

[4310-55]

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[50 CFR Part 17]

**ENDANGERED AND THREATENED WILDLIFE
AND PLANTS****Proposed Listing and Critical Habitat
Determination for a Fish and a Salamander****AGENCY:** Fish and Wildlife Service,
Interior.**ACTION:** Proposed rule.

SUMMARY: The Service proposes to determine the San Marcos gambusia (*Gambusia georgei*) to be an endangered species and the San Marcos salamander (*Eurycea nana*) to be a threatened species. Critical habitat is proposed for both species. This action is being taken because of their decreased population levels and projected modification of their habitat. The proposed action, if finalized, would protect the populations of the fish and salamander and their habitat. Neither species is known to exist outside San Marcos Spring in Hays County, Tex.

DATES: Comments from the public must be received by September 15, 1978. Comments from the Governor of Texas must be received by October 15, 1978.

ADDRESSES: Submit comments to Director (OES), U.S. Fish and Wildlife Service, 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 (16 U.S.C. 1529 et seq.) 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 mechanisms; or

(5) Other natural or manmade factors affecting its continued existence.

This authority has been delegated to the Director.

On August 2, 1977, the Fish and Wildlife Service published a notice in the FEDERAL REGISTER (42 FR 39119-39120) to the effect that a review of the status of 10 amphibians was being conducted. The San Marcos salamander (*Eurycea nana*) was included as part of the review. As a result of the notice of review, responses were received from the State of Texas and professional biologists. The comments and supportive documents have been reviewed and a summary is presented below. This information has been considered and is incorporated into the administrative record of this proposal.

Mr. Henry Burkett, Executive Director of the Texas Parks and Wildlife Department, responded for the State of Texas. He recommended the listing of the San Marcos salamander on the U.S. list of endangered and threatened wildlife and plants as threatened and recommended Critical habitat to include aquatic habitat from the head of Spring Lake downstream some 2.5 river miles to the county road bridge on the San Marcos River about 0.5 mile downstream from Interstate Highway 35. Mr. Burkett included a brief review of the status of this species prepared by biologists of the Texas Parks and Wildlife Department with his comments. All four biologists that commented on the status of *E. nana* recommended Federal protection; threatened status was felt to most accurately reflect the biological status of the species. While the salamander population is presently large, the threat of lowered water tables in the San Marcos area could jeopardize the species. Several biologists recommended the inclusion of Spring Lake as critical habitat.

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 San Marcos Gambusia and San Marcos salamander, are as follows:

SAN MARCOS GAMBUSIA

1. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The San Marcos gambusia (*Gambusia georgei*) is known only from San Marcos Spring and the upper portion of its outflow, the San Marcos River. Within the spring and its outflow, it is restricted to the shallow areas with slow flow without dense aquatic vegetation. The bottom is typically mud. The water temperature in this habitat is fairly constant at 21-22° C.

The San Marcos gambusia population was estimated by Drs. Clark Hubbs and Alex Peden to be fewer than 1,000 individuals in 1969. A survey of the area in 1974 revealed the presence of one individual. Additional surveys in 1976 failed to find any San Marcos gambusia. There are two other species of gambusia (*Gambusia affinis* and *Gambusia getseri*) which occur in the same area, and these are still abundant.

Biologists who described the species indicated that "a slight alteration of the river channel could easily exterminate *Gambusia georgei*." Some biologists believe the species may be extinct. While it is not known precisely what resulted in the decline, it is believed by biologists familiar with the area to be habitat related. One possible factor contributing to the decline was the severe flooding of the San Marcos River in May 1970. The future of the habitat of this species is threatened by reduced flows in San Marcos Spring. Flow projections for San Marcos Spring indicate that it may be intermittent by 1985.

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

3. *Disease or predation.* This factor is not known to affect the present status of this species.

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

5. *Other natural or manmade factors affecting its continued existence.* None.

SAN MARCOS SALAMANDER

1. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The San Marcos salamander is known only from Spring Lake and the upper San Marcos River in southcentral Texas; most of the population is actually restricted to algal mats in a small area within the lake itself. The population is rather large and stable. However, the future of the habitat is threatened by reducing spring flow (because of ground water pumping in the aquifer adjacent

to and above the Spring Lake region); it is projected that the spring may become intermittent by 1985. Continued removal of ground water in this area could severely affect the habitat of the San Marcos salamander within its limited range and lead to the salamander's eventual extinction.

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

3. *Disease or predation.* This factor is not known to affect the present status of this species.

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

5. *Other natural or manmade factors affecting its continued existence.* None.

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 and threatened 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 by the Fish and Wildlife Service and the National Marine Fisheries Service in the FEDERAL REGISTER of January 4, 1978 (43 FR 870-876), 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 constituent elements 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.

There has been widespread and erroneous belief that a critical habitat designation is something akin to establishment of a wilderness area or 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 responsibility

ities pursuant to section 7 of 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 accordance 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, provisions for interagency cooperation were published on January 4, 1978, in the *FEDERAL REGISTER* (43 FR 870-876) to assist Federal agencies in complying with their responsibilities under section 7 of the Endangered Species Act of 1973.

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.

These requirements and their application to these two species for which critical habitat is being proposed within this rulemaking are as follows.

SAN MARCOS GAMBUSIA

The San Marcos Spring and its outflow which are proposed as critical habitat include sufficient area for growth and dispersal of individuals and the population of San Marcos gambusia. Shallow areas without aquatic vegetation along the margin of the spring provide proper water conditions which fulfill basic physiological

requirements. Although the food items of this species are not specifically known, since the species occurs only in the proposed area, it is reasonable to believe the food and other nutritional requirements of the species are fulfilled within this area. The proposed area, the only known habitat of this species, is representative of the geographical distribution of the San Marcos gambusia.

SAN MARCOS SALAMANDER

With respect to the San Marcos salamander, the area proposed as critical habitat satisfies all known criteria for the evolutionary, ecological, behavioral, and physiological requirements of the species. Dense algal mats cover the substrate and it is within this vegetation that the salamander finds cover and protection from fish and other predators. Tenedipid larvae and amphipods are the main food items of the salamander and these prey are found abundantly within the bottom vegetation. While courtship of the salamander has not been described and eggs have not been found, hatchlings have; coupled with the relatively large population size, successful reproduction is apparently occurring. The area proposed as critical habitat includes the entire known range of the species.

The areas included in this proposed rule as proposed critical habitat for these species provide the above requirements for these species. If, during the public comment period, new information is made available, these areas proposed as critical for the continued existence of these species may be modified to more accurately reflect the physiological, behavioral, ecological, and evolutionary requirements of these species.

It should also be pointed out that the areas delineated do not necessarily include the entire critical habitat of these species and modifications of their critical habitat designations may be proposed in the future. In accordance with section 7 of the act, all Federal departments and agencies would be 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 San Marcos gambusia and San Marcos salamander.

All Federal departments and agencies shall, in accordance with section 7 of the act, consult with the Secretary of the Interior with respect to any action which is considered likely to affect critical habitat. Consultation pursuant to section 7 should be carried out using the procedures contained in the January 4, 1978, *FEDERAL REGISTER* (43 FR 870-876).

EFFECT OF THE RULEMAKING

In addition to the effects discussed above, the effects of this rulemaking

would include, but not necessarily be limited to, those mentioned below.

The act and implementing regulations published in 50 CFR Part 17 already set forth a series of general prohibitions and exceptions which apply to all endangered species. All of these prohibitions and exceptions also apply to any threatened species unless a special rule pertaining to that threatened species has been published and indicates otherwise.

With respect to the San Marcos gambusia and San Marcos salamander, all prohibitions of section 9(a)(1) of the act, as implemented by 50 CFR 17.21 and 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, transport in interstate or foreign commerce in the course of a commercial activity, or sell or offer for sale either species in interstate or foreign commerce. It would also be illegal to possess, sell, deliver, carry, transport, or ship the animals if they had been taken illegally. Certain exceptions would apply to agents of the Service and State conservation agencies.

The act and 50 CFR Part 17 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered or 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.

Pursuant to section 4(b) of the act, the Director will notify the Governor of Texas with respect to this proposal and request his 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 these species;
- (2) The location of and reasons why any habitat of these species 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 either species.

Final promulgation of the regulations on the San Marcos gambusia and San Marcos salamander 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., and may be examined during regular busi-

ness hours. 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.

The primary authors of this proposed rulemaking are Dr. C. Kenneth Dodd, Jr., and 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 chapter 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, the following to the list of animals:

§ 17.11 Endangered and threatened wildlife.

Species			Range			Status	When listed	Special rules
Common name	Scientific name	Population	Known distribution	Portion endangered				
Amphibians:								
Salamander, San Marcos	<i>Eurycea nana</i>	NA	U.S.A. (Texas)	Entire	T		17.43(a)	
Fishes:								
Gambusia, San Marcos	<i>Gambusia georgei</i>	NA	U.S.A. (Texas)	Entire	E		NA	

2. The Service also proposes to amend § 17.43 by adding a new paragraph (a) as follows:

§ 17.43 Special rules—amphibians.

(a) San Marcos salamander (*Eurycea nana*).

(1) All provisions of § 17.31 apply to this species, except that it may be taken in accordance with applicable State law.

(2) Any violation of State law will also be a violation of the act.

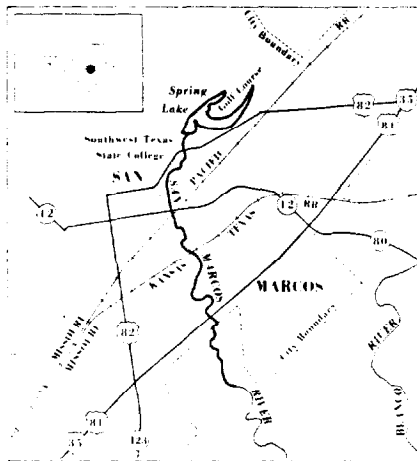
§ 17.95 [Amended]

3. Finally, the Service proposes to amend § 17.95(d) by adding in the manner set forth below, critical habitat for the San Marcos salamander after that designated for the Santa Cruz long-toed salamander.

(d) Amphibians.

SAN MARCOS SALAMANDER (*Eurycea nana*)

Texas. Hays County. San Marcos Spring Lake and its outflow, the San Marcos River, downstream to the county road crossing approximately 0.5 mile below Interstate Highway 35 bridge.



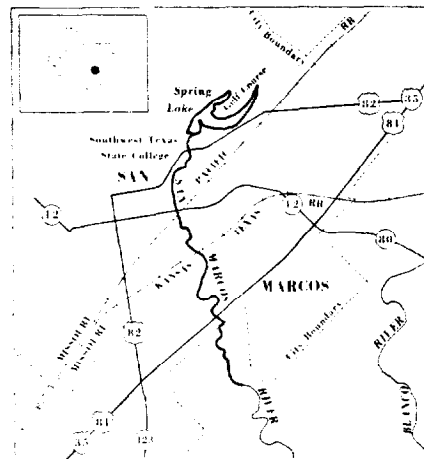
4. Also, the Service proposes to amend § 17.95(e) by adding critical habitat of the San Marcos gambusia after that of the Alabama cavefish as follows:

(e) Fishes.

SAN MARCOS GAMBUSIA (*Gambusia georgei*)

Texas. Hays County. San Marcos Spring Lake and its outflow, the San Marcos River,

downstream to the county road crossing approximately 0.5 mile below Interstate Highway 35 bridge.



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.

Date: July 7, 1978.

ROBERT S. COOK,
Acting Director,
Fish and Wildlife Service.

[FR Doc. 78-19402 Filed 7-13-78; 8:45 am]