

after rebilling, in order to permit carriers to obtain a determination from us as to whether any additional charges must be paid before going to court.

In the event the shipper and carrier cannot resolve their dispute, the complaining party should file an informal complaint with us that documents the dispute. We intend to handle such cases informally under the rules at 49 CFR 1130. Filings with us must include either a copy of whatever the shipper submitted to the carrier to contest the charges and any response by the carrier or the carrier rebilling and any response by the shipper. We are delegating authority to the Suspension/Special Permission Board to handle these complaints.

If our handling of the dispute does not terminate it, the aggrieved party must be mindful of the statute of limitations for filing court actions which is now 2 years from the date the claim accrues but is reduced to 18 months on December 3, 1994, 49 U.S.C. 11706(a)&(b). Congress has given the Commission the jurisdiction to adjudicate these disputes, but only a court can order the payment of monies that may be owed. In other words, a court action must be filed within the statute of limitations period. Filing with the Commission does not toll the statute of limitations for bringing court action.

**Environmental And Energy Considerations**

We conclude that the rule adopted here will not significantly affect either the quality of the human environment or the conservation of energy resources.

**Regulatory Flexibility Analysis**

We conclude that our action will not have a significant economic impact on a substantial number of small entities. This action only involves delegation of responsibilities to the Suspension/Special Permission Board to handle these complaints.

**List of Subjects**

49 CFR Part 1011

Administrative practice and procedure, Authority delegations (Government agencies), Organization and functions (Government agencies).

49 CFR Part 1130

Administrative practice and procedure.

Decided: December 8, 1994.

By the Commission, Chairman McDonald, Vice Chairman Morgan, and Commissioners Simmons and Owen.  
Vernon A. Williams,  
Secretary.

For the reasons set forth in the preamble, title 49, chapter X, part 1011 is amended as set forth below:

**PART 1011—COMMISSION ORGANIZATION; DELEGATIONS OF AUTHORITY**

1. The authority citation for part 1011 is revised to read as follows:

Authority: 5 U.S.C. 553; 31 U.S.C. 9701; 49 U.S.C. 10301, 10302, 10304, 10305, 10321, 10762.

2. In § 1011.6 a new paragraph (a)(1)(iv) is added to read as follows:

**§ 1011.6 Employee boards.**

\* \* \* \* \*

(a) \*\*\*  
(1) \*\*\*

(iv) To handle any disputes that may arise concerning the applicability or reasonableness of motor common carrier rates under 49 U.S.C. 10762(a) (3) and (4).

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**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

50 CFR Part 17

RIN 1018-AC01

256-94

**Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Cherokee Darter and Endangered Status for the Etowah Darter**

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

**SUMMARY:** The Fish and Wildlife Service (Service) determines threatened status for the Cherokee darter (*Etheostoma (Ulocentra) sp.*) and endangered status for the Etowah darter (*Etheostoma etowahae*) under the Endangered Species Act of 1973 (Act), as amended. The Cherokee darter and Etowah darter are recently discovered species of fish that are endemic to the Etowah River system in north Georgia.

The Cherokee darter is now known from approximately 20 small tributary systems of the Etowah River, but healthy populations are known from only a few sites. The Etowah darter is known from the upper Etowah River

mainstem and two tributary systems. Impoundments and deteriorating water and benthic habitat quality resulting from siltation, agricultural runoff, other pollutants, poor land use practices, increased urbanization, and waste discharges have resulted in the restriction and fragmentation of these species' current ranges. These factors continue to impact the species and their habitat.

EFFECTIVE DATE: January 19, 1995.

ADDRESSES: The complete file for this rule is available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, 6620 Southpoint Drive South, Suite 310, Jacksonville, Florida 32216.

FOR FURTHER INFORMATION CONTACT: Mr Robert S. Butler at the above address (904/232-2580).

**SUPPLEMENTARY INFORMATION:**

**Background**

The Etowah River is one of three major upper Coosa River system tributaries, the others being the Conasauga and Oostanaula Rivers. The Etowah joins the Oostanaula River in Rome, Georgia, to form the Coosa River. The Coosa River itself is the major eastern tributary of the Mobile Basin and empties into the Gulf of Mexico in southwest Alabama. The Etowah River system drains portions of the Blue Ridge, Piedmont, and Valley and Ridge physiographic provinces. All streams in the drainage are upland in nature and characterized by high gradients and rocky substrates. Land use patterns of the Etowah system are largely of a rural agrarian economy, with scattered municipalities, including the encroaching Atlanta metropolitan area.

The diversity of the aquatic fauna is commensurate with the diversity of physiographic provinces comprising the basin. Many of the aquatic organisms reported from the Etowah system are rare. Records of federally protected species are known for an endangered fish (amber darter, *Percina antesella*), four endangered mussels (upland combshell, *Epioblasma metastrata*, southern clubshell, *Pleurobema decisum*; ovate clubshell, *P. perovatum*, and triangular kidneyshell, *Ptychobranchus greenii*), and a threatened mussel (Alabama moccasinshell, *Medionidus acutissimus*). In addition, several Category 2 candidate species from the Service's animal notice of review published in the **Federal Register** of November 21, 1991 (56 FR 58804) are also known from the Etowah River system. These include a mussel (Tennessee heelsplitter, *Lasmigona*

*holstonia*), five fishes (rock darter, *Etheostoma rupestre*; freckled darter, *Percina lenticula*; bronze darter, *P. palmaris*; lined chub, *Hybopsis lineapunctata*; and frecklebelly madtom, *Noturus munitus*), and at least three aquatic snails (spindle elimia, *Elimia capillaris*; coldwater elimia, *E. gerhardtii*; and rough hornsnail, *Pleurocera foremani*). It is estimated that 35 of the potentially 50 freshwater mussel species that once inhabited the Etowah River system have been extirpated (Burkhead *et al.* 1992); several of these species are now considered extinct. The Etowah River system at one time contained a significant portion of the aquatic biodiversity of the upper Mobile Basin.

#### Cherokee Darter

A small percid fish, the Cherokee darter is subcylindrical in shape, and has a relatively blunt snout with a subterminal mouth. The body shade is white to pale yellow. The side of adults is pigmented with usually eight small dark olive black blotches that develop into vertically elongate, slightly oblique bars in breeding adults, especially in males. The back usually has eight small dark saddles and intervening pale areas. The Cherokee darter has proven to be distinct from the Coosa darter, *E. coosae*, a species with which it was previously confused, by peak nuptial males never having five discrete color bands in the spinous dorsal fin.

Cherokee darters inhabit small to medium size warm-water creeks of moderate gradient, with predominately rocky bottoms. It is usually found in shallow water in sections of reduced current, typically in runs above and below riffles and at the ecotones of riffles and backwaters. The Cherokee darter is associated with large gravel, cobble, and small boulder substrates, and is uncommonly or rarely found over bedrock, fine gravel, or sand. It is most abundant in stream sections with relatively clear water and clean substrates (little silt deposition). The Cherokee darter is intolerant of heavy to moderate silt deposition. The Cherokee darter, like other members of the subgenus *Ulocentra*, is intolerant of impoundment.

The Cherokee darter is endemic to the Etowah River system in north Georgia, where it is primarily restricted to streams draining the Piedmont physiographic province, and to a lesser extent, the Blue Ridge physiographic province. The Cherokee darter occurs in about 20 small to moderately large tributary systems of the middle and upper Etowah River system. However, only a few sites contain healthy

populations of this species. The largest populations occur in northern tributaries upstream of Allatoona Reservoir. Populations are smaller in tributaries draining the southern portion of the system. The southern tributary systems tend to drain areas exhibiting less relief and are on the average much more degraded. Cherokee darter populations are found primarily above Allatoona Reservoir. Downstream of Allatoona Dam, populations are restricted to two tributary systems.

The Cherokee darter exhibits a disjunct and discontinuous distribution pattern indicating fragmentation and isolation of populations. The placement of Allatoona Reservoir in the middle Etowah River system has caused much of the fragmentation of this species' populations. One major tributary system in the upper Etowah system, Amicalola Creek, apparently naturally lacks populations of Cherokee darters, but contains a relatively close relative and also a narrow endemic, the holiday darter, *E. brevirostrum*. The Cherokee darter is allopatric (i.e., the ranges of the species do not overlap) with the other two *Ulocentra* species in the watershed, the holiday darter and Coosa darter. A formal description of the Cherokee darter is awaiting publication (Bauer *et al.* in press).

#### Etowah Darter

The Etowah darter is a small-sized percid fish that is moderately compressed laterally, and has a moderately pointed snout with a terminal, obliquely angled mouth. The body ground shade is brown or grayish-olive. The side is usually pigmented with 13 or 14 small dark blotches just below the lateral line. The breast in nuptial males is dark greenish-blue. The Etowah darter has proven distinct from the greenbreast darter, *E. jordani*, a species with which it has previously been confused, by the absence of red marks on the sides and anal fins of male specimens.

The Etowah darter inhabits warm and cool, medium and large creeks or small rivers that are moderate or high gradient with rocky bottoms. It is found in relatively shallow riffles, with large gravel, cobble, and small boulder substrates. The Etowah darter is typically associated with the swiftest portions of shallow riffles, but occasionally adults are taken at the tails of riffles. The sites having the greatest abundance of Etowah darters had clear water and relatively little silt in the riffles. The Etowah darter, like other members of the subgenus *Nothonotus*, shuns pool habitats and is intolerant of impoundment.

The Etowah darter is endemic to the upper Etowah River system in north Georgia, where it is restricted to the upper Etowah River mainstem and two tributaries, Long Swamp and Amicalola Creeks. These streams drain both the Blue Ridge and Piedmont physiographic provinces. This distribution suggests habitat specialization; all streams inhabited by this species are geographically adjacent in the most upland portion of the river system. For a fish of moderate to large creeks or small rivers, the Etowah darter has one of the most restricted distributions in the southeast (Lee *et al.* 1980). The Etowah darter has been formally described by Wood and Hayden (1993).

The Cherokee darter appeared as a category 2 species in the Service's notice of review for animal candidates published in the **Federal Register** of January 6, 1989 (54 FR 554) and November 21, 1991 (56 FR 58804). Category 2 species are taxa under review for listing, but for which conclusive data on biological vulnerability and threat(s) are not currently available to support proposed rules.

The Service commenced funding a status survey in 1989 to better determine the status of the recently discovered Cherokee darter. After field work had commenced, another undescribed fish was discovered in the Etowah River system, the Etowah darter. The survey was modified to address the population status of both these undescribed darters. A final report was received on March 30, 1993 (Burkhead 1993), providing sufficient information on biological vulnerability and threats to support a proposed rule to classify the Cherokee darter as threatened and the Etowah darter as endangered.

On April 6, 1993, the Service notified potentially affected Federal and State agencies by mail that a status review was being conducted for the Cherokee darter and Etowah darter. Two comments were received concerning this notification. The U.S. Forest Service stated that it was unlikely Forest Service lands harbored suitable habitat for the two darter species. They also noted that future Forest Service activities in the Etowah River watershed were expected to decrease, and that it was unlikely these activities would produce any noticeable siltation effects on downstream populations of the Cherokee darter and Etowah darter. The Environmental Protection Agency commented on locating specific watersheds having high cumulative non-point source stream impacts for potential restoration work. This information would be useful in the recovery of the Cherokee darter and

Etowah darter. Neither agency had objections to the potential listing of these species.

#### Summary of Comments and Recommendations

In the October 18, 1993, proposed rule (58 FR 53696), and through associated notifications, all interested parties were requested to submit factual reports and information that might contribute to the development of a final rule for the Cherokee darter and Etowah darter. Appropriate Federal and State agencies, county governments, scientific organizations, and interested parties were contacted by letter dated November 1, 1993, and were requested to comment. Legal notices were published in *The Atlanta Journal/The Atlanta Constitution*, Atlanta, Georgia, on October 31, 1993, and in *The Marietta Daily Journal*, Marietta, Georgia, on November 5, 1993.

In response to a formal request by the Cherokee County Board of Commissioners, a public hearing on the Service's proposal to list the Cherokee darter and the Etowah darter as threatened and endangered, respectively, was held on January 12, 1994, at the Cherokee County Administrative Building, Canton, Georgia. The comment period was extended until January 24, 1994. A notice of the hearing and comment period extension was published in the **Federal Register** on December 16, 1993 (58 FR 65696) and in the *Cherokee Citizen*, Canton, Georgia, on December 29, 1993.

Seven written and 17 oral comments (fourteen at the public hearing) were received regarding the proposed listing. Federal agencies providing written comments included two agencies in the U.S. Department of Agriculture, Animal Damage Control and Soil Conservation Service, and the U.S. Army Corps of Engineers (Corps). The Animal Damage Control, Coosa River Basin Initiative, and Georgia Environmental Organization supported the listing; most of the other commenters did not. Following is a summary of the comments, concerns, and questions (referred to as "Issues" for the purpose of this summary) expressed in writing and orally. Issues of similar content have been grouped together. These issues and the Service's response to each are presented below.

**Issue 1:** Several commenters questioned the validity of both the Cherokee darter and Etowah darter as taxonomically distinct species.

**Response:** These two fishes were recently recognized as species new to science by prominent ichthyologists

highly knowledgeable of fish in southeastern United States streams. A few years prior to the status survey for these species in the Etowah River system (see response to *Issue 5* below), the Cherokee darter had been considered the Coosa darter (*Etheostoma coosae*) and the Etowah darter had been considered the greenbreast darter (*E. jordani*). Status survey collections in the Etowah River system provided material sufficient for ichthyologists to determine that the Cherokee darter and Etowah darter were indeed valid biological entities distinct from the species they had heretofore been confused with. Specifically, unique color differences in nuptial (breeding) males of both species were discovered. Publication of a species description in scientific journal and peer review by the scientific community is the primary safeguard to ensure that species descriptions are based on sound scientific information. Therefore, the Service accepts the biological basis of species validity provided in the forthcoming scientific description and distinction of the Cherokee darter from the Coosa darter (Bauer *et al.* in press), and the published scientific description and distinction of the Etowah darter from the greenbreast darter (Wood and Mayden, 1993).

**Issue 2:** One commenter wanted clarification as to the timing of the determination of the Cherokee darter as a valid species in relation to the impoundment of Allatoona Reservoir, and insinuated that since the Cherokee darter was not formally recognized as a species at the time of reservoir construction, the preimpoundment records for populations of the Cherokee darter alluded to in the proposed rule referred actually to the Coosa darter.

**Response:** As stated in the response to *Issue 1* above, these two species were recognized as new species within the past few years, and decades after Allatoona Reservoir was completed in the 1950's. However, the Service is not indicating that these two fishes evolved into separate species since construction of this reservoir. The evolution of new species is a slow process that takes thousands or millions of years. There is no scientific basis to suggest the Cherokee darter or the Etowah darter evolved since the construction of Allatoona Reservoir, or that this reservoir played any part in the evolution of these species. Therefore, the preimpoundment records of Cherokee darters stated in the proposed rule pertain to that species, and do not refer to populations of the Coosa darter.

**Issue 3:** Some commenters thought that since the Cherokee County Water

and Sewerage Authority (County) had taken the habitat requirements of the federally threatened amber darter (*Percina antesella*) into consideration in the design of the proposed dam impounding the Yellow Creek Reservoir, that the habitat requirements of the Cherokee darter or Etowah darter could also be considered having been addressed.

**Response:** There are over 150 recognized species of darters in 4 genera and approximately two dozen subgenera. Darters occupy a wide variety of habitats in rivers, lakes, and swamps from the Appalachian Mountains to near sea level throughout much of eastern North America. The Etowah River system alone harbors at least 11 species of darters. Each species inhabits discreet portions of the drainage and specific habitats within its streams. The habitat requirements of the Cherokee darter differ significantly from those of the amber darter. However, the habitat requirements of the amber darter are similar, but not identical, to that of the Etowah darter. The habitat requirements of the Cherokee darter have therefore not been taken into consideration during the design of the proposed dam.

**Issue 4:** Numerous commenters questioned the timing of the proposed rule to provide protection for the Cherokee darter and Etowah darter in relation to the proposed Yellow Creek Reservoir project, and one commenter made the same assertion concerning a proposed regional connector highway (Atlanta beltway).

**Response:** The Service is required by the Act to protect any species that is in danger of extinction. This determination is based upon the best available biological information. When the Service first learned of the occurrence of the undescribed Cherokee darter, a narrowly distributed and potentially imperilled fish in the Etowah River system, a survey was funded to determine its status. That survey was initiated during the fall of 1989. The following summer, the Etowah darter was determined to be a distinct and highly localized species, and the survey continued for both darters until 1992. When information was obtained on the population status and distribution of the Cherokee darter and Etowah darter sufficient to support federal listing of these species, a rule was proposed to afford them protection under the Act. The timing of the proposed rule to list these two fishes was therefore coincidental with any proposed construction projects.

**Issue 5:** Several commenters questioned the extent of the status

survey for the Cherokee darter and Etowah darter and the possibility that other area streams may harbor populations of these species.

*Response:* From the fall of 1989 to summer 1992, a survey of the Etowah River system was funded by the Service to determine the population status and total distribution of the Cherokee darter and Etowah darter (see response to *Issue 4* above). A total of 146 collections at 141 sites throughout the Etowah River system were made for these two fish. Although sites outside the Etowah River system were not surveyed for the Cherokee darter and Etowah darter, the Service believes that the fish faunas in surrounding drainages are adequately known to assure that these two darters are not present. The discovery of additional populations of one or both species within the Etowah River system is possible. However, based on the extensive status survey conducted for the Cherokee darter and Etowah darter, the Service believes no further surveys are warranted before listing these species.

*Issue 6:* Numerous commenters were concerned with the potential economic impact that this listing proposal might have on completion of the proposed Yellow Creek Reservoir project, and one commenter had the same concerns regarding the proposed Atlanta beltway.

*Response:* The Service is required by the Act to use the best available biological information in the assessment of determining whether Federal protection under the Act is warranted for a species. The economic impacts resulting from endangered species protection are not to be considered when proposing to list a species under the Act.

Section 7 of the Act requires Federal agencies to ensure that their actions are not likely to jeopardize the continued existence of any listed species (see the "Available Conservation Measures" section of this rule and the response to *Issue 7* below). The Corps has consulted with the Service regarding the potential effects this federally permitted reservoir project might have on the amber darter, which occurs in the Etowah River mainstem both upstream and downstream of the Yellow Creek confluence. The County conducted a study addressing issues pertaining to the amber darter and its habitat and has made modifications to the dam that should minimize any impacts upon this federally endangered fish. The Service is currently in conference with the Corps regarding the dam's potential impacts upon the Cherokee darter and Etowah darter. As mentioned elsewhere (see response to *Issue 3* above), the

habitat requirements of the Etowah darter are similar to that of the amber darter. The design changes of the proposed dam that addressed the amber darter may possibly also protect the Etowah darter and its habitat. However, the Cherokee darter, which has a population in Yellow Creek very near the dam site, has different environmental requirements. The County has proven that it was willing to work with the Corps and the Service in addressing issues related to the amber darter. The Service commends these efforts by the County, and is confident that a similar agreement can be reached for Cherokee darter issues. The Service's Brunswick, Georgia, Field Office is currently working with the Corps and County to resolve specific issues relating to the Cherokee darter. Additionally, for the proposed Atlanta beltway project, the Federal Highway Administration must consult with the Service's Brunswick Field Office regarding potential impacts to the Cherokee darter and Etowah darter during the planning and construction phases.

*Issue 7:* One commenter requested the Service prepare a "takings analysis" under Executive Order 12630 that assesses the impacts of the listing of the Cherokee darter and the Etowah darter on private property rights.

*Response:* The Attorney General has issued guidelines to the Department of the Interior (Department) on the implementation of Executive Order 12630: Governmental Actions and Interference with Constitutionally Protected Property Rights. Under these guidelines, a special rule applies when an agency within the Department is required by law to act solely upon specified criteria that leave the agency no discretion. In enacting the Act, Congress required the Department to list species based solely upon scientific and commercial data indicating whether they are in danger of extinction. The Service is prohibited by law from withholding a listing based on concerns regarding economic impact and is required to act, with appropriate public notice, under strict time tables. Any failure to comply may subject the agency to legal action. Accordingly, the provisions of the Attorney General's guidelines relating to nondiscretionary actions clearly are applicable to the determination of threatened status for the Cherokee darter and endangered status for the Etowah darter, and Taking Implication Assessments under Executive Order 12630 cannot be considered in making this administrative decision. Since the Act precludes consideration of economic

factors during the listing process, the Service's policy is to not consider taking implications at this time.

*Issue 8:* Several commenters were concerned with potential impacts the listing of the Cherokee darter and the Etowah darter might have on normal agricultural activities and those of other private property owners in the watershed.

*Response:* Based on the results of listing other aquatic organisms in north Georgia streams, the Service does not believe there will be any major impact to these activities as a result of listing these two fishes. Concerning the use of agricultural chemicals, the Service consults with the Environmental Protection Agency to determine if pesticides they register are likely to jeopardize the continued existence of listed species. When the use of a particular chemical is likely to jeopardize a listed species, the use of that chemical is restricted. Thus, it is possible that the use of a pesticide could be restricted to avoid jeopardizing either of these darters. Any other new restrictions that might be placed on farmers or other local landowners would be due to activities involving Federal agencies, which must review their actions and determine, under Section 7 of the Act, if such actions would adversely affect these species (see the "Available Conservation Measures" section of this rule and the response to *Issue 6* above). The Service stresses to landowners the importance of maintaining development-free streamside buffer zones to protect stream habitat and water quality upon which the Cherokee darter and Etowah darter depend. Maintaining such buffers should avoid many potential impacts to these two fishes.

*Issue 9:* One commenter stated that reservoirs act as sediment traps, and suggested that dams may actually improve habitat conditions in downstream areas.

*Response:* The Service concurs that dams may act as traps of alluvial sediments that are conducted down stream beds and overbank areas during flood conditions. However, conditions below Allatoona Reservoir, despite an obvious reduction in the bed load and other transported sediments, have deteriorated since reservoir construction several decades ago. Riverine habitat has been altered due primarily to the disruption of the normal flow and temperature regime in the lower Etowah River below Allatoona Dam. Dams should not be perceived as beneficial sediment traps; rather efforts should be made on a watershed-wide basis to abate sources of silt and other sediments

resulting from poor landuse practices from entering streams in the first place.

#### Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that the Cherokee darter and Etowah darter should be classified as threatened and endangered, respectively. Procedures found at Section 4(a)(1) of the Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act were followed. 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 Cherokee darter (*Etheostoma (Ulocentra) sp.*) and the Etowah darter (*Etheostoma etowahae*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The Cherokee darter and Etowah darter are both endemic to the Etowah River system in north Georgia (Burkhead 1993). These species have been rendered vulnerable to extinction by significant loss of habitat within their restricted range in the Etowah River system. The primary causes of habitat loss in the Etowah River system result from impoundments, siltation, point source and nonpoint source pollution which includes, but is not limited to, municipal and industrial waste discharges, agricultural runoff from crop monoculture and poultry farms, poultry processing plants, and silvicultural activities. Much non-agricultural and non-silvicultural habitat degradation in the watershed can be attributed to increased urbanization in the Atlanta metropolitan area. All such forms of habitat degradation and pollution disrupt the aquatic ecosystem, particularly impacting benthic (bottom) habitat. Certain pollutants may be particularly harmful in cumulative concentrations or if synergistic interactions with other pollutants or chemicals occur.

Impoundments have destroyed a significant portion of the free-flowing stream habitat in which the Cherokee darter lives, and to a lesser extent they have impacted the Etowah darter as well. Based on museum records, at least five preimpoundment populations of the Cherokee darter were extirpated by the inundation of the 4,800 hectare (11,856 acre) Allatoona Reservoir, which was completed in 1955. Undoubtedly other, undocumented, Cherokee darter populations were

destroyed by the filling of Allatoona Reservoir. The lower portions of some of the tributary systems that harbor populations of the Cherokee darter are inundated by Allatoona Reservoir, isolating these populations from other populations in adjacent tributaries. These tributaries include Butler, Shoal, and Stamp Creeks.

Besides Allatoona Reservoir, numerous small impoundments and ponds are scattered throughout the range of the Cherokee darter and Etowah darter. Impoundments directly destroy stream habitat by converting free-flowing streams to man-made lakes and ponds and by causing population isolation. Furthermore, small impoundments are numerous enough in the Etowah system to have a negative effect on both these species by causing population fragmentation and isolation, thereby blocking genetic interchange. Impoundments also alter the thermal regimen of the stream sections immediately below the dam and can cause community shifts favoring centrarchid fishes (Brim 1991), potential predators on both Cherokee darters and Etowah darters. The Yellow Creek population of the Cherokee darter is directly threatened by a proposed water supply impoundment planned by the Cherokee County government. During low flow periods, 30 percent of the flow in the Etowah River above a known Etowah darter site will be comprised of water from Yellow Creek reservoir. Although the effects of this flow augmentation in the Etowah River are not known, the change in water quality and temperature could potentially have a negative impact on the Etowah darter.

Erosion from poor land use practices causes extensive topsoil erosion and subsequent siltation of stream bottoms. Sources of siltation include timber clearcutting, clearing of riparian vegetation, and those construction, mining, and agricultural practices that allow exposed earth to enter streams. Light to moderate levels of siltation are ubiquitous in many streams of the Etowah River system which have populations of the Cherokee darter and Etowah darter. Siltation problems are severe in many tributaries that have or probably had populations of the Cherokee darter, including Allatoona Creek, the Little River system, Settingdown Creek, Pumpkinvine Creek, and portions of Shoal Creek (Cherokee County), Sharp Mountain Creek, Long Swamp Creek, and Raccoon Creek. Siltation and dust from marble quarries in Pickens County are also major problems in Long Swamp Creek, the only known site where the Cherokee darter and Etowah darter are found

together. A rock quarry has been proposed for Stamp Creek in Bartow County. If permitted, this quarry may have an adverse effect on the Stamp Creek Cherokee darter population.

The extreme isolation or absence of populations of the Cherokee darter in Settingdown, Allatoona, and Raccoon Creeks and the Little River also strongly suggests localized extirpation of populations. These intermediate streams probably once supported populations of the fish. Much of the Little River system is heavily affected by large silt and bed loads; the remaining fish fauna is depauperate and at many sites dominated by species tolerant of degraded habitats.

The Cherokee darter and Etowah darter are obligate benthic species living, foraging, and spawning on the stream bottom. Hence, their well-being is directly tied to benthic habitat quality. Negative effects of silt on benthic fishes were summarized by Burkhead and Jenkins (1991). Silt reduces or destroys habitat heterogeneity and primary productivity, increases fish egg and larval mortality, abrades organisms, and alters, degrades, and entombs macrobenthic communities. The geological strata drained by the Etowah River, particularly in the middle and upper portion of the system, contain micaceous schist. The erosion of this substrata adds an extremely abrasive mica component to the silt which must render this silt even more noxious to benthic organisms. Current State and Federal regulations preventing silt from entering streams are lacking, inadequate, or not rigorously enforced.

The current rate of development in the counties surrounding Atlanta is very high. The most rapid development appears to be in Gwinnett, Cobb and Fulton Counties, but it is also high in Cherokee County, which is in the heart of the Cherokee darter's current range. The effects of creeping urbanization may be seen as far away as Dawson County, where the majority of Etowah darter populations, as well as some Cherokee darter populations, are known. One of the principal concerns to the continued existence of the Cherokee darter and Etowah darter is the trend of converting farmland into localized subdivisions in areas relatively remote from Atlanta. Associated with increased development and land clearing is increased siltation from erosion, accelerated runoff, and transport of pollutants into the Etowah River system.

The tributaries harboring the Cherokee darter and Etowah darter are crossed by numerous road and railroad bridges. These stream crossings are

potential sites for accidents which could spill toxic material into streams. Spills of toxic chemicals at such crossings could cause catastrophic fish kills and local extirpation of these species. The high number of bridge crossings over Cherokee darter and Etowah darter streams increases the probability that such an accident will occur in the future.

Attending the urbanization associated with the growth of the Atlanta metropolitan area is a proposed bypass that would circumnavigate Atlanta to the northwest, connecting Interstate 75 with Georgia State Route 371. The bypass would cross several Cherokee darter streams in portions of Forsyth, Cherokee, and Bartow Counties. It will also traverse the Etowah River at the lower portion of the Etowah darter's range. Bridge construction sites, some located in the upper Etowah River watershed, would be potential sources of sedimentation to Cherokee and Etowah darter habitat. In addition, since this roadway is not being planned as a limited access highway, the project will foster development not just at major road intersections, as occurs with interstate highways, but along the entire corridor.

It has been reported that 75 percent of Georgia's landfills will reach capacity in five years (*The Atlanta Journal/The Atlanta Constitution*, February 23, 1992). Several landfill sites have been proposed within the range of the Cherokee darter; one such site occurs between two Cherokee darter streams: Riggins and Edward Creeks, Cherokee County. On the banks of the upper Etowah River, within the known limited range of the Etowah darter, the Sanitfill Pine Bluff landfill is being constructed. Refuse may ultimately be received from as far away as New York. When this facility reaches its full potential, it will purportedly be the largest landfill in the eastern United States. While modern landfills are purportedly designed to contain runoff, it seems doubtful that such landfills would actually retain barrier integrity for decades to come.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* In general, small species of fish, such as the Cherokee darter and Etowah darter, which are not utilized for either sport or bait purposes, are unknown to the general public. Therefore, take of these species by the general public has not been a problem. Publication of this rule will inform the general public as to the presence of these two darters in the Etowah River system. Considering the restricted distribution and small populations of the Etowah and Cherokee darters, it

would be easy for vandals or unscrupulous collectors to eliminate or seriously impact populations in specific stream reaches if their exact location were known. The distribution of these species has therefore been described only in general terms for the purposes of this rule. Federal protection will serve to minimize adverse population impacts from illegal take, but the Act's penalties are not likely to act as a complete deterrent to such actions.

C. *Disease or predation.* Predation upon the Cherokee darter and Etowah darter undoubtedly occurs. However, there is no evidence to suggest that predation threatens these species, except possibly in altered stream reaches immediately below dams.

D. *The inadequacy of existing regulatory mechanisms.* The Official Code of Georgia Annotated 27-2-12 prohibits the taking of these fish without a state collecting permit. Federal listing provides protection under Section 9 of the Act by requiring Federal permits for taking the Cherokee darter and Etowah darter. Additional protection is gained under Section 7 of the Act by requiring Federal agencies to consult with the Service when projects they fund, authorize, or conduct may affect these species.

E. *Other natural or manmade factors affecting its continued existence.* The range of the Cherokee darter has been fragmented, and a significant portion of the middle Etowah River system has been permanently altered by Allatoona Reservoir. The streams inhabited by the Cherokee darter and Etowah darter exhibit, on average, moderate to heavy degradation from poor land use practices and small impoundments. These strong negative forces have caused local extirpation of both Cherokee darter and Etowah darter populations and have induced range fragmentation and subsequent isolation of the Cherokee darter into small populations. Genetic diversity has subsequently been lost due to these population losses. The genetic diversity of all populations may be needed to provide the species enough genetic variability to adapt to environmental change and thus assure long-term viability. The restricted distribution of both the Cherokee darter and Etowah darter also makes populations vulnerable to extirpation from catastrophic events, such as an accidental toxic chemical spill. Range fragmentation and loss of genetic diversity, independently and in concert, clearly threaten the continued existence of these species.

The Service has carefully assessed the best scientific and commercial

information available regarding the past, present, and future threats faced by both darters in determining to make this rule final. Based on this evaluation, the preferred action is to list the Cherokee darter and Etowah darter as threatened and endangered species, respectively. The Cherokee darter is now known from approximately 20 tributary systems of the Etowah River, but healthy populations are known from just a few sites. The Etowah darter is known from only the upper Etowah River mainstem and two tributary systems. Both species are restricted to the Etowah River system in north Georgia. These fish and their benthic habitat have been, and continue to be, impacted by range reduction, isolation by impoundment, and general habitat destruction. Despite its wider distribution and greater number of known populations, the Cherokee darter appears to have more of its habitat threatened by these factors, which have already resulted in a higher level of population fragmentation and isolation relative to the Etowah darter. The restricted distribution of these two species also makes localized populations susceptible to catastrophic events. Because of these factors, endangered appears the most appropriate status for the Etowah darter and threatened appears most appropriate for the Cherokee darter.

#### 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 a species is determined to be endangered or threatened. The Service's regulations (50 CFR 424.12(a)(1)) state that designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other activity and the identification of critical habitat can be expected to increase the degree of threat to the species or (2) such designation of critical habitat would not be beneficial to the species. The Service finds that designation of critical habitat is not prudent for these species. Such a determination would result in no known benefit to these species, and designation of critical habitat could further threaten them.

Section 7(a)(2) and regulations codified at 50 CFR part 402 require Federal agencies to ensure, in consultation with and with the assistance of the Service, that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species or adversely modify their critical habitat, if designated. (See "Available

Conservation Measures" section for a further discussion of Section 7.) As part of the development of this final rule, Federal and State agencies were notified of the darters' general distribution, and they were requested to provide data on proposed Federal actions that might adversely affect the two species.

Should any future projects be proposed in areas inhabited by these fishes, the involved Federal agency will already have the general distributional data needed to determine if the species may be impacted by their action; and if needed more specific distributional information would be provided.

Regulations promulgated for implementing Section 7, referenced above, provide for both a jeopardy standard, based on listing alone, and for a destruction or adverse modification standard, in cases where critical habitat has been designated. The Cherokee and Etowah darters occupy very restricted stream reaches. Any significant adverse modification or destruction of their habitat would likely jeopardize their continued existence. Under these conditions the two standards are essentially equivalent. Therefore, no additional protection for the species would accrue from critical habitat designation that would not also accrue from listing these species. Once listed, the Service believes that protection of their habitat can be accomplished through the Section 7 jeopardy standard, and through Section 9 prohibitions against take.

These two fish are very rare. Therefore, taking for scientific purposes and private collections could pose a threat to their continued existence if site specific information were released to the general public. The publication of critical habitat maps in the **Federal Register** and local newspapers and other publicity accompanying critical habitat designation could increase the collection threat and also increase the potential for vandalism during the often controversial critical habitat designation process. The potential for future habitat disruption within one or both of these species' ranges resulting from the rapidly expanding Atlanta metropolitan area makes designation of critical habitat potentially more contentious and controversial, increasing the possibility for vandalism to occur. The locations of these species' populations have consequently been described only in general terms in this rule. Any existing precise locality data would be available to appropriate Federal, State, and local governmental agencies from the Service office described in the **ADDRESSES** section; from the Service's Brunswick Field Office, Federal

Building, Room 334, 801 Gloucester Street, Brunswick, Georgia 31520; and from the Georgia Department of Natural Resources, and Georgia Natural Heritage Program.

For the foregoing reasons the Service believes that critical habitat designation is not prudent for these species, and that their protection can be adequately accomplished through the Section 7 jeopardy standard and Section 9 prohibitions against take.

#### 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)(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 involvement is expected to include the Environmental Protection Agency through the Clean Water Act's provisions for pesticide registration and waste management actions. The Corps of Engineers will consider these species in project planning and operation, and during the permit review process. The Federal Highway Administration will consider impacts of federally funded bridge and road construction projects when known habitat may be impacted. Continuing urban development within the Etowah River system may involve the Farmers Home Administration and their loan programs. The Soil Conservation Service will consider the

species during project planning and under their farmer's assistance programs. The Forest Service will consider downstream impacts to habitat of the Etowah darter when planning or implementing silvicultural, recreational, or other programs in the headwaters of Amicalola Creek and the extreme upper portion of the Etowah River mainstem occurring in the Chattahoochee National Forest. 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 are met.

The Act and implementing regulations found at 50 CFR 17.21 for endangered species, and 17.21 and 17.31 for threatened species set forth a series of general prohibitions and exceptions that apply to all endangered and threatened wildlife. These prohibitions, in part, make it illegal for any person subject to jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect; or 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 or 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 purpose of the Act. 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. Since these species are not in trade, such permit requests are not expected.

It is the policy of the Service (59 FR 34272) to identify to the maximum extent practicable at the time a species is listed those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of the listing on proposed and ongoing activities within a species' range. The Service is not aware of any

otherwise lawful activities being conducted by the public that will be affected by this listing and result in a violation of section 9.

Questions regarding whether specific activities will constitute a violation of section 9 should be directed to the Field Supervisor of the Service's Jacksonville Office (see ADDRESSES section). Requests for copies of the regulations concerning listed animals and general inquiries regarding prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Southeast Regional Office, Ecological Services Division, Threatened and Endangered Species, 1875 Century Boulevard, Atlanta, Georgia 30345-3301 (Telephone 404/679-7099, Facsimile 404/679-7081).

**National Environmental Policy Act**

The 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**

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**Author**

The primary author of this final rule is Robert S. Butler (see ADDRESSES section).

**List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

**Regulation Promulgation**

Accordingly, part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, is amended as set forth below:

**PART 17—[AMENDED]**

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

**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.

2. Amend § 17.11(h) by adding the following, in alphabetical order under "FISHES", to the List of Endangered and Threatened Wildlife 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						
FISHES							
Darter, Cherokee .....	<i>Etheostoma (Ulocentra)</i> sp.	U.S.A. (GA) .....	Entire .....	T	569	NA	NA
Darter, Etowah .....	<i>Etheostoma etowahae</i> .	U.S.A. (GA) .....	Entire .....	E	569	NA	NA

Dated: November 23, 1994.  
 Mollie H. Beattie,  
 Director, Fish and Wildlife Service.  
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