

under the Endangered Species Act of 1973, as amended. This species is endemic to the Caney Fork River system (a Cumberland River tributary) in Grundy, Van Buren, Warren, and White Counties, Tennessee. Although presumably once widely distributed in the Caney Fork system, the species is presently known from short reaches in only four Caney Fork River tributaries. The species has been and continues to be impacted by water quality deterioration resulting from siltation contributed by coal mining and poor land use practices, by other water pollutants, and by impoundments. Comments and information are sought from the public on this proposal.

DATES: Comments from all interested parties must be received by December 14, 1990. Public hearing requests must be received by November 29, 1990.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Field Supervisor, U.S. Fish and Wildlife Service, Asheville Field Office, 100 Otis Street, Room 224, Asheville, North Carolina 28801 (704/259-0321). 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. Richard G. Biggins (704/259-0321 or FTS 672-0321).

SUPPLEMENTARY INFORMATION:

Background

The Cumberland pigtoe mussel (*Pleurobema gibberum*), which was described by Lea (1838), is apparently endemic to the Caney Fork River System above the Great Falls Lake Dam is now located at the Great Falls), Cumberland River basin, Tennessee (Anderson 1990, Gordon and Layzer 1989). This small freshwater mussel (rarely exceeds 60 mm in length) has a triangular, compressed, somewhat heavy shell. The shell's outer surface on young individuals is a yellowish-brown color; adults have a dark mahogany shell. The inside of the shell is a distinctive peach to orange color (Anderson 1990). Like other freshwater mussels, this animal feeds by filtering food particles from the water. It has a complex reproductive cycle in which the mussel's larvae likely parasitize fish. The mussel's life span, parasitic host, and most aspects of its life history are unknown.

Historic mussel collection records reviewed by Anderson (1990) revealed that the Cumberland pigtoe has been reported from five Caney Fork River tributaries, all above the Great Falls Reservoir. Anderson (1990) conducted a

50 CFR Part 17

RIN 1018-AB42

Endangered and Threatened Wildlife and Plants; Proposal to List the Mussel Cumberland Pigtoe (*Pleurobema gibberum*) as an Endangered Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) proposes to list the Cumberland pigtoe (*Pleurobema gibberum*) as an endangered species

mussel survey of the Caney Fork River system above and below the Great Falls Reservoir and reported that the species is now restricted to isolated populations in short reaches of four Caney Fork tributaries—Barren Fork, Warren County; Calkiller River, White County; Cane Creek, Van Buren County; and Collins River, Warren and Grundy Counties. Although the species likely occurred in the main stem of the Caney Fork and has been historically collected from Hickory Creek, no specimens were taken at the four sampling stations in the Hickory Creek system, nor was the mussel collected in any unimpounded reaches of Caney Fork River. It is believed that the species has now been extirpated from both of these areas. The mussel was also not taken in collections made in other Caney Fork tributaries—Big Creek, Big Hickory Creek, Charles Creek, Dry Branch Barren River, Falling Water River, Firescald Creek, Fultz Creek, Little Hickory Creek, Mountain Creek, Pine Creek, Rocky River, Sink Creek, Smith Fork, Smith Fork Creek, and West Fork Hickory Creek.

The Cumberland pigtoe's distribution has been impacted by such factors as impoundments and the general deterioration of water quality resulting from siltation and other pollutants contributed by coal mining, poor land use practices, and waste discharges. These factors continue to impact the species and its habitat. Because the populations inhabit only short river reaches, they are also very vulnerable to extirpation from accidental toxic chemical spills.

On December 8, 1989, the Service notified by mail (30 letters) the appropriate interested individuals, Federal and State agencies, and local governments within the species' present range that a status review was being conducted specifically to determine if the Cumberland pigtoe should be protected under the Act. A total of five written responses was received as a result of the December 8, 1989, notification. No objections to the potential listing of the Cumberland pigtoe were received. No additional information on the species' status and its former and present distribution was provided.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act 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 Cumberland pigtoe mussel (*Pleurobema gibberum*) are as follows:

A. The present or threatened destruction, modification, or curtailment of its habitat or range. Based on historic mussel collection records from the Cumberland River system (Anderson 1990, Gordon and Layzer 1989), the Cumberland pigtoe is restricted to the Caney Fork River basin above the Great Falls. Within this isolated river basin the species has been reported from only five Caney Fork River tributaries. However, historic mussel collection records from the upper Caney Fork system are very limited. Thus, considering the extent of the mussel's preferred habitat (riffle areas with sand and gravel with occasional mud and cobble substrates (Anderson 1990, Gordon and Layzer 1989)), which was inundated by the construction of Great Falls Reservoir at the site of the Great Falls in the 1910s, the species was likely much more widely distributed within the upper Caney Fork system than available records indicate.

Presently, the species is restricted to isolated populations in short reaches of four Caney Fork tributaries—Barren Fork, Warren County; Calkiller River, White County; Cane Creek, Van Buren County; and Collins River, Warren and Grundy Counties (Anderson 1990). These populations are adversely affected by impoundments and the general deterioration of water quality resulting from siltation and other pollutants contributed by coal mining, poor land use practices, and waste discharges. Mussel populations in adjacent watersheds with similar geology (upper Duck and Elk Rivers) have already lost much of their mussel fauna because of poor land management practices and impoundments (Anderson 1990).

B. Overutilization for commercial, recreational, scientific, or educational purposes. There is no indication that overutilization has been a problem for this species. However, because of the mussel's restricted range, its slow growth rate, and low reproductive capacity, collection of the species could be a problem if specific locations of populations were known. Therefore, the present range of the species has been described only in general terms.

C. Disease or predation. Although the Cumberland pigtoe is consumed by predatory animals, there is no evidence that predation is a serious threat to the species. However, freshwater mussel

die-offs have recently (early to mid-1980s) been reported throughout the Mississippi River basin (Richard Neves, Virginia Polytechnic Institute and State University, personal communication, 1986). The cause of the die-offs has not been determined, but significant losses have occurred in some populations.

D. The inadequacy of existing regulatory mechanisms. The State of Tennessee prohibits taking fish and wildlife, including freshwater mussels, for scientific purposes without a State collecting permit. However, the species is generally not protected from other threats. Federal listing will provide additional protection for the species from mussel collectors by requiring Federal endangered species permits to take the species and by requiring Federal agencies to consult with the Service when projects they fund, authorize, or carry out may adversely affect the species.

E. Other natural or manmade factors affecting its continued existence. As the Cumberland pigtoe is presently restricted to short river reaches, it is also very vulnerable to extirpation from accidental toxic chemical spills; and as the populated reaches are physically isolated from each other by impoundments, recolonization of any extirpated population would not be possible without human intervention. Additionally, because natural gene flow among populations is no longer possible, the long-term genetic viability of these remaining isolated populations is questionable.

The Service has carefully assessed the best scientific and commercial information regarding the past, present, and future threats faced by this species in determining to propose this rule. Based on this evaluation, the preferred action is to list the Cumberland pigtoe mussel (*Pleurobema gibberum*) as endangered. Presently only four isolated populations are known to exist. Because of the restricted nature of these populations and their vulnerability, endangered status appears to be the most appropriate classification for the species. (See "Critical habitat" section for a discussion of why critical habitat is not being proposed for the Cumberland pigtoe mussel.)

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that, to the maximum extent prudent and determinable, the Secretary propose critical habitat at the time the species is proposed to be endangered or threatened. The Service finds that designation of critical habitat is not presently prudent for this species. Such

a determination would result in no known benefit to the species.

As part of the development of this proposed rule, Federal agencies were notified of the Cumberland pigtoe mussel's distribution, and they were requested to provide data on proposed Federal actions that might adversely affect the species. No specific projects were identified. Should any future projects occur in the Caney Fork system, the involved Federal agency will already have the distributional data needed to determine if the species may be impacted by their action. Thus, no additional benefits would accrue from critical habitat designation that would not also accrue from the listing of the species.

In addition, this species is rare, and taking for scientific purposes and private collection could be a threat. The publication of critical habitat maps and other publicity accompanying critical habitat designation could increase that threat. The locations of populations of this species have consequently been described only in general terms in this proposed rule. Precise locality data would be available to appropriate Federal, State, and local governmental agencies from the Service office described in the "ADDRESSES" section.

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 possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against taking and harm 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 and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in the destruction or adverse modification of

proposed critical habitat. If a species is listed subsequently, 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 responsible Federal agency must enter into formal consultation with the Service.

The Service notified Federal agencies that may have programs affecting the species. No specific proposed Federal actions were identified. Federal activities that could occur and impact the species include, but are not limited to, the carrying out or the issuance of permits for hydroelectric facility construction and operation, reservoir construction, river channel maintenance, stream alterations, wastewater facility development, pesticide registration, and road and bridge construction. However, it has been the experience of the Service that nearly all section 7 consultations can be resolved so that the species is protected and the project objectives met.

The Act and implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect; or to attempt any of these), import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities.

In some instances permits may be issued for a specified time to relieve undue economic hardship that would be suffered if such relief were not available. This species is not in trade, and such permit requests are not expected.

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to this species;

(2) The location of any additional populations of this species and the reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act;

(3) Additional information concerning the range, distribution, and population size of this species; and

(4) Current or planned activities in the subject area and their possible impacts on this species.

Final promulgation of the regulation on this species will take into consideration the comments and any additional information received by the Service, and such communications may lead to 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 received within 45 days of the date of publication of the proposal. Such requests must be made in writing and addressed to the office described in the "ADDRESSES" section.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of 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).

References Cited

- Anderson, R.M. 1990. Status survey of the Cumberland pigtoe pearly mussel, *Pleurobema gibberum*. Tennessee Cooperative Fishery Research Unit, Tennessee Technological University, Cookeville, Tennessee. Unpublished report. Submitted to the U.S. Fish and Wildlife Service, Asheville Field Office, Asheville, NC. 10 pp.
- Gordon, M.E., and J.B. Layzer. 1989. Mussels (BIVALVIA: UNIONOIDAE) of the

Cumberland River: riview of life histories and ecological relationships. U.S. Fish and Wild. Serv. Biol. Rep. 89(15). 99 pp.

Recordkeeping requirements, and Transportation.

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500, unless otherwise noted.

Author

The primary author of this proposed rule is Richard G. Biggins (see "ADDRESSES" section) (704/259-0321 or FTS 672-0321).

Proposed Regulation 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:

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

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

§ 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						
CLAMS:							
Pigtoe, Cumberland.....	<i>Pleurobema gibberum</i>	U.S.A. (TN).....	NA.....	E	.	NA	NA

Dated: September 21, 1990.
Richard N. Smith,
Acting Director, Fish and Wildlife Service.
 [FR Doc. 90-24223 Filed 10-12-90; 8:45 am]
 BILLING CODE 4310-55-M