by such designation. Any activity which would lessen the amount of the minimum flow or would significantly alter the natural flow and temperature regime in the thermal springs inhabited by the Railroad Valley springfish could adversely impact its proposed critical habitat. Such activities include, but are not limited to, excessive ground water pumping, impoundment, and water diversions. Any activity which would extensively alter the channel morphology in these springs could adversely impact the proposed critical habitat. Such activities include, but are not limited to, channelization, excessive sedimentation from grazing and other watershed disturbances, impoundment, deprivation of substrate source, and riparian destruction. Any activity which would significantly alter the water chemistry in these springs could adversely impact the proposed critical habitat. Such activities include, but are not limited to, release of chemical or biological pollutants into the waters at a point source or by dispersed release. The introduction, inadvertent or otherwise, of exotic predatory and competitive fishes could adversely affect the Railroad Valley springfish and

could reduce or eliminate them within the proposed critical habitat.

Federal agencies which might be planning to construct, fund, authorize, or license projects in the future that could adversely impact the critical habitat of the Railroad Valley springfish include the Bureau of Land Management (BLM) and the Bureau of Indian Affairs (BIA).

The only known activity of BLM that might affect the proposed critical habitat of the Railroad Valley springfish is leasing of public lands near North Spring for cattle grazing. Currently, cattle graze extensively in a marshy area along the outflow of North Spring. This marshy area is inhabited by springfish where they are subjected to excessive silt loads, trampling, increased turbidity, and water pollution by the presence of cattle.

Activities of BIA that might be affected by the designation of critical habitat include additional utilization of the outflow of Big Warm Spring for irrigation purpose by the Duckwater Shoshone Tribe. This could render these habitats unsuitable for the springfish. The operation of the catfish farm along the outflow of Big Warm Spring could be affected. This activity could render the outflow unsuitable for the springfish by decreased flows, water pollution, and competition and predation by catfish. Any future activities of BIA and the Duckwater Shoshone Tribe to alter Little Warm Spring could be affected.

Section 4(b)(2) of the Act requires the Service to consider economic and other impacts of designating a particular area as critical habitat. The Service will reevaluate the geographic critical habitat designation prior to the issuance of a final rule, after considering all additional information obtained.

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 land acquisition and cooperation with the States. Recovery plans and actions are required for all listed species and are initiated by the Service following listing. The evaluation required of Federal agencies and the statutory and regulatory 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 at 48 FR 29990; June 29, 1983). Section 7(a)(4) requires Federal agencies to informally confer 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. When a species is listed, 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 Federal agency must enter into formal consultation with the Service under Section 7(a)(2).

The Act and its implementing regulations found at 50 CFR 17.21 and 17.31 set forth a series of prohibitions and exceptions that generally apply to all endangered or threatened 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 listed species in interstate or foreign commerce. It also would be illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that was illegally taken. Certain exceptions would apply to agents of the Service and State conservation agencies. General regulations governing the issuance of permits for carrying out otherwise prohibited activities involving threatened species under certain circumstances are set out at 50 CFR 17.32.

The above discussion generally applies to threatened species of fish or wildlife. However, the Secretary has discretion under Section 4(d) of the Act to issue such special regulations as are necessary and advisable for the conservation of a threatened species. The springfish is threatened primarily by habitat disturbance of alteration, not by intentional, direct taking of the species or by commercialization. Given this fact and the fact that the State regulates direct taking of the species through the requirement of State collecting permits, the Service has concluded that the State's collection permit system is more than adequate to protect the species from excessive taking, so long as such takes are limited to: educational purposes, scientific purposes, the enhancement of propagation or survival

of the species, zoological exhibition, and other conservation purposes consistent with the Endangered Species Act. Therefore, the special rule allows takes to occur for the above-stated purposes without the need for a Federal permit if a State collection permit is obtained and all other State wildlife conservation laws and regulations are satisfied. It should be recognized that any activities involving the taking of this species not otherwise enumerated in the special rule are prohibited. Without this special rule all of the prohibitions under 50 CFR 17.31 would apply. The Service believes that this special rule will allow for more efficient management of the species, thereby facilitating its conservation. For these reasons, the Service has concluded that this regulatory proposal is necessary and advisable for the conservation of the Railroad Valley springfish.

Public Comments Solicited

The Service intends that any final rule adopted will be as accurate and effective as possible in the conservation of each endangered or threatened species. 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 these proposed rules are hereby solicited. Comments particularly are sought concerning:

- (1) Biological, Commercial trade, or other relevant data concerning any threat (or lack thereof) to the Railroad Valley springfish;
- (2) The location of any additional populations of this species and the reasons why any habitat of this species 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;

- (4) Current or planned activities in the subject area and their possible impacts on the Railroad Valley springfish; and
- (5) Any foreseeable economic and other impacts resulting from the designation of critical habitat.

Final promulgation of the regulations on the Railroad Valley springfish will take into consideration the comments any 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 Service's Regional Office (see ADDRESSES section).

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).

Literature Cited

Deacon, J.E., C. Hubbs, and B.J. Zahuranec. 1964. Some effects of introduced fishes on the native fish fauna of southern Nevada. *Southwestern Naturalist* 12:31-44.

Hubbs, C., and J.E. Deacon. 1964. Additional introduction of tropical fishes into southern Nevada. *Southwestern Naturalist* 9:249-251.

Hubbs, C.L. 1932. Studies of the fishes of the order Cyprinodontes: XII. A new genus related to *Empetrichthys*. University of Michigan Museum of Zoology Occasional Papers 252:1-5.

La Rivers, I. 1962. Fishes and fisheries of Nevada. Nevada State Fish and Game Commission. 782 pp.

Williams, C.D., and J.E. Williams. In press. Distribution and status of native fishes of the Railroad and allied basins, Nevada. California-Nevada Wildlife Transactions.

Williams, C.D., and J.E., Williams. In press. Loss of an introduced population of Railroad Valley springfish, *Crenichthys nevadae* (Cyprinodontidae). *Southwestern Naturalist*.

Williams, J.E., and G.R. Wilde. 1981. Taxonomic status and morphology of isolated populations of the White River springfish, *Crenichthys baileyi* (Cyprinodontidae). *Southwestern Naturalist* 25:485-503.

Author

The author of this rule is Mr. Don Sada, U.S. Fish and Wildlife Service, Great Basin Complex, 4600 Kietzke Lane, Building C, Reno, Nevada 89502 (702/784-5227 or FTS 470-5227).

List of Subjects in 50 CFR Part 17

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

Proposed Regulations Promulgation

PART 17—[AMENDED]

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:

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. It is proposed to amend § 17.11(h) by adding the following in alphabetical order under "Fishes" to the List of Endangered and Threatened Wildlife:

§ 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						
Fishes							
Springfish, Railroad Valley.	<i>Crenichthys nevadae</i> .	U.S.A. (NV).....	Entire.....	T.....	17.95(e)...	17.44()	

3. It is further proposed to amend Title 50 CFR 17.44 by adding the following: (The position of this special rule will be determined at the time the final rule is published in the Federal Register.)

§ 17.44 Special rules—fishes.

() Railroad Valley springfish, *Crenichthys nevadae*.

(1) No person shall take the species, except in accordance with applicable State fish and wildlife conservation laws and regulations in the following instances: for educational purposes, scientific purposes, the enhancement of propagation or survival of the species, zoological exhibition, and other

conservation purposes consistent with the Act.

(2) Any violation of applicable State fish and wildlife conservation laws or regulations with respect to the taking of this species will also be a violation of the endangered Species Act.

(3) No person shall possess, sell, deliver, carry, transport, ship, import, or export, by any means whatsoever, any such species taken in violation of these regulations or in violation of applicable State fish and wildlife conservation laws or regulations.

(4) It is unlawful for any person to attempt to commit, solicit another to commit, or cause to be committed, any

offense defined in paragraphs (1) through (3) above.

4. It is further proposed to amend § 17.95(e) by adding critical habitat of the Railroad Valley springfish as follows: (The position of this and any following critical habitat entries under § 17.95(e) will be determined at the time of publication of a final rule.)

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

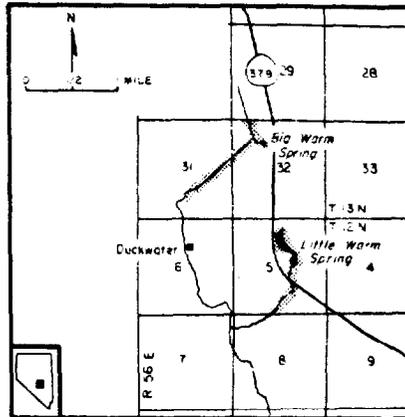
(e) *Fishes.*

* * * * *

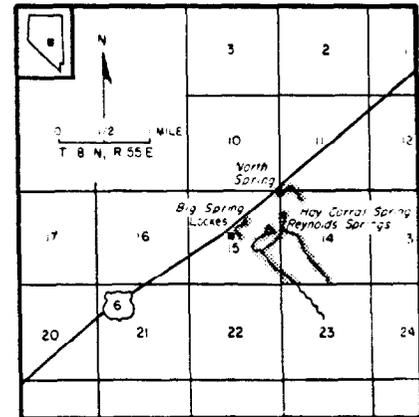
Railroad Valley springfish, *Crenichthys nevadae*.

The proposed critical habitat is located within the following two areas:

1. Nevada, Nye County, Duckwater area. Big Warm Spring and its outflow pools, streams, and marshes and a 50 foot riparian zone around the spring, outflow pools, streams, and marshes in T13N, R56E, NE ¼ Sec. 31, SE ¼ Sec. 31, NW ¼ Sec. 32. Little Warm Spring and its outflow pools, streams and marshes, and a 50 foot riparian zone around the spring, outflow pools, streams and marshes in T12N, R56E, Sec. 5.



2. Nevada, Nye County, Lockes Area. North, Hay Corral, Big, and Reynolds Springs and their outflow pools, streams and marshes, and a 50 foot riparian zone around the springs, outflow pools, streams, and marshes in T8N, R55E, SW ¼ Sec. 11, NW ¼ Sec. 14, SW ¼ Sec. 14, SE ¼ of Sec. 15, NE ¼ Sec. 15, SW ¼ Sec. 15.



Known constituent elements for the Railroad Valley springfish in all areas proposed as critical habitat include clear, unpolluted thermal spring waters ranging in temperature from 29° to 38° C in pools, flowing channels, and marshy areas with aquatic plants, insects, and mollusks.

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Dated: April 9, 1984.

G. Ray Arnett,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 84-10228 Filed 4-16-84; 8:45 am]

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