

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Proposed Listing of Blackside Dace as Threatened

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to list the blackside dace (*Phoxinus cumberlandensis*) as a threatened species under the Endangered Species Act of 1973 (Act), as amended. Historically, this fish likely inhabited many small cool-water streams in the upper Cumberland Rivers system in southeastern Kentucky and northeastern Tennessee. However, primarily due to the impacts of siltation from coal mining prior to adoption of current regulations, silviculture, agriculture, and road construction, and the impacts of unregulated acid mine drainage and impoundments, the species is now restricted to short stream reaches (an estimated total of 14 stream miles) in 30 streams.

Most of these streams are now threatened by many of the same factors that caused the species' original decline. Comments and information pertaining to this proposal are sought from the public.

DATES: Comments from all interested parties must be received by July 21, 1986. Public hearing requests must be received by July 7, 1986.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Field Supervisor, Endangered Species Field Station, U.S. Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina 28801. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Richard G. Biggins, Endangered Species Field Station, U.S. Fish and Wildlife Service, 100 Otis Street, Room 24,

Asheville, North Carolina 28801 (704/259-0321 or FTS 672-0321).

SUPPLEMENTARY INFORMATION:**Background**

The blackside dace (*Phoxinus cumberlandensis*) was discovered in 1975 (a few misidentified specimens from old collections have now been found) and described by Starnes and Starnes (1978). This fish inhabits streams on both public and private property in the upper Cumberland River drainage (primarily above Cumberland Falls) in Pulaski, Laurel, McCreary, Whitley, Knox, Bell, Harlan, and Letcher Counties, Kentucky; and Scott, Campbell, and Claiborne Counties, Tennessee; where it inhabits small (7 to 15 feet wide) upland streams with moderate flows.

The extent of the blackside dace's historic distribution is unknown, but available records show that it has been extirpated from at least ten streams (O'Bara 1985). Starnes (1981) reported that, based on his physical habitat evaluation, it may have existed in at least 52 other streams, but was eliminated before it was discovered in these waters. Presently, it is known from a total of only about 14 stream miles in 30 separate streams (O'Bara 1985).

The areas of Kentucky and Tennessee inhabited by the fish are rich in coal reserves and forest resources. It is believed that impacts associated with the development of these resources has caused the loss of many blackside dace populations. Harker *et al.* (1980a) stated that many streams in the upper Cumberland River Basin have been affected by acid mine drainage. This report further stated that the major source of pollution in the area is the excessive siltation associated with strip mining, highway construction, and poor land use. Future mining of the area's coal reserves if not conducted in accordance with all existing regulations, increased silvicultural and agricultural activities, road and bridge construction, and other activities that are not conducted with the welfare of the species in mind are expected to further threaten the species.

The blackside dace is listed by the Kentucky Nature Preserves Commission (Harker *et al.* 1980b) as a "threatened (endemic)" species and by the Tennessee Heritage Program of the Tennessee Department of Conservation as "endangered." This small fish (less than 3 inches long) has a single black lateral stripe, a green/gold back with black specks, and a pale or sometimes brilliant scarlet belly (Starnes and Etnier 1980). The fish's fins are often bright yellow with metallic silver surrounding

the base of the pelvic and pectoral fins. The species is generally associated with undercut banks and large rocks and is usually found within relatively stable, well-vegetated watersheds with good riparian vegetation (Starnes 1981). Stable watersheds help maintain cool temperatures and minimize silt to the benefit of the species. O'Bara (1985) also found that the fish's presence was apparently closely correlated with healthy riparian vegetation where canopy cover exceeded 70 percent and with stream flows that were of sufficient velocity to remove silt from areas just downstream of the riffles. The fish was not found in low gradient silty streams nor in high gradient mountain tributaries. The blackside dace spawns in May and June and is thought to feed on algae, detritus, and sometimes insects (Starnes 1981).

On December 30, 1982, the Service announced in the *Federal Register* (47 FR 58454) that the blackside dace, along with 146 other fish species, was being considered for addition to the List of Endangered and Threatened Wildlife. On May 1, 1984 (received by the Service May 16, 1984), Mr. George Burgess, Secretary-Treasurer of the Southeastern Fishes Council, submitted a petition to list the species as threatened. The Service reviewed the petition and in the *Federal Register* of September 4, 1984 (49 FR 34878), announced its finding that the information submitted was substantial in indicating the petitioned action may be warranted. On January 4, 1985, the Service notified Federal, State, and local governmental agencies and interested parties of its review of the species' status. That notification requested information on the species' status and threats to its continued existence. Nine responses to the January 4, 1985, notification were received. Support for some measure of protection for the fish was contained in four letters, four letters outlined potential impacts on agency programs, and five letters commented on specific threats. On July 18, 1985, the Service published a notice in the *Federal Register* (50 FR 29238) concluding that the petition to list the species received from Mr. George Burgess on behalf of the Southeastern Fishes Council was warranted but was precluded from immediate proposal because of other pending actions to list, delist, or reclassify species.

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 blackside dace (*Phoxinus cumberlandensis*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* As the blackside dace was not discovered until 1975 and relatively few historic fish collection records exist for the Upper Cumberland River Basin, the extent of the species' historic range and the number of populations that may have been lost are not known. However, based on available data, it can be concluded that the species' total distribution and the size of the extant population has been substantially diminished. Starnes (1981) sampled 168 upper Cumberland River Basin streams and reported the fish from only 27 streams. He concluded, based on the physical habitat requirements, that the fish could have been eliminated from at least 52 other waters before the fish's existence was known. O'Bara (1985) surveyed 193 upper Cumberland River Basin sites and reported the species present in 30 streams and extirpated from 10. Most of the 30 extant populations are impacted by siltation or some other factor that seriously limits the population's size and vigor. As a result of limiting factors, O'Bara (1985) estimated that the fish now inhabits a total of about 14 stream miles in the 30 streams, and he considered only 9 streams (about 8 stream miles) to contain healthy populations. All the populations inhabited more than 1 stream mile, and some were limited to just a few hundred yards and were represented by the collection of only one fish (O'Bara 1985).

The upper Cumberland River Basin is rich in coal reserves and forested lands, and development of these natural resources with associated road and bridge construction has been extensive and can be expected to continue. The most frequently cited threat (O'Bara 1985) was coal-mining related problems, followed in order of threat by logging, road construction, agriculture, human development, and natural low flows. Only one of the streams described by O'Bara (1985) was not threatened by some factor. Unless the needs of the species are considered so that the impacts from these and other threats can be minimized, the loss of blackside dace populations will continue.

For proper evaluation of these threats, it should be noted that the Service has issued a no-jeopardy biological opinion under Section 7 of the Endangered Species Act for the State of Kentucky's and the Federal Office of Surface Mining's coal mine regulation program. Although no final determination could be made until and unless the blackside dace were listed and a consultation undertaken, the Service has no evidence that mining activities conducted in accordance with State and Federal regulations are a threat to the species. Rather, past unregulated activities have contributed to the decline of the blackside dace and current activities not in compliance with appropriate regulations may be a threat to the species.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* There is no history of this factor being a problem for the blackside dace. However, because of the interest in the species expected to be generated by the listing process, the Service is concerned that this problem may arise in the future. To help minimize this threat, the Service has not proposed critical habitat as this action requires delineation of the species' specific habitats (see "Critical Habitat" Section of this rule).

C. *Disease or predation.* There is no evidence of threats to this species from disease or predation.

D. *The inadequacy of existing regulatory mechanisms.* Both the State of Tennessee and the State of Kentucky prohibit taking this fish for scientific purposes without a State collecting permit. Federal listing would provide additional protection by requiring Federal permits for taking the fish and by requiring Federal agencies to consult with the Service when projects they fund, authorize, or carry out may affect the species.

E. *Other natural or manmade factors affecting its continued existence.* The southern redbelly dace (*Phoxinus erythrogaster*) is not a native to the upper Cumberland River Basin but is now present in many basin streams. Starnes and Starnes (1981) suggested that this fish "may have displaced the blackside dace to some degree in some of those streams that are less upland in character." They found that the redbelly dace had become established in areas where the water and habitat quality had been altered to create warmer and more turbid conditions. However, they stated that the blackside dace seemed able to persist in the better quality habitats.

The Service has carefully assessed the best scientific and commercial

information available 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 blackside dace (*Phoxinus cumberlandensis*) as a threatened species. Although specific historic records are lacking, available data from habitat evaluations indicate that this fish once likely inhabited many small cool-water streams throughout much of the upper Cumberland River Basin. However, the species is now known to exist in only about 14 stream miles in 30 separate stream. The many factors that brought the species to this condition are still threatening it. Because of the number of populations in existence, it is unlikely the species will become extinct in the foreseeable future. Therefore, endangered species status is not appropriate. The reasons for not proposing critical habitat are discussed in the "Critical Habitat" section of this rule.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate any habitat of a species which is considered to be critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for this species at this time. Although take of the blackside dace is presently not known to be a problem, the species could be vulnerable to this threat. The fish inhabits very small (7 to 15 feet wide) streams, occupies only short stream segments (most less than 1 mile), exists in small numbers in these stream reaches, and is known from only nine healthy populations. Most of the inhabited stream reaches are easily accessible by road. Because of potential and perceived conflicts with coal mining activities, substantial notoriety may develop from this proposed rule and subsequent Federal actions. Therefore, in light of these factors, the Service believes that publishing maps and text detailing the location of the blackside dace's specific habitat and constituent elements of that habitat, as required for any critical habitat designation, would increase the species' vulnerability to illegal taking and/or vandalism, further threaten the species, and increase the law enforcement problem. All appropriate local, State, and Federal agencies and governmental officials will be notified of the location and importance of protecting this species' habitat.

Protection of this species' habitat will also be addressed through the recovery

process and through the section 7 jeopardy standard (see below). Therefore, it would not be prudent to designate critical habitat for the blackside dace at this time.

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. Such actions are initiated by the Service following listing. 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 provisions 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 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. 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. Federal activities that could impact the species and its habitat include, but are not limited to, the following: issuance of permits for surface mining, abandoned mine land reclamation, road and bridge construction, and timber management on Federal lands. It has been the experience of the Service, however, that nearly all section 7 consultations are resolved so that the species is protected and the project objectives can be met.

The Act and implementing regulations found at 50 CFR 17.21 and 17.31 set forth a series of general prohibitions and

exceptions that apply to all 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 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 threatened wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22, 17.23, and 17.32. 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. For threatened species, there are also permits for zoological exhibition, educational purposes, or special purposes consistent with the purposes of the Act. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship that would be suffered if such relief were not available.

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. 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 this proposal 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 and distribution of this species; and
- (4) Current or planned activities in the subject area and their possible impacts on this species.

Final promulgation of the regulations on this species 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 Mr. Warren T. Parker, Field Supervisor, Endangered Species Field Station, U.S. Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina 28801.

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).

Literature Cited

- Harker, D.F., M.E. Medley, W.C. Houtcooper, and A. Phillippi. 1980b. Kentucky Natural Areas Plan, Appendix A. Kentucky Nature Preserves Commission, Frankfort, Kentucky.
- Harker, D.F., M.L. Warren, Jr., K.E. Camburn, S.M. Call, G.J. Fallo, and P. Wigley. 1980a. Aquatic biota and water quality survey of the upper Cumberland River basin. Technical Report, Volume I, 409 pp. Prepared for Kentucky Division of Water Quality, Department of Natural Resources and Environmental Protection.
- O'Bara, C.J. 1985. Status survey of the blackside dace (*Phoxinus cumberlandensis*). Report to the U.S. Department of the Interior, Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina. 30 pp. plus Appendix.
- Starnes, W.C. 1981. Listing package for the blackside dace (*Phoxinus cumberlandensis*). Report to the U.S. Department of the Interior, Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina. 41 pp. plus Appendices A and B.
- Starnes, W.C., and D.A. Etnier. 1980. Fishes. pp. 23-24. In: Eager, D.C., and R.M. Hatcher (eds.), Tennessee's Rare Wildlife, Vol. I: The Vertebrates. Tennessee Wildlife Resources Agency and Tennessee Conservation Department. 337 pp.
- Starnes, W.C., and L.B. Starnes. 1978. A new cyprinid of the genus *Phoxinus* endemic to the upper Cumberland River drainage. *Copeia* 1978: 508-516.

Author

The primary author of this proposed rule is Richard G. Biggins, Asheville Endangered Species Field Station, U.S. Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina 28801 (704/259-0321 or FTS 672-0321).

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 continues to read 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.

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(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
FISHES							
Dace, blackside	<i>Phoxinus cumberlandensis</i>	U.S.A.(TN,KY)	Entire	T	NA	NA	

Dated: May 6, 1986.

Susan Recce,

Acting Assistant Secretary for Fish and Wildlife and Parks.

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