

[4310-55]

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[50 CFR Part 17]

ENDANGERED AND THREATENED WILDLIFE
AND PLANTSProposed Endangered Status and Critical
Habitat for the Virgin River ChubAGENCY: Fish and Wildlife Service,
Interior.

ACTION: Proposed rulemaking.

SUMMARY: The Service proposes to determine the Virgin River chub (*Gila robusta seminuda*) to be an Endangered species and identify Critical habitat for this species. This action is being taken because of the decreased population levels and threatened modification of its habitat. This proposal would protect the populations of the Virgin River chub and its habitat. This species occurs in the Virgin River in Nevada, Arizona, and Utah.

DATES: All relevant comments and materials with regard to this proposed rulemaking received no later than November 22, 1978, will be considered.

ADDRESSES: Comments and materials concerning this proposed rulemaking, preferably in triplicate, should be sent to the Director (FWS/OES), U.S. Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C. 20240.

Comments and materials received will be available for public inspection during normal business hours at the Service's Office of Endangered Species, Suite 1100, 1612 K Street, NW., Washington, D.C.

FOR FURTHER INFORMATION
CONTACT:

Mr. Keith M. Schreiner, Associate Director—Federal Assistance, Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C. 20240 (202-343-4646).

SUPPLEMENTARY INFORMATION:

BACKGROUND

Section 4(a) of the Endangered Species Act of 1973 states:

General.—(1) The Secretary shall by regulation determine whether any species is an endangered species or a threatened species because of any of the following factors:

- (1) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (2) Overutilization for commercial, sporting, scientific, or educational purposes;
- (3) Disease or predation;
- (4) The inadequacy of existing regulatory mechanism; or
- (5) Other natural or manmade factors affecting its continued existence.

This authority has been delegated to the Director.

SUMMARY OF FACTORS AFFECTING THE
SPECIES

These findings are summarized herein under each of the five criteria of section 4(a) of the Act. These factors, and their application to the Virgin River chub, are as follows:

1. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The Virgin River chub, *Gila robusta seminuda*, is endemic to the Virgin River below La Verkin Springs downstream to the backwaters of Lake Mead, approximately 125 miles of river. The river in this section is usually very turbid, warm, highly salty, has a sand bottom, and is erratic in flow. These qualities are characteristics of desert streams, except for the high salinity caused by La Verkin Springs, which apparently forms a barrier to upstream movements by the Virgin River chub. This environment is extremely harsh and inhabited by a few, well adapted aquatic organisms. The Virgin River chub inhabits deeper runs and pools rather than shallower water and seldom ventures into tributaries. Morphologically, the chub is streamlined, but shows no other obvious phenotypic adaptations to its unique environment.

The filling of Lake Mead in the 1930's inundated the lower Virgin River, thus reducing the range of the chub. Other areas of the Virgin River have been dewatered by agricultural withdrawals. Presently, the Virgin River is intermittent over 50 percent of the native range of the chub, and in these areas, chub populations are either absent or reduced in numbers. Little quantitative data is available on population status in the early 1900's, but numbers were probably reduced as more and more water was diverted from the river. Populations in the 1960's appeared low and recent studies have confirmed this.

Habitat destruction caused by flooding (Lake Mead) and alteration by reduced flows appears to be the major factor shrinking the range and reducing population levels of Virgin River chubs. Present water quality conditions in several sections of the river may not be suitable for self-sustaining Virgin River chub populations. The Bureau of Reclamation's proposed desalinization of La Verkin Springs may adversely affect habitat essential to the chub. Also, the proposed Warner Valley project will reduce typical winter flows from 150-200 cfs to 70-80 cfs in most of the remaining areas of chub habitat. Winter flows in other areas will be reduced from the present 60-90 cfs to intermittent flows. Any additional loss of flow or alteration of

habitat in the Virgin River may result in the extinction of this species.

2. *Overutilization for commercial, sporting, scientific, or educational purposes.* Not applicable.

3. *Disease or predation.* Historically, the Virgin River chub was the top carnivore of the Virgin River ecosystem and faced little predation. The introduction of exotic species such as green sunfish, largemouth bass, and red shiner into portions of the Virgin River may have increased predation and may partially account for the loss of chubs from those reaches.

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

5. *Other natural or manmade factors affecting its continued existence.* Competition with introduced fishes may have been an important factor in the Virgin River chub decline in the lower Virgin River of Nevada. The introduction of several exotic species simultaneously with the disappearance of chub populations suggests cause and effect. Presently, red shiners have replaced the native fishes in the Virgin River below Mesquite, Nevada. This reach of river is severely disturbed by year-round flow depletions and is readily accessible to exotic fishes in Lake Mead. It appears that the combination habitat destruction and competition-predation with introduced fishes is the cause of the decline of Virgin River chubs in this area.

CRITICAL HABITAT

Section 7 of the Act, entitled "Inter-agency Cooperation," states:

The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act. All other Federal departments and agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 4 of this Act and by taking such action necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered species or result in the destruction or modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with the affected States, to be critical.

A definition of the term "Critical Habitat" was published jointly by the Fish and Wildlife Service and the National Marine Fisheries Service in the FEDERAL REGISTER of January 4, 1978 (43 FR 870-876) (to be codified as 50 CFR Part 402) and is reprinted below:

"Critical Habitat" means any air, land, or water area (exclusive of those existing man-made structures or settlements which are not necessary to the survival and recovery of a listed species) and constituents element thereof, the loss of which would appreciably decrease the likelihood of the survival and recovery of a listed species or a

distinct segment of its population. The constituent elements of Critical Habitat include, but are not limited to: Physical structures and topography, biota, climate, human activity, and the quality and chemical content of land, water, and air. Critical Habitat may represent any portion of the present habitat of a listed species and may include additional areas for reasonable population expansion.

As specified in the regulations for Interagency Cooperation as published in the January 4, 1978, FEDERAL REGISTER (43 FR 870), the Director will consider the physiological, behavioral, ecological, and evolutionary requirements for survival and recovery of listed species in determining what areas or parts of habitat are critical. These requirements include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing of offspring; and generally,
- (5) Habitats that are protected from disturbances or are representative of the geographical distribution of listed species.

The application of these factors, based on data presently available, to the proposed critical habitat of the Virgin River chub, are discussed in the following paragraph.

The portion of the Virgin River proposed as critical habitat includes sufficient area for normal population growth and individual movements. The deeper runs and pools of the Virgin River provide habitat for the chub and its food organisms, aquatic insects and probably small fishes. Reproduction has not been observed but is presumed to occur in the proposed area since the fish is not known to occur outside the main channel of the river. The Virgin River is the only known habitat of the Virgin River chub.

The areas included in this proposal do not necessarily include the entire critical habitat of the Virgin River chub, and modifications of its critical habitat designations may be proposed in the future. In accordance with section 7 of the act, all Federal departments and agencies are required to insure that actions authorized, funded, or carried out by them would not result in the destruction or adverse modification of the critical habitat of the Virgin River chub.

There may be many kinds of actions which can be carried out within the critical habitat of a species which would not be expected to adversely affect that species. This point has not been well understood by some persons. There has been widespread and erroneous belief that a critical habitat designation is something akin to establishment of a wilderness area of wildlife refuge, and automatically closes an area to most human uses. Actually, a critical habitat designation applies only to Federal agencies, and essentially is an official notification to these agencies that their responsibilities pursuant to section 7 to the act are applicable in a certain area.

A critical habitat designation must be based solely on biological factors. There may be questions of whether and how much habitat is critical, in ac-

cordance with the above interpretation, or how to best legally delineate this habitat, but any resultant designation must correspond with the best available biological data. It would not be in accordance with the law to involve other motives, for example, to enlarge a critical habitat delineation so as to cover additional habitat under section 7 provisions, or to reduce a delineation so that actions in the omitted area would not be subject to evaluation.

There may indeed be legitimate questions of whether, and to what extent, certain kinds of actions would adversely affect listed species. These questions, however, are not relevant to the biological basis of critical habitat delineations. Such questions should, and can more conveniently, be dealt with after critical habitat has been designated. In this respect, the Service and the National Marine Fisheries Service, in cooperation with other Federal agencies, have drawn up regulations which, in part, establish a consultation and assistance process for helping to evaluate the possible effects of actions on critical habitat. Provisions for interagency cooperation were published on January 4, 1978, in the FEDERAL REGISTER, (43 FR 870-876) (to be codified as 50 CFR Part 402) to assist Federal agencies in complying with section 7 of the Endangered Species Act of 1973.

EFFECT OF THE RULEMAKING

The effects of these determinations and this rulemaking include, but are not necessarily limited to, those discussed below.

Endangered species regulations already published in Title 50 of the Code of Federal Regulations set forth a series of general prohibitions and exceptions which apply to all endangered species. All of those prohibitions and exceptions also apply to any threatened species unless a special rule pertaining to that threatened species has been published and indicated otherwise. The regulations referred to above, which pertain to endangered species, are found at § 17.21 of title 50 and are summarized below.

With respect to the Virgin River chub in the United States, all prohibitions of section 9(a)(1) of the act, as implemented by 50 CFR 17.21 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 in interstate or foreign commerce this species. 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 published in the FEDERAL REGISTER of September 26, 1975 (40 FR 44412) codified in 50 CFR Part 17, provided for the issuance of permits to carry out otherwise prohibited activities involving endangered or threatened species under certain circumstances. Such permits involving endangered species 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.

Pursuant to section 4(b) of the act, the Director will notify the Governors of Arizona, Nevada, and Utah, with respect to this proposal and request their comments and recommendations before making final determinations.

PUBLIC COMMENTS SOLICITED

The Director intends that the rules finally adopted will be as accurate and 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, private interests 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 the lack thereof) to the Virgin River chub;
- (2) The location of and reasons why any habitat of the Virgin River chub should or should not be determined to be critical habitat as provided for by section 7 of the Act;
- (3) Additional information concerning the range and distribution of the Virgin River chub.

Final promulgation of the regulations on the Virgin River chub will take into consideration the comments and any additional information received by the Director and such communications may lead him to adopt final regulations that differ from this proposal.

An environmental assessment has been prepared in conjunction with this proposal. It is on file in the Service's Office of Endangered Species, 1612 K Street NW., Washington, D.C. 20240, and may be examined during regular business hours or can be obtained by mail. A determination will be made at the time of final rulemaking as to whether this is a major Federal action which would significantly affect the quality of the human environment within the meaning of section 102(2)(C) of the National Environmental Policy Act of 1969.

PROPOSED RULES

The primary author of this proposed rulemaking is Dr. James D. Williams, Office of Endangered Species, 202-343-7814.

REGULATIONS PROMULGATION

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

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

1. It is proposed to amend § 17.11 by adding, in alphabetical order, under "Fishes", the following to the list of animals:

§ 17.11 Endangered and threatened wildlife

Species		Range				Status	When listed	Special rules
Common name	Scientific name	Popula-tion	Known distribution	Portion of range where threatened or endangered				
Fishes:								
Chub, Virgin River	<i>Gila robusta seminuda</i>	NA	U.S.A. (Utah, Arizona, and Nevada).	Entire		E		NA

2. Also, the Service proposes to amend § 17.95(e) by adding critical habitat of the Virgin River chub after that of the slender chub as follows:

(e) *Fishes.*

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VIRGIN RIVER CHUB

(*Gila robusta seminuda*)

Nevada. Clark County. Main channel of

Virgin River from the backwaters of Lake Mead upstream to the Nevada-Arizona State line.

Arizona. Mohave County. Main channel of Virgin River from the Nevada-Arizona State line upstream to the Arizona-Utah State line.

Utah. Washington County. Main channel of Virgin River from the Arizona-Utah State line upstream to Utah Highway 15 crossing north of Hurricane, Utah.

VIRGIN RIVER CHUB
ARIZONA, NEVADA and UTAH



NOTE: The Service has determined that this document does not contain a major proposal requiring preparation of an economic impact statement under Executive Order 11949 and OMB Circular A-107.

Dated: August 18, 1978.

HARVEY K. NELSON,
Acting Director,
Fish and Wildlife Service.

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