

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

## Endangered and Threatened Wildlife and Plants; Proposed Threatened Status and Critical Habitat for the Big Spring Spinedace

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

**ACTION:** Proposed rule.

**SUMMARY:** The Service proposes to determine the Big Spring Spinedace (*Lepidomeda mollispinis pratensis*) to be Threatened and to delineate its Critical Habitat. This action is being proposed because one population of this subspecies has been eliminated and the remaining population is threatened by habitat alteration and the introduction of exotic species. Also, the present limited distribution of the existing population leaves it vulnerable to extirpation by a major flood or severe drought. The Big Spring Spinedace occurs in a single habitat, Meadow Valley Wash in Condor Canyon, northeast of Panaca, Nevada, which is being proposed as Critical Habitat. The proposed rule would implement the protection provided by the Endangered Species Act of 1973, as amended (Act). The Service is also requesting information on environmental and economic impacts that would result from designating Critical Habitat for this species.

**DATES:** Comments from all interested parties must be received by January 30, 1983. Public hearing requests must be received by January 16, 1984.

**ADDRESS:** Interested persons or organizations are requested to submit comments to Regional Director, U.S. Fish and Wildlife Service, Lloyd 500 Building, Suite 1692, 500 NE Multnomah Street, Portland, Oregon 97232. Comments and materials relating to this rule are available for public inspection by appointment during normal business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** For further information on the proposed rule contact the Endangered Species Office, U.S. Fish and Wildlife Service, 4600 Kietzke Lane, Building C, Reno, Nevada 89502, (702/784-5227) or John L. Spinks, Jr., Chief, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235-2771).

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

The Big Spring spinedace (*Lepidomeda mollispinis pratensis*) is one of seven taxa belonging to the Plagopterini, a unique tribe of cyprinid

fishes. The fishes of this tribe are restricted to the lower Colorado River system and are characterized by the possession of two spiny rays in the dorsal fin and reduction in scales in some members (Miller and Hubbs, 1960; Uyeno and Miller, 1973). The Big Spring spinedace is the representative of this tribe within Meadow Valley Wash. During pluvial times, 10,000 to 40,000 years before present, the area referred to as Meadow Valley Wash contained Lake Carpenter and its outflow river, the Carpenter River (Hubbs *et al.*, 1974). The pluvial Carpenter River flowed into the Colorado River by way of the White River. As these pluvial waters dried, the spinedace was restricted to remnant habitats that retained water.

When the Big Spring spinedace was originally described, it was known only from specimens collected in the 1930's from a marshy area adjacent to Big Spring near Panaca, Nevada (Miller and Hubbs, 1960). By the time of the description in 1960, it was believed that the fish was extinct. Agricultural modification of the area as well as the introduction of the exotic mosquitofish, *Gambusia affinis*, had apparently caused its extinction from the marsh and spring area (Miller, 1961; Miller and Hubbs, 1960).

During 1978, personnel from the Nevada Department of Wildlife discovered a few individuals of this "extinct" subspecies in Condor Canyon, just northeast of Panaca. Condor Canyon is a small area of Meadow Valley Wash with perennially flowing water. Since the discovery of the Condor Canyon population, the fish have been moved above a barrier falls and now occur in most of the available habitat within Condor Canyon (Cal Allen, Nevada Department of Wildlife, pers. comm.; Hardy, 1980a). However, the available habitat within the approximately 4 mile long Condor Canyon is limited. This restricted habitat is threatened by the possible introduction of exotic species and by habitat alteration. The habitat could also be threatened by a major flood (Cal Allen, pers. comm.; Hardy, 1980b) or a severe drought. Renovation of former habitat in areas downstream from the area where it presently occurs could alleviate this threat.

The Big Spring spinedace was included in the Services' Notice of Review of Vertebrate Wildlife published December 30, 1982 (47 FR 58454-58460). The Service received a petition from the Desert Fishes Council on April 12, 1983, to list the Big Spring spinedace. The petition was evaluated and found to present substantial information supporting the petitioned action and a

notice of finding to this effect was published on June 14, 1983 (48 FR 27273-27274).

**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 Big Spring spinedace (*Lepidomeda mollispinis pratensis*), are as follows:

**A. The present or threatened destruction, modification, or curtailment of its habitat or range.** Prior to the mid-1930's, Big Spring flowed unrestricted to the west and south creating a substantial marsh area adjacent to the spring. During the 1930's, spinedace were collected from this marsh and these fish were subsequently described as a new subspecies, *Lepidomeda mollispinis pratensis* (Miller and Hubbs, 1960). Visits by ichthyologists to the marsh area during 1959 revealed that the spinedace has been eliminated because of diversion of the water for agricultural purposes. Currently, Big Spring flows toward the north in a highly modified system (Cal Allen, Nevada Department of Wildlife, Pers. comm.).

The Big Spring spinedace is presently known from one locality, Meadow Valley Wash in Condor Canyon. This restricted habitat could be easily disrupted by a reduction or alteration in water flow. Activities such as overgrazing, mining of ground water, diversion and channelization of the stream, loss of riparian vegetation, or a combination of these factors could result in the extinction of the Big Spring spinedace.

**B. Overutilization for commercial, recreational, scientific, or educational purposes.** Not applicable.

**C. Disease or predation.** Not applicable.

**D. The inadequacy of existing regulatory mechanisms.** Not applicable.

**E. Other natural or manmade factors affecting its continued existence.** The introduction of exotic organisms, especially fishes, is detrimental to the Big Spring spinedace. The introduction of mosquitofish (*Gambusia affinis*) into Big Spring contributed to the extirpation of the spinedace at that locality (Miller,

1961; Miller and Hubbs, 1960). The introduction of exotic fishes is usually detrimental to native fishes because of competition, predation, or the introduction of exotic parasites and diseases (Deacon *et al.*, 1964; Hubbs and Deacon, 1964).

Because of the restricted range of the Big Spring spinedace in Condor Canyon, a severe flood could also eliminate spinedace from parts or all of the Canyon habitat (Hardy, 1980b). This problem could be alleviated by renovation of former habitat and reintroduction of the Big Spring spinedace.

#### Critical Habitat

Critical Habitat as defined by Section 3 of the Act and 50 CFR Part 424 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 (2) 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 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 proposed for the Big Spring spinedace is as follows: Lincoln County, Nevada, Condor Canyon; 4 stream miles along Meadow Valley Wash in Condor Canyon.

With respect to the Big Spring spinedace, the area proposed as Critical Habitat satisfies all known criteria for the ecological, behavioral, and physiological requirements of the subspecies. Any activity which would alter the existing chemical and physical characteristics of the aquatic habitat in Meadow Valley Wash could adversely impact the Big Spring spinedace. This includes activities such as increased silt loads from overgrazing or removal of riparian vegetation, lowering of the water table and diversion of water from the main channel of the stream. The introduction of exotic fishes contributed to the decline and ultimately the extirpation of one population of the Big Spring spinedace. Any exotic fishes introduced into the Critical Habitat could bring about the decline of the only remaining population of the Big Spring spinedace. The area proposed includes most of the presently occupied habitat of this subspecies.

#### 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 other Federal, State, and private agencies, groups, and individuals. The Endangered Species Act requires that recovery actions be carried out for all listed species and these are initiated by the Service following listing. The protection required by Federal agencies and taking and harm prohibitions are discussed in part below:

Subsections 7(a) (2) and (4) 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. 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. 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 an adverse effect is expected, the Federal agency must enter into consultation with the Service. The Service is notifying Federal agencies that may have jurisdiction over the land and water under consideration in this proposed action. These Federal agencies and other interested persons or organizations are requested to submit information on economic or other impacts of this proposed Critical Habitat.

Section 4(b)(8) of the Act requires, to the maximum extent practicable, that any proposal to determine 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 which in turn may be impacted by such designation.

Major physical and chemical alteration of the Critical Habitat could eliminate the Big Spring spinedace. Federally authorized, funded, or carried out activities such as channelization, water diversions, removal of ground water and removal of riparian vegetation could result in significant changes in the environment. Any federally authorized increase in grazing could result in overgrazing and the removal of riparian vegetation. This would result in siltation and reduce the

ability of the soil to retain water resulting in lower water levels. Removal of riparian vegetation would also result in higher water temperatures and reduced dissolved oxygen levels.

Regulations already published in Title 50 § 17.31 of the Code of Federal Regulations set forth a series of general prohibitions and exceptions that apply to Threatened species. With respect to the Big Spring spinedace, all prohibitions of the Act, as implemented by 50 CFR 17.31 would apply. These prohibitions, in part, would 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 this species in interstate or foreign commerce. It also would be illegal to possess, sell, deliver, carry, transport, or ship any such wildlife which was illegally taken. Certain exceptions would apply to agents of the Service and State conservation agencies.

Regulations codified at 50 CFR 17.32 provide for the issuance of permits to carry out otherwise prohibited activities involving Threatened species under certain circumstances. Such permits are available for scientific purposes or to enhance the propagation or survival of the species. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship which would be suffered if such relief were not available. A special rule is proposed for the Big Spring spinedace which would allow take for educational or scientific purposes in accordance with applicable State laws and regulations. Any violation of State law would be a violation of the Endangered Species Act. The special rule allowing take for educational and scientific purposes will allow for a more efficient management of the Big Spring spinedace and result in a more effective conservation of the species. This special rule will allow this fish to be managed as a Threatened species. Without the special rule, all prohibitions of an Endangered species status would apply.

The Service intends that any final rule adopted will be accurate and as effective as possible in the conservation of any 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 or other relevant data concerning any threat (or lack thereof) to the Big Spring spinedace;
- (2) The location of any additional populations of the Big Spring spinedace 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 the Big Spring spinedace;
- (4) Current or planned commercial or other activities in the subject area and their possible impacts on the Big Spring spinedace;
- (5) Any foreseeable economic and other impacts resulting from determining Critical Habitat.

Final promulgation of the regulations on the Big Spring spinedace 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 U.S. Fish and Wildlife Service, Regional Director (see Addresses section).

**National Environmental Policy Act**

In accordance with a recommendation from the Council on Environmental Quality (CEQ), the Service has not prepared any NEPA documentation for this proposed rule. The recommendation from CEQ was based, in part, upon a decision in the Sixth Circuit Court of Appeals which held that the preparation of NEPA documentation was not required as a matter of law for listings under the Endangered Species Act. *PLF v. Andrus* 657 F. 2d 829 (6th Cir. 1981).

**References**

The following sources were used in the preparation of this proposed rule:  
 Deacon, J. E., C. Hubbs, and B. J. Zahurance. 1964. Some effects of introduced fishes on the native fish fauna of southern Nevada. *Copeia* 1964:384-388.  
 Hardy, T. 1960a. The inter-basin area report—1978. *Proc. Desert Fishes Council* 11:5-21.

Hardy, T. 1980b. Interbasin report to the Desert Fishes Council—1979. *Proc. Desert Fishes Council* 10:68-70.  
 Hubbs, C. and J.E. Deacon. 1964. Additional introductions of tropical fishes into southern Nevada. *Southwestern Nat.* 9:249-251.  
 Hubbs, C.L., R.R. Miller, and L.C. Hubbs. 1974. Hydrographic history and relict fishes of the north-central Great Basin. *Memoirs California Acad. Sci.* 7:1-259.  
 Miller, R.R. 1961. Man and the changing fish fauna of the American Southwest. *Pap. Michigan Acad. Sci. Arts Letters* 48:365-405.  
 Miller, R.R., and C.L. Hubbs. 1960. The spiny-rayed cyprinid fishes (Plagopterini) of the Colorado River system. *Misc. Publ. Mus. Zool., Univ. Michigan* 115:1-39.  
 Uyeno, T., and R.R. Miller. 1973. Chromosomes and the evolution of the plagopterin fishes (Cyprinidae) of the Colorado River system. *Copeia* 1973:776-782.

**Author**

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**§ 17.11 Endangered and threatened wildlife.**

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Fishes:							
Big Spring spinedace.....	<i>Lepidomeda mollispinis pratensis</i> .	U.S.A. (NV).	Entire.....	T.....		17.95(e)...	17.44(h).

**§ 17.44 [Amended]**

2. It is further proposed that 50 CFR 17.44 (special rules) be amended by adding a new paragraph (h) as follows:  
 \* \* \* \* \*

(h) Big Spring spinedace (*Lepidomeda mollispinis pratensis*).

(1) All provisions of § 17.31 apply to this species, except that they may be taken for educational and scientific purposes in accordance with applicable State laws and regulations.

(2) Any violation of State law will also be a violation of the Endangered Species Act.  
 \* \* \* \* \*

3. It is further proposed that 50 CFR

**List of Subject 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. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 98 Stat. 1411 (16 U.S.C. 1531 et seq.).

2. It is proposed to amend § 17.11(h), Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, by adding the following entry alphabetically to the table under the heading "Fishes" as set forth below:

§ 17.95(e) *Fishes*, be amended by adding Critical Habitat of the Big Spring spinedace after that of the Pupfish, Leon Springs as follows:  
 \* \* \* \* \*

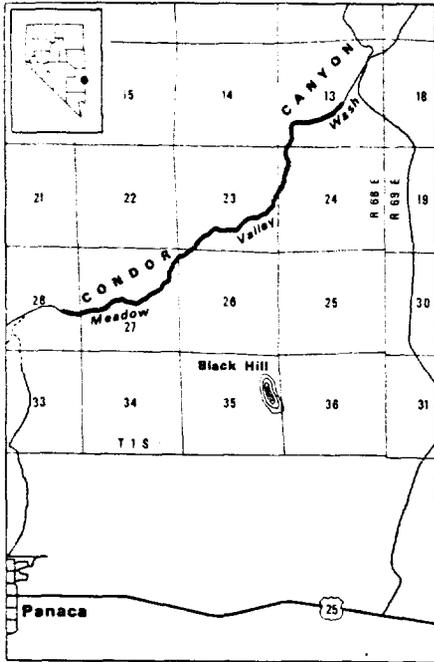
**Big Spring Spinedace**

*Lepidomeda mollispinis pratensis*

Nevada. Lincoln County, Condor Canyon, 4 stream miles of Meadow Valley Wash and 50 feet on either side of the stream as it flows through the following sections: T1S, R68E, Sections 13, 23, 24, 26, 27, and 28. Known constituent elements include clean permanent flowing spring-fed stream with deep pool areas and shallow marshy areas along the shore and the absence of exotic fishes.  
 \* \* \* \* \*

BIG SPRING SPINEDACE

Lincoln County, NEVADA



Dated: October 17, 1983.

**G. Ray Arnett,**  
*Assistant Secretary for Fish and Wildlife and  
Parks.*

[FR Doc. 83-31850 Filed 11-29-83; 8:45 am]

**BILLING CODE 4130-55-M**