
DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination of Threatened Status and Critical Habitat for the Niangua Darter (*Etheostoma nianquae*)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines the Niangua darter (*Etheostoma nianquae*) to be a threatened species and designates its critical habitat under the authority contained in the Endangered Species Act of 1973, as amended. A special rule allowing take for certain purposes in accordance with State laws and regulations is established. This fish is presently known only from the Osage River Basin of west-central Missouri. It is rare, localized in occurrence, and vulnerable to extinction. Reservoir construction, stream channelization, accelerated erosion and sedimentation, nutrient enrichment, and introduction of potential predators are threats to the Niangua darter. The final rule will provide the protection of the Endangered Species Act to this species. The Service will initiate recovery efforts for the Niangua darter.

EFFECTIVE DATE: July 12, 1985.

ADDRESSES: The complete file for this rule is available for inspection during business hours (7:00 a.m.-4:30 p.m.) at the Endangered Species Office, U.S. Fish and Wildlife Service, Federal Building, Fort Snelling, Twin Cities, Minnesota 55111.

FOR FURTHER INFORMATION CONTACT: Mr. James M. Engel (see **ADDRESSES** section) (612/725-3276 or FTS 725-3276).

SUPPLEMENTARY INFORMATION:**Background**

The Niangua darter, a percid fish, was first described by Gibert and Meek in 1888 (Gilbert, 1888). Pflieger (1975) described the fish as a slender darter with about eight dark cross-bars on the back, readily distinguished from other Missouri darters by the presence of two small jet-black spots at the base of the caudal fin. Adults are 3 to 4 inches long. Life colors and other characteristics were given by Pflieger (1975). The only near-relative of the Niangua darter is the arrow darter (*Etheostoma sagitta*), which occurs in eastern Kentucky and northern Tennessee. The Niangua darter is known only from a few tributaries of the Osage River in Missouri (Pflieger, 1971). The species inhabits clear, medium-sized streams draining hilly areas underlain by chert, dolomitic bedrocks. It prefers the margins of shallow pools with silt-free gravelly or rocky bottoms. Spawning occurs on swift, gravel riffles. Nymphs of stoneflies and mayflies gleaned from crevices of the stream bottom comprise the diet of the Niangua darter.

Pflieger (1978) reported 8 populations of the Niangua darter along 128 miles of the Osage River Basin, Missouri. Specifically, these populations were located in the Maries River and lower Maries Creek, Osage County; Big Tavern Creek and upper Little Tavern Creek, Barren Fork, and Brushy Fork, Miller County; Niangua River and Greasy Creek, Dallas County; Little Niangua River, Starks Creek, Thomas Creek, and Cahoonie Creek, Camden, Hickory and Dallas Counties; Little Pomme de Terre River, Benton County; Pomme de Terre River, Greene and Webster Counties; Brush Creek, Cedar and St. Clair Counties; and the North Dry Sac River, Polk County. The Niangua darter is part of a diverse fish fauna of 107 species in the Osage Basin. Although historical numbers are unknown, it is believed that the Niangua darter population has declined at most sites in recent years. Pflieger (1978) searched extensively for the species in the Osage River Basin where it was found at 64 of 168 stations sampled. Intensive analyses of habitat, abundance, and life history were made at these 64 sites. The species is rare, localized in occurrence, and vulnerable to extinction.

In 1979, the American Fisheries Society's Endangered Species Committee expressed its opinion that the Niangua darter was a threatened species (Deacon *et al.*, 1979). On December 10, 1980, the Service received a petition from the Ozark Endangered Species Task Force to list the Niangua

darter as a threatened species. The petition was based on the comprehensive report on the Niangua darter by William L. Pflieger (1978) of the Missouri Department of Conservation. The report by Pflieger was based on research carried out between 1974 and 1977. It included a thorough review of the literature, and information on the distribution and life history of the Niangua darter. It also recommended threatened status for the darter throughout its range. The Service accepted the petition on April 9, 1981, and indicated its intent to prepare a proposed rule to list the Niangua darter as a threatened species (46 FR 21208). The Niangua darter was also included in the Service's Notice of Review of Vertebrate Wildlife published December 30, 1982 (47 FR 58454-60).

On April 17, 1984, the Service published a proposed rule in the Federal Register (49 FR 15102-09) to list the Niangua darter as a threatened species with critical habitat. The proposal solicited comments from any interested parties concerning threats to this species, its distribution and range, whether or not critical habitat should be designated, and activities that might impact the species.

Summary of Comments and Recommendations

In the proposal of April 17, 1984, all interested parties were requested to submit information on the status of the Niangua darter that might contribute to the development of a final rule. Subsequently, letters were sent to appropriate State agencies, county governments, Federal agencies, scientific organizations, and other interested parties notifying them of the proposal and soliciting their comments and suggestions. Newspaper notices were published in three Missouri newspapers which invited general public comment. Three comments were received and are discussed below.

The Missouri Department of Conservation supported the proposed rule. Most of the data for the proposal are from the Missouri Department of Conservation. One public comment recommended endangered status but offered no supporting data. The U.S. Army Corps of Engineers recommended that the downstream limit of the proposed critical habitat on Brush Creek be reestablished at least 1,000 feet upstream from the currently proposed downstream limit at County Road J. The Corps reasoned that the operation of two Corps' projects, Harry S. Truman Reservoir and Stockton Lake, may affect Brush Creek. Specifically, the hydrologic evaluation indicates that the maximum flood control pool of the reservoir and

lake may be exceeded on the average of once every 100 years. If the flood storage capacities of both the lake and reservoir are concurrently exceeded the water surface would extend approximately 1,000 feet upstream from county Road J, the current downstream limit of the Niangua darter's proposed critical habitat. The Service believes that deletion of the small area on the lower portion of this segment of the critical habitat would not reduce the protection of the Niangua darter and its habitat. The Service accepted the Corps's reason for this deletion and reestablished the critical habitat boundary for Brush Creek.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that the Niangua darter should be classified as a threatened species. Procedures found at 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 (50 CFR Part 424) were followed. A species may be determined to be endangered or threatened due to one or more of the five factors described in Section 4(a)(1). These factors and their application to the Niangua darter (*Etheostoma nianguae*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Reservoir construction, siltation, and stream channelization are threats to the Niangua darter. One of the eight populations of Niangua darters reported by Pflieger (1978) has been extirpated. The Truman Reservoir has inundated all of the known distribution of the species in the Little Pomme de Terre River and repeated sampling has failed to collect any Niangua darters. The reservoir also presents a barrier to the movement of the species between habitable tributary streams. Such movements are important to the long-term survival of the species. Stream channelization projects, often associated with highway and bridge construction, straighten and widen stream channels and frequently cause increased erosion and siltation. Landowners channelize streams to control local flooding. These practices, leading to sedimentation and pollution, are general and pervasive throughout the range of the Niangua darter and represent a major threat to the species. In addition to stream channelization, the practice of removing woody vegetation from stream channels causes increased

erosion, changes in the character of the stream substrate, elimination of pools, and the alteration of stream flow, all of which seriously disrupt the stream ecosystem.

B. Overutilization for commercial, recreational, scientific, or educational purposes. There is no indication that the Niangua darter is overutilized for any of these purposes.

C. Disease or predation. Although disease is not known to be a factor affecting the species, the introduction of piscivorous fishes could be detrimental to the Niangua darter. The spotted bass (*Micropterus punctulatus*) and rock bass (*Ambloplites rupestris*) were introduced into the Osage Basin before 1940 and are now widely distributed. Reservoir habitat is ideal for these predators and serves as large population centers. The movement of these predatory fishes from reservoirs into tributary streams inhabited by the Niangua darter could further reduce the darter population.

D. The inadequacy of existing regulatory mechanisms. Current regulations protecting the Niangua darter are limited to the State of Missouri's collecting permit requirements for fishes. At present, there is no mechanism for habitat protection. The Endangered Species Act will provide protection for the species and its habitat through the requirements of sections 7 and 9.

E. Other natural or manmade factors affecting its continued existence. None are known.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by the Niangua darter in determining to make this rule final. Based on this evaluation, the preferred action is to list the Niangua darter as threatened with critical habitat. Threatened status is appropriate because, although not immediately in danger of extinction, the species is likely to become endangered if trends in population decline and habitat alteration continue. Proper and adequate management could prevent the species from becoming endangered. Reasons for critical habitat designation are discussed in the "Critical Habitat" section of this rule.

Critical Habitat

Critical habitat, as defined by Section 3 of the Act, means: (i) The specific areas within the geographic area occupied by the 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 (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4(a)(3) of the Act, as amended, 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 is being designated for the Niangua darter to include 90 of the 128 miles of streams inhabited by the species plus a 50 foot riparian zone along each side of the 90 miles of stream. The critical habitat is located in Camden, Cedar, Dallas, Greene, Hickory, Miller, and St. Clair Counties, Missouri. The critical habitat is based primarily on the recommendation of the Missouri Department of Conservation.

In considering designation of critical habitat, 50 CFR 424.12(b) requires consideration of the biological or physical constituent elements within the defined area that are essential to the conservation of the species involved. With respect to the Niangua darter, the critical habitat satisfies all known criteria for the ecological, behavioral, and physiological requirements of the species. The streams are largely undisturbed and possess the habitat characteristics described for the Niangua darter by Pflieger (1978). The 50 foot riparian zone along each side of the stream is included in the critical habitat designation because this zone is helpful in preventing runoff pollutants from entering the stream and reduces siltation, and thereby protects the chemical and physical properties of the stream ecosystem. The vegetation in the riparian zone provides shading to the stream which helps stabilize the water temperature and dissolved oxygen levels. Populations of the fish survive and reproduce within the designated critical habitat.

Section 4(b)(8) of the Act requires, for any final regulation that determines critical habitat, a brief description and evaluation of those activities (public or private) which may adversely modify such habitat, if undertaken, or may be affected by such designation. In the case of the Niangua darter, such activities could include reservoir construction, stream channelization, removal of stream channel vegetation, erosion, sedimentation, nutrient enrichment from adjoining land, sewage discharge, and introduction of nonnative fishes that are predators or competitors of the species. Two Corps projects, the Harry S. Truman Reservoir and Stockton Lake, are located in the vicinity of the Brush

Creek portion of the proposed critical habitat. A 100-year flood event would cause the waters of the reservoir and Stockton Lake to back up and inundate about 1,000 feet of Brush Creek. This inundation renders the habitat unsuitable for the Niangua darter. Consequently, the area affected by the inundation was removed from the critical habitat designation. For these reasons, the two Corps projects are not expected to affect or be affected by the designation of critical habitat.

Stream channelization projects, often associated with road and bridge construction and maintenance, may result in erosion and siltation and affect the proposed critical habitat. Currently, there are no known or planned road or bridge projects within or in the vicinity of the proposed critical habitat. In addition, there is no known involvement of Federal funds or permits for the activities occurring on private land within the proposed critical habitat area.

Section 4(b)(2) of the Act requires the Service to consider economic and other impacts of specifying a particular area as critical habitat. To obtain this information the Service contacted Federal agencies that could possibly be involved in constructing, authorizing, or funding projects within the critical habitat. The Service has evaluated the critical habitat designation after considering all available information and concludes that no additional adjustments to the area proposed as critical habitat are warranted.

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 requires that recovery actions be carried out for all listed species and these are initiated by the Service following listing. The section 7 responsibilities of Federal agencies and the Act's general prohibitions 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 and are now under revision (see proposal at 48 FR 29990; June 29, 1983). 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 a listed species or to destroy to 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. At present there are no known Federal actions which will be affected by this rule.

The Act and its implementing regulations found at 50 CFR 17.21 and 17.31 set forth a series of prohibitions and exceptions that generally 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 was illegally taken. 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 17.32. 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.

The above discussion generally applies to threatened species of fish or wildlife. However, the Secretary has discretion under section 4(d) of the Act to issue such special regulations as are necessary and advisable for the conservation of a threatened species. The Niangua darter is threatened primarily by habitat disturbance or alteration, not by intentional, direct taking of the species for commercial purposes. Given this fact and the fact that the State effectively regulates direct taking of the species through the requirement of State collecting permits, the Service has concluded that the State

regulation is adequate to protect the species from excessive taking, so long as taking is allowed only for educational purposes, scientific purposes, the enhancement of propagation or survival of the species, zoological exhibition, and other conservation purposes consistent with the Endangered Species Act. A separate Federal permit system is not required to address the current threats to the species. Therefore, the Service issues a special rule allowing take for the above-stated purposes without the need for a Federal permit, if a valid collection permit is obtained and all other State wildlife conservation laws and regulations are satisfied. It should be recognized that any activities involving the taking of this species not otherwise enumerated in the special rule are prohibited. Without this special rule, all of the prohibitions under 50 CFR 17.31 would apply. The Service believes that this special rule will allow for more efficient management of the species, thereby facilitating its conservation. For these reasons, the Service has concluded that this special rule is necessary and advisable for the conservation of the Niangua darter.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined by 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).

Regulatory Flexibility Act and Executive Order 12291

The Department of the Interior has determined that designation of critical habitat for this species will not constitute a major action under Executive Order 12291 and certifies that this designation will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). The critical habitat areas are located entirely on private land. There is no known involvement of Federal funds or permits for these private lands. Consequently, no adverse effects on small entities within the area affected by the designation of critical habitat have been identified and none

are expected. No direct costs, enforcement costs, or information collection or recordkeeping requirements are imposed on small entities by the designation. These determinations are based on a Determination of Effects that is available at the Regional Office address (see ADDRESSES section).

Literature Cited

- Deacon, J.E., G. Kobetich, J.D. Williams, and S. Contreras. 1979. Fishes of North America—endangered, threatened, or of special concern. *Fisheries* 4(2):29–44.
- Gilbert, C.H. 1888. Descriptions of new and little known etheostomids. *Proc. U.S. Nat. Mus.* 10:47–64.
- Missouri Department of Conservation. 1974. Rare and endangered species of Missouri. 80 pp.
- Pflieger, W.L. 1971. A distributional study of Missouri fishes. *Mus. Nat. Hist., Univ. Kansas, Publ.* 20(3):229–570.
- Pflieger, W.L. 1975. The fishes of Missouri. *Missouri Dept. of Conservation.* 342 pp.
- Pflieger, W.L. 1978. Distribution, status, and life history of the Niangua darter. *Etheostoma nianguae*. *Aquatic Ser. No. 16.* Missouri Dept. of Conservation. 24 pp.

Author

The primary author of this final rule is Mr. John G. Sidle, Endangered Species Office, U.S. Fish and Wildlife Service, Federal Building, Ft. Snelling, Twin Cities, Minnesota 55111.

List of Subjects in 50 CFR Part 17

Endangered and threatened Wildlife, Fish, Marine mammals, Plants (agriculture).

Regulations Promulgation

PART 17—(AMENDED)

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is amended 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. 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.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
FISHES							
Darter, Niangua	<i>Etheostoma nianguae</i>	U.S.A. (MO)	Entire	T	184	17.95(e)	17.44(k)

3. Add the following as a special rule to § 17.44:

§ 17.44 Special rules—fishes.

(k) Niangua Darter, *Etheostoma nianguae*.

(1) No person shall take the species, except in accordance with applicable State fish and wildlife conservation laws and regulations in the following instances: educational purposes, scientific purposes, the enhancement of propagation or survival of the species, zoological exhibition, and other conservation purposes consistent with the Act.

(2) Any violation of applicable State fish and wildlife conservation laws or regulations with respect to the taking of this species will also be a violation of the Endangered Species Act.

(3) No person shall possess, sell, deliver, carry, transport, ship, import, or export, by any means whatsoever, any such species taken in violation of these regulations or in violation of applicable State fish and wildlife conservation laws or regulations.

(4) It is unlawful for any person to attempt to commit, solicit another to commit, or cause to be committed, any offense defined in paragraphs (1) through (3) of this paragraph.

4. Amend § 17.95(e) by adding critical habitat for the Niangua darter, in the same sequence that it appears in § 17.11(h), as follows:

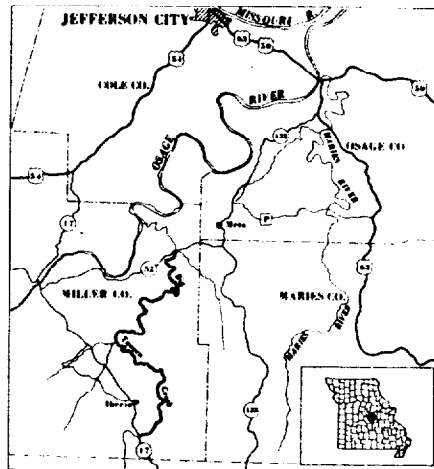
§ 17.95 Critical habitat—fish and wildlife.

Niangua Darter

(*Etheostoma nianguae*)

Missouri. Big Tavern Creek, Miller County. Big Tavern Creek and 50 feet along each side of the creek from Highway 52 upstream to Highway 17.

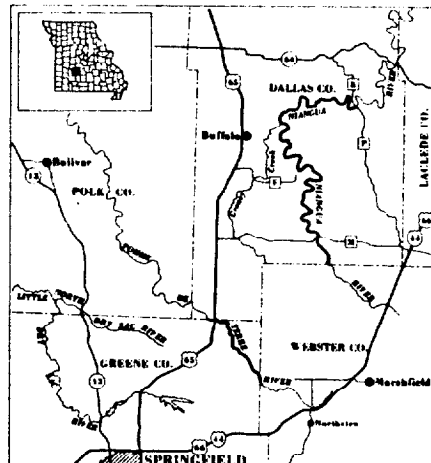
NIANGUA DARTER
Miller County, MISSOURI



Missouri. Niangua River, Dallas County. Niangua River and 50 feet on each side of the river from county road K upstream to 1 mile beyond county road M to the Webster County line.

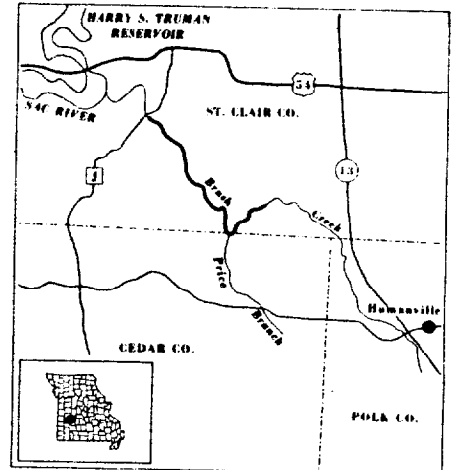
Missouri. Pomme de Terre River, Greene County. Pomme de Terre River and 50 feet on each side of the river from Highway 65 upstream to the Webster County line.

NIANGUA DARTER
Dallas and Greene Counties, MISSOURI



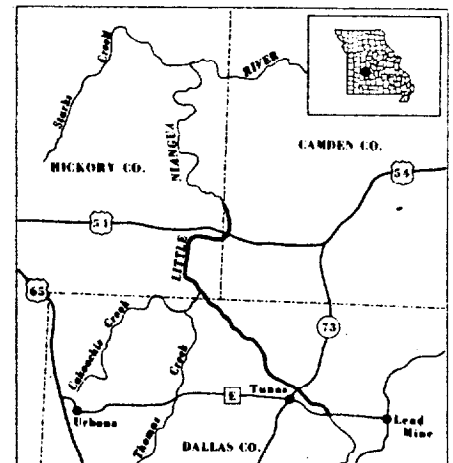
Missouri. Brush Creek, Cedar, and St. Clair Counties. Brush Creek and 50 feet on each side of the creek from 1000 feet upstream of county road J to the boundary of Sections 34 and 35, Township 36 N, Range 25 W.

NIANGUA DARTER
Cedar and St. Clair Counties, MISSOURI



Missouri. Little Niangua River, Camden, Dallas, and Hickory Counties. Little Niangua River and 50 feet on each side of the river from 1 mile below (downstream of) Highway 54, Camden County, to county road E, Dallas County.

NIANGUA DARTER
Camden, Dallas and Hickory Counties, MISSOURI



Constituent elements, for all areas designated as critical habitat, consist of medium-sized creeks with silt-free pools and riffles and moderately clear water draining hilly areas underlain by chert and dolomite. Water ranges from 8 to 46 inches in depth over gravel with scattered rubble.

* * * * *

(Final: Niangua darter (*Etheostoma nianguae*)—threatened with critical habitat)

Dated: May 15, 1985.

J. Craig Potter,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 85-13993 Filed 6-11-85; 8:45 am]

BILLING CODE 4310-55-M