

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

RIN 1018-AU01

**Endangered and Threatened Wildlife and Plants; Establishment of Nonessential Experimental Population Status for 15 Freshwater Mussels, 1 Freshwater Snail, and 5 Fishes in the Lower French Broad River and in the Lower Holston River, Tennessee**

AGENCY: Fish and Wildlife, Interior.

ACTION: Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), in cooperation with the State of Tennessee and Conservation Fisheries, Inc., a nonprofit organization, plan to reintroduce 15 mussels listed as endangered under section 4 of the Endangered Species Act of 1973, as amended (Act): Appalachian monkeyface (pearlymussel) (*Quadrula sparsa*), birdwing pearlymussel (*Lemiox rimosus*), cracking pearlymussel (*Hemistena lata*), Cumberland bean (pearlymussel) (*Villosa trabalis*), Cumberlandian combshell (*Epioblasma brevidens*), Cumberland monkeyface (pearlymussel) (*Quadrula intermedia*), dromedary pearlymussel (*Dromus dromas*), fanshell (*Cyprogenia stegaria*), fine-rayed pigtoe (*Fusconaia cuneolus*), orange-foot pimpleback (pearlymussel) (*Plethobasus cooperianus*), oyster mussel (*Epioblasma capsaeformis*), ring pink (mussel) (*Obovaria retusa*), rough pigtoe (*Pleurobema plenum*), shiny pigtoe (*Fusconaia cor*), and white wartyback (pearlymussel) (*Plethobasus cicatricosus*); 1 endangered aquatic snail: Anthony's riversnail (*Athearnia anthonyi*); 2 endangered fishes: duskytail darter (*Etheostoma percnurum*) and pygmy madtom (*Noturus stanauli*); and 3 fishes listed as threatened under section 4 of the Act: slender chub (*Erimystax cahni*), spotfin chub (=turquoise shiner) (*Erimonax monachus*), and yellowfin madtom (*Noturus flavipinnis*). We published the proposed rule for this action on June 13, 2006 (71 FR 34196). The species will be released into their historical habitat in the free-flowing reach of the French Broad River from below Douglas Dam to its confluence with the Holston River, Knox County, Tennessee, and in the free-flowing reach of the Holston River from below Cherokee Dam to its confluence with the French Broad River. Based on the evaluation of species experts, none of these 21 species currently exist in these river reaches or

their tributaries. These species are being reintroduced under the authority of section 10(j) of the Act and would be classified as a nonessential experimental population (NEP).

The geographic boundaries of the NEP would extend from the base of Douglas Dam (river mile (RM) 32.3 (51.7 kilometers (km)) down the French Broad River, Knox and Sevier Counties, Tennessee, to its confluence with the Holston River and then up the Holston River, Knox, Grainger, and Jefferson Counties, Tennessee, to the base of Cherokee Dam (RM 52.3 (83.7 km)) and would include the lower 5 RM (8 km) of all tributaries that enter these river reaches.

These reintroductions are recovery actions and are part of a series of reintroductions and other recovery actions that the Service, Federal and State agencies, and other partners are conducting throughout the species' historical ranges. This rule provides a plan for establishing the NEP and provides for limited allowable legal take of these 16 mollusks and 5 fishes within the defined NEP area. We have decided to include all 21 species in a single rulemaking to allow us to restore the aquatic ecosystem as quickly as possible as we bring each of these species on line in the propagation facilities. We have reasons to believe all of these species co-existed in the past, and we also want the public to understand that all of these species will be reintroduced into the same stretch of river. We are not establishing 21 separate NEPs.

**DATES:** The effective date of this rule is October 15, 2007.

**ADDRESSES:** You may obtain copies of the final rule from the field office address above, by calling (931) 528-6481, or from our Web site at <http://cookeville.fws.gov>.

**FOR FURTHER INFORMATION CONTACT:** Geoff Call, U.S. Fish and Wildlife Service, at the above address (telephone 931/528-6481, Ext. 213, facsimile 931/528-7075, or e-mail at [geoff\\_call@fws.gov](mailto:geoff_call@fws.gov)).

**SUPPLEMENTARY INFORMATION:****Background**

1. *Legislative:* Under section 10(j) of the Act, the Secretary of the Department of the Interior may designate reintroduced populations established outside the species' current range, but within its historical range, as "experimental." Based on the best scientific and commercial data available, we must determine whether experimental populations are "essential" or "nonessential" to the continued existence of the species.

Regulatory restrictions are considerably reduced under a Non-essential Experimental Population (NEP) designation.

Without the NEP designation, the Act provides that species listed as endangered or threatened are afforded protection primarily through the prohibitions of section 9 and the requirements of section 7. Section 9 of the Act prohibits the take of an endangered species. "Take" is defined by the Act as "harass, harm, pursue, hunt, shoot, wound, trap, capture, or collect, or attempt to engage in any such conduct." Service regulations (50 CFR 17.31) generally extend the prohibitions of take to threatened wildlife. Section 7 of the Act outlines the procedures for Federal interagency cooperation to conserve federally listed species and protect designated critical habitat. It mandates that all Federal agencies use their existing authorities to further the purposes of the Act by carrying out programs for the conservation of listed species. It also states that Federal agencies will, in consultation with the Service, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Section 7 of the Act does not affect activities undertaken on private land unless they are authorized, funded, or carried out by a Federal agency.

A population designated as experimental is treated for the purposes of section 9 of the Act as threatened, regardless of the species' designation elsewhere in its range. Threatened designation allows us greater discretion in devising management programs and special regulation for such a population. Section 4(d) of the Act allows us to adopt whatever regulations are necessary to provide for the conservation of a threatened species. In these situations, the regulations that generally extend most section 9 prohibitions to threatened species do not apply to NEPs, although the special 4(d) rule contains the prohibitions and exceptions necessary and appropriate to conserve that species. Regulations issued under section 4(d) for NEPs are usually more compatible with routine human activities in the reintroduction area.

For the purposes of section 7 of the Act, we treat an NEP as a threatened species when the NEP is located within a National Wildlife Refuge or National Park, and section 7(a)(1) and the consultation requirements of section 7(a)(2) of the Act apply. When NEPs are located outside a National Wildlife

Refuge or National Park, we treat the population as proposed for listing and only two provisions of section 7 apply: Section 7(a)(1) and section 7(a)(4). In these instances, NEPs provide additional flexibility because Federal agencies are not required to consult with us under section 7(a)(2). Section 7(a)(4) requires Federal agencies to confer (rather than consult) with the Service on actions that are likely to jeopardize the continued existence of a species proposed to be listed. The results of a conference are advisory in nature and do not restrict agencies from authorizing, funding, or carrying out activities.

2. *Biological Information:* Prior to the impoundments, the lower French Broad and Holston Rivers historically supported a diverse fish, snail, and mussel fauna, possibly as many as 85 mussel species and subspecies, or about 65 percent of the mussel diversity once known from the entire Tennessee River system (Parmalee and Bogan 1998, pp. 1–328; Ahlstedt 2004). Of this once-rich aquatic fauna, 7 mussel species are extinct, and 21 are federally listed species (i.e., 15 mussels, 1 aquatic snail, and 5 fishes, listed in the **SUMMARY** section, above, are extirpated from these river reaches). The only federally listed mussel still occurring in the NEP area is the endangered pink mucket (*Lampsilis abrupta*), which still occurs in both the lower French Broad and lower Holston Rivers (Ahlstedt 2004; Layzer and Scott 2005, p. 11). The pink mucket is not one of the 15 mussel species we are proposing to reintroduce under this NEP.

Although much of the mussel fauna and some of the snail and fish fauna were eliminated from these river reaches, considerable suitable physical habitat remains, and various Federal (primarily the Tennessee Valley Authority (TVA)) and State natural resources agencies, industries, and municipalities have worked together to improve the water quality below the dams. Fish populations are rebounding (including the appropriate fish host species for mussel glochidia (larvae)) and snail populations are expanding in both rivers, and non-federally listed mussels and snails released into the lower French Broad River to test the area's suitability for mollusk transplants are doing well. Based on the results of recent studies and observations by knowledgeable scientists (Rakes and Shute 1999, p. 5; Scott and Saylor 2004; Layzer and Ahlstedt 2004; Layzer and Scott 2005, pp. 14–15), these river reaches now provide suitable habitat for reintroductions to occur.

Since the mid-1980s CFI, a nonprofit organization, with support from us, the Tennessee Wildlife Resources Agency (TWRA), U.S. Forest Service, National Park Service, TVA, and Tennessee Aquarium, has successfully translocated, propagated, and reintroduced spotfin chubs, duskytail darters, yellowfin madtoms, and smoky madtoms into Abrams Creek, Great Smoky Mountains National Park, Blount County, Tennessee. These fish historically occupied Abrams Creek prior to an ichthyocide treatment in the 1950s. An NEP designation for Abrams Creek was not needed since the entire watershed occurs on National Park Service land, section 7 of the Act applies regardless of the NEP designation, and existing human activities and public use are consistent with protection and take restrictions needed for the reintroduced populations. Natural reproduction by three of the four species in Abrams Creek has been documented (Rakes 2007). The spotfin chub reintroductions appear to be the least successful in this capacity (Shute et al. 2006, p. 106; Rakes 2007). We have also worked with CFI to translocate, propagate, and reintroduce these same four fish into an NEP established for a section of the Tellico River, Monroe County, Tennessee (67 FR 52420, August 12, 2002). Propagated fish of these four species were released into the Tellico River starting in 2003 and continuing yearly through 2007. Early indications show that these species are surviving and have had some success in spawning (Rakes 2007). It will take several more years of reintroductions to ensure future success similar to the Abrams Creek reintroductions. CFI has also successfully placed yellowfin madtoms in an existing NEP on the North Fork Holston River, Washington County, Virginia. This site is separated from the NEP on the lower Holston River by reservoirs, and the fish is not known from any of these reservoirs or intervening river sections. These reservoirs and river sections act as barriers to movement by the fish and assure that the North Fork Holston River population will remain geographically isolated and easily identifiable as a distinct population from the Lower Holston River population.

3. *Listing Information, Distribution, and Recovery Goals/Objectives:* The Appalachian monkeyface (pearlymussel) (*Quadrula sparsa*) (Lea 1841) was listed as an endangered species on June 14, 1976 (41 FR 24062). We finalized a recovery plan for the species in July 1984 (Service 1984a). It

historically occurred in the Tennessee River and three of its tributaries: the Clinch, Holston, and Powell Rivers (Service 1984a, pp. 2–4). We are unaware of historical records of the species in the French Broad River, but archeological records (Parmalee and Bogan 1988, p. 168) of this species exist from the Little Pigeon River (a lower French Broad River tributary). The species may still survive in extremely low numbers in the Powell River in Tennessee and the Clinch River in Virginia (Parmalee and Bogan 1998, p. 223). No downlisting (reclassification from endangered to threatened) criteria are provided in the recovery plan. The delisting objectives for the Appalachian monkeyface (Service 1984a, pp. 19–20) are to: (1) Restore the viability of the Clinch and Powell River populations; (2) reestablish or discover viable populations in one additional river; (3) ensure that the species is protected from present and foreseeable threats to the continued existence of any population; and (4) determine that there are noticeable improvements in coal-related problems and substrate quality in the Powell River and that no increase in coal-related sedimentation has occurred in the Clinch River.

The birdwing pearlymussel (*Lemiox rimosus*) (Conrad 1834) was listed as an endangered species on June 14, 1976 (41 FR 24062). We finalized a recovery plan for the species in July 1984 (Service 1984b). We also established an NEP for the birdwing pearlymussel and 15 other federally listed mussels for a section of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, Alabama, on June 14, 2001 (66 FR 32250). Historical records exist for the species in 11 rivers in the Tennessee River system, and one record exists from an unknown location in the Cumberland River. Historically, the species occurred in the Tennessee River near the confluence of the French Broad and Holston Rivers, in the Holston River just upstream of its confluence with the French Broad River, and in the Nolichucky River (a French Broad River tributary) (Parmalee and Bogan 1998, p. 146). Archeological records (Parmalee 1988, p. 171) of this species exist from the Little Pigeon River, a lower French Broad River tributary. It now survives in the Clinch and Powell Rivers in Tennessee and Virginia and in the Duck and Elk Rivers in Tennessee (Service 1984b, p. 2). No downlisting criteria are given in the recovery plan. The delisting objectives for the birdwing pearlymussel (Service 1984b, pp. 19–20) are to: (1) Restore the viability of the Clinch and Powell River populations, (2) reestablish

or discover viable populations in two additional rivers; (3) ensure that the species is protected from present and foreseeable threats to the continued existence of any population; and (4) determine that noticeable improvements in coal-related problems and substrate quality have occurred in the Powell River and that no increase in coal-related sedimentation has occurred in the Clinch River.

The cracking pearlymussel (*Hemistena lata*) (Rafinesque 1820) was listed as an endangered species on September 28, 1989 (54 FR 39850). We finalized a recovery plan for the species in July 1991 (Service 1991a). We also established an NEP for the cracking pearlymussel and 15 other federally listed mussels for a section of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, Alabama, on June 14, 2001 (66 FR 32250). This species historically occurred in the Ohio, Cumberland, and Tennessee River systems (Bogan and Parmalee 1983, pp. 44–45, Service 1991a, pp. 2–5). It is extirpated throughout much of its range. Historical records exist from the Tennessee River near the confluence of the French Broad and Holston Rivers (Parmalee and Bogan 1998, p. 122). No historical records exist for the species in the French Broad system, but archaeological records (Parmalee 1988, pp. 168–169) of this species exist from the Little Pigeon River, a lower French Broad River tributary. It now survives at a few shoals in the Clinch and Powell Rivers in Tennessee and Virginia (Bogan and Parmalee 1983, p. 45; Neves 1991, p. 277). It possibly survives in the Green River in Kentucky and in the Tennessee River, below Pickwick Dam, in Tennessee (Service 1991a). The downlisting objectives for the cracking pearlymussel (Service 1991a, p. 6) are to: (1) Reestablish/discover five viable populations; (2) ensure that one naturally produced year class exists within each population; (3) determine if recovery actions have been successful, as determined by an increase in population density and/or an increase in length of river inhabited; and (4) ensure there are no foreseeable threats to the continued existence of any population. The delisting objectives call for the reestablishment/discovery of eight viable populations and two naturally produced year classes within each population.

The Cumberland bean (pearlymussel) (*Villosa trabalis*) (Conrad 1834) was listed as an endangered species on June 14, 1976 (41 FR 24064). We finalized a recovery plan for the species in August 1984 (Service 1984c). We also

established an NEP for the Cumberland bean and 15 other federally listed mussels for a section of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, Alabama, on June 14, 2001 (66 FR 32250). This species historically occurred in 10 river systems in the Cumberland and Tennessee River basins (Service 1984c, pp. 2–3). No historical records exist in the French Broad River system, but archaeological records (Parmalee 1988, p. 172) of this species exist from the Little Pigeon River, a lower French Broad River tributary. The Cumberland bean now survives only in the Hiwassee River in Tennessee; in Buck Creek, the Little South Fork of the Cumberland River, and the Rockcastle River system in Kentucky; and in the Big South Fork of the Cumberland River in Tennessee and Kentucky (Service 1984c, pp. 2–6). No downlisting criteria are given in the recovery plan. The delisting objectives for the Cumberland bean (Service 1984c, pp. 18–19) are to: (1) Restore the viability of populations in Buck Creek, the Rockcastle River, and the Little South Fork River in Kentucky; (2) reestablish or discover viable populations in two additional rivers; (3) ensure that the species is protected from present and foreseeable threats to the continued existence of any population, and (4) determine that noticeable improvements in coal-related problems and substrate quality have occurred in the upper Cumberland and Tennessee drainages and that no increase in coal-related sedimentation exists in streams containing this species.

The Cumberlandian combshell (*Epioblasma brevidens*) (Lea 1831) was listed as an endangered species on January 10, 1997 (62 FR 1647). Critical habitat was designated for this species on August 31, 2004 (69 FR 53136). We finalized a recovery plan for the species in May 2004 (Service 2004). We also established an NEP for the Cumberlandian combshell and 15 other federally listed mussels for a section of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, Alabama, on June 14, 2001 (66 FR 32250). This mussel was historically distributed throughout much of the Cumberlandian Region of the Tennessee and Cumberland River drainages in Alabama, Kentucky, Tennessee, and Virginia (Gordon 1991, p. 2). Currently, populations survive in a few river reaches in both river systems (Gordon 1991, p. 2). It historically occurred in the lower Holston River and a French Broad River tributary (Nolichucky River) (Parmalee and Bogan 1998, p. 84). Archaeological records (Parmalee 1988,

p. 171) of this species exist from the Little Pigeon River, a lower French Broad River tributary. The downlisting objectives for the Cumberlandian combshell (Service 2004, pp. 65–68) call for the reestablishment/discovery of six viable populations and one naturally reproducing year class within each viable population. The delisting objectives are to: (1) Reestablish or discover viable populations in nine distinct streams, including three in the Cumberland River system, four in the upper Tennessee River system, and two in the lower Tennessee River system; (2) ensure that the species is protected from present and foreseeable threats to the continued existence of any population; and (3) two distinct naturally reproducing year classes exist within each of the viable populations.

The Cumberland monkeyface (pearlymussel) (*Quadrula intermedia*) (Conrad 1836) was listed as an endangered species on June 14, 1976 (41 FR 24062). We completed a recovery plan for the species in July 1984 (Service 1984d). We also established an NEP for the Cumberland monkeyface and 15 other federally listed mussels for a section of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, Alabama, on June 14, 2001 (66 FR 32250). It historically occurred in 11 rivers in the Tennessee River system (Service 1984d, pp. 2–3). Based on collections from aboriginal shell middens, Parmalee and Bogan (1998, pp. 214–215) stated that the species once occurred at the confluence of the French Broad and Holston Rivers. The species now survives at a few shoals in the Powell River in Tennessee and Virginia and the Elk and Duck Rivers in Tennessee (Service 1984d, p. 21). No downlisting criteria are given in the recovery plan. The delisting objectives for the Cumberland monkeyface (Service 1984d, pp. 21–22) are to: (1) Restore the viability of the Powell and Elk River populations; (2) reestablish or discover viable populations in two additional rivers; (3) ensure that the species is protected from present and foreseeable threats to the continued existence of any population; and (4) determine that noticeable improvements in coal-related problems and substrate quality have occurred in the Powell River and that no increase in coal-related sedimentation occurs in the Clinch River.

The dromedary pearlymussel (*Dromus dromas*) (Lea 1845) was listed as an endangered species on June 14, 1976 (41 FR 24062). We completed a recovery plan for the species in July 1984 (Service 1984e). We also established an NEP for the dromedary pearlymussel

and 15 other federally listed mussels for a section of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, Alabama, on June 14, 2001 (66 FR 32250). It was historically widespread in the Cumberland and Tennessee River systems (Bogan and Parmalee 1983, p. 16). Parmalee and Bogan (1998, p. 71) reported that the species historically occurred in the lower Holston River in Knox and Grainger Counties. Archaeological records of this species exist from the Little Pigeon River, a lower French Broad River tributary (Parmalee 1988, p. 172). It survives at a few shoals in the Powell and Clinch Rivers in Tennessee and Virginia and possibly in the Cumberland River in Tennessee (Service 1984e, pp. 3–8; Neves 1991, p. 293). No downlisting criteria are given in the recovery plan. The delisting objectives for the dromedary pearlymussel (Service 1984e, pp. 20–21) are to: (1) Restore the viability of the Clinch and Powell River populations; (2) reestablish or discover viable populations in three additional rivers; (3) ensure that the species is protected from present and foreseeable threats to the continued existence of any population; and (4) determine that noticeable improvements in coal-related problems and substrate quality have occurred in the Powell River and that no increase in coal-related sedimentation occurs in the Clinch River.

The fanshell (*Cyprogenia stegaria*) (Rafinesque 1820) was listed as an endangered species on June 21, 1990 (55 FR 25591). We completed a recovery plan for the species in July 1991 (Service 1991b). It historically occurred in the Ohio River and many of its large tributaries in Pennsylvania, West Virginia, Ohio, Indiana, Illinois, Kentucky, Alabama, Virginia, and Tennessee (Service 1991b). Ortmann (1918, p. 565) reported it from the lower Holston River, and Parmalee and Bogan (1998, p. 70) reported it from archaeological sites in the lower French Broad River and its tributary, the Little Pigeon River. Presently, the fanshell is believed to be reproducing in three rivers: the Green and Licking Rivers in Kentucky and the Clinch River in Tennessee and Virginia. Additionally, based on the collection of a few old specimens in the 1980s, small, apparently nonreproducing, populations may still persist in the Muskingum and Walhonding Rivers in Ohio, the Kanawha River in West Virginia, the Wabash River system in Illinois and Indiana, the Barren River and Tygarts Creek in Kentucky, and the Tennessee and Cumberland Rivers in Tennessee

(Service 1991b, pp. 2–4). The downlisting objectives for the fanshell (Service 1991b, pp. 6–7) are to: (1) Protect existing populations, reestablish historical populations, and/or discover new populations so that at least nine distinct viable populations exist; (2) ensure that one naturally reproduced year class exists within each of the nine populations; and (3) ensure that studies of the species' biological and ecological requirements are complete and that any required recovery measures are beginning to succeed. The delisting objectives are to: (1) Protect existing populations, reestablish historical populations, and/or discover new populations so that at least 12 distinct viable populations exist; (2) ensure that two distinct naturally reproduced year classes exist within each viable population; (3) ensure that studies of the species' biological and ecological requirements are complete and that any required recovery measures are successful; (4) ensure that no foreseeable threats exist that would likely impact the species' survival over a significant portion of its range; and (5) ensure that noticeable improvements in water and substratum quality have occurred where habitat has been degraded.

The fine-rayed pigtoe (*Fusconaia cuneolus*) (Lea 1840) was listed as an endangered species on June 14, 1976 (41 FR 24062). We finalized a recovery plan for the species in September 1984 (Service 1984f). We also established an NEP for the fine-rayed pigtoe and 15 other federally listed mussels for a section of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, Alabama, on June 14, 2001 (66 FR 32250). It historically occurred in 15 Tennessee River tributaries (including the lower Holston River) and is currently known from 7 rivers (including the Nolichucky River, a French Broad River tributary, above the backwaters of Douglas Reservoir) (Service 1984f, pp. 2–4, Parmalee and Bogan 1998, pp. 115–116). No downlisting criteria are given in the recovery plan. The delisting objectives for the fine-rayed pigtoe (Service 1984f, pp. 22–24) are to: (1) Restore viable populations to the Clinch, Powell, and North Fork Holston Rivers, to the Little River and Copper Creek (Clinch River tributaries), and to the Elk River (Tennessee), Sequatchie River (Tennessee), and the Paint Rock River (Alabama); (2) reestablish or discover one viable population in an additional river; (3) ensure that the species is protected from present and foreseeable threats to the continued existence of any

population, and (4) determine that noticeable improvements in coal-related problems and substrate quality have occurred in the Powell River and that no increase in coal or other energy-related impacts occurs in the Clinch River.

The orangefoot pimpleback (pearlymussel) (*Plethobasus cooperianus*) (Lea 1834) was listed as an endangered species on June 14, 1976 (41 FR 24062). We completed a recovery plan for the species in August 1984 (Service 1984g). It historically occurred in the Ohio, Cumberland, and Tennessee River systems, including the lower French Broad and Holston Rivers (Parmalee and Bogan 1998, p. 174). The species persists in the lower Ohio, Tennessee, and Cumberland Rivers (Service 1984g, pp. 2–6). In 2005, three adults were taken from the Ohio River and moved to the Kentucky Department of Fish and Wildlife Resources' propagation facility in Frankfort, Kentucky (Leroy Koch 2005). No downlisting criteria are given in this recovery plan. The delisting objectives for the orangefoot pimpleback (Service 1984g, pp. 13–14) are to ensure that: (1) One viable population exists in the Tennessee, Cumberland, and Ohio Rivers and these populations are dispersed throughout each river so that it would be unlikely for any one event to cause the total loss of any population; (2) viable populations are reestablished or discovered in two additional rivers; (3) three year classes, including one year class 10 years old or older, have naturally produced in each population; (4) no foreseeable threats exist that would interfere with the survival of any population; and (5) noticeable improvements in water and substratum quality have occurred where habitat has been degraded.

The oyster mussel (*Epioblasma capsaeformis*) (Lea 1834) was listed as an endangered species on January 10, 1997 (62 FR 1647). Critical habitat was designated for this species on August 31, 2004 (69 FR 53136). We finalized a recovery plan for the species in May 2004 (Service 2004). We also established an NEP for the oyster mussel and 15 other federally listed mussels for a section of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, Alabama, on June 14, 2001 (66 FR 32250). This mussel historically occurred throughout much of the Cumberlandian Region of the Tennessee and Cumberland River drainages (Gordon 1991, pp. 2–3). Small populations now survive in a few river reaches in both river systems (Gordon 1991, pp. 2–3). It was historically taken in the lower French Broad River near its confluence with the Holston, and a

population still survives in the Nolichucky River, a French Broad River tributary, above Douglas Reservoir (Parmalee and Bogan 1998, p. 86). Archaeological records (Parmalee 1988, pp. 170–171) of this species exist from the Little Pigeon River, a lower French Broad River tributary. The downlisting objectives for the oyster mussel (Service 2004, pp. 65–68) call for the reestablishment/discovery of six viable populations and one naturally reproducing year class within each viable population. The delisting objectives are to: (1) Reestablish or discover viable populations in nine distinct streams in the Cumberland River system, upper Tennessee River system, and/or lower Tennessee River system; (2) ensure that the species is protected from present and foreseeable threats to the continued existence of any population; and (3) ensure that two distinct naturally reproducing year classes exist within each of the viable populations.

The ring pink (mussel) (*Obovaria retusa*) (Lamarck 1819) was listed as an endangered species on September 29, 1989 (54 FR 40109). We completed a recovery plan for the species in March 1991 (Service 1991c). It historically occurred in the Ohio River and many of its large tributaries in Pennsylvania, West Virginia, Ohio, Indiana, Illinois, Kentucky, Alabama, and Tennessee (Service 1991c, pp. 2–3). Ortmann (1918, p. 567) and Parmalee and Bogan (1998, p. 166) reported it from the lower Holston River, and it has been taken from an archeological site on the lower French Broad River (Ahlstedt 1998). It likely still survives in very low numbers in the Green River in Kentucky, the Tennessee River in Tennessee and Kentucky, and the Cumberland River in Tennessee (Service 1991c, pp. 2–3, Parmalee and Bogan 1998, p. 166). In 2004 and 2005, three juveniles and one adult male were found in the Green River (Leroy Koch 2005). The adult male was taken to the Kentucky Department of Fish and Wildlife Resources' (KDFWR) propagation facility in Frankfort, Kentucky. KDFWR plans to propagate this species to augment existing populations and establish new ones, such as the lower French Broad and lower Holston Rivers. The downlisting objectives for the ring pink (Service 1991c, pp. 4–5) are to: (1) Protect existing populations, reestablish historical populations, and/or discover new populations so that at least six distinct populations exist and (2) ensure that studies of the species' biological and ecological requirements are complete and that any required recovery

measures developed and implemented from these studies are beginning to succeed. The delisting objectives are to: (1) Protect existing populations, reestablish historical populations, and/or discover new populations so that at least nine distinct populations exist; (2) ensure that studies of the species' biological and ecological requirements are complete and that any required recovery measures developed and implemented from these studies are successful; (3) ensure that no foreseeable threats exist that would likely impact the species' survival over a significant portion of its range; and (4) ensure that noticeable improvements in water and substratum quality have occurred where habitat has been degraded.

The rough pigtoe (*Pleurobema plenum*) (Lea 1840) was listed as an endangered species on June 14, 1976 (41 FR 24062). We completed a recovery plan for the species in August 1984 (Service 1984h). This widespread species was historically known from 22 rivers in the Mississippi and Ohio River systems (Service 1984h, pp. 2–3), including the lower French Broad and Holston Rivers (Parmalee and Bogan 1998, p. 189). Archaeological records (Parmalee 1988, p. 169) of this species exist from the Little Pigeon River (a lower French Broad River tributary). It is currently known from the Green, Barren, Cumberland, Tennessee, and Clinch Rivers (Parmalee and Bogan 1998, p. 189, Service 1984h, pp. 3–7). No downlisting criteria are given in this recovery plan. The delisting objectives for the rough pigtoe (Service 1984h, pp. 14–15) are to: (1) Protect existing populations, reestablish historical populations, and/or discover new populations so that at least six distinct populations exist; (2) ensure that these populations are dispersed throughout each river so it would be unlikely for any one event to cause the total loss of any population; (3) ensure that three year classes, including one year class 10 years old or older, have naturally produced in each population; (4) ensure that no foreseeable threats exist that would interfere with the survival of any population; and (5) ensure that noticeable improvements in water and substratum quality have occurred where habitat has been degraded.

The shiny pigtoe (*Fusconaia cor*) (Conrad 1834) was listed as an endangered species on June 14, 1976 (41 FR 24062). We completed a recovery plan for the species in July 1984 (Service 1984i). We also established an NEP for the shiny pigtoe and 15 other federally listed mussels for a section of the Tennessee River below the Wilson

Dam in Colbert and Lauderdale Counties, Alabama, on June 14, 2001 (66 FR 32250). It historically occurred in the Tennessee River and 10 of its tributaries (Service 1984i, pp. 2–4). It is currently known from five river systems: the Clinch, Powell, North Fork Holston, Elk, and Paint Rock (Service 1984i, pp. 4–8). It was historically reported from the Tennessee River around the mouth of the Holston and French Broad Rivers, and it still occurs in the North Fork Holston River (a Holston River tributary) above Cherokee Reservoir (Service 1984i, pp. 2–4, Parmalee and Bogan 1998, p. 113). No downlisting criteria are given in the recovery plan. The delisting objectives for the shiny pigtoe (Service 1984i, pp. 23–25) are to: (1) Restore viable populations to the Clinch, Elk, Powell, North Fork Holston, and Paint Rock Rivers and to Copper Creek; (2) reestablish or discover one viable population in one additional river or two river corridors; (3) ensure that the species is protected from present and foreseeable threats to the continued existence of any population, and (4) determine that noticeable improvements in coal-related problems and substrate quality have occurred in the Powell River and that no increase in coal or other energy-related impacts occurs in the Clinch River.

The white wartyback (pearlymussel) (*Plethobasus cicatricosus*) (Say 1829) was listed as an endangered species on June 14, 1976 (41 FR 24062). We completed a recovery plan for the species in September 1984 (Service 1984j). It occurred in the Ohio, Cumberland, and Tennessee River systems, including the lower Holston River (Parmalee and Bogan 1998, p. 172). It still persists in the middle reaches of the Tennessee River (Service 1984j, pp. 4–5). No downlisting criteria are given in this recovery plan. The delisting objectives for the white wartyback (Service 1984j, pp. 12–13) are to ensure that: (1) A viable population exists in the Tennessee River; (2) viable populations are discovered or reestablished in two additional rivers; (3) these populations are dispersed so it is unlikely for any one event to cause the total loss of the species from that river system; (4) three year classes, including one year class 10 years old or older, have been produced in each reestablished population; and (5) no foreseeable threats exist that would interfere with the survival of any population.

Anthony's riversnail (*Athearnia anthonyi*) (Budd in Redfield 1854) was listed as an endangered species on April 15, 1994 (59 FR 17994). We completed a recovery plan for the species in

August 1997 (Service 1997). We also established an NEP for Anthony's riversnail and 16 federally listed mussels for a section of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, Alabama, on June 14, 2001 (66 FR 32250). This snail was historically found in the Tennessee River and the lower reaches of some of its tributaries from Muscle Shoals, Colbert and Lauderdale Counties, Alabama, upstream into the lower French Broad River (Bogan and Parmalee 1983, pp. 81–82, Service 1997, pp. 1–2). Currently, two populations are known: one in Limestone Creek in Limestone County, Alabama, and one in the Tennessee River and the lower portion of the Sequatchie River (a tributary to this reach of the Tennessee River) in Tennessee and Alabama (Service 1997, p. 2). The downlisting objectives for Anthony's riversnail (Service 1997, p. 5–6) are to ensure that: (1) Four viable populations exist; (2) two naturally produced year classes exist in all four populations; (3) biological studies on the species are completed and recovery measures are beginning to succeed; (4) noticeable improvements in water and substratum quality have occurred where habitat is degraded; (5) each population is protected from present and foreseeable threats; and (6) all four populations remain stable or increase over a 10-year period. The delisting objectives call for the establishment of six viable populations in addition to criteria (2) through (5) above. Additionally, all six populations should remain stable or increase over a 15-year period.

The duskytail darter (*Etheostoma percnurum*) (Jenkins 1994) was listed as an endangered species on April 27, 1993 (58 FR 25758). We completed a recovery plan for the species in March 1994 (Service 1994a). We also established an NEP for the duskytail darter and three other federally listed fishes for a section of the Tellico River in Monroe County, Tennessee, on August 12, 2002 (67 FR 52420). Although likely once more widespread in the upper Tennessee and middle Cumberland River systems, duskytail darters were historically known from six populations: Little River and Abrams Creek, Blount County, Tennessee; Citico Creek, Monroe County, Tennessee; Big South Fork Cumberland River, Scott County, Tennessee, and McCreary County, Kentucky; Copper Creek and the Clinch River (this is one population), Scott County, Virginia; and the South Fork Holston River, Sullivan County, Virginia (Service 1994a, pp. 3–6). The South Fork Holston River population is

apparently extirpated (Service 1994a, p. 4). The Little River, Copper Creek/Clinch River, and Big South Fork Cumberland River populations are extant but small and their viability is uncertain (Service 1994a, pp. 4–5). The Citico Creek population is healthy and viable (Shute 2005). CFI has reintroduced the species into Abrams Creek in Tennessee, and there are indications that it is becoming reestablished (Rakes et al. 2005, p. 106). No historical records exist for the fish in the lower French Broad or lower Holston Rivers. However, we and others believe it is likely that the species once inhabited these waters (Rakes and Shute 1999, p. 5). Our conclusion is based on the following facts: (1) The species was once likely much more widespread in the Tennessee River system, (2) the French Broad and Holston Rivers are tributaries to the Tennessee River between existing and historical populations, (3) both river reaches appear to contain suitable habitat for the species, and (4) there were no physical barriers that would have prevented the species from inhabiting these waters. The downlisting objectives for the duskytail darter (Service 1994a, pp. 7–8) are to: (1) Protect and enhance existing populations and reestablish a population so at least three distinct viable duskytail darter populations exist; (2) ensure that studies of the species' biological and ecological requirements are complete and that any required recovery measures developed and implemented from these studies are beginning to succeed; and (3) ensure that no foreseeable threats exist that would likely threaten the continued existence of the three aforementioned viable populations. The delisting objectives are to: (1) Protect and enhance existing populations and reestablish populations so at least five distinct viable duskytail darter populations exist; (2) ensure that studies of the species' biological and ecological requirements are complete and that any required recovery measures developed and implemented from these studies are successful; and (3) ensure that no foreseeable threats exist that would likely impact the survival of the five aforementioned viable populations.

The pygmy madtom (*Noturus stanuli*) (Etnier and Jenkins 1980) was listed as an endangered species on April 27, 1993 (58 FR 25758). We completed a recovery plan for the species in September 1994 (Service 1994b). The pygmy madtom, which was likely more widespread in the Tennessee River system, has been found, and still exists, in only two short reaches of the Duck

and Clinch Rivers in Tennessee. These river reaches are about 600 river miles apart. No historical records exist for the fish in the lower French Broad or lower Holston Rivers. However, we and others believe it is likely that it once inhabited these waters (Rakes and Shute 1999, p. 5). Our conclusion is based on the same facts outlined above for the duskytail darter. The downlisting objectives for the pygmy madtom (Service 1994b, p. 5) are to: (1) Protect and enhance existing populations so that at least two distinct viable populations exist; (2) ensure that studies of the species' biological and ecological requirements are complete and that any required recovery measures developed and implemented from these studies are beginning to succeed; and (3) ensure that no foreseeable threats exist that would likely impact the survival of the two aforementioned viable populations. No delisting criteria are given in this recovery plan.

The slender chub (*Erimystax cahni*) (Hubbs and Crowe 1956) was listed as a threatened species on September 9, 1977, with critical habitat and a special rule (42 FR 45526). We completed a recovery plan for the species in July 1983 (Service 1983a). It was historically known from the Clinch, Powell, and Holston Rivers (Service 1983a, pp. 2–3). The Holston River site is now under the Cherokee Reservoir. The species has not been found recently in the Powell River, and its continued existence in the Clinch River is represented by only one specimen taken in recent years (Rakes and Shute 2006, p. 1). However, collections made over the years have generally shown that specimens can often be taken only sporadically and in very small numbers. There was an effort to survey for the slender chub in 2004 and 2005. No slender chubs were found, but the surveyors felt confident that at least a few individuals may still survive in the Clinch River and a propagation program could succeed (Rakes and Shute 2006, p. 5). Additional surveys for slender chubs are planned for 2007. Although the species has never been collected from the lower French Broad system, we and others believe the species once likely inhabited these waters (Rakes and Shute 1999, pp. 3–5). Our conclusion is based on the same facts outlined above for the duskytail darter. The delisting objectives for the slender chub (Service 1983a, pp. 8–9) are to: (1) Protect and enhance existing populations and/or reestablish populations so that viable populations exist in the Clinch and Powell Rivers; (2) ensure, through reintroductions and/or the discovery of new populations, that one other viable population exists;

(3) ensure that noticeable improvements in coal-related problems and substrate quality have occurred in the Powell River and that there is no increase in coal-related sedimentation in the Clinch River; and (4) protect the species from threats that may adversely affect the survival of the populations.

The spotfin chub (*Erimonax monachus*) (Cope 1868) was listed as a threatened species on September 9, 1977, with critical habitat and a special rule (42 FR 45526). The critical habitat map was corrected on September 22, 1977 (42 FR 47840). We completed a recovery plan for the species in November 1983 (Service 1983b). Two NEPs have been established for the spotfin chub. The first was established for the spotfin chub and three other federally listed fishes for a section of the Tellico River in Monroe County, Tennessee, on August 12, 2002 (67 FR 52420). The second was established for the spotfin chub and the boulder darter (*Etheostoma wapiti*) for a section of Shoal Creek (a tributary to the Tennessee River), Lauderdale County, Alabama, and Lawrence County, Tennessee, on April 8, 2005 (70 FR 17916). This once-widespread species was historically known from 24 streams in the upper and middle Tennessee River system. Currently, it is extant in only four rivers/river systems (Service 1983b, pp. 2–4; P. Shute 2004; TVA 2004). CFI has reintroduced the species into Abrams Creek in Tennessee, and there are indications that it has become reestablished (Rakes et al. 2005, p. 106). Historical records exist for the species in the upper French Broad and upper Holston River systems, and the species still exists in the Holston River system above the Cherokee Reservoir (Service 1983b, pp. 2–14). We and our partners believe the species once likely inhabited the waters of the lower French Broad and lower Holston Rivers. Our conclusion is based on the same facts outlined above for the duskytail darter. The delisting objectives for the spotfin chub (Service 1983b, pp. 19–20) are to: (1) Protect and enhance existing populations and/or reestablish populations so that viable populations exist in the Buffalo River system, upper Little Tennessee River, Emory River system, and lower North Fork Holston River; (2) ensure, through reintroduction and/or the discovery of two new populations, that viable populations exist in two other rivers; and (3) ensure that no present or foreseeable threats exist that would likely impact the survival of any populations.

The yellowfin madtom (*Noturus flavipinnis*) (Taylor 1969) was listed as a threatened species on September 9,

1977, with critical habitat and a special rule (42 FR 45526). The critical habitat map was corrected on September 22, 1977 (42 FR 47840). We completed a recovery plan for the species in June 1983 (Service 1983c). Two NEPs have been established for the yellowfin madtom. The first NEP was established for a section of the North Fork Holston River in Washington County, Virginia, on August 4, 1988 (53 FR 29335). The second NEP was established for the yellowfin madtom and three other federally listed fishes for a section of the Tellico River in Monroe County, Tennessee, on August 12, 2002 (67 FR 52420). It was historically known from only seven streams (Service 1983c, p. 2). Four small extant populations still exist, one each in Citico Creek, Copper Creek, Clinch River, and the Powell River (Rakes and Shute 2006a, pp. 2, 6). The species was reintroduced into Abrams Creek, and the population is becoming reestablished (Shute et al. 2005, p. 106). Reintroductions into the NEP section of the Tellico River are ongoing and early results are promising (Rakes and Shute 2005, p. 13). Although there are no historical records from the lower Holston River or French Broad River system, we and others believe that the species once likely inhabited these river reaches (Rakes and Shute 1999). Our conclusion is based on the same facts outlined above for the duskytail darter. The delisting objectives for the yellowfin madtom (Service 1983c, pp. 8–10) are to: (1) Protect and enhance existing populations and/or reestablish populations so that viable populations exist in Copper Creek, Citico Creek, and the Powell River; (2) reestablish or discover viable populations in two additional rivers; (3) ensure that noticeable improvements in coal-related problems and substrate quality have occurred in the Powell River; and (4) ensure that each population is protected from present and foreseeable threats.

The recovery objectives in the recovery plans for all of the 21 species generally agree that, to reach recovery: (1) Existing populations should be restored to viable levels; (2) the species should be protected from threats to their continued existence; and (3) viable populations should be reestablished in historical habitat. The number of secure, viable populations needed to achieve recovery (existing and restored) varies from species to species, depending on the extent of the species' probable former range (i.e., historically widespread species require a greater number of populations for recovery than species with historically more restricted distributions). However, the

reestablishment of historical populations is a critical component in the recovery of all these species.

4. *Reintroduction Site:* At the request of the TVA and the TWRA, biologists from the Service, TVA, USGS, TWRA, and Alabama Game and Fish Division evaluated Tennessee River basin rivers for mollusk recovery potential. The biologists rated the French Broad River downstream of Douglas Dam as having a high potential for mollusk recovery and the Holston River below Cherokee Dam as having a medium potential primarily due to water quality and flow improvements to the tailwaters. In letters dated May 28, 1998, and June 29, 1998, the TWRA's Executive Director recommended that we consider reintroducing endangered mussels into the French Broad River below Douglas Dam and the Holston River below Cherokee Dam under NEP status. In an October 30, 1998, letter, the TWRA provided us with a list of mussel species (compiled by Tennessee mussel experts) that historically or probably occurred in these river reaches. In a December 9, 1998, letter to us, the TVA (the managers of the dams above the NEP for hydroelectric power, flood control, and recreation) expressed support for mussel recovery efforts in the Tennessee River valley streams and tailwaters.

Based on successes in Abrams Creek and CFI's intimate knowledge of nongame fishes and their habitat needs, we contracted with them to survey the lower French Broad River and determine if we could expand our listed fish recovery efforts into this major Tennessee River tributary. CFI determined that the lower French Broad River contains potential suitable habitat for the reintroduction of the duskytail darter, pygmy madtom, spotfin chub, and yellowfin madtom (Rakes and Shute 1999, pp. 2–4). Additionally, Rakes and Shute (2004) stated that the lower Holston River below Cherokee Dam could potentially support a reintroduced population of these fishes and that both river reaches contain potential habitat for slender chub reintroductions.

In a May 17, 1999, letter to us, the TWRA's Executive Director stated that he concurred with the conclusions in the report prepared by Rakes and Shute (1999). He recommended that we consider designating NEP status in the lower French Broad and Holston Rivers for the eventual reintroduction of these five fish species.

We previously established NEPs for the birdwing pearlshell, cracking pearlshell, Cumberland bean, Cumberlandian combshell, Cumberland monkeyface, fine-rayed pigtoe, oyster



mussel, shiny pigtoe, and Anthony's riversnail in the free-flowing reach of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, Alabama (66 FR 32250, June 14, 2001). In October 2003, 80 each of birdwing pearlymussels, oyster mussels, and dromedary mussels (dromedary mussels are not part of the Lower French Broad/Lower Holston NEP) and 2,370 Anthony's riversnails were placed in the NEP area below Wilson Dam. The status of these reintroduced mussels was checked during the summer of 2004 and 2005. While it is too early to determine whether or not the reintroduced individuals will become an established population, a significant number of them have survived thus far, indicating that the reintroduction has a good chance of being successful. Establishment of viable populations of these species in both the Tennessee River below the Wilson Dam under the existing regulation and in the lower French Broad and lower Holston Rivers, through this regulation, is an objective in the recovery of these species. However, it will take several years of monitoring to fully evaluate if populations of these species (and the other species) have become established and remain viable in these historic river reaches.

Based on the presence of suitable physical habitat, the positive response of endemic aquatic species to habitat improvements, improved quality of the water being released from the dams, the recommendations of the TWRA's Executive Director, and the evaluation of biologists familiar with the lower French Broad and Holston Rivers, we believe the French Broad River (downstream of Douglas Dam) and the Holston River (downstream of Cherokee Dam) appear suitable for the reintroduction of these 21 species with NEP status.

We plan to reintroduce these 21 species into historical habitat in the free-flowing reach of the French Broad River from RM 22.3 (35.7 km) (approximately 10 RM (16 km) below Douglas Dam), Knox and Sevier Counties, Tennessee, to the backwaters of Fort Loudoun Reservoir, upstream of, but near the confluence with the Holston River, Knox County, Tennessee, and in the free-flowing reach of the Holston River, Knox, Grainger, and Jefferson Counties, Tennessee, from above the backwaters of Fort Loudoun Reservoir just upstream of its confluence with the French Broad River, upstream to RM 42.3 (67.7 km) (approximately 10 RM (16 km) below Cherokee Dam). These river reaches contain the most suitable habitat for the

reintroductions. None of these 21 species are known to currently exist in these river reaches, in tributaries to these reaches, or have free access to these reaches.

5. *Reintroduction Procedures:* The dates for these reintroductions, the actual number of individuals to be released, and the specific release sites cannot be determined at this time.

Mussel propagation and juvenile rearing technology are currently being refined (Jones et al. 2005). Genetic management guidelines for captive propagation of freshwater mussels have also recently been developed (Jones et al. 2006). Juvenile mussels of some species could be available for reintroduction soon after this NEP rule is finalized. Individual endangered mussels that would be used for these reintroductions will be primarily artificially propagated juveniles. However, it is possible that wild adult stock of some mussels could also be released into the area. The parent stock for mussel propagation will come from existing wild populations in the Tennessee, Cumberland, and Ohio Rivers, and in most cases, adults will be returned to the capture site. Under some circumstances, adult endangered mussels could be permanently relocated (i.e., kept in captivity for their entire life) to propagation facilities or moved directly into the NEP area after being used for propagation purposes. A permit under section 10 of the ESA would be needed for handling and maintaining threatened and endangered species in captivity.

Anthony's riversnails will likely be collected for the reintroductions from a large naturally reproducing population located in Limestone Creek, Limestone County, Alabama, and relocated directly into the NEP.

Individual fishes that would be used for these reintroductions will be primarily artificially propagated juveniles. However, it is possible that wild adult stock of some fishes could also be released into the NEP area. Propagation and juvenile rearing technology is available for the spotfin chub, slender chub, and duskytail darter. Limited numbers of yellowfin madtom juveniles can be reared using eggs and larvae taken from the wild, and some pygmy madtoms can be propagated. However, madtom propagation technology, which is needed to produce large numbers of juvenile madtoms, needs further development. The parental stock for fish propagation and reintroductions will come from wild populations. Duskytail darters will likely come from Little River in Tennessee. Yellowfin madtoms

will likely come from the Powell River in Tennessee. Spotfin chubs will likely come from upstream in the Holston River system above Cherokee Dam in Tennessee. Pygmy madtoms will come from the Clinch River in Tennessee. Slender chubs will come from the upper Tennessee River basin in Tennessee and Virginia. In some cases, the parents will be returned to the wild population from which they were taken. However, in most cases, adult fishes will be permanently relocated to propagation facilities.

To help ensure the genetic integrity of the reintroduced species and to match as closely as possible the genetic composition of the historical populations, we will observe the following guidelines: (1) To reduce homozygosity, at least 10 gravid female mussels, 10 fishes, and 10 snails, whenever possible, will be used as parental stock over the life of the reintroduction project (if this number cannot be obtained for very rare species, we will use whatever number is available) and (2) to match as closely as possible the genetic composition of the species that once existed in the lower French Broad and Holston Rivers, the adults and brood stock for the reintroductions will be collected using the following criteria (in order of decreasing importance): (a) Donor animals will be collected from populations in adjacent stream/tributary systems in the same physiographic province, (b) donor animals will be collected from populations in adjacent stream/tributary systems in an adjacent physiographic province, and (c) donor animals will be collected from the only population with a sufficient number of adults to produce progeny.

The permanent removal of adults (mollusks and fishes) from the wild for their use in reintroduction efforts is allowable when the following conditions exist: (1) Sufficient numbers of adults are available within a donor population to sustain the loss without jeopardizing the species; (2) the species must be removed from an area because of an imminent threat that is likely to eliminate the population or specific individuals present in an area; or (3) when the population is not reproducing (see 50 CFR § 17.22). For these 21 species, it is most likely that adults will be permanently removed because of the first condition. However, fewer adults will be needed for propagation than for actually moving individuals from a donor population to the NEP. An enhancement of propagation or survival permit under section 10(a)(1)(A) of the Act must be issued before any take occurs. We will coordinate these actions



with the Service's appropriate lead regions and State natural resources agencies.

**6. Status of Reintroduced Populations:** Previous translocations, propagations, and reintroductions of many of these species have not affected their wild populations. The use of artificially propagated juveniles will further reduce the potential effects on wild populations since fewer adults would be needed from the donor population. If any of the reintroduced populations become established and are subsequently lost, the likelihood of the species' survival in the wild would not be appreciably reduced because either the reintroduced individuals will be from propagated stock or the donor population will be of sufficient size to handle movement of adults. Therefore, we have determined that the reintroduced populations of these 21 species in the lower French Broad and Holston Rivers are not essential to the continued existence of these species. We will ensure, through our section 10 permit authority and the section 7 consultation process, that the use of animals from any donor population for these reintroductions is not likely to jeopardize the continued existence of the species.

**7. Location of Reintroduced Population:** The NEP area, which encompasses all the sites for the reintroductions, will extend from the base of Douglas Dam down the French Broad River, Knox and Sevier Counties, Tennessee, to its confluence with the Holston River and then up the Holston River, Knox, Grainger, and Jefferson Counties, Tennessee, to the base of Cherokee Dam and also will include the lower 5 RM (8 km) of all tributaries that enter these river reaches. Section 10(j) of the Act requires that an experimental population be geographically separate from other wild populations of the same species. The NEP area is totally isolated from existing populations of these species by large reservoirs, and none of these species are known to occur in, or are likely to move through, large reservoir habitat. Therefore, these reservoirs will act as barriers to the expansion of these species into other sections of the Tennessee River basin and will ensure that the NEPs remain geographically isolated and easily distinguishable from existing wild populations. Based on the habitat requirements of these mollusks and fishes, we do not expect them to become established outside the NEP area. However, if any of the reintroduced species move outside the designated NEP area, then the animals would be considered to have come from the NEP

area. In that case, we may propose to amend this rule and enlarge the boundaries of the NEP area to include the entire range of the expanded population(s).

The designated NEP area for the duskytail darter, spotfin chub, and yellowfin madtom in the Tellico River (67 FR 52420, August 12, 2002) does not overlap or interfere with this NEP area for the lower French Broad and lower Holston Rivers in Tennessee because they are geographically separated river reaches. The designated NEP for the spotfin chub in Shoal Creek, Tennessee, (67 FR 17916) does not overlap or interfere with this NEP area for the lower French Broad and lower Holston Rivers in Tennessee because they are geographically separated river reaches.

Similarly, the NEP for the yellowfin madtom in the North Fork Holston River (53 FR 29335, August 4, 1998) is separated by reservoirs and long stretches of river that do not contain yellowfin madtoms or their habitat and act as effective barriers between madtom populations in the North Fork Holston River and the NEP in the lower Holston River.

The designated NEP area for the birdwing pearl mussel, cracking pearl mussel, Cumberland bean, Cumberlandian combshell, Cumberland monkeyface, dromedary pearl mussel, fine-rayed pigtoe, oyster mussel, shiny pigtoe, tubercled blossom, and Anthony's riversnail in the Tennessee River below the Wilson Dam (66 FR 32250, June 14, 2001) in Alabama does not overlap or interfere with this NEP area for the lower French Broad and lower Holston Rivers in Tennessee because they are geographically separated river reaches with several reservoirs between them.

Critical habitat has been designed for Cumberlandian combshell and oyster mussel (69 FR 53136, August 31, 2004), and the slender chub, spotfin chub, and yellowfin madtom (42 FR 45526, September 9, 1977); however, none of these designations include the NEP area. Critical habitat has not been designated for the 16 other species identified in this rule. Section 10(j)(2)(C)(ii) of the Act states that critical habitat shall not be designated for any experimental population that is determined to be nonessential. Accordingly, we cannot designate critical habitat in areas where we have already established, by regulation, a nonessential experimental population.

**8. Management:** The aquatic resources in the reintroduction area are managed by the TWRA and the TVA. Multiple-use management of these waters will not change as a result of the NEP

designation. The NEP designation will not require the TWRA or the TVA to specifically manage for reintroduced species in the NEP area. Private landowners within the NEP area will still be allowed to continue all legal agricultural and recreational activities. Because of the substantial regulatory relief provided by NEP designations, we do not believe these reintroductions will conflict with existing human activities or hinder public use of the NEP area.

The Service, State, TVA, and CFI staff will all be involved in the management of the reintroductions. They will closely coordinate on reintroductions, monitoring, coordination with landowners and land managers, and public awareness, among other tasks necessary to ensure successful reintroductions of these species.

**(a) Mortality:** The regulations implementing the Act define "incidental take" as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity (50 CFR 17.3) such as recreation (e.g., fishing, boating, wading, trapping, or swimming), forestry, agriculture, and other activities that are in accordance with Federal, Tribal, State, and local laws and regulations. A person may take a listed species within the experimental population area provided that the take is unintentional and is not due to negligent conduct. However, when we have evidence of knowing (i.e., intentional) take of the listed species within the NEP, we will refer matters to the authorities, which in most cases for these reintroduced species would be the State agency, TWRA, for appropriate action. We expect levels of incidental take to be low since the reintroduction is compatible with existing human use activities and practices for the area.

**(b) Special Handling:** Service employees and authorized agents acting on their behalf may handle these 21 species for scientific purposes; to relocate them to avoid conflict with human activities; for recovery purposes; to relocate them to other reintroduction sites; to aid sick or injured individuals; and to salvage dead individuals.

**(c) Coordination with landowners and land managers:** The Service and cooperators identified issues and concerns associated with the reintroduction of these 21 species before preparing this rule. The reintroduction also has been discussed with potentially affected State agencies, businesses, and landowners within the release area. Affected State agencies, businesses, landowners, and land managers, including the TWRA and TVA, have indicated support for the reintroduction, if the species released in the

experimental population area are established as an NEP and if aquatic resource activities in the experimental population area are not constrained.

(d) *Potential for conflict with human activities:* We do not believe these reintroductions will conflict with existing or human activities or hinder public use of the NEP area within the French Broad and Holston Rivers. Experimental population special rules contain all the prohibitions and exceptions regarding the taking of individual animals. These special rules are compatible with routine human activities in the reintroduction area.

(e) *Monitoring:* After the initial stocking of these species, we will monitor annually their presence or absence and document any spawning behavior or young-of-the-year that might be present. This monitoring will be conducted primarily by snorkeling or seining and will be accomplished by contracting with the appropriate species experts. Annual reports will be produced detailing the stocking rates and monitoring activities that took place during the previous year. We will also fully evaluate these reintroduction efforts after 5 and 10 years to determine whether to continue or terminate the reintroduction efforts.

(f) *Public awareness and cooperation:* On January 12, 1999, we mailed letters to 47 potentially affected congressional offices, Federal and State agencies, local governments, and interested parties to notify them that we were considering proposing NEP status in the lower French Broad and Holston Rivers for the 16 mollusks (at the time of this letter, we had not yet decided to propose the fish reintroductions). We received one written response. The Tennessee Department of Environment and Conservation supported the reintroduction of the mollusks under NEP status. It stated that NEP status represents an appropriate step toward promoting the species' recovery while protecting the rights and privileges of Tennessee's citizens.

We did not circulate a similar notice regarding the potential of proposing NEP status for the five fishes. The report on the area's suitability for fish reintroductions (Rakes and Shute 1999) was not available when the mollusk notice was circulated. However, since we received only one comment on the mollusk notice, the TWRA and the TVA both support the mollusk and fish reintroductions under NEP status, and the inclusion of these fishes in the proposal would not result in any additional impact to public or government agency use of the river, we did not believe it was necessary to

circulate a separate notice regarding these fishes. In any case, through the proposed rule, the public was given the opportunity to comment on the NEP designation for these fishes (see Summary of Comments and Recommendations Section below).

We have informed the general public of the importance of this reintroduction project in the overall recovery of these 21 species. The designation of the NEP for these reaches of the French Broad and Holston Rivers will provide greater flexibility in the management of these reintroduced species. The NEP designation is necessary to secure needed cooperation of the States, Tribes, landowners, agencies, and other interests in the affected area.

### Finding

Based on the above information, and using the best scientific and commercial data available (in accordance with 50 CFR 17.81), the Service finds that releasing the Appalachian monkeyface, birdwing pearl mussel, cracking pearl mussel, Cumberland bean, Cumberlandian combshell, Cumberland monkeyface, dromedary pearl mussel, fanshell, fine-rayed pigtoe, orange-foot pimpleback, oyster mussel, ring pink, rough pigtoe, shiny pigtoe, white wartyback, Anthony's riversnail, duskytail darter, pygmy madtom, slender chub, spotfin chub, and yellowfin madtom into the lower French Broad and lower Holston Rivers Experimental Population Area under an NEP designation will further the conservation of these species.

### Other Changes to the Regulations

In addition, we are making a minor technical correction to the existing regulation regarding the birdwing pearl mussel. The birdwing pearl mussel was listed on June 14, 1976 (41 FR 24062), under the scientific name of *Conradilla caelata*. The current list of endangered and threatened species at 50 CFR 17.11(h) uses the scientific name of *Conradilla caelata* for the birdwing pearl mussel. In the latest edition of the *Common and Scientific Names of Aquatic Invertebrates from the United States and Canada* published by the American Fisheries Society, the scientific name has been changed to *Lemiox rimosus* (Turgeon *et al.* 1998). This name change has occurred in a peer-reviewed publication and has acceptance in the scientific community. Therefore, we are correcting the text for the current list of endangered and threatened species at 50 CFR 17.11(h) and the existing experimental population in the free-flowing reach of the Tennessee River below Wilson Dam

in Alabama at 50 CFR 17.85 by changing the scientific name for the birdwing pearl mussel from *Conradilla caelata* to *Lemiox rimosus* (see Regulation Promulgation section below).

We are also making editorial changes to 50 CFR 17.84(m) and 17.84(o). These paragraphs currently provide NEP information for multiple species; § 17.84(m) sets forth the Tellico River NEP area for spotfin chub, duskytail darter, and smoky madtom, while § 17.84 (o) sets forth the Shoal Creek NEP area for spotfin chub and boulder darter. In this final rule, we reformat this information into species-specific paragraphs, so that each fish species has its own NEP paragraph. These changes are nonsubstantive; no existing NEP areas would change as a result of the reformatting. The changes are simply for clarity and consistency, and to make information easier for the public to find.

Finally, we are also making editorial changes to replace the introductory text at 50 CFR 17.85(a) with a table for clarity. Again, this is a nonsubstantive change; no existing NEP areas would change as a result of the reformatting.

### Summary of Comments and Recommendations

In the June 13, 2006, proposed rule (71 FR 34196), we requested that all interested parties submit comments or information concerning the proposed NEP. We contacted appropriate Federal, State, and local agencies, county governments, elected officials, scientific organizations, and other interested parties and invited them to comment on the proposed NEP. We also provided notification of this document through email, telephone calls, letters, and news releases faxed and/or mailed to affected elected officials, media outlets, local jurisdictions, and interested groups. We provided the document on the Service's Cookeville Field Office Internet site following its release.

During the public comment period, we received comments from four parties: One federal agency and three universities. All four parties supported the NEP. The three university parties were peer reviewers (see below). The federal agency, Tennessee Valley Authority, operates the two dams on the lower French Broad and lower Holston Rivers. TWRA did not provide comments during the public comment period but remain supportive of this effort.

In conformance with our policy on peer review, published on July 1, 1994 (59 FR 34270), we solicited independent opinions from four knowledgeable individuals who have expertise with these species within the geographic

region where the species occur, and/or familiarity with the principles of conservation biology. We received comments from three of the four peer reviewers. These are included in the summary below and incorporated into this final rule.

We reviewed all comments received from the peer reviewers and the public for substantive issues and new information regarding the proposed NEP. Substantive comments received during the comment period have either been addressed below or incorporated directly into this final rule. The comments are grouped below as either peer review or public comments.

#### Peer Review Comments

(1) *Comment:* A recent publication entitled “Restoration and colonization of freshwater mussels and fish in a southeastern United States tailwater” by Layzer and Scott (2005) should be cited in lieu of some of the personal communications.

*Response:* We have added this citation to the document where appropriate.

(2) *Comment:* Continued operation of the dams as peaking hydroelectric projects will further hinder recolonization of the mid-water fish species and reduce the likelihood of establishing populations of some of the mussel species that rely on them as glochidial hosts.

*Response:* TVA continues to improve the conditions of the tailwaters below the two dams. We acknowledge that more work needs to be done to reduce the peak flows in both intensity and duration. We will continue to work with TVA to accomplish that goal. In the meantime, mussel species that use benthic fishes as glochidial hosts, such as the oyster mussel and birdwing pearl mussel, can be reintroduced as soon as this rule becomes final, since their glochidial host fish species are abundant in both rivers.

(3) *Comment:* A recent publication entitled “Genetic management guidelines for captive propagation of freshwater mussels (Unionoidea)” by Jones *et al.* (2006) should provide a citation for all genetic management issues related to either translocation or propagation of endangered freshwater mollusks.

*Response:* We have added this citation to the document where appropriate.

(4) *Comment:* Under 50 CFR 17.85, Special rules—invertebrates, there are a couple of extinct species listed in the table of NEP’s in the Tennessee River. This may be very confusing to the public and perhaps be interpreted as

contradictory to the “best available science.”

*Response:* The table lists all the mollusk species that are included in the existing NEP below Wilson Dam in the Tennessee River (66 FR 32250, June 14, 2001). We realize that some of these species (in particular the tubercled blossom, turgid blossom, and yellow blossom pearl mussels) have not been found alive in 20 years or longer and that many experts believe that they may indeed be extinct. On the other hand, mussels can be found after a long time of not being seen in collection records and, presently, the Service has not declared any of these species extinct. These mussels are not part of this final action being set forth for the lower French Broad and lower Holston Rivers. However, the Service has initiated 5-year reviews for each of these mussels (70 FR 55157, September 20, 2005) and is in the process of assessing the mussels’ listed status under the Act. If a change in status is recommended based on the review conducted, the Service would be required to go through a separate rulemaking process to formally change a species’ listed status. At that time, the Service would consider associated existing regulations for the respective species and determine if corrections are necessary.

#### Public Comments

(5) *Comment:* The “accidental and incidental take” provision should be expanded to state that any take as a result of TVA’s operation of its multipurpose dams and associated works (e.g., fluctuation of flows, adjustment of aeration systems) would be considered a permissible incidental take.

*Response:* The rule clearly states that section 10(j) of the Act can provide regulatory relief with regard to the taking of reintroduced species within an NEP area. The rule allows for the taking of these reintroduced species when such take is incidental to an otherwise legal activity that is in accordance with Federal, State, and local laws and regulations. This rule applies to any legal activity TVA might undertake.

(6) *Comment:* The upstream limits of the NEP should be reconsidered since areas immediately downstream of the dams and for some distance downstream do not provide suitable habitat for any of these species due to dam operations.

*Response:* We acknowledge that presently the conditions below both dams (Cherokee and Douglas) are not sufficient to sustain viable populations of these listed species. However, particularly with the fish species, there

could be some movement in and out of these areas. In order to provide regulatory relief, should any of these species move into these areas, we would have to designate the area as being part of the NEP. For this reason, we are going to leave the limits of the NEP as originally drafted to include the free-flowing reach of the French Broad River below Douglas Dam to its confluence with the Holston River and the free-flowing reach of the Holston River below Cherokee Dam to its confluence with the French Broad River.

#### Required Determinations

##### *Regulatory Planning and Review (E.O. 12866)*

In accordance with the criteria in Executive Order 12866, this rule to designate NEP status for and reintroduce 15 endangered mussels, 1 endangered aquatic snail, 2 endangered fishes, and 3 threatened fishes in the free-flowing reach of the French Broad River below Douglas Dam to its confluence with the Holston River, Knox County, Tennessee, and in the free-flowing reach of the Holston River below Cherokee Dam to its confluence with the French Broad River is not a significant regulatory action subject to Office of Management and Budget review. This rule will not have an annual economic effect of \$100 million or more on the economy and will not have an adverse effect on any economic sector, productivity, competition, jobs, the environment, or other units of government. The area affected by this rule consists of a very limited and discrete geographic segment of the lower French Broad River (about 32 RM (51 km)) and the lower Holston River (about 52 RM (83 km)) in eastern Tennessee. Therefore, a cost-benefit and economic analysis will not be required.

We do not expect this rule to have significant impacts to existing human activities (e.g., hydroelectric power generation, flood control, agricultural activities, fishing, boating, wading, swimming, trapping) in the watershed. These rivers already have populations of the federally listed threatened snail darter (*Percina tanasi*) and endangered pink mucket mussel (*Lampsilis abrupta*), both of which require Federal agencies to consult with us under section 7 of the Act if their activities may adversely affect these species. The reintroduction of these federally listed species, which will be accomplished under NEP status with its associated regulatory relief, is not expected to impact Federal agency actions. Because of the substantial regulatory relief, we do not believe the reintroduction of

these species will conflict with existing or proposed human activities or hinder public use of the French Broad or Holston Rivers.

This rule will not create inconsistencies with other agencies' actions or otherwise interfere with an action taken or planned by another agency. Federal agencies most interested in this rulemaking are primarily the Environmental Protection Agency and TVA. Both Federal agencies support the proposal.

This rule will not materially affect entitlements, grants, user fees, or loan programs, or the rights and obligations of their recipients. Because there are no expected impacts or restrictions to existing human uses of the French Broad and Holston Rivers as a result of this rule, no entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients are expected to occur.

This rule does not raise novel legal or policy issues. Since 1984, we have promulgated section 10(j) rules for many other listed species in various localities. Such rules are designed to reduce the regulatory burden that would otherwise exist when reintroducing listed species to the wild.

#### *Regulatory Flexibility Act*

The Department of the Interior certifies that this document 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.*). Although most of the identified entities are small businesses engaged in activities along the affected reaches of these rivers, this rulemaking is not expected to have any significant impact on private activities in the affected area. The designation of a NEP in this rule will significantly reduce the regulatory requirements regarding the reintroduction of these species, will not create inconsistencies with other agencies' actions, and will not conflict with existing or proposed human activity, or Federal, State, or public use of the land or aquatic resources.

#### *Small Business Regulatory Enforcement Fairness Act*

This rule is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. This rule will not have an annual effect on the economy of \$100 million or more. It will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographical regions. This rule does not have significant adverse effects on competition, employment, investment,

productivity, innovation, or the ability of United States-based enterprises to compete with foreign-based enterprises. The intent of this special rule is to facilitate and continue the existing commercial activity while providing for the conservation of species through reintroduction into suitable habitat.

#### *Unfunded Mandates Reform Act*

The NEP designation will not place any additional requirements on any city, county, or other local municipality. The TWRA, which manages the fishes and mollusks in the French Broad and Holston Rivers, requested that we consider these reintroductions under a NEP designation. However, they will not be required to specifically manage for any reintroduced species. Accordingly, this rule will not "significantly or uniquely" affect small governments. A Small Government Agency Plan is not required since this rulemaking does not require any action to be taken by local or State government or private entities. We have determined and certify pursuant to the Unfunded Mandates Reform Act, 2, U.S.C. 1502 *et seq.*, that this rulemaking will not impose a cost of \$100 million or more in any given year on local or State governments or private entities (i.e., it is not a "significant regulatory action" under the Unfunded Mandates Reform Act).

#### *Takings (E.O. 12630)*

In accordance with Executive Order 12630, the rule does not have significant takings implications. When reintroduced populations of federally listed species are designated as NEPs, the Act's regulatory requirements regarding the reintroduced listed species within the NEP are significantly reduced. Section 10(j) of the Act can provide regulatory relief with regard to the taking of reintroduced species within an NEP area. For example, this rule allows for the taking of these reintroduced mollusks and fishes when such take is incidental to an otherwise legal activity, such as recreation (e.g., fishing, boating, wading, trapping, swimming), forestry, agriculture, and other activities that are in accordance with Federal, State, and local laws and regulations. Because of the substantial regulatory relief provided by NEP designations, we do not believe the reintroduction of these species will conflict with existing or proposed human activities or hinder public use of the French Broad and Holston River systems.

A takings implication assessment is not required because this rule (1) Will not effectively compel a property owner

to suffer a physical invasion of property and (2) will not deny all economically beneficial or productive use of the land or aquatic resources. This rule will substantially advance a legitimate government interest (conservation and recovery of listed freshwater mussel, snail, and fish species) and will not present a barrier to all reasonable and expected beneficial use of private property.

#### *Federalism (E.O. 13132)*

In accordance with Executive Order 13132, this rule does not have significant Federalism effects to warrant the preparation of a Federalism Assessment. This rule will not have substantial direct effects on the States, in the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government. We have coordinated extensively with the State of Tennessee on the reintroduction of these species into the French Broad and Holston River systems. The State wildlife agency in Tennessee (TWRA) requested that we undertake this rulemaking in order to assist the State in the restoration and recovery of its native aquatic fauna. Achieving the recovery goals for these species will contribute to their eventual delisting and their return to State management. No intrusion on State policy or administration is expected; roles and responsibilities of Federal or State governments will not change; and fiscal capacity will not be substantially directly affected. The special rule operates to maintain the existing relationship between the States and the Federal government and is being undertaken at the request of a State agency (TWRA). We have cooperated with the TWRA in the preparation of this rule. Therefore, this rule does not have significant Federalism effects or implications to warrant the preparation of a Federalism Assessment pursuant to the provisions of Executive Order 13132.

#### *Civil Justice Reform*

In accordance with Executive Order 12988, the Office of the Solicitor has determined that this rule does not unduly burden the judicial system and that it meets the requirements of sections (3)(a) and (3)(b)(2) of the Order.

#### *Paperwork Reduction Act*

Office of Management and Budget (OMB) regulations at 5 CFR part 1320, which implement provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) require that Federal

agencies obtain approval from OMB before collecting information from the public. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid control number. This rule does not include any new collections of information that require approval by OMB under the Paperwork Reduction Act.

#### *National Environmental Policy Act (NEPA)*

We have determined that the issuance of this rule is categorically excluded from National Environmental Policy Act requirements (516 DM 6, Appendix 1.4 B(6)).

#### *Government-to-Government Relationship With Tribes*

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), Executive Order 13175, and the Department of the Interior Manual Chapter 512 DM 2, we have evaluated possible effects on federally recognized Indian tribes and have determined that there are no effects.

#### *Energy Supply, Distribution or Use (E.O. 13211)*

On May 18, 2001, the President issued Executive Order 13211 on regulations that significantly affect energy supply, distribution, and use. Executive Order

13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This rule is not expected to significantly affect energy supplies, distribution, and use. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

#### References Cited

A complete list of all references cited herein is available, upon request, from the Cookeville, TN Field Office (see ADDRESSES section).

#### Author

The principal author of this rule is Timothy Merritt, Cookeville Field Office (see ADDRESSES section).

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

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

#### Final Regulation Promulgation

■ Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations 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), the List of Endangered and Threatened Wildlife, as follows:

■ a. Under the heading "FISHES," by revising the entries for "Chub, slender"; "Chub, spotfin"; "Darter, duskytail"; "Madtom, pygmy"; "Madtom, smoky"; and "Madtom, yellowfin" to read as set forth below;

■ b. Under the heading "CLAMS," by revising the entries for "Bean, Cumberland (pearly mussel)"; "Blossom, tubercled (pearly mussel)"; "Blossom, turgid (pearly mussel)"; "Blossom, yellow (pearly mussel)"; "Catspaw (purple cat's paw pearly mussel)"; "Clubshell"; "Combshell, Cumberlandian"; "Fanshell"; "Lamp mussel, Alabama"; "Mapleleaf, winged (mussel)"; "Monkeyface, Appalachian (pearly mussel)"; "Monkeyface, Cumberland (pearly mussel)"; "Mussel, oyster"; "Pearly mussel, birdwing"; "Pearly mussel, cracking"; "Pearly mussel, dromedary"; "Pigtoe, fine-rayed"; "Pigtoe, rough"; "Pigtoe, shiny"; "Pimpleback, orangefoot (pearly mussel)"; "Pink, ring (mussel)"; and "Wartyback, white (pearly mussel)" to read as set forth below; and

■ c. Under the heading "SNAILS," by revising the entry for "Riversnail, Anthony's" to read as set forth below.

#### § 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							
* * * * *		*	*	*	*		*
Chub, slender .....	<i>Erimystax cahni</i> .....	U.S.A. (TN, VA) .....	Entire, except where listed as an experimental population.	T	28	17.95(e)	17.44(c)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.84(s)(1)(i)).	XN	.....	NA	17.84(sr)
* * * * *		*	*	*	*		*
Chub, spotfin (=turquoise shiner).	<i>Erimonax monachus</i>	U.S.A. (AL, GA, NC, TN, VA).	Entire, except where listed as an experimental population.	T	28	17.95(e)	17.44(c)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the Tellico River; see 17.84(m)(1)(i)).	XN	732	NA	17.84(m)

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Do .....	.....do .....	.....do .....	U.S.A. (AL, TN—specified portions of Shoal Creek; see 17.84(m)(1)(ii)).	XN	747	NA	17.84(m)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.84(m)(1)(iii)).	XN	.....	NA	17.84(m)
* Darter, duskytail .....	* <i>Etheostoma percnurum</i> .	* U.S.A. (TN, VA) .....	* Entire, except where listed as an experimental population.	* E	* 502	* NA	* NA
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the Tellico River; see 17.84(p)(1)(i)).	XN	732	NA	17.84(q)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.84(q)(1)(ii)).	XN	.....	NA	17.84(q)
* Madtom, pygmy .....	* <i>Noturus stanauli</i> .....	* U.S.A. (TN) .....	* Entire, except where listed as an experimental population.	* E	* 502	* NA	* NA
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.84(t)(1)(i)).	XN	.....	NA	17.84(t)
* Madtom, smoky .....	* <i>Noturus baileyi</i> .....	* U.S.A. (TN) .....	* Entire, except where listed as an experimental population.	* E	* 163	* 17.95(e)	* NA
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the Tellico River; see 17.84(r)(1)(i)).	XN	732	NA	17.84(r)
* Madtom, yellowfin ....	* <i>Noturus flavipinnis</i> ..	* U.S.A. (TN, VA) .....	* Entire, except where listed as an experimental population.	* T	* 28	* 17.95(e)	* 17.44(c)
Do .....	.....do .....	.....do .....	U.S.A. (TN, VA—specified portions of the Holston River and watershed; see 17.84(e)(1)(i)).	XN	317	NA	17.84(e)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the Tellico River; see 17.84(e)(1)(ii)).	XN	732	NA	17.84(e)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.84(e)(1)(iii)).	XN	.....	NA	17.84(e)

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*		*
CLAMS							
*	*	*	*	*	*		*
Bean, Cumberland (pearlymussel).	<i>Villosa trabalis</i> .....	U.S.A. (AL, KY, TN, VA).	NA .....	E	15	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
*	*	*	*	*	*		*
Blossom, tubercled (pearlymussel).	<i>Epioblasma torulosa</i> .....	U.S.A. (AL, IL, IN, KY, TN, WV).	NA .....	E	15	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Blossom, turgid (pearlymussel).	<i>Epioblasma turgidula</i> .....	U.S.A. (AL, TN) .....	NA .....	E	15	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Blossom, yellow (pearlymussel).	<i>Epioblasma florentina</i> .....	.....do .....	NA .....	E	15	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Catspaw, (=purple cat's paw pearlymussel).	<i>Epioblasma</i> .....	U.S.A. (AL, IL, IN, KY, OH, TN).	NA .....	E	394	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Clubshell .....	<i>Pleurobema clava</i> ...	U.S.A. (AL, IL, IN, KY, MI, OH, PA, TN, WV).	NA .....	E	488	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
*	*	*	*	*	*		*
Combshell, Cumberlandian.	<i>Epioblasma brevidens</i> .....	U.S.A. (AL, KY, MS, TN, VA).	NA .....	E	602	17.95(f)	NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)



Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
* Fanshell .....	* <i>Cyprogenia stegaria</i> (=irrorata).	* U.S.A. (AL, IL, IN, KY, OH, PA, TN, VA, WV).	* NA .....	* E	* 391	NA	* NA
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
Lampmussel, Alabama. Do .....	<i>Lampsilis virescens</i> .....do .....	U.S.A. (AL, TN) .....	NA .....	E	15	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
* Mapleleaf, winged (mussel). Do .....	* <i>Quadrula fragosa</i> .... .....do .....	* U.S.A. (AL, IA, IL, IN, KY, MN, MO, NE, OH, OK, TN, WI).	* NA .....	* E	* 426	NA	* NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
* Monkeyface, Appalachian (pearlymussel). Do .....	* <i>Quadrula sparsa</i> .... .....do .....	* U.S.A. (TN, VA) .....	* NA .....	* E	* 15	NA	* NA
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
Monkeyface, Cumberland (pearlymussel). Do .....	<i>Quadrula intermedia</i> .....do .....	U.S.A. (AL, TN, VA)	NA .....	E	15	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
* Mussel, oyster .....	* <i>Epioblasma capsaeformis</i> . .....do .....	* U.S.A. (AL, GA, KY, MS, NC, TN, VA).	* NA .....	* E	* 602	17.95(f)	* NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
* Pearlymussel, birdwing.	* <i>Lemiox rimosus</i> .....	* U.S.A. (AL, TN, VA)	* NA .....	* E	* 15	* NA	* NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
* Pearlymussel, crackling.	* <i>Hemistena lata</i> .....	* U.S.A. (AL, IL, IN, KY, OH, TN, VA).	* NA .....	* E	* 366	* NA	* NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
* Pearlymussel, dromedary.	* <i>Dromus dromas</i> .....	* U.S.A. (AL, KY, TN, VA).	* NA .....	* E	* 15	* NA	* NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
* Pigtoe, fine-rayed ....	* <i>Fusconaia cuneolus</i> .....	* U.S.A. (AL, TN, VA)	* NA .....	* E	* 15	* NA	* NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
* Pigtoe, rough .....	* <i>Pleurobema plenum</i> .....	* U.S.A. (AL, IN, KY, PA, TN, VA).	* NA .....	* E	* 15	* NA	* NA

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
Pigtoe, shiny .....	<i>Fusconaia cor</i> .....	U.S.A. (AL, TN, VA)	NA .....	E	15	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
*	*	*	*	*	*	*	*
Pimpleback, orangefoot (pearlymussel).	<i>Plethobasus cooperianus</i> .	U.S.A. (AL, IA, IL, IN, KY, OH, PA, TN).	NA .....	E	15	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
*	*	*	*	*	*	*	*
Pink, ring (mussel) ...	<i>Obovaria retusa</i> .....	U.S.A. (AL, IL, IN, KY, OH, PA, TN, WV).	NA .....	E	369	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
*	*	*	*	*	*	*	*
Wartyback, white (pearlymussel).	<i>Plethobasus cicatricosus</i> .	U.S.A. (AL, IL, IN, KY, TN).	NA .....	E	15	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
*	*	*	*	*	*	*	*
SNAILS							
*	*	*	*	*	*	*	*
Riversnail, Anthony's	<i>Athearnia anthonyi</i>	U.S.A. (AL, GA, TN)	NA .....	E	538	NA	NA
Do .....	.....do .....	.....do .....	U.S.A. (AL—specified portions of the Tennessee River; see 17.85(a)(1)).	XN	709	NA	17.85(a)
Do .....	.....do .....	.....do .....	U.S.A. (TN—specified portions of the French Broad and Holston Rivers; see 17.85(b)(1)).	XN	.....	NA	17.85(b)
*	*	*	*	*	*	*	*

- 3. Amend § 17.84 as follows:
- a. Revise paragraphs (e), (m), and (o) to read as set forth below; and
- b. Add new paragraphs (q), (r), (s), and (t) to read as set forth below.

**§ 17.84 Special rules—vertebrates.**

\* \* \* \* \*

(e) Yellowfin madtom (*Noturus flavipinnis*). (1) *Where is the yellowfin madtom designated as a nonessential experimental population (NEP)?* We have designated three populations of this species as NEPs: the North Fork Holston River Watershed NEP, the Tellico River NEP, and the French Broad River and Holston River NEP.

(i) The North Fork Holston River Watershed NEP area is within the species' historic range and is defined as follows: The North Fork Holston River watershed, Washington, Smyth, and Scott Counties, Virginia; South Fork Holston River watershed upstream to Ft. Patrick Henry Dam, Sullivan County, Tennessee; and the Holston River from the confluence of the North and South Forks downstream to the John Sevier Detention Lake Dam, Hawkins County, Tennessee. This site is totally isolated from existing populations of this species by large Tennessee River tributaries and reservoirs. As the species is not known to inhabit reservoirs and because individuals of the species are not likely to move 100 river miles through these large reservoirs, the possibility that this population could come in contact with extant wild populations is unlikely.

(ii) The Tellico River NEP area is within the species' historic range and is defined as follows: The Tellico River, between the backwaters of the Tellico Reservoir (approximately Tellico River mile 19 (30.4 kilometers) and Tellico River mile 33 (52.8 kilometers), near the Tellico Ranger Station, Monroe County, Tennessee. This species is not currently known to exist in the Tellico River or its tributaries. Based on its habitat requirements, we do not expect this species to become established outside this NEP area. However, if individuals of this population move upstream or downstream or into tributaries outside the designated NEP area, we would presume that they came from the reintroduced population. We would then amend this regulation to enlarge the boundaries of the NEP area to include the entire range of the expanded population.

(iii) The French Broad River and Holston River NEP area is within the species' historic range and is defined as follows: the French Broad River, Knox and Sevier Counties, Tennessee, from the base of Douglas Dam (river mile (RM) 32.3 (51.7 km)) downstream to the

confluence with the Holston River; then up the Holston River, Knox, Grainger, and Jefferson Counties, Tennessee, to the base of Cherokee Dam (RM 52.3 (83.7 km)); and the lower 5 RM (8 km) of all tributaries that enter these river reaches. This species is not known to exist in any of the tributaries to the free-flowing reaches of the French Broad River below Douglas Dam, Knox and Sevier Counties, Tennessee, or of the Holston River below the Cherokee Dam, Knox, Grainger, and Jefferson Counties, Tennessee. Based on its habitat requirements, we do not expect this species to become established outside this NEP area. However, if individuals of this population move upstream or downstream or into tributaries outside the designated NEP area, we would presume that they came from the reintroduced population. We would then amend this regulation to enlarge the boundaries of the NEP area to include the entire range of the expanded population.

(iv) We do not intend to change the NEP designations to "essential experimental," "threatened," or "endangered" within the NEP areas. Additionally, we will not designate critical habitat for these NEPs, as provided by 16 U.S.C. 1539(j)(2)(C)(ii).

(2) *What activities are not allowed in the NEP areas?* (i) Except as expressly allowed in paragraph (e)(3) of this section, all the prohibitions of § 17.31(a) and (b) apply to the yellowfin madtom.

(ii) Any manner of take not described under paragraph (e)(3) of this section is prohibited in the NEP area. We may refer unauthorized take of this species to the appropriate authorities for prosecution.

(iii) You may not possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever any of the identified fishes, or parts thereof, that are taken or possessed in violation of paragraph (e)(2) of this section or in violation of the applicable State fish and wildlife laws or regulations or the Act.

(iv) You may not attempt to commit, solicit another to commit, or cause to be committed any offense defined in paragraph (e)(2) of this section.

(3) *What take is allowed in the NEP area?* Take of this species that is accidental and incidental to an otherwise legal activity, such as recreation (e.g., fishing, boating, wading, trapping, or swimming), forestry, agriculture, and other activities that are in accordance with Federal, State, and local laws and regulations, is allowed.

(4) *How will the effectiveness of these reintroductions be monitored?* We will prepare periodic progress reports and fully evaluate these reintroduction

efforts after 5 and 10 years to determine whether to continue or terminate the reintroduction efforts.

(5) *Note:* Map of the NEP area for the yellowfin madtom in the Tellico River, Tennessee, appears immediately following paragraph (m)(5) of this section.

(6) *Note:* Map of the NEP area for the yellowfin madtom in the French Broad River and Holston River, Tennessee, appears immediately following paragraph (m)(7) of this section.

\* \* \* \* \*

(m) Spotfin chub (=turquoise shiner) (*Erimonax monachus*). (1) *Where is the spotfin chub designated as a nonessential experimental population (NEP)?* We have designated three populations of this species as NEPs: the Tellico River NEP, the Shoal Creek NEP, and the French Broad River and Holston River NEP. This species is not currently known to exist in the Tellico River or its tributaries, the Shoal Creek or its tributaries, or any of the tributaries to the free-flowing reaches of the French Broad River below Douglas Dam, Knox and Sevier Counties, Tennessee, or of the Holston River below the Cherokee Dam, Knox, Grainger, and Jefferson Counties, Tennessee. Based on its habitat requirements, we do not expect this species to become established outside the NEP areas. However, if individuals move upstream or downstream or into tributaries outside any of the designated NEP areas, we would presume that those individuals came from the closest reintroduced population. We would then amend this regulation and enlarge the boundaries of the NEP area to include the entire range of the expanded population.

(i) The Tellico River NEP area is within the species' probable historic range and is defined as follows: The Tellico River, between the backwaters of the Tellico Reservoir (approximately Tellico River mile 19 (30.4 kilometers) and Tellico River mile 33 (52.8 km), near the Tellico Ranger Station, Monroe County, Tennessee.

(ii) The Shoal Creek NEP area is within the species' historic range and is defined as follows: Shoal Creek (from Shoal Creek mile 41.7 (66.7 km)) at the mouth of Long Branch, Lawrence County, TN, downstream to the backwaters of Wilson Reservoir (Shoal Creek mile 14 (22 km)) at Goose Shoals, Lauderdale County, AL, including the lower 5 miles (8 km) of all tributaries that enter this reach.

(iii) The French Broad River and Holston River NEP area is within the species' historic range and is defined as follows: the French Broad River, Knox

and Sevier Counties, Tennessee, from the base of Douglas Dam (river mile (RM) 32.3 (51.7 km)) downstream to the confluence with the Holston River; then up the Holston River, Knox, Grainger, and Jefferson Counties, Tennessee, to the base of Cherokee Dam (RM 52.3 (83.7 km)); and the lower 5 RM (8 km) of all tributaries that enter these river reaches.

(iv) We do not intend to change the NEP designations to "essential experimental," "threatened," or "endangered" within the NEP area. Additionally, we will not designate critical habitat for these NEPs, as provided by 16 U.S.C. 1539(j)(2)(C)(ii).

(2) *What activities are not allowed in the NEP area?* (i) Except as expressly allowed in paragraph (m)(3) of this section, all the provisions of § 17.31(a) and (b) apply to the spotfin chub.

(ii) Any manner of take not described under paragraph (m)(3) of this section is prohibited in the NEP area. We may refer unauthorized take of this species to the appropriate authorities for prosecution.

(iii) You may not possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever any of the identified fishes, or parts thereof, that are taken or possessed in violation

of paragraph (m)(2) of this section or in violation of the applicable State fish and wildlife laws or regulations or the Act.

(iv) You may not attempt to commit, solicit another to commit, or cause to be committed any offense defined in paragraph (m)(2) of this section.

(3) *What take is allowed in the NEP area?* Take of this species that is accidental and incidental to an otherwise legal activity, such as recreation (e.g., fishing, boating, wading, trapping, or swimming), forestry, agriculture, and other activities that are in accordance with Federal, State, and local laws and regulations, is allowed.

(4) *How will the effectiveness of these reintroductions be monitored?* (i) In the Tellico River NEP area, we will prepare periodic progress reports and fully evaluate these reintroduction efforts after 5 and 10 years to determine whether to continue or terminate the reintroduction efforts.

(ii) In the Shoal Creek NEP area, after the initial stocking of fish, we will monitor annually their presence or absence and document any spawning behavior or young-of-the-year fish that might be present. This monitoring will be conducted primarily by snorkeling or seining and will be accomplished by contracting with the appropriate species

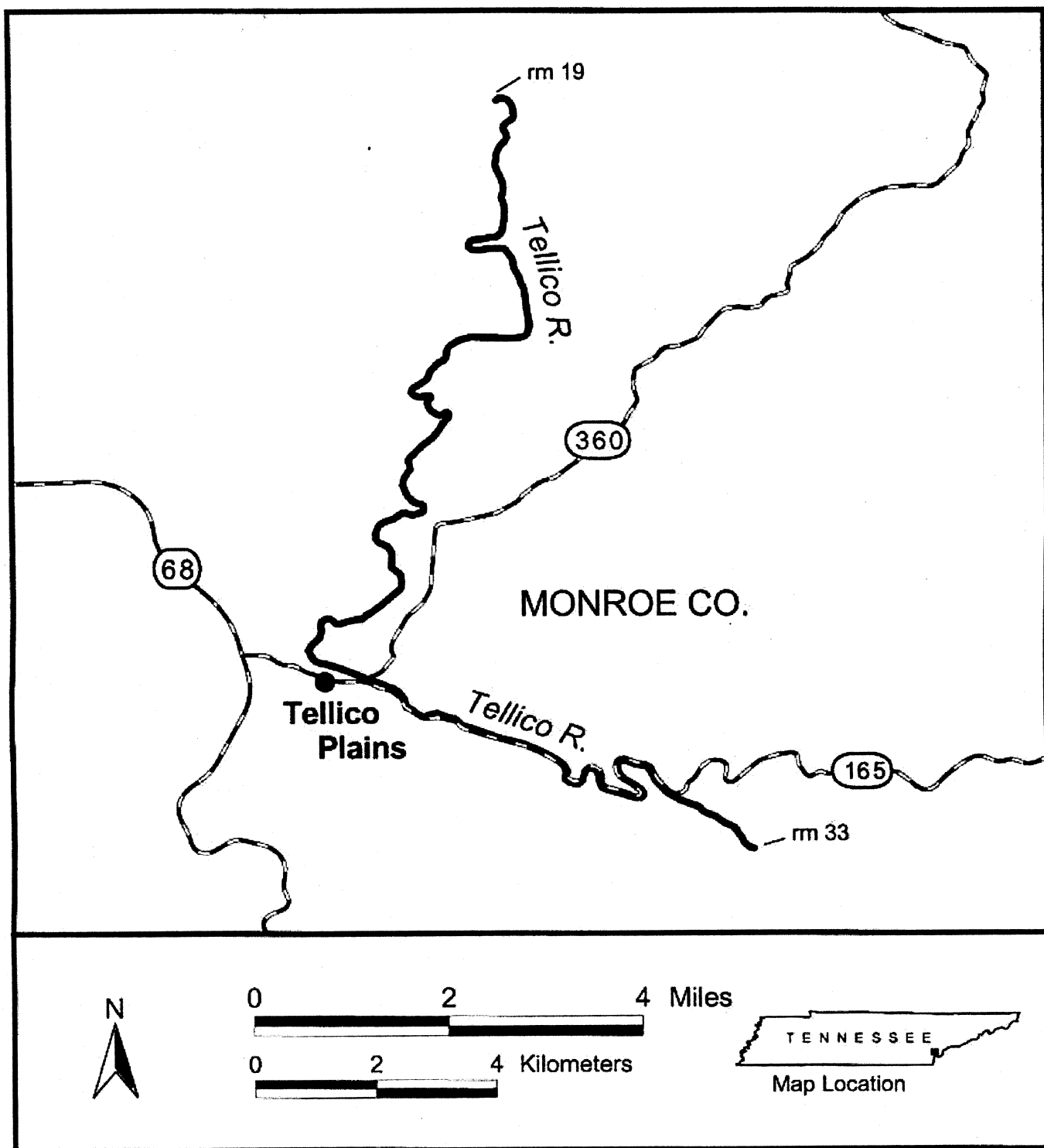
experts. We will produce annual reports detailing the stocking rates and monitoring activities that took place during the previous year. We will also fully evaluate these reintroduction efforts after 5 and 10 years to determine whether to continue or terminate the reintroduction efforts.

(iii) *In the Lower French Broad and Lower Holston Rivers NEP area*, after the initial stocking of these species, we will monitor annually their presence or absence and document any spawning behavior or young-of-the-year that might be present. This monitoring will be conducted primarily by snorkeling or seining and will be accomplished by contracting with the appropriate species experts. Annual reports will be produced detailing the stocking rates and monitoring activities that took place during the previous year. We will also fully evaluate these reintroduction efforts after 5 and 10 years to determine whether to continue or terminate the reintroduction efforts.

(5) Note: Map of the Tellico River NEP area for spotfin chub, dusky darter, smoky madtom, and yellowfin madtom in Tennessee follows:

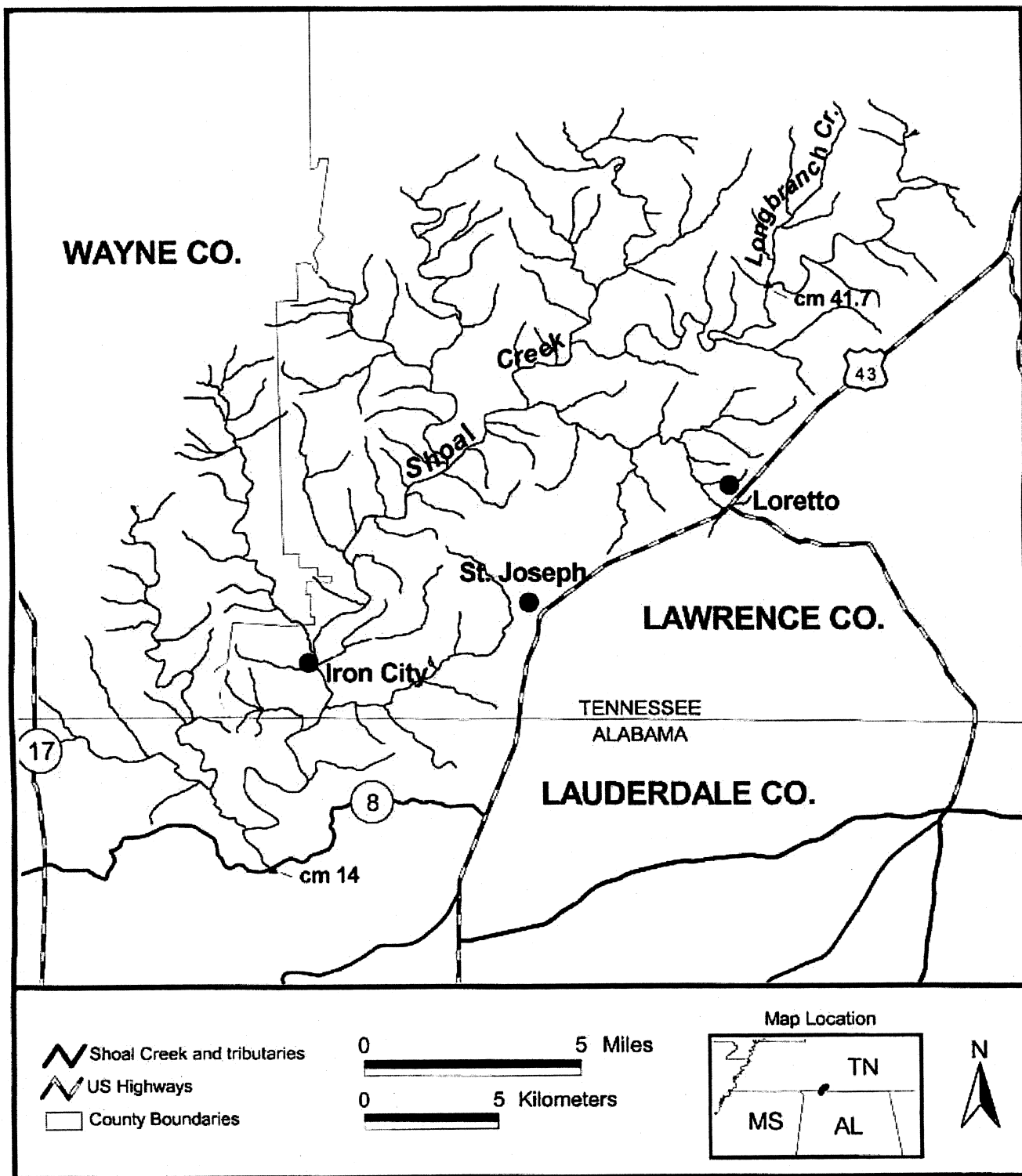
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## Portion of the Tellico River Covered by the Spotfin Chub, Duskytail Darter, Smoky Madtom and Yellowfin Madtom Nonessential Experimental Population Designation



(6) Note: Map of the Shoal Creek NEP area for spotfin chub and boulder darter in Tennessee and Alabama follows:

# Portion of Shoal Creek Watershed Covered by the Spotfin Chub and Boulder Darter Nonessential Experimental Population Designation

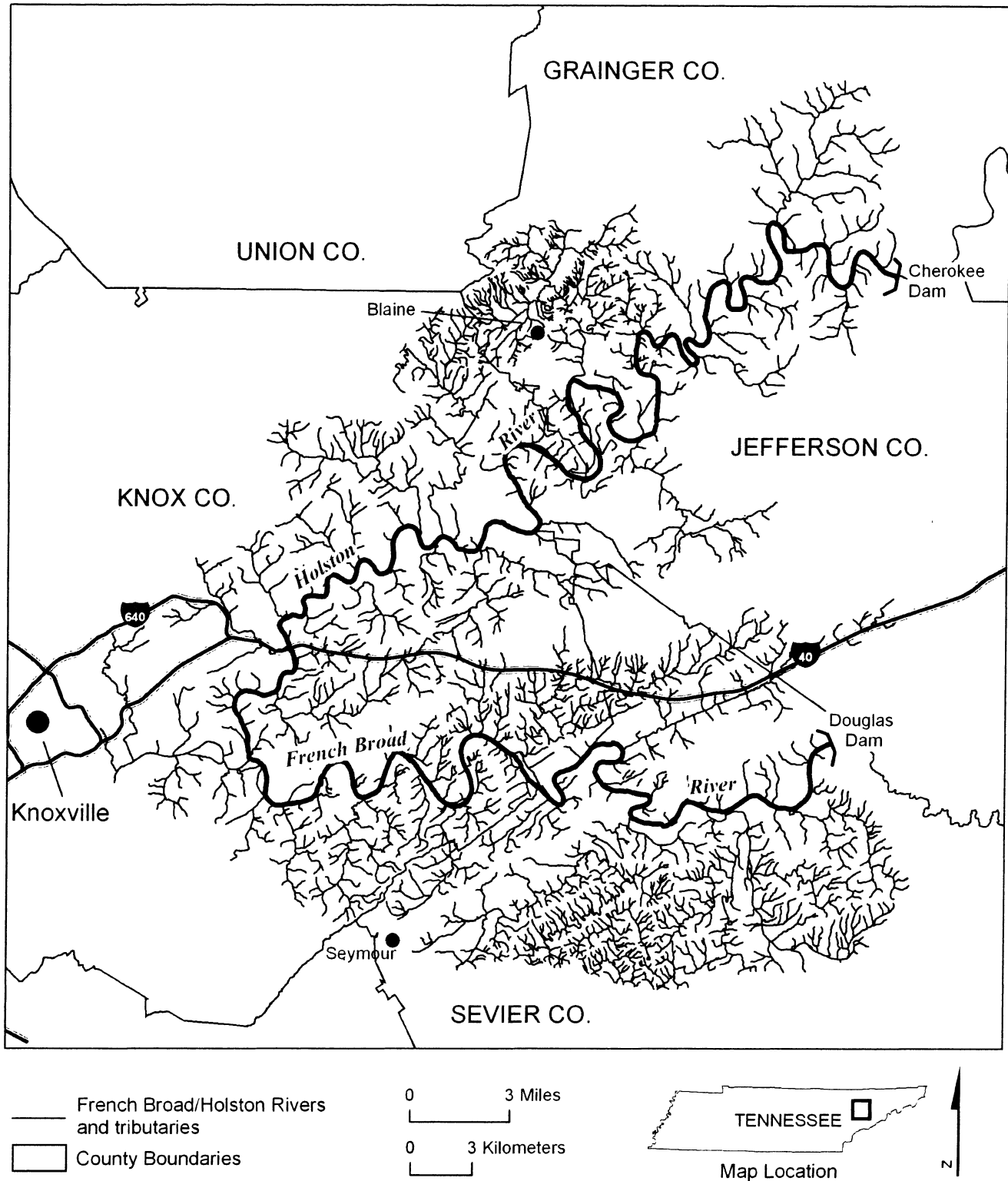


(7) Note: Map of the French Broad River and Holston River NEP area for spotfin chub, slender chub, duskytail

darter, pygmy madtom, and yellowtail madtom in Tennessee follows:



Portion of the Lower French Broad River Watershed and the Lower Holston River Watershed Covered by the 2 Federally Listed Endangered Fishes: Duskytail Darter and Pygmy Madtom; and 3 Federally Listed Threatened Fishes: Slender Chub, Spottfin Chub, and Yellowfin Madtom Nonessential Experimental Population Designation.



\* \* \* \* \*

(o) Boulder darter (*Etheostoma wapiti*).

(1) *Where is the boulder darter designated as a nonessential experimental population (NEP)?* (i) The NEP area for the boulder darter is within the species' historic range and is defined as follows: Shoal Creek (from Shoal Creek mile 41.7 (66.7 km)) at the mouth of Long Branch, Lawrence County, TN, downstream to the backwaters of Wilson Reservoir (Shoal Creek mile 14 (22 km)) at Goose Shoals, Lauderdale County, AL, including the lower 5 miles (8 km) of all tributaries that enter this reach.

(ii) The boulder darter is not currently known to exist in Shoal Creek or its tributaries. Based on the habitat requirements of this fish, we do not expect it to become established outside the NEP area. However, if any individuals of the species move upstream or downstream or into tributaries outside the designated NEP area, we would presume that they came from the reintroduced population. We would then amend this rule through our normal rulemaking process in order to enlarge the boundaries of the NEP area to include the entire range of the expanded population.

(iii) We do not intend to change the NEP designations to "essential experimental," "threatened," or "endangered" within the NEP area. Additionally, we will not designate critical habitat for these NEPs, as provided by 16 U.S.C. 1539(j)(2)(C)(ii).

(2) *What activities are not allowed in the NEP area?* (i) Except as expressly allowed in paragraph (o)(3) of this section, all the provisions of § 17.31(a) and (b) apply to the boulder darter.

(ii) Any manner of take not described under paragraph (o)(3) of this section is prohibited in the NEP area. We may refer unauthorized take of these species to the appropriate authorities for prosecution.

(iii) You may not possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever any of the identified fishes, or parts thereof, that are taken or possessed in violation of paragraph (o)(2) of this section or in violation of the applicable State fish and wildlife laws or regulations or the Act.

(iv) You may not attempt to commit, solicit another to commit, or cause to be committed any offense defined in paragraph (o)(2) of this section.

(3) *What take is allowed in the NEP area?* Take of this species that is accidental and incidental to an otherwise legal activity, such as recreation (e.g., fishing, boating, wading, trapping, or swimming), forestry,

agriculture, and other activities that are in accordance with Federal, State, and local laws and regulations, is allowed.

(4) *How will the effectiveness of these reintroductions be monitored?* After the initial stocking of fish, we will monitor annually their presence or absence and document any spawning behavior or young-of-the-year fish that might be present. This monitoring will be conducted primarily by snorkeling or seining and will be accomplished by contracting with the appropriate species experts. We will produce annual reports detailing the stocking rates and monitoring activities that took place during the previous year. We will also fully evaluate these reintroduction efforts after 5 and 10 years to determine whether to continue or terminate the reintroduction efforts.

(5) *Note:* Map of the NEP area for the boulder darter in the Shoal Creek, Tennessee and Alabama, appears immediately following paragraph (m)(6) of this section.

\* \* \* \* \*

(q) Duskytail darter (*Etheostoma percnum*). (1) *Where is the duskytail darter designated as a nonessential experimental population (NEP)?* We have designated two populations of this species as NEPs: The Tellico River NEP and the French Broad River and Holston River NEP. This species is not currently known to exist in the Tellico River or its tributaries or in any of the tributaries to the free-flowing reaches of the French Broad River below Douglas Dam, Knox and Sevier Counties, Tennessee, or of the Holston River below the Cherokee Dam, Knox, Grainger, and Jefferson Counties, Tennessee. Based on its habitat requirements, we do not expect this species to become established outside these NEP areas. However, if individuals move upstream or downstream or into tributaries outside either of the designated NEP areas, we would presume that these individuals came from the reintroduced population. We would then amend this rule and enlarge the boundaries of the NEP area to include the entire range of the expanded population.

(i) The Tellico River NEP area is within the species' historic range and is defined as follows: The Tellico River, between the backwaters of the Tellico Reservoir (approximately Tellico River mile 19 (30.4 kilometers) and Tellico River mile 33 (52.8 kilometers), near the Tellico Ranger Station, Monroe County, Tennessee.

(ii) The French Broad River and Holston River NEP area is within the species' historic range and is defined as follows: the French Broad River, Knox

and Sevier Counties, Tennessee, from the base of Douglas Dam (river mile (RM) 32.3 (51.7 km)) downstream to the confluence with the Holston River; then up the Holston River, Knox, Grainger, and Jefferson Counties, Tennessee, to the base of Cherokee Dam (RM 52.3 (83.7 km)); and the lower 5 RM (8 km) of all tributaries that enter these river reaches.

(iii) We do not intend to change the NEP designations to "essential experimental," "threatened," or "endangered" within the NEP area. Additionally, we will not designate critical habitat for these NEPs, as provided by 16 U.S.C. 1539(j)(2)(C)(ii).

(2) *What activities are not allowed in the NEP area?* (i) Except as expressly allowed in paragraph (q)(3) of this section, all the prohibitions of § 17.31(a) and (b) apply to the duskytail darter.

(ii) Any manner of take not described under paragraph (q)(3) of this section is prohibited in the NEP area. We may refer unauthorized take of this species to the appropriate authorities for prosecution.

(iii) You may not possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever any of the identified fishes, or parts thereof, that are taken or possessed in violation of paragraph (q)(2) of this section or in violation of the applicable State fish and wildlife laws or regulations or the Act.

(iv) You may not attempt to commit, solicit another to commit, or cause to be committed any offense defined in paragraph (q)(2) of this section.

(3) *What take is allowed in the NEP area?* Take of this species that is accidental and incidental to an otherwise legal activity, such as recreation (e.g., fishing, boating, wading, trapping, or swimming), forestry, agriculture, and other activities that are in accordance with Federal, State, and local laws and regulations, is allowed.

(4) *How will the effectiveness of these reintroductions be monitored?* We will prepare periodic progress reports and fully evaluate these reintroduction efforts after 5 and 10 years to determine whether to continue or terminate the reintroduction efforts.

(5) *Note:* Map of the NEP area for the duskytail darter in the Tellico River, Tennessee, appears immediately following paragraph (m)(5) of this section.

(6) *Note:* Map of the NEP area for the duskytail darter in the French Broad River and Holston River, Tennessee, appears immediately following paragraph (m)(7) of this section.

(r) Smoky madtom (*Noturus baileyi*). (1) *Where is the smoky madtom*

*designated as a nonessential experimental population (NEP)?*

(i) The NEP area for the smoky madtom is within the species' probable historic range and is defined as follows: The Tellico River, between the backwaters of the Tellico Reservoir (approximately Tellico River mile 19 (30.4 kilometers) and Tellico River mile 33 (52.8 kilometers), near the Tellico Ranger Station, Monroe County, Tennessee.

(ii) The smoky madtom is not currently known to exist in the Tellico River or its tributaries. Based on the habitat requirements of this fish, we do not expect it to become established outside the NEP area. However, if any individuals of the species move upstream or downstream or into tributaries outside the designated NEP area, we would presume that they came from the reintroduced population. We would then amend paragraph (r)(1)(i) of this section and enlarge the boundaries of the NEP area to include the entire range of the expanded population.

(iii) We do not intend to change the NEP designations to "essential experimental," "threatened," or "endangered" within the NEP area. Additionally, we will not designate critical habitat for this NEP, as provided by 16 U.S.C. 1539(j)(2)(C)(ii).

(2) *What activities are not allowed in the NEP area?* (i) Except as expressly allowed in paragraph (r)(3) of this section, all the prohibitions of § 17.31(a) and (b) apply to the smoky madtom.

(ii) Any manner of take not described under paragraph (r)(3) of this section is prohibited in the NEP area. We may refer unauthorized take of this species to the appropriate authorities for prosecution.

(iii) You may not possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever any of the identified fishes, or parts thereof, that are taken or possessed in violation of paragraph (r)(2) of this section or in violation of the applicable State fish and wildlife laws or regulations or the Act.

(iv) You may not attempt to commit, solicit another to commit, or cause to be committed any offense defined in paragraph (r)(2) of this section.

(3) *What take is allowed in the NEP area?* Take of this species that is accidental and incidental to an otherwise legal activity, such as recreation (e.g., fishing, boating, wading, trapping, or swimming), forestry, agriculture, and other activities that are in accordance with Federal, State, and local laws and regulations, is allowed.

(4) *How will the effectiveness of these reintroductions be monitored?* We will prepare periodic progress reports and

fully evaluate these reintroduction efforts after 5 and 10 years to determine whether to continue or terminate the reintroduction efforts.

(5) *Note:* Map of the NEP area for the smoky madtom in the Tellico River, Tennessee, appears immediately following paragraph (m)(6) of this section.

(s) Slender chub (*Erimystax cahni*).

(1) *Where is the slender chub designated as a nonessential experimental population (NEP)?*

(i) The NEP area for the slender chub is within the species' historic range and is defined as follows: the French Broad River, Knox and Sevier Counties, Tennessee, from the base of Douglas Dam (river mile (RM) 32.3 (51.7 km)) downstream to the confluence with the Holston River; then up the Holston River, Knox, Grainger, and Jefferson Counties, Tennessee, to the base of Cherokee Dam (RM 52.3 (83.7 km)); and the lower 5 RM (8 km) of all tributaries that enter these river reaches.

(ii) The slender chub is not known to exist in any of the tributaries to the free-flowing reaches of the French Broad River below Douglas Dam, Knox and Sevier Counties, Tennessee, or of the Holston River below the Cherokee Dam, Knox, Grainger, and Jefferson Counties, Tennessee. Based on its habitat requirements, we do not expect this species to become established outside this NEP area. However, if individuals of this population move upstream or downstream or into tributaries outside the designated NEP area, we would presume that they came from the reintroduced population. We would then amend this regulation to enlarge the boundaries of the NEP area to include the entire range of the expanded population.

(iii) We do not intend to change the NEP designations to "essential experimental," "threatened," or "endangered" within the NEP area. Additionally, we will not designate critical habitat for this NEP, as provided by 16 U.S.C. 1539(j)(2)(C)(ii).

(2) *What activities are not allowed in the NEP area?* (i) Except as expressly allowed in paragraph (s)(3) of this section, all the prohibitions of § 17.31(a) and (b) apply to the slender chub.

(ii) Any manner of take not described under paragraph (s)(3) of this section is prohibited in the NEP area. We may refer unauthorized take of this species to the appropriate authorities for prosecution.

(iii) You may not possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever any of the identified fishes, or parts thereof, that are taken or possessed in violation

of paragraph (s)(2) of this section or in violation of the applicable State fish and wildlife laws or regulations or the Act.

(iv) You may not attempt to commit, solicit another to commit, or cause to be committed any offense defined in paragraph (s)(2) of this section.

(3) *What take is allowed in the NEP area?* Take of this species that is accidental and incidental to an otherwise legal activity, such as recreation (e.g., fishing, boating, wading, trapping, or swimming), forestry, agriculture, and other activities that are in accordance with Federal, State, and local laws and regulations, is allowed.

(4) *How will the effectiveness of these reintroductions be monitored?* We will prepare periodic progress reports and fully evaluate these reintroduction efforts after 5 and 10 years to determine whether to continue or terminate the reintroduction efforts.

(5) *Note:* Map of the NEP area for the slender chub in the French Broad River and Holston River, Tennessee, appears immediately following paragraph (m)(7) of this section.

(t) Pygmy madtom (*Noturus stanali*).

(1) *Where is the pygmy madtom designated as a nonessential experimental population (NEP)?*

(i) The NEP area for the pygmy madtom is within the species' historic range and is defined as follows: the French Broad River, Knox and Sevier Counties, Tennessee, from the base of Douglas Dam (river mile (RM) 32.3 (51.7 km)) downstream to the confluence with the Holston River; then up the Holston River, Knox, Grainger, and Jefferson Counties, Tennessee, to the base of Cherokee Dam (RM 52.3 (83.7 km)); and the lower 5 RM (8 km) of all tributaries that enter these river reaches.

(ii) The pygmy madtom is not known to exist in any of the tributaries to the free-flowing reaches of the French Broad River below Douglas Dam, Knox and Sevier Counties, Tennessee, or of the Holston River below the Cherokee Dam, Knox, Grainger, and Jefferson Counties, Tennessee. Based on its habitat requirements, we do not expect this species to become established outside this NEP area. However, if individuals of this population move upstream or downstream or into tributaries outside the designated NEP area, we would presume that they came from the reintroduced population. We would then amend this regulation to enlarge the boundaries of the NEP area to include the entire range of the expanded population.

(iii) We do not intend to change the NEP designations to "essential experimental," "threatened," or "endangered" within the NEP area.

Additionally, we will not designate critical habitat for this NEP, as provided by 16 U.S.C. 1539(j)(2)(C)(ii).

(2) *What activities are not allowed in the NEP area?* (i) Except as expressly allowed in paragraph (t)(3) of this section, all the prohibitions of § 17.31(a) and (b) apply to the pygmy madtom.

(ii) Any manner of take not described under paragraph (t)(3) of this section is prohibited in the NEP area. We may refer unauthorized take of this species to the appropriate authorities for prosecution.

(iii) You may not possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever any of the identified fishes, or parts thereof, that are taken or possessed in violation of paragraph (t)(2) of this section or in violation of the applicable State fish and wildlife laws or regulations or the Act.

(iv) You may not attempt to commit, solicit another to commit, or cause to be committed any offense defined in paragraph (t)(2) of this section.

(3) *What take is allowed in the NEP area?* Take of this species that is accidental and incidental to an otherwise legal activity, such as recreation (e.g., fishing, boating, wading, trapping, or swimming), forestry, agriculture, and other activities that are in accordance with Federal, State, and local laws and regulations, is allowed.

(4) *How will the effectiveness of these reintroductions be monitored?* We will prepare periodic progress reports and fully evaluate these reintroduction efforts after 5 and 10 years to determine whether to continue or terminate the reintroduction efforts.

(5) *Note:* Map of the NEP area for the pygmy madtom in the French Broad River and Holston River, Tennessee, appears immediately following paragraph (m)(7) of this section.

■ 4. Amend § 17.85 by revising paragraph (a) introductory text and adding a new paragraph (b) to read as follows:

**§ 17.85 Special rules—vertebrates.**

(a) *Seventeen mollusks in the Tennessee River.* The species in the following table comprise nonessential experimental populations (NEPs):

Common name	Scientific name
Cumberland bean (pearlymussel).	<i>Villosa trabalis</i>
tubercled blossom (pearlymussel).	<i>Epioblasma torulosa torulosa</i>
turgid blossom (pearlymussel).	<i>Epioblasma turgidula</i>
yellow blossom (pearlymussel).	<i>Epioblasma florentina florentina</i>

Common name	Scientific name
cat paw (purple cat's paw pearlymussel).	<i>Epioblasma obliquata obliquata</i>
clubshell .....	<i>Pleurobema clava</i>
Cumberlandian combshell.	<i>Epioblasma brevidens</i>
Alabama lampmussel.	<i>Lampsilis virescens</i>
winged mapleleaf (mussel).	<i>Quadrula fragosa</i>
Cumberland monkeyface (pearlymussel).	<i>Quadrula intermedia</i>
oyster mussel .....	<i>Epioblasma capsaeformis</i>
birdwing pearlymussel.	<i>Lemiox rimosus</i>
cracking pearlymussel.	<i>Hemistena lata</i>
dromedary pearlymussel.	<i>Dromus dromas</i>
fine-rayed pigtoe ...	<i>Fusconaia cuneolus</i>
shiny pigtoe .....	<i>Fusconaia cor</i>
Anthony's riversnail	<i>Athearnia anthonyi</i>

\* \* \* \* \*

(b) *Sixteen mollusks in the French Broad and Holston Rivers.* The species in the following table comprise nonessential experimental populations (NEP):

Common name	Scientific name
Cumberland bean (pearlymussel).	<i>Villosa trabalis</i>
Cumberlandian combshell.	<i>Epioblasma brevidens</i>
fanshell .....	<i>Cyprogenia stegaria</i>
Appalachian monkeyface (pearlymussel).	<i>Quadrula sparsa</i>
Cumberland monkeyface (pearlymussel).	<i>Quadrula intermedia</i>
oyster mussel .....	<i>Epioblasma capsaeformis</i>
birdwing pearlymussel	<i>Lemiox rimosus</i>
cracking pearlymussel	<i>Hemistena lata</i>
dromedary pearlymussel.	<i>Dromus dromas</i>
fine-rayed pigtoe .....	<i>Fusconaia cuneolus</i>
rough pigtoe .....	<i>Pleurobema plenum</i>
shiny pigtoe .....	<i>Fusconaia cor</i>
orange-foot pimpleback (pearlymussel).	<i>Plethobasus cooperianus</i>
ring pink (mussel) .....	<i>Obovaria retusa</i>
white wartyback (pearlymussel).	<i>Plethobasus cicatricosus</i>
Anthony's riversnail ...	<i>Athearnia anthonyi</i>

(1) *Where are these mollusks designated as NEPs?* (i) The NEP area for these mollusks is within the species' historical range and is defined as follows: The French Broad River, Knox and Sevier Counties, Tennessee, from the base of Douglas Dam (river mile (RM) 32.3 (51.7 kilometers (km)) downstream to the confluence with the

Holston River; then up the Holston River, Knox, Grainger, and Jefferson Counties, Tennessee, to the base of Cherokee Dam (RM 52.3 (83.7 km)); and the lower 5 RM (8 km) of all tributaries that enter these river reaches. None of the species identified in paragraph (b) are known to exist in any of the tributaries to the free-flowing reaches of the French Broad River below Douglas Dam, Knox and Sevier Counties, Tennessee, or of the Holston River below the Cherokee Dam, Knox, Grainger, and Jefferson Counties, Tennessee. Based on their habitat requirements, we do not expect these species to become established outside this NEP area. However, if any individuals are found upstream or downstream or into tributaries outside the designated NEP area, we would presume that they came from the reintroduced populations. We would then amend paragraph (b)(1)(i) of this section to enlarge the boundaries of the NEP area to include the entire range of the expanded population.

(ii) Another NEP area for 10 of these mollusks (Cumberland bean, Cumberlandian combshell, Cumberland monkeyface, oyster mussel, birdwing pearlymussel, cracking pearlymussel, dromedary pearlymussel, fine-rayed pigtoe, shiny pigtoe, and Anthony's riversnail) is provided in paragraph (a) of this section.

(iii) We do not intend to change the NEP designations to "essential experimental," "threatened," or "endangered" within the NEP area. Additionally, we will not designate critical habitat for these NEPs, as provided by 16 U.S.C. 1539(j)(2)(C)(ii).

(2) *What activities are not allowed in the NEP area?* (i) Except as expressly allowed in paragraph (b)(3) of this section, all the prohibitions of § 17.31(a) and (b) apply to the mollusks identified in paragraph (b) of this section.

(ii) Any manner of take not described under paragraph (b)(3) of this section will not be allowed in the NEP area. We may refer the unauthorized take of these species to the appropriate authorities for prosecution.

(iii) You may not possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever any of the identified mollusks, or parts thereof, that are taken or possessed in violation of paragraph (b)(2) of this section or in violation of the applicable State fish and wildlife laws or regulations or the Act.

(iv) You may not attempt to commit, solicit another to commit, or cause to be committed any offense defined in paragraph (b)(2) of this section.

(3) *What take is allowed in the NEP area?* Take of these species that is

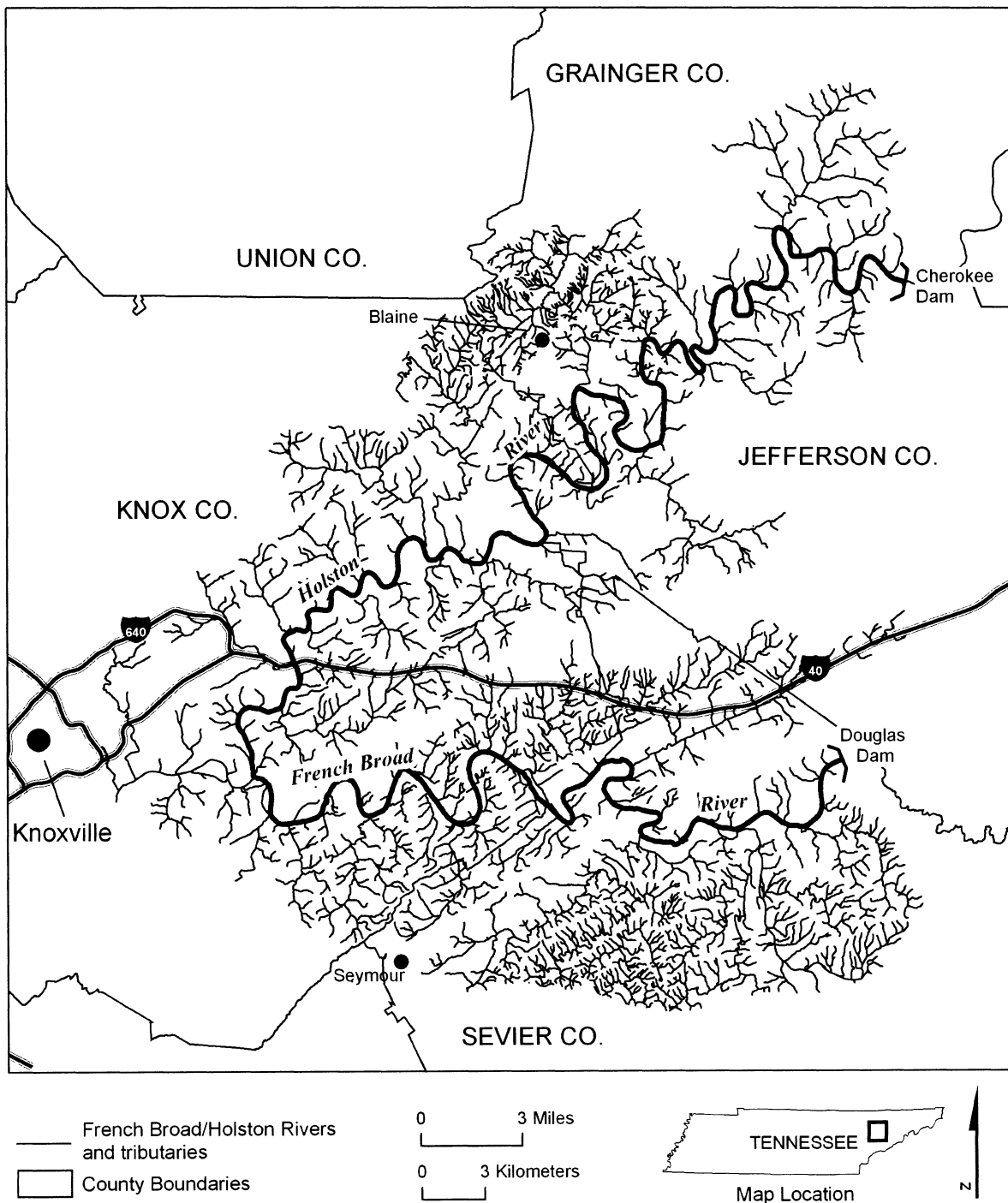
accidental and incidental to an otherwise legal activity, such as recreation (e.g., fishing, boating, wading, trapping, or swimming), forestry, agriculture, and other activities that are in accordance with Federal, State, and local laws and regulations, is allowed.

(4) *How will the effectiveness of these reintroductions be monitored?* We will prepare periodic progress reports and fully evaluate these reintroduction efforts after 5 and 10 years to determine whether to continue or terminate the reintroduction efforts.

(5) Note: Map of the NEP area in Tennessee for the 16 mollusks listed in paragraph (b) of this section follows:

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Portion of the Lower French Broad River Watershed and the Lower Holston River Watershed Covered by the 15 freshwater mussels: Appalachian Monkeyface Pearlymussel, Birdwing Pearlymussel, Cracking Pearlymussel, Cumberland Bean Pearlymussel, Cumberlandian Combshell, Cumberland Monkeyface Pearlymussel, Dromedary Pearlymussel, Fanshell, Fine-rayed Pigtoe, Orange-foot Pimpleback Pearlymussel, Oyster Mussel, Ring Pink, Rough Pigtoe, Shiny Pigtoe, and White Wartyback Pearlymussel; and 1 Federally Listed Endangered Aquatic Snail: Anthonys Riversnail Nonessential Experimental Population Designation.



\* \* \* \* \*

Dated: August 8, 2007.

**David M. Verhey,**

*Acting Assistant Secretary for Fish and Wildlife and Parks.*

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