

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 300**

[FRL-7007-4]

**National Oil and Hazardous Substances Pollution Contingency Plan; National Priorities List****AGENCY:** Environmental Protection Agency.**ACTION:** Notice of deletion of the Warwick Landfill Superfund site from the National Priorities List.

**SUMMARY:** The Environmental Protection Agency (EPA) announces the deletion of the Warwick Landfill Superfund site (Site), located in the Town of Warwick, Orange County, New York, from the National Priorities List (NPL). The NPL constitutes appendix B of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR part 300, which EPA promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended. EPA and the State of New York have determined that all appropriate response actions pursuant to CERCLA have been implemented; and, aside from monitoring, operation and maintenance, no further response actions pursuant to CERCLA are appropriate.

**EFFECTIVE DATE:** July 6, 2001.**FOR FURTHER INFORMATION CONTACT:**

Damian J. Duda, Remedial Project Manager, Emergency and Remedial Response Division, U.S. Environmental Protection Agency, Region II, 290 Broadway, 20th Floor, New York, New York 10007-1866, (212) 637-4269.

**SUPPLEMENTARY INFORMATION:** The site to be deleted from the NPL is the Warwick Landfill Superfund site, Town of Warwick, Orange County, New York.

A Notice of Proposed Deletion and a Notice of Direct Final Deletion for the Site were published on August 15, 2000 (65 FR 49776-49777 and 65 FR 49739-49741, respectively). In these notices, EPA requested public comment on the proposed NPL deletion of the Site until September 15, 2000. During the 30-day comment period, EPA received correspondence offering critical comments. As a result of the critical comments, EPA published a Notice of Withdrawal of Direct Final Deletion of the Site on October 16, 2000 (65 FR 61112). EPA evaluated the comments received and prepared a Responsiveness Summary and has concluded after a review of the comments that the Site does not pose a significant threat to

public health or the environment. Copies of the Responsiveness Summary are available at the following repositories: Warwick Town Hall, 132 Kings Highway, Warwick, New York 10990, (914) 986-1120 and the Greenwood Lake Village Hall, Church Street, Greenwood Lake, New York 10925, (914) 477-9215. The Responsiveness Summary is also available in the Administrative Record File, located in the EPA Regional Office.

EPA identifies sites that appear to present a significant risk to public health or the environment, and it maintains the NPL as the active list of these sites. As described in 40 CFR 300.425(e)(3) of the NCP, any site deleted from the NPL remains eligible for remedial action in the unlikely event that conditions at a site warrant such action. Deletion of a site from the NPL does not affect the liability of potentially responsible parties nor does it impede Agency efforts to recover costs associated with response efforts.

**List of Subjects in 40 CFR Part 300**

Environmental protection, Chemicals, Hazardous substances, Hazardous waste, Intergovernmental relations, Penalties, Superfund, Water pollution control, Water supply.

Dated: June 14, 2001.

**William J. Muszynski,**  
*Acting Regional Administrator, Region II.*

Part 300, title 40 of Chapter I of the Code of Federal Regulations is amended as follows:

**PART 300—[AMENDED]**

1. The authority citation for part 300 continues to read as follows:

**Authority:** 33 U.S.C. 1321(c)(2); 42 U.S.C. 9601-9657; E.O. 12777, 56 FR 54757, 3 CFR 1991 Comp., p. 351; E.O. 12580, 52 FR 2923, 3 CFR, 1987 Comp., p. 193.

**Appendix B—[Amended]**

2. Table 1 of appendix B to part 300 is amended by removing the site for “Warwick Landfill, Warwick, New York.”

[FR Doc. 01-16809 Filed 7-5-01; 8:45 am]

**BILLING CODE 6560-50-U**

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17****RIN 1018—AG38****Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Spruce-fir Moss Spider****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Final rule.

**SUMMARY:** We, the Fish and Wildlife Service (Service), designate critical habitat for the spruce-fir moss spider (*Microhexura montivaga*), under the Endangered Species Act of 1973, as amended (Act). The areas designated as critical habitat include portions of Avery, Caldwell, Mitchell, Swain, and Watauga Counties, in North Carolina and Sevier and Carter County in Tennessee. The areas designated as critical habitat for the spider are within the boundaries of the Great Smoky Mountains National Park (GSMNP); the Pisgah National Forest, and the Cherokee National Forest; and an area privately owned but is being managed by The Nature Conservancy through an agreement with the landowner.

We have revised the proposal to incorporate or address all relevant comments and other information received during the comment periods. This action comes as a result of a lawsuit filed against us by the Southern Appalachian Biodiversity Project and the Foundation for Global Sustainability. Section 7(a)(2) of the Act requires that Federal agencies must ensure that actions they fund, permit, or carry out are not likely to result in the destruction or adverse modification of critical habitat. State or private actions, with no Federal involvement, would not be affected by this rulemaking action.

**DATES:** This rule becomes effective on August 6, 2001.

**ADDRESSES:** Comments and materials received, as well as supporting documentation used in preparation of this final rule, will be available for public inspection, by appointment, during normal business hours at the Asheville Field Office, U.S. Fish and Wildlife Service, 160 Zillicoa Street, Asheville, North Carolina 28801.

**FOR FURTHER INFORMATION CONTACT:** John Fridell, Fish and Wildlife Biologist, at the address above (telephone 828/258-3939, extension 225; facsimile 828/258-5330).

**SUPPLEMENTARY INFORMATION:**

## Background

### Taxonomy and Description

The spruce-fir moss spider (*Microhexura montivaga*), was originally described by Crosby and Bishop (1925) based on collections made in 1923 from Mount Mitchell in western North Carolina, the highest point in eastern North America. Only a few specimens were taken, and little was known about the species until its “rediscovery” on Mount Mitchell, approximately 50 years later by Dr. Frederick Coyle (Western Carolina University) and Dr. William Shear (Hampden-Sydney College) (Coyle 1981). The subsequent work (Coyle 1981, 1985, 1997, 1999; Harp 1991, 1992) represents the bulk of what is presently known of the biology, habitat, behavior, range of, and threats to, the spider.

The spruce-fir moss spider belongs to the genus *Microhexura* in the family Dipluridae. Diplurids are in the primitive spider suborder Mygalomorphae, which are often referred to as “tarantulas” due to the inclusion of the large, hairy spiders of the family Theraphosidae. Only two genera of Dipluridae, *Euagrus* and *Microhexura*, are found in the United States. Species in the genus *Euagrus* are medium to large spiders that build their silk sheets and funnels in rocky situations in the arid Southwest. The genus *Microhexura* is the northernmost representative of the family Dipluridae and contains only two species—the spruce-fir moss spider (*M. montivaga*) and one with no common name (*M. idahoana*) (Chamberlin and Ivie). The two are distinguished by geographic distribution and by features of the male genitalia (Coyle 1981). Otherwise, they appear to be similar in both appearance and habits (Service 1998). *Microhexura idahoana* is found in conifer forests in the Pacific Northwest (Coyle 1981). The spruce-fir moss spider (*M. montivaga*) is known only from conifer forests in the mountains of North Carolina and Tennessee (Coyle 1981, 1997, 1999; Harp 1991, 1992; Service 1995, 1998).

The spruce-fir moss spider is the smallest of the mygalomorph spiders, with adults measuring only 2.5 to 3.8 millimeters (0.10 to 0.15 inch (in)) in length (Coyle 1981, Service 1995). The species’ coloration ranges from light brown to a darker reddish brown, and there are no markings on the abdomen (Harp 1992). The carapace (hard covering over the front part of the body) is generally yellowish brown (Harp 1992). The most reliable field identification characteristics for the species are chelicerae (fangs) that

project forward well beyond the anterior (front) edge of the carapace, a pair of very long posterior spinnerets (organ for producing threads of silk), and the presence of a second pair of book lungs that appear as light patches posterior to the genital furrow (Harp 1992; Coyle, *in litt.* 1994; Service 1995).

### Distribution, Habitat, and Life History

*Microhexura montivaga* is known from only the highest mountain peaks (at and above 1,646 m (5,400 ft) in elevation) in the Southern Appalachian Mountains of North Carolina and Tennessee. It has been recorded from Mount Mitchell, Yancey County, North Carolina; Grandfather Mountain, Watauga, Avery, and Caldwell Counties, North Carolina; Mount Collins, Swain County, North Carolina; Clingmans Dome, Swain County, North Carolina; Roan Mountain, Avery and Mitchell Counties, North Carolina, and Carter County, Tennessee; Mount Buckley, Sevier County, Tennessee; and Mount LeConte, Sevier County, Tennessee.

Recent and ongoing surveys funded by the National Park Service (NPS), US Forest Service (USFS), and us indicate that reproducing populations of the spruce-fir moss spider still survive on Grandfather Mountain in North Carolina (Harp 1992; pers. observation 1995; Jane Thompson, The Nature Conservancy, pers. comm. 1997); Mount LeConte in Tennessee (Coyle 1997); and Mount Buckley (Coyle, pers. comm. 2000) and Roan Mountain in North Carolina and Tennessee (Coyle 1999). The Mount Mitchell population is believed to be extirpated (Harp 1992), and both the Mount Collins and Clingmans Dome populations, if still present, are extremely small, with only one spruce-fir moss spider having been found at each of these two sites in recent years (Harp 1991, 1992). The occurrences of the species on Mount LeConte, Mount Collins, Clingmans Dome, and Mount Buckley are all within the boundaries of the GSMNP, administered by the NPS. The sites supporting the species on Roan Mountain are within the boundaries of the Pisgah National Forest in North Carolina and the Cherokee National Forest in Tennessee and are managed by the USFS. The area on Grandfather Mountain that still supports the spruce-fir moss spider is privately owned and is managed by The Nature Conservancy through an agreement with the landowner.

Recent work by Coyle (1997) indicates that Mount LeConte currently supports the healthiest of the surviving populations of the spruce-fir moss spider. In his study of the species on Mount LeConte, Coyle (1997) recorded

the species from four small, separate areas of rock outcrop (approximately 0.10 hectare (0.25 acre), 0.15 hectare (0.38 acre), 0.25 hectare (0.63 acre), and 0.50 hectare (1.25 acres) in size) and estimated that the largest three of these areas support a population of approximately 5,000 individuals. He estimated that the 0.25-hectare site provided a total of approximately 12 square meters (m<sup>2</sup>) (roughly 133 square feet (sq ft)) of suitable microhabitat, and the 0.15-hectare site provided approximately 7 m<sup>2</sup> (78 sq ft) of suitable microhabitat for the spruce-fir moss spider. Measurements of likely suitable microhabitat have not yet been made at the other two sites on Mount LeConte.

The typical microhabitat of the spruce-fir moss spider appears to be associated with moderately thick and humid, but well-drained, moss and liverwort mats growing in sheltered spots on surfaces of rock outcrops and boulders in mature high-elevation forests dominated by the Fraser fir (*Abies fraseri*) (Coyle 1981, 1997, 1999; Harp 1991, 1992; Service 1998). The portions of the moss mats supporting the spruce-fir moss spider are generally from 1 to 4 centimeters (cm) thick (roughly 0.5 to 1.25 in) and are well-shaded (Coyle 1981, 1997, 1999; Harp 1991, 1992; Service 1998). They cannot be too dry, because the spider is quite sensitive to desiccation (drying out), nor can they be too wet (Coyle 1997, 1998; Harp 1991, 1992). The humidity levels required by the spruce-fir moss spider have yet to be determined. In a study of the spruce-fir moss spider on Roan Mountain, Coyle (1999) reported that the moss/liverwort mats in which spruce-fir moss spiders were found were—(1) sheltered from the sun and the rain, (2) typically not far above either the ground or a horizontal ledge with accumulated soil, (3) included a thin layer of humid soil and/or humus (decayed vegetation and other organic material) between the moss and rock surface, (4) moderately thick (1 to 3 cm (0.5 to 1 in), and (5) humid but not wet. He reported that, clearly, most rock outcrop surfaces, even those covered by bryophytes (mosses, liverworts, etc.), do not meet these microhabitat requirements and do not support the spruce-fir moss spider.

Population and microhabitat estimates are not available for the Grandfather Mountain, Mount Buckley, or Roan Mountain populations of the spruce-fir moss spider. However, existing data indicate that the Grandfather Mountain population is restricted to small patches of suitable microhabitat occurring on a single rock outcrop and a nearby boulder (Harp

1992; pers. observation 1995). The Mount Buckley population is restricted to scattered patches of suitable microhabitat on separate rock outcrop sites within an area roughly 0.20 hectare (0.5 acre) in size. On Roan Mountain, Coyle (1999) recorded scattered occurrences of the spruce-fir moss spider at 12 small, separate rock outcrop sites but found more than two spiders living in the same discrete patch of moss/liverwort on only three occasions. He found four spiders in an 800-square-centimeter (sq cm) (approximately 1.0-sq-ft) patch of liverwort at one site, five spiders in a 900-sq-cm (1.2-sq-ft) patch of moss at another site, and four spiders in a 900-sq-cm (1.2-sq-ft) patch of moss at the third site. He reported that at none of these three sites, nor at any other sites on Roan Mountain where he found the spider, were they able to find additional spiders with ease and that the spruce-fir moss spider population densities on Roan Mountain were clearly not as high as those observed at some of the sites on Mount LeConte. As stated above, individual spruce-fir moss spiders (one each) have been observed in recent years on Mount Collins and on Clingmans Dome, indicating extremely low population levels. Coyle (*in litt.*, 1991) reported that the spruce-fir moss spider was common at a site on Clingmans Dome as late as 1983 but was extremely rare by 1988, which he suspected was largely due to deterioration of the forest canopy at the site.

The moss species associated with occurrences of the spruce-fir moss spider have been identified by David K. Smith, Botany Department, University of Tennessee at Knoxville, as *Polytrichum pallidesetum* Funck (Harp 1991, 1992), *Dicranodontium denudatum* (Brid.) E. G. Britt ex Williams (Harp 1992; Coyle 1997, 1999), and *D. asperulum* (Mitt.) Broth. (Coyle 1997, 1999). In addition, Coyle (1999) reported finding the spruce-fir moss spider on two occasions in liverwort mats (species was not identified) on rock outcrops. However, on both Mount LeConte and Roan Mountain, Coyle (1997, 1999, respectively) found the spruce-fir moss spider most often in association with mosses in the genus *Dicranodontium*. Though Harp (1991, 1992) reported finding the spruce-fir moss spider on Mount LeConte in mosses identified as *Polytrichum pallidesetum*, Coyle was unable to find the spider on either Mount LeConte or Roan Mountain in mosses in this genus. The association between the spruce-fir moss spider and mosses in the genus *Dicranodontium* is noteworthy because

mosses in this genus are much less common than many other rock surface mosses (Coyle 1999).

While humid, well-drained moss/liverwort mats on inclined, well-shaded surfaces of rock outcrops and boulders appear to be the optimal microhabitat for the spruce-fir moss spider, it has also, on occasion, been found—(1) under moss and litter mats at the base of rock outcrops (Coyle 1981); (2) under moss on loose rock at the base of rock outcrops; (3) in litter/humus under flat rocks lying on the ground in well-shaded situations in the vicinity of rock outcrops; and (4) on well-drained, well-shaded ground in or under needle and/or heath litter and moss in the vicinity of rock outcrops (Coyle 1997). The species has also rarely been found in moss mats on tree trunks (Coyle 1981) and moss mats on logs (Harp 1992), though Coyle has been unable to find the species in either of these habitat types in his recent surveys for the species (Coyle 1997, 1999, *pers. comm.* 2000).

An ongoing study of spiders of the GSMNP by Coyle and recent surveys of the spruce-fir moss spider on Mount LeConte (Coyle 1997) and Roan Mountain (Coyle 1999) support earlier findings (Coyle 1981; Harp 1991, 1992) that the microhabitat of the spruce-fir moss spider is virtually restricted to certain areas of rock outcrops and boulders in Fraser fir and/or fir-dominated spruce-fir forests. The Fraser fir is the only species of fir native to the Southeastern United States (Burns and Honkala 1990). In his study of the population of the spruce-fir moss spider on Mount LeConte, Coyle (1997) reported finding the species “only in stands containing many old (well over 25 years of age) fir trees and in areas where patches of fir containing old fir trees interface with heath communities.” In both situations he found the species only on, or in the vicinity of, rock outcrops. In his work on Roan Mountain, Coyle (1999) found the species only on rock outcrops in fir forests or fir-dominated areas of spruce-fir forests. Searches for the spruce-fir moss spider in other habitat types have failed to locate occurrences of the species (Coyle, *in litt.* 1991; Coyle 1997, 1999).

Coyle (1981, 1997) describes the webs of the spruce-fir moss spider as silk tubes sandwiched between the interface of the moss mat and boulder surface. The tubes are thin-walled and are typically broad and flattened, with short side branches. Some of the tubes occasionally extend into crevices in the rock or litter (Coyle 1997) or the

vegetative interior of the moss mat (Harp 1991, 1992).

The spruce-fir moss spider has not been observed taking prey in the wild, nor is there any record of prey having been found in spruce-fir moss spider webs. The abundant springtails (small wingless insects in the order Collembola) found in moss mats with the spiders provide the most likely source of food. The spiders have been observed to take springtails in captivity (David Hodge, Louisville Zoological Park, *pers. comm.* 1992).

Mating behavior has been described in detail (Coyle 1985). Females of the spruce-fir moss spider are known to lay eggs in June (Coyle 1981). The egg sac of the species is thin-walled, nearly transparent, and generally contains only 7 to 9 eggs (Coyle 1981). The female remains with the egg sac and, when disturbed, will carry the sac with her fangs. Coyle (1997) hypothesized that the ability of the female to move the egg sac may be useful not only in protecting the eggs from predators but also in repositioning the egg sac to protect it from microhabitat changes within the web. Development and evaporative water loss by early instar (a stage between molts) spiderlings within the egg sac are likely dependent on temperature and humidity levels. The spiderlings emerge during September (Coyle 1981). It has been estimated that it may take at least 2 to 3 years for spruce-fir moss spiders to reach maturity (Coyle 1985). The life span of the spruce-fir moss spider is currently unknown. Many species of spiders live for only one season. But, like other “tarantulas,” spruce-fir moss spiders molt (shed their skin) continuously through life, which means they can keep growing and live for several years.

Modes of dispersal of spiderlings from the parental moss mats are unknown. Ballooning is a possibility since males of *Microhexura idahoana* have been collected as “windblown fallout” on snow fields on Mt. Rainier (Coyle 1981). Ballooning spiders use a sheet of silk played out into a wind current as a kite to carry them into the air. Ballooning spruce-fir moss spiders have not been collected. If they do balloon, they would be capable of an effective mode of dispersal over long distances. Even short-range dispersal between moss mats has not been documented for this species. Pitfall trap and Berlese funnel sampling done in the area of the Mount LeConte population did not yield any specimens of the spruce-fir moss spider (Lambden *et al.* 1994).

Possible predators and competitors of the spruce-fir moss spider include pseudoscorpions, centipedes, carabid

beetles, and other spiders. A number of other species of spiders are commonly found in the same moss as the spruce-fir moss spider (Service 1998).

#### Threats

The majority of the high-elevation spruce-fir forests of the Southeast have suffered extensive changes and declines in size and/or vigor during the past century, likely as a result of a number of factors, including storm damage, site deterioration due to the logging and burning practices of the early 1900s (Peart *et al.* 1992), atmospheric pollution (Johnson *et al.* 1992), exposure shock (Nicholas *et al.* 1992), climate changes, and other factors not yet fully understood. However, the primary threat to, and reason for the recent decline of, the spruce-fir moss spider at all of the sites from which it has been recorded appears to be associated with the loss of suitable moss habitat, due primarily to the loss of mature Fraser firs (Coyle, *in litt.* 1991, 1999; Harp 1991, 1992; Service 1998). The spruce-fir moss spider appears to be very sensitive to desiccation and requires situations of high and constant humidity. The loss of mature Fraser firs, the dominant canopy species in the forest stands where the spider has been found, leading to increased light and temperature and decreased moisture on the forest floor (resulting in drying out of the moss mats), appears to be the major cause for the loss of the spruce-fir moss spider on Mount Mitchell and the recent decline of the Mount Collins, Clingmans Dome, and a portion of the Mount LeConte populations (Harp 1991, 1992). It is also likely the major factor limiting the species' distribution on Roan Mountain, Grandfather Mountain, and Mount Buckley. Mature Fraser firs on all of these mountains have suffered extensive mortality in the last few decades.

The most obvious reason for the loss of the fir appears to be the associated infestation by the balsam wooly adelgid (*Adelges picea* (Ratzeburg) (Homoptera, Adelgidae)). The balsam wooly adelgid is a nonnative insect pest believed to have been introduced into the Northeastern United States from Europe around 1900 (Kotinsky 1916, Eagar 1984). The adelgid was first detected in North Carolina on Mount Mitchell (the type locality for the spruce-fir moss spider) in 1957 (Speers 1958), though it was likely established at that site as early as 1940. From Mount Mitchell, the adelgid spread to the Fraser fir stands throughout the Southern Appalachians (Eagar 1984). All ages of fir trees are attacked by the adelgid, but damage is generally minimal until the trees reach

maturity at around 30 years of age (Hoffard *et al.* 1990). Most mature Fraser firs are easily killed by the adelgid (Amman and Speers 1965), with death occurring within 2 to 7 years of the initial infestation (Eagar 1984). The death of the fir trees and the resultant opening of the forest canopy causes the remaining trees to be more susceptible to wind and other storm damage. The adelgid is transported and spread primarily by the wind but may also be spread by contaminated nursery stock; on the fur or feathers of animals; or by humans on contaminated clothes, equipment, or vehicles (Eagar 1984). All efforts to control the spread of the adelgid have failed thus far.

All existing data (Coyle 1981, 1997, 1999; Harp 1991, 1992) indicate that suitable habitat for the spruce-fir moss spider is extremely limited and restricted to small areas of rock outcrops occurring in forest stands dominated by fir trees, providing the shelter and organic substrata required by the spider. This restricted range of each of the surviving populations of the spruce-fir moss spider also makes it extremely vulnerable to extirpation from a single event or activity, such as a severe storm, wildfire, land-clearing or timber operation, pesticide/herbicide application, etc. In addition, the spider and the moss mats it inhabits are very fragile and easily destroyed by human trampling or other disturbance. Many of the high-elevation areas where the spider occurs are frequented by tens of thousands of visitors each year. Coyle (1999) suggested that boulder climbing by visitors may have been one of the factors contributing to the scarcity of suitable moss habitat for the spider in areas on Roan Mountain. Because of their small size, disturbance of the moss mats or damage to the surrounding vegetation shading the mats could result in the extirpation of entire spruce-fir moss spider populations and/or population fragments.

#### Previous Federal Actions

On December 31, 1992, we notified (in writing) appropriate Federal, State, and local government agencies, landowners, and individuals knowledgeable about this or similar species that a status review was being conducted and that the species might be proposed for Federal listing. We received ten written comments. The NPS, the North Carolina Division of Parks and Recreation, and three private individuals (including the owner of the site containing the Avery/Caldwell County, North Carolina, population) expressed strong support for the potential listing of the spruce-fir moss

spider as an endangered species. The U.S. Soil Conservation Service, Tennessee Wildlife Resources Agency, Tennessee Department of Environment and Conservation, Tennessee Valley Authority, and the North Carolina Department of Agriculture stated that they had no new or additional information on the species or threats to its continued existence. We received no comments opposing the potential listing of the spruce-fir moss spider.

On August 30, 1993, we classified the spruce-fir moss spider as a category 1 candidate based on the results of status surveys, funded by the NPS and us, documenting significant habitat loss and increased threats to the species throughout its range (Harp 1991, 1992). At that time, category 1 represented those species for which we had substantial information on biological vulnerability and threats to support proposals to list them as endangered or threatened species.

On January 27, 1994, we published in the **Federal Register** (59 FR 3825) a proposal to list the spruce-fir moss spider as an endangered species without designating critical habitat. The proposal provided information on the species' range, biology, status, and threats to its continued existence and a proposed determination that designation of critical habitat was not prudent for the species because such designation would not be beneficial and could further threaten the spruce-fir moss spider. Through associated notifications, we invited comments on the proposal and factual reports or information that might contribute to the development of a final rule. We contacted and requested comments from appropriate Federal and State agencies, county governments, scientific organizations, individuals knowledgeable about the species or its habitat, and other interested parties. We published a legal notice, which invited general public comment, in the following newspapers: the *Avery Journal*, Newland, North Carolina, February 10, 1994; the *News-Topic*, Lenoir, North Carolina, February 10, 1994; the *Watauga Democrat*, Boone, North Carolina, February 16, 1994; the *Smoky Mountain Times*, Bryson City, North Carolina, February 10, 1994; and the *Mountain Press*, Sevierville, Tennessee, February 11, 1994. We received ten written comments. Six of them expressed strong support for the findings presented in the proposed rule and listing of the species as proposed; three either expressed concurrence with the data presented in the proposed rule and/or provided additional information but expressed neither support for, nor

opposition to, the listing; and one comment opposed the listing, stating that the "scientific community, and the Service in particular, needs to recognize that extinction has always been a continuing process and will continue to be so."

Following our review of all the comments and information received throughout the listing process, by final rule (60 FR 6968) dated February 6, 1995, we listed the spruce-fir moss spider as endangered. We addressed all the comments received throughout the listing process and/or incorporated changes into the final rule as appropriate. That decision included a determination that the designation of critical habitat was not prudent for the spruce-fir moss spider because, after a review of all the available information, we determined that such designation would not be beneficial to the species and that designation of critical habitat could further threaten the spider.

On June 30, 1999, the Southern Appalachian Biodiversity Project and the Foundation for Global Sustainability filed a lawsuit in United States District Court for the District of Columbia against the Service, the Director of the Service, and the Secretary of the Department of the Interior, challenging the Service's not prudent critical habitat determinations for four species in North Carolina—the spruce-fir moss spider, Appalachian elktoe (*Alasmidonta raveneliana*), Carolina heelsplitter (*Lasmigona decorata*), and rock gnome lichen (*Gymnoderma lineare*). On February 29, 2000, we entered into a settlement agreement with the plaintiffs in which we agreed to reexamine our prudence determination and submit to the **Federal Register**, by October 1, 2000, a withdrawal of the existing not prudent determination, together with a new proposed critical habitat determination, if prudent. We further agreed that if, upon consideration of all available information and comments, we determined that designation of critical habitat is prudent for the spruce-fir moss spider, we would send a final rule of this finding to the **Federal Register** by July 1, 2001.

On October 6, 2000, we published a prudence determination and a proposed designation of critical habitat for the spruce-fir moss spider (65 FR 59798). The proposed rule included maps and a description of all areas under consideration for designation as critical habitat for the species. On October 10, 2000, we notified appropriate Federal and State agencies, local governments, scientific organizations, individuals knowledgeable about the species, and other interested parties and requested

their comments on the proposal. A legal notice that announced the availability of the proposed rule and invited public comment was published in the following newspapers—*News-Topic*, Lenoir, North Carolina; *Watauga Democrat*, Boone, North Carolina; *Smoky Mountain Times*, Bryson City, North Carolina; *Avery Journal*, Newland North Carolina; *Mitchell News Journal*, Spruce Pine, North Carolina; *Yancey Common Times Journal*, Burnsville, North Carolina; *Mountain Press*, Sevierville, Tennessee; and, *Elizabethhton Star*, Elizabethhton, Tennessee.

In the proposed rule and associated notifications, all interested parties were requested to submit factual reports or information, by December 5, 2000, that might contribute to our determination and the development of a final rule. On February 12, 2001, we published a notice in the **Federal Register** (66 FR 9806) reopening the comment period on the proposed rule and announcing the availability of a draft economic analysis for the proposed designation of critical habitat for the spider. That notice provided an incorrect date for the closing of the reopened comment period, and on February 27, 2001, we published a notice (66 FR 12450) correcting the closing date for comments to March 14, 2001. We notified appropriate agencies, government officials, institutions, and other interested parties, by letters dated February 12, 2001, of the reopening of the comment period and availability of the draft economic analysis, and published legal notices in the newspapers listed above inviting comments from the public.

#### **Summary of Comments and Recommendations**

We received a total of 22 written comments during the 2 comment periods—16 during the initial comment period and 6 during the reopened comment period. Written comments were received from 1 Federal agency, 1 State agency, 2 private organizations, and 17 private individuals. One of the respondents provided comments during the initial comment period on the proposed rule and additional comments on the draft economic analysis during the reopened comment period. Of the 21 respondents, 16 expressed support for the designation of critical habitat for the spruce-fir moss spider, and 5 opposed the designation.

Following is a summary of the comments received (referred to as "issues" for the purpose of this summary) during the two comment periods. Issues of a similar nature have

been grouped together. These issues and our response to each are presented below.

**Issue 1:** Several respondents provided comments supporting the designation of critical habitat for the spruce-fir moss spider but requested that the Service designate and consider all spruce-fir forests (in western North Carolina and eastern Tennessee) above the 5,400-foot elevation as critical habitat for the species.

**Response:** The Act and associated regulations for designating critical habitat require us to base our designations on the best scientific and commercial information available. When considering areas for designation as critical habitat, we are required to focus on the principal biological and physical constituent elements (primary constituent elements) within the defined area that are essential to the conservation of the species (50 CFR 424.12(b)). Based on information provided by experts on this species and a review of all of the published and unpublished data that we are aware of concerning the historic and present distribution, biology, life history, and habitat requirements of the spruce-fir moss spider (see "Background" section), the species is restricted to those areas of fir and fir-dominated spruce-fir forests containing the primary constituent elements as described in this rule. The species has never been recorded from other habitat types, including spruce-fir forests without rock outcrops, spruce-dominated spruce-fir forests with or without rock outcrops, or rock outcrops in spruce-fir forests that do not provide suitable moss or liverwort mats. In accordance with the definition of critical habitat (see "Critical Habitat" section), we can only designate unoccupied habitat of the species if, based on the best available information, it is determined that such areas are essential to the conservation of the species. Because we do not currently have any data documenting that these other habitat types are used by the spruce-fir moss spider and are essential to the conservation of the species, we cannot consider them as critical habitat.

As we stated in the proposed rule, all of the areas we are designating as critical habitat are within what we believe to be the occupied range of the spruce-fir moss spider and include all known surviving occurrences of the species. Despite extensive surveys and ongoing research, we currently are not aware of any areas outside the geographical area occupied by the spruce-fir moss spider that provide the primary constituent elements essential to the life cycle needs of the species (see

“Primary Constituent Elements” section) and are essential for the conservation of the spider. To the extent feasible, we will continue, with the assistance of other Federal, State, and private researchers, to conduct surveys and research on the species and its habitat. Should additional information become available that indicates that other areas within the spruce-fir moss spider’s historic range are essential to the conservation of the species, we may revise the designated critical habitat accordingly. Similarly, if new information indicates any of these areas should not be included in the critical habitat designation because they no longer meet the definition of critical habitat, we may revise this final critical habitat designation. If, consistent with available funding and program priorities, we elect to revise this designation, we will do so through a subsequent rulemaking.

**Issue 2:** Several respondents suggested that the designation of all spruce-fir forests above 5,400 ft in elevation as critical habitat would protect the spruce-fir moss spider’s habitat from the effects of air pollution and acid rain.

**Response:** Evaluating and addressing the potential effects of atmospheric pollution and acid rain, or any other threats, on the spruce-fir moss spider and its habitat does not require the designation of all spruce-fir forests above 5,400 ft in elevation as critical habitat. Since before the listing of the spruce-fir moss spider as an endangered species, we have been monitoring the results of studies conducted by Federal, State, and private researchers and have been recommending additional studies to determine the effects that atmospheric pollution may have on the health of high-elevation forests and associated species. Regardless of whether critical habitat has been designated, Federal agencies are required by the Act to evaluate the direct and indirect effects of their actions on listed species and ensure that their actions are not likely to jeopardize the continued existence of listed species. Therefore, any Federal activity that has the potential to adversely affect the spruce-fir moss spider is already subject to the provisions of the Act.

As we stated in the proposed and final rules listing the spruce-fir moss spider as endangered and in the proposed rule to designate critical habitat, we believe that, because of the limited amount of suitable habitat available to the spruce-fir moss spider, any activity that would significantly affect the habitat of the species would also jeopardize the species’ continued

existence. If data exists, or becomes available in the future, that documents that there is a relationship, direct or indirect, between atmospheric pollution resulting from the operations of, or the issuance of permits by, a Federal agency and the decline in spruce-fir moss spider habitat, those actions would be subject to the provisions of section 7 of the Act. There is no need to designate unoccupied, unsuitable habitat as critical habitat of the spruce-fir moss spider to address threats from air pollution and acid rain.

**Issue 3:** Two respondents indicated that they believe the designation of all spruce-fir forest habitat above 5,400 ft in elevation in western North Carolina and eastern Tennessee, including that on Mount Mitchell (which historically supported the spruce-fir moss spider), is necessary for the conservation of the spruce-fir moss spider.

**Response:** We do not believe that such an area would meet the definition of critical habitat (see the Critical Habitat section for detailed discussion of how we determine what meets the definition of critical habitat). Because we do not currently have any data documenting that all spruce-fir forest habitat types above 5,400 ft in elevation in western North Carolina and eastern Tennessee provide suitable habitat for the spruce-fir moss spider or are essential to the conservation of the species, we cannot consider all spruce-fir forests as critical habitat of the species. The Mount Mitchell population of the spruce-fir moss spider is, based on the best available information, believed to be extirpated (see “Background” section) due to the loss of suitable habitat for the species on Mount Mitchell (Harp 1992). Mount Mitchell does not provide the primary constituent elements necessary to support the species. Further, the recovery plan for the spruce-fir moss spider (Service 1998) states that the species will be considered for delisting (recovered) when there exists a total of six distinct, viable populations of the species that meet the criteria outlined in the recovery plan. Surveys by Harp (1991 and 1992) and Coyle (1997 and 1999) indicate that there are currently six surviving populations of the spruce-fir moss spider—the Mount LeConte, Clingmans Dome, Mount Buckley, Mount Collins, Roan Mountain, and Grandfather Mountain populations (see “Background” section).

The areas that we are designating as critical habitat in this rule include habitat for each of these populations. Because, based on the most recent data, the species and suitable habitat for the species are still present, albeit limited, in each of these areas, we considered these areas as the

most likely sites for focusing conservation efforts for maintaining and recovering the species. However, as we previously stated, should additional information become available that indicates that other areas within the spruce-fir moss spider’s historic range are essential to the conservation of the species, we may revise the designated critical habitat accordingly. Similarly, if new information indicates any of these areas should not be included in the critical habitat designation because they no longer meet the definition of critical habitat, we may revise this final critical habitat designation. If, consistent with available funding and program priorities, we elect to revisit designations, we will do so through a subsequent rulemaking.

**Issue 4:** One respondent stated that they believed the area listed to be included under the critical habitat designation is overly broad and that the Service failed to show that each area to be designated has the primary constituent elements essential for the conservation of the spruce-fir moss spider. As evidence of this, they quoted the following statements from the proposed rule:

We [the Service] did not map critical habitat in sufficient detail to exclude lands unlikely to contain all of the primary constituent elements essential for the conservation of the spruce-fir moss spider. Consequently, the areas we are proposing as critical habitat include areas of unsuitable habitat \* \* \* do not provide the habitat or microhabitat required by the spider.

**Response:** Based on the best information currently available to us concerning the distribution and habitat requirements of the spruce-fir moss spider (see “Background” section), all of the areas that we are designating as critical habitat for the spruce-fir moss spider currently support occurrences of the species and, based on survey reports and other information provided by species experts and as evidenced by the species’ presence in these areas, contain the primary constituent elements, as described in this and the proposed rule, necessary to fulfill the life cycle needs of spruce-fir moss spider and essential to the conservation of the species. However, we did, and do, acknowledge that there are also habitat types within the mapped critical habitat boundaries that do not contain the primary constituent elements. Our regulations (50 CFR 424.12(c)) require that we define the specific limits of critical habitat by using reference points and lines as found on standard topographic maps of the area(s). These regulations also state that when several habitat areas are located in proximity to one another,

an inclusive area may be designated as critical habitat. Because of the patchiness and small size (see "Background" section) of the areas providing suitable habitat for the spruce-fir moss spider (those areas containing the primary constituent elements), their proximity to one another, and the requirement that we use reference points and lines as found on standard topographic maps, we elected to designate an inclusive area. As a result, there are also areas (habitat types) within the mapped critical habitat boundaries that do not, based on the best available information, provide habitat for the spruce-fir moss spider. Finally, existing human-constructed features and structures within the critical habitat boundary, such as buildings, powerlines, roads, and others not currently containing one or more of the primary constituent elements, are not considered critical habitat. Therefore, Federal activities in these areas would not trigger a section 7 consultation.

**Issue 5:** One respondent stated that the Service places the blame for the spider's decline exclusively on the balsam woolly adelgid, rather than acknowledging the fact that air pollution and acid rain are devastating spruce-fir forests and the spruce-fir moss spider. The respondent stated that the Service is ignoring the problems associated with air pollution and indicated that the Service should require consultation on the effects of air pollution on the spruce-fir moss spider.

**Response:** We identified the loss of the high-elevation Fraser fir, the dominant canopy species in the forest stands sheltering rock outcrops supporting known occurrences, present and historic, of the spruce-fir moss spider, as the most likely cause of the recent decline of the species (see "Background" section above). We further identified the balsam woolly adelgid (a nonnative insect) as a primary factor contributing to the massive die-off of the Fraser fir during the last few decades on the mountain peaks known to support, or to have historically supported, occurrences of the spruce-fir moss spider (we have changed this statement in this rule to say that balsam woolly adelgid infestations are the most obvious cause of the fir mortality). The extensive mortality of the Fraser fir throughout the Southern Appalachian Mountains due to infestations of the balsam woolly adelgid is well documented. However, we also listed numerous other factors that are not as easily understood, including atmospheric pollution, which may also have contributed to the decline in the

size and vigor of spruce-fir forest stands in the Southeast and/or may pose a threat to surviving occurrences of the spruce-fir moss spider.

While we agree that there is evidence that implicates atmospheric pollution as a possible factor contributing to the decline of high-elevation forest health, we are not currently aware of any data that have yet firmly established a cause-and-effect mechanism between atmospheric pollution and the decline in spruce-fir forests in the Southern Appalachian Mountains and, more specifically, the loss of spruce-fir moss spider habitat. However, we are concerned about the possible effect that atmospheric pollution may be having on the health of the high-elevation forests and the recovery of the spruce-fir moss spider. We welcome any supporting data and strongly encourage, and to the maximum extent feasible will continue to contribute to, studies that help to identify factors threatening the spruce-fir moss spider and measures for alleviating these threats. We will also continue to work with other Federal agencies to help ensure that their actions are in compliance with section 7 of the Act, to encourage them to evaluate their activities and consult with us on those that are likely to adversely affect the spruce-fir moss spider and its designated critical habitat, and to identify and implement actions to further the conservation of this and other federally listed species.

**Issue 6:** One respondent stated that the benefits to public health, recreation, tourism, the local economy, commercial and recreational fisheries, global climate change, and the preservation of biological and genetic resources that will result from improvements in air quality due to the designation of critical habitat of the spruce-fir moss spider need to be addressed in the economic analysis for the designation of critical habitat for the spider.

**Response:** When evaluating the economic costs and benefits of designating critical habitat, we consider the incremental economic impacts of critical habitat designation above the impacts resulting from listing and other laws. As discussed in our response to Issue 2, above, if data exist, or become available in the future, that indicate that any Federal action or activity has the potential to adversely affect, directly or indirectly, habitat of the spruce-fir moss spider, that action is/would be subject to the provisions of section 7 of the Act regardless of whether critical habitat has been designated. Because of the status of the spruce-fir moss spider and its habitat, any Federal activity that is likely to significantly affect the habitat

of the species would also jeopardize the species' continued existence and would therefore already be prohibited. Accordingly, we do not believe that the designation of critical habitat will provide any additional benefit for addressing the effects of air pollution, or any other Federal activity, that does not already exist as a result of listing the spruce-fir moss spider as an endangered species. Hence, as discussed in the economic analysis, designation of critical habitat for the spruce-fir moss spider does not increase or change the existing regulatory burden posed by the listing of the species, and we do not anticipate that there will be any significant economic impact, beneficial or negative, likely to occur from the designation of critical habitat for this species.

**Issue 7:** One respondent stated that the Service has no business declaring private property as critical habitat and implied that the designation would affect private property rights. This same respondent asked if we planned to compensate landowners for the loss of the use of their land. Another respondent asked how many people will be put out of work, how many peoples' private property rights will be violated, and how many people will be denied access to recreation areas.

**Response:** The Act requires us to designate critical habitat to the extent prudent and determinable, based on the best scientific and commercial data available, after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. The definition of critical habitat (see "Critical Habitat" section) does not differentiate between areas that are privately owned and those that are publicly owned. We may exclude areas essential to the conservation of the species from critical habitat designation only when the benefits of excluding those areas outweigh the benefits of including the areas within the critical habitat designation, provided the exclusion will not result in the extinction of the species. We cannot exclude areas based on landownership alone. All of the areas being designated as critical habitat for the spider occur on public land (national park and national forest land), with the exception of the areas in Unit 4, which are on Grandfather Mountain. Grandfather Mountain is privately owned, and the areas in this unit that are designated as critical habitat are managed by The Nature Conservancy through conservation easements donated by the landowner (see "Summary" section and "Distribution, Habitat, and Life History"

portion of the "Background" section). We have determined that conservation of the areas on Grandfather Mountain that support occurrences of the spruce-fir moss spider provide the primary constituent elements and are essential to the conservation of the species. As discussed in the draft economic analysis, the primary activities within this unit are recreational activities (e.g., hiking, sightseeing, primitive camping). None of the existing or reasonably foreseeable activities within this unit require a Federal permit or involve Federal funding, so no regulations associated with the designation of critical habitat will affect existing or likely future planned activities within this unit.

The only regulatory consequence of this designation of critical habitat is that Federal agencies must consult with us before undertaking actions, issuing permits, or providing funding for activities that might destroy or adversely modify critical habitat (see "Effects of Critical Habitat Designation" section). This regulation has no regulatory impact on private landowners taking actions on their land that do not involve Federal funding or authorization. Because the spruce-fir moss spider is already listed as endangered, Federal agencies are already required to consult with us on any of their actions that may affect the spider and to ensure that their actions do not jeopardize the species' continued existence, regardless of whether critical habitat has been designated. In addition, since the spider was listed as endangered in 1995, it is has been protected from "take" throughout its range, without critical habitat having been designated. "Take" is defined to include harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect; or to attempt any of these. We believe that the designation of critical habitat for the spruce-fir moss spider will not result in any significant additional regulatory burden on landowners or affect the use of property, private or Federal.

**Issue 8:** One respondent stated that the government should have to prove that the value of the spider is greater than the use of the land.

**Response:** In the Act, Congress declared that species of fish, wildlife, and plants in the United States in danger of, or threatened with, extinction are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people. As discussed in our response to Issue 6, above, and in the economic analysis assessing the economic effects of critical habitat designation for the spruce-fir moss spider, the designation of critical

habitat for this species will not result in any additional regulatory burden on landowners or affect the use of their property.

**Issue 9:** One commenter claimed that the evidence we provided for our proposed designation of critical habitat for the spruce-fir moss spider was insufficient. Specifically, the commenter claimed that we failed to provide new data to justify a reversal in position from the 1995 determination that designation of critical habitat was not prudent, relying instead on case law.

**Response:** Our 1995 decision not to designate critical habitat was based on a determination that, despite sufficient scientific information from which to demonstrate the existence of suitable habitat, designation would not be prudent. Our current proposal identifying suitable habitat for designation relied on the same scientific and commercial information that was available in 1995, augmented by at least three additional studies (Coyle 1997, 1999; Service 1998). Taken together, they represent the best scientific and commercial information available. Our change in position between 1995 and now is not based on any new evidence that emerged since the original determination, but rather on a change in the legal standards for evaluating the existing evidence.

Specifically, we have determined that under the *Conservation Council of Hawaii and Natural Resources Defense Council* decisions cited above, the information available to us in 1995 did not support a "not prudent" finding. First, the "increased threat" rationale, based on the possibility of collection or other disturbance, was not supported by evidence specific to this or similarly situated species as required by *Conservation Council of Hawaii v. Babbitt*, 2 F. Supp.2d 1280, 1284 (D. Hawaii 1998). Second, we have determined that the possible educational or informational benefits of designating critical habitat do not allow us to state, in the absence of evidence to the contrary, that designation would not benefit the species. *Natural Resources Defense Council v. U.S. Department of the Interior*, 113 F.3d 1121, 1125 (9th Cir. 1997).

**Issue 10:** One commenter claimed that we lack the authority under the Commerce Clause of the United States Constitution to designate critical habitat for, or even list, the spruce-fir moss spider, because the species is located only in a few counties and there is no evidence that it has ever constituted an article of commerce or attracted interstate visitors.

**Response:** We believe that, contrary to the commenter's opinion, we have the authority under the Commerce Clause to designate critical habitat for the spruce-fir moss spider. In *Gibbs v. Babbitt*, 214 F. 3d 483 (4th Cir. 2000), the Fourth Circuit held that we had the authority under the Commerce Clause to issue a regulation under the Act limiting taking of the endangered red wolf, because (1) the taking of red wolves implicated a variety of commercial activities and was closely connected to several interstate markets, and (2) the regulation in question was an integral part of the overall Federal scheme to protect endangered species, thereby conserving valuable wildlife resources important to the welfare of our country.

Our authority to designate critical habitat for the spruce-fir moss spider is consistent with the *Gibbs* decision. First, even though the spider may not have the same commercial importance as the red wolf at issue in *Gibbs*, there is ample evidence that the spider is important to interstate commerce—it is located in numerous counties in two different States (North Carolina and Tennessee) and scientists from universities in both States, as well as from the NPS and the American Museum of Natural History, have come to the region to research the species. Second, as with the regulation that limits taking of the red wolf that was upheld in *Gibbs*, the designation of critical habitat for the spruce-fir moss spider is "an essential part of a larger regulation of economic activity, in which the regulatory scheme could be undercut unless the intrastate activity were regulated." *Gibbs*, 214 F. 3d at 497, citing *United States v. Lopez*, 514 U.S. 549 (1995). As the court further stated in *Gibbs*, the designation of critical habitat for the spruce-fir moss spider "may be insubstantial by some measures, but that does not invalidate a regulation \* \* \* that seeks conservation not only of any single animal, but recovery of the species as a whole." *Id.* at 497-98. The regulation must be "evaluated against the overall congressional goal of restoring \* \* \* endangered species generally." *Id.* at 498. Measured against this goal, the listing and designation of critical habitat for the spruce-fir moss spider are consistent with the Commerce Clause.

#### Critical Habitat

Critical habitat is defined in section 3(5)(A) of the Act as (i) the specific areas within the geographic area occupied by the species on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special

management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. Areas outside the geographical area currently occupied by the species shall be designated as critical habitat only when a designation limited to its present range would be inadequate to ensure the conservation of the species. "Conservation" is defined in section 3(3) of the Act as the use of all methods and procedures necessary to bring endangered or threatened species to the point at which listing under the Act is no longer necessary. Regulations under 50 CFR 424.02 (j) define "special management considerations or protection" to mean any methods or procedures useful in protecting the physical and biological features of the environment for the conservation of listed species.

In order to be included in a critical habitat designation, the habitat must first be "essential to the conservation of the species." Critical habitat designations identify, to the extent known and using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species (i.e., areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

Section 4 requires that we designate critical habitat based on what we know at the time of the designation. When we designate critical habitat at the time of listing or under short court-ordered deadlines, we will often not have sufficient information to identify all areas of critical habitat. We are required, nevertheless, to make a decision and thus must base our designations on what, at the time of designation, we know to be critical habitat.

Within the geographical area occupied by the species, we will designate only areas currently known to be essential. Essential areas should already have the features and habitat characteristics that are necessary to sustain the species. We will not speculate about what areas might be found to be essential if better information should become available or what areas may become essential over time. If the information available at the time of designation does not show that an area provides the essential life cycle needs of the species, then the area should not be included in the critical habitat designation. Within the geographical area occupied by the species, we will not designate areas that do not now have the primary constituent elements, as defined at 50

CFR 424.12(b), necessary to provide the essential life cycle needs of the species.

Our regulations state that, "The Secretary shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species" (50 CFR 424.12(e)). Accordingly, when the best available scientific and commercial data do not demonstrate that the conservation needs of the species require the designation of critical habitat outside of occupied areas, we will not designate critical habitat in areas outside the geographical area occupied by the species.

Our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), provides criteria, establishes procedures, and provides guidance to ensure that decisions made by us represent the best scientific and commercial data available. It requires our biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information should be the listing package for the species. Additional information may be obtained from a recovery plan, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, and biological assessments or other unpublished materials (i.e., gray literature).

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that the designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, it should be understood that critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the section 9 take prohibition, as determined on the basis of the best available information at the time of the action. We specifically anticipate that federally funded or assisted projects affecting listed species outside their designated critical habitat areas may

still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of the designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

Section 4(b)(2) of the Act requires that we base critical habitat designations on the best scientific and commercial data available, after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. We may exclude areas from critical habitat designation when the benefits of excluding those areas outweigh the benefits of including the areas within the critical habitat, provided the exclusion will not result in the extinction of the species.

#### Methods

The areas of critical habitat described below constitute our best assessment of the areas needed for the conservation and recovery of the spruce-fir moss spider in accordance with the goals outlined in our recovery plan for the species (Service 1998) and are based on the best scientific and commercial information currently available to us concerning the species' known present and historic range, habitat, biology, and threats. All of the areas we are designating as critical habitat are within what we believe to be the geographical area occupied by the spruce-fir moss spider and include all known surviving occurrences of the species. Despite extensive surveys and ongoing research, we currently are not aware of any areas outside the geographical area occupied by the spruce-fir moss spider that provide the primary constituent elements essential to the life cycle needs of the species (see "Primary Constituent Elements" section) and that are essential for the conservation of the spider. To the extent feasible, we will continue, with the assistance of other Federal, State, and private researchers, to conduct surveys and research on the species and its habitat. If new information becomes available that indicates that other areas or habitat types within the spruce-fir moss spider's historic range are essential to the conservation of the species, we will revise the designated critical habitat for the spruce-fir moss spider accordingly.

#### Primary Constituent Elements

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and the

regulations at 50 CFR 424.12, in determining which areas to propose as critical habitat we are required to base critical habitat determinations on the best scientific and commercial data available and to consider those physical and biological features (primary constituent elements) that are essential to the conservation of the species and that may require special management considerations and protection. Such requirements include, but are not limited to: space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

When considering areas for designation as critical habitat, we are required to focus on the principal biological or physical constituent elements within the defined area that are essential to the conservation of the species (50 CFR 424.12(b)). Although additional information is needed to better define the habitat requirements of the species, particularly the microhabitat requirements, based on the best available information, the primary constituent elements essential for the conservation of the spruce-fir moss spider are:

1. Fraser fir or fir-dominated spruce-fir forests at and above 1,646 m (5,400 ft) in elevation.

2. Moderately thick and humid, but not wet, moss (species in the genus *Dicranodontium*, and possibly *Polytrichum*) and/or liverwort mats on rock surfaces that are adequately sheltered from the sun and rain (by overhang and aspect) and include a thin layer of humid soil and/or humus between the moss and rock surface.

As a result of the massive Fraser fir die-offs and associated loss of moss habitat for the spruce-fir moss spider, the remaining areas of suitable habitat for the spider exist only in scattered patches, ranging from a single rock outcrop to scattered rock outcrop sites (see "Background" section). Due to the patchiness and small size of the areas providing suitable habitat for the spruce-fir moss spider, we have elected to designate an inclusive area on each of the mountain peaks that still provide habitat for the species as critical habitat rather than attempt to identify each individual site separately.

Regulations at 50 CFR 424.12(c) require that we define the specific limits of critical habitat by using reference

points and lines as found on standard topographic maps of the area(s). Because of the small size and limited number of suitable habitat patches and for ease of reference, we did not map critical habitat in sufficient detail to exclude land that is not likely to contain all of the primary constituent elements essential for the conservation of the spruce-fir moss spider. Consequently, the areas we are designating as critical habitat also include areas of unsuitable habitat; for example, fir or fir-dominated forests without rock outcrops, rock outcrops without suitable moss or liverwort mats, spruce or hardwood forests with or without rock outcrops, areas dominated by early herbaceous vegetation, and other habitat types that do not provide the habitat or microhabitat required by the spider. Federal actions with effects limited to these other habitat types, therefore, would not trigger a section 7 consultation. Please note, however, that any activity authorized, funded, or carried out by a Federal agency that has a potential to affect the constituent elements of designated critical habitat, regardless of the activity's location in relation to designated critical habitat, will require a consultation with us, as required under the provisions of section 7 of the Act (see "Effects of Critical Habitat Designation" section).

#### Critical Habitat Designation

Designated critical habitat includes spruce-fir moss spider habitat throughout the species' existing range in the United States. Lands designated as critical habitat have been divided into four critical habitat units. Areas designated as critical habitat and their ownership are described below.

##### *Unit 1: Swain County, North Carolina, and Sevier County, Tennessee*

Unit 1 encompasses all portions of the GSMNP bounded to the north and to the south of the North Carolina/Tennessee State line (State line) by the 1,646-m (5,400-ft) contour, from the intersection of the 1,646-m (5,400-ft) contour with the State line, south of Mingus Lead, Tennessee, southwest and then west to the intersection of the 1,646-m (5,400-ft) contour with the State line, east of The Narrows and west of Jenkins Knob, North Carolina, and Tennessee.

##### *Unit 2: Sevier County, Tennessee*

Unit 2 encompasses all portions of the GSMNP at and above the 1,646-m (5,400-ft) contour, bounded on the southwest side by the North Carolina/Tennessee State line from the intersection of the State line with the 1,646-m (5,400-ft) contour near Dry

Sluice Gap, southeast to the intersection of the State line with the 1,646-m (5,400-ft) contour at the head of Minnie Ball Branch, North Carolina, northwest of Newfound Gap, North Carolina, and Tennessee.

##### *Unit 3: Avery and Mitchell Counties, North Carolina, and Carter County, Tennessee*

Unit 3 encompasses all portions of the Pisgah National Forest in North Carolina and the Cherokee National Forest in Tennessee, bounded to the north and to the south of the North Carolina/Tennessee State line by the 1,646-m (5,400-ft) contour, from the intersection of the 1,646-m (5,400-ft) contour with the State line north of Elk Hollow Branch, Avery County, North Carolina, and southwest of Yellow Mountain, Carter County, Tennessee, west to the 1,646-m (5,400-ft) contour at Eagle Cliff, Mitchell County, North Carolina.

##### *Unit 4: Avery, Caldwell, and Watauga Counties, North Carolina*

Unit 4 encompasses all areas of privately owned Grandfather Mountain at and above the 1,646-m (5,400-ft) contour.

#### Effects of Critical Habitat Designation

Designating critical habitat does not, in itself, lead to the recovery of a listed species. The designation does not establish a reserve, create a management plan, establish numerical population goals, prescribe specific management practices (inside or outside of critical habitat), or directly affect areas not designated as critical habitat. Specific management recommendations for areas designated as critical habitat are most appropriately addressed in recovery and management plans and through section 7 consultation and section 10 permits.

Critical habitat receives regulatory protection only under section 7 of the Act through the prohibition against destruction or adverse modification of designated critical habitat by actions carried out, funded, or authorized by a Federal agency. Aside from the protection that may be provided under section 7, the Act does not provide other forms of protection to land designated as critical habitat. Because consultation under section 7 of the Act does not apply to activities on private or other non-Federal land that do not involve a Federal action, critical habitat designation would not afford any protection under the Act against such activities. Accordingly, the designation of critical habitat on Grandfather Mountain will not have any regulatory effect on private or State activities in these areas unless those activities

require a Federal permit, authorization, or funding.

Section 7(a)(2) of the Act and regulations at 50 CFR 402.10 require Federal agencies to consult with us on any action that is likely to result in the destruction or adverse modification of designated critical habitat. "Destruction or adverse modification" is defined as a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of the listed species for which critical habitat was designated.

Activities on Federal land, activities on private or State land carried out by a Federal agency, or activities receiving funding or requiring a permit from a Federal agency that may affect designated critical habitat of the spruce-fir moss spider will require consultation under section 7 of the Act. However, section 7 of the Act also requires Federal agencies to consult with us on any action that may affect a listed species and to ensure that actions they authorize, fund, or carry out do not jeopardize the continued existence of listed species. Activities that jeopardize listed species are defined as actions that "directly or indirectly, reduce appreciably the likelihood of both the survival and recovery of a listed species" (50 CFR 402.02). Federal agencies are prohibited from jeopardizing listed species through their actions, regardless of whether critical habitat has been designated for the species.

Where critical habitat is designated, section 7 requires Federal agencies also to ensure that activities they authorize, fund, or carry out do not result in the destruction or adverse modification of designated critical habitat. Activities that destroy or adversely modify critical habitat are defined as those actions that "appreciably diminish the value of critical habitat for both the survival and recovery of the species" (50 CFR 402.02). Common to the definitions of both "jeopardy" and "destruction or adverse modification of critical habitat" is the concept that the likelihood of both survival and recovery of the species are appreciably reduced by the action. Because of the small size of surviving populations of the spruce-fir moss spider, the species' restricted range, and the limited amount of suitable habitat available to the species, actions that are likely to destroy or adversely modify critical habitat are also likely to jeopardize the species. Accordingly, even though Federal agencies will be required to evaluate the potential effects of their actions on any habitat that is designated as critical habitat for the spruce-fir moss spider, this designation

would not be likely to change the outcome of section 7 consultations.

Section 4(b)(8) of the Act requires us to briefly evaluate, in any proposed or final regulation that designates critical habitat, those activities that may adversely modify such habitat or may be affected by such designation. Activities that may destroy or adversely modify critical habitat are, as discussed above, those that alter the primary constituent elements to the extent that the value of critical habitat for both the survival and recovery of the spruce-fir moss spider is appreciably diminished. We note that such activities may also jeopardize the continued existence of the species. Such activities may include, but are not limited to, the carrying out or issuance of permits for construction, recreation, and development; pesticide/herbicide applications for the control of noxious insects or weeds; controlled burns; timber activities; and other activities that could result in the removal or damage of high-elevation fir or fir-dominated forest canopy that is sheltering moss mats or that could cause damage to the moss mats themselves.

Requests for copies of the regulations on listed wildlife and inquiries about prohibitions and permits, or questions regarding whether specific activities will constitute adverse modification of critical habitat, may be addressed to the U.S. Fish and Wildlife Service, Asheville Field Office, 160 Zillicoa Street, Asheville, North Carolina 28801.

### Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial information available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas as critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. However, we cannot exclude areas from critical habitat when the exclusion will result in the extinction of the species.

Economic effects caused by listing the spruce-fir moss spider as a federally protected endangered species, and by other statutes, are the baseline against which the effects of a critical habitat designation are evaluated. The economic analysis must then examine the incremental economic and conservation benefits and effects of the critical habitat designation. Economic effects are measured as changes in national income, regional jobs, and household income. An analysis of the economic effects of the proposed designation of critical habitat for the

spruce-fir moss spider was prepared (Industrial Economics, Incorporated, 2001) and made available for public review and comment (February 12, 2001, through March 14, 2001; 66 FR 9806 and 66 FR 12450). The final analysis, which reviewed and incorporated public comments, concluded that no significant economic impacts, negative or beneficial, are expected from the designation of critical habitat for the spruce-fir moss spider above and beyond those already imposed by the listing of the species.

The most likely economic effect of the designation of critical habitat for the spruce-fir moss spider is associated with potential confusion and uncertainty of the implications of the critical habitat designation resulting in additional time spent on consultations between other Federal agencies and us. However, this effect is expected to be insignificant and for a short term, ranging from a total incremental impact of \$300 to \$1,000 for the first few section 7 consultations following the designation.

A copy of the final economic analysis is included in our administrative record and may be obtained by contacting the U.S. Fish and Wildlife Service, Asheville Field Office, 160 Zillicoa Street, Asheville, North Carolina 28801.

### Required Determinations

#### Regulatory Planning and Review

In accordance with the criteria in Executive Order 12866, this rule is a significant regulatory action and has been reviewed by the Office of Management and Budget (OMB).

(a) This rule will not have an annual economic effect of \$100 million or more, or adversely affect an economic sector, productivity, jobs, the environment, or other units of government. The spruce-fir moss spider was listed as an endangered species in 1995. Since that time, we have conducted, and will continue to conduct, formal and informal section 7 consultations with other Federal agencies to ensure that their actions would/will not jeopardize the continued existence of the spruce-fir moss spider.

Under the Act, critical habitat may not be adversely modified by a Federal agency action; critical habitat does not impose any restrictions on non-Federal persons unless they are conducting activities funded or otherwise sponsored or permitted by a Federal agency (see Table 1 below). Section 7 requires Federal agencies to ensure that they do not jeopardize the continued existence of the species. Based upon our experience with the species and its needs, we believe that any Federal

action or authorized action that could potentially cause an adverse modification of the critical habitat would currently be considered as “jeopardy” to the species under the Act.

Accordingly, we do not expect the designation of areas as critical habitat within the geographical range occupied by the species to have any incremental impacts on what actions may or may not be conducted by Federal agencies or

non-Federal persons that receive Federal authorization or funding. Non-Federal persons who do not have a Federal “sponsorship” of their actions are not restricted by the designation of critical habitat (however, they continue to be bound by the provisions of the Act concerning “take” of the species).

(b) This rule will not create inconsistencies with other agencies' actions. Federal agencies have been

required to ensure that their actions do not jeopardize the continued existence of the spruce-fir moss spider since its listing in 1995. As shown in Table 1 (below), no additional effects on agency actions are anticipated to result from this critical habitat designation. We will continue to review this action for any inconsistencies with other Federal agency actions.

TABLE 1.—IMPACTS OF SPRUCE-FIR MOSS SPIDER LISTING AND CRITICAL HABITAT DESIGNATION

Categories of activities	Activities potentially affected by species listing only <sup>1</sup>	Additional activities potentially affected by critical habitat designation <sup>2</sup>
Federal Activities Potentially Affected <sup>3</sup> .	Activities such as carrying out, or issuing permits, authorization, or funding for, utility construction; construction of recreational facilities; development activities; pesticide/herbicide applications; logging activities; or other activities that could result in damage to the moss mats or removal or damage to the high-elevation fir forest canopy that is sheltering moss mats providing habitat for the species..	None.
Private and other non-Federal Activities Potentially Affected <sup>4</sup> .	Activities occurring on Federal land or that require a Federal action (permit, authorization, or funding) and that involve such activities as damaging or destroying spruce-fir spider habitat, whether by mechanical or other means (scientific or other collecting, timber harvest, right-of-way access across Federal land, etc.).	None.

<sup>1</sup> This column represents the activities potentially affected by listing the spruce-fir moss spider as an endangered species (February 6, 1995; 60 FR 6968) under the Endangered Species Act.

<sup>2</sup> This column represents the effects on activities resulting from critical habitat designation beyond the effects attributable to the listing of the species.

<sup>3</sup> Activities initiated by a Federal agency.

<sup>4</sup> Activities initiated by a private or other non-Federal entity that may need Federal authorization or funding.

(c) This rule will not significantly impact entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients. Federal agencies currently are required to ensure that their activities do not jeopardize the continued existence of the species, and we do not anticipate that the adverse modification prohibition (resulting from critical habitat designation) will have any incremental effects in areas of designated critical habitat.

(d) OMB has determined that this rule will raise novel legal or policy issues and, as a result, this rule has undergone OMB review.

*Regulatory Flexibility Act (5 U.S.C. 601 et seq.)*

In the economic analysis (required under section 4 of the Act), we determined that the designation of critical habitat will not have a significant effect on a substantial number of small entities. As discussed in the “Regulatory Planning and Review” section above, this rule is not expected to result in any restrictions in addition to those currently in existence for areas of designated critical habitat. Therefore, we certify that the designation of critical habitat for the spruce-fir moss spider will not have a

significant economic impact on a substantial number of small entities, and no regulatory flexibility analysis is required.

*Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 804(2))*

In the economic analysis, we determined that the designation of critical habitat will not cause (a) any effect on the economy of \$100 million or more; (b) any increases in costs or prices for consumers; individual industries; Federal, State, or local government agencies; or geographic regions; or (c) any significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. As discussed above, we anticipate that the designation of critical habitat will not have any additional effects on these activities in areas of critical habitat within the geographical range occupied by the species.

*Executive Order 13211*

On May 18, 2001, the President issued an Executive Order (E.O. 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. As this rule is not expected to significantly affect energy supplies, distribution, or use, this action is not a significant energy action and no Statement of Energy Effects is required.

*Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.):

a. This rule will not “significantly or uniquely” affect small governments. A Small Government Agency Plan is not required. Small governments will not be affected unless they propose an action requiring Federal funds, permits, or other authorization. Any such activity will require that the involved Federal agency ensure that the action will not adversely modify or destroy designated critical habitat.

b. This rule will not produce a Federal mandate on State, local, or tribal governments or the private sector of \$100 million or greater in any year; that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments.

**Takings**

In accordance with Executive Order 12630, this rule does not have significant takings implications, and a takings implication assessment is not required. This rule will not “take” private property. The designation of critical habitat affects only Federal agency actions. Federal actions on private land could be affected by critical habitat designation; however, we expect no regulatory effect from this designation since all areas are considered to be within the geographical range occupied by the species and would be reviewed under both the jeopardy and adverse modification standards under section 7 of the Act.

The rule will not increase or decrease the current restrictions on private property concerning taking of the spruce-fir moss spider as defined in section 9 of the Act and its implementing regulations (50 FR 17.31). Additionally, critical habitat designation does not preclude the development of habitat conservation plans and the issuance of incidental take permits. Any landowners in areas that are included in the designated critical habitat will continue to have opportunity to utilize their property in ways consistent with the survival of the spruce-fir moss spider.

**Federalism**

In accordance with Executive Order 13132, this rule does not have significant federalism effects. A Federalism Assessment is not required. In keeping with Department of the Interior policy, we requested information from, and coordinated the development of this critical habitat proposal with, appropriate State resources agencies in North Carolina and Tennessee. We will continue to coordinate any future designation of critical habitat for the spruce-fir moss spider with the appropriate State agencies. The designation of critical habitat for the spruce-fir moss spider imposes few, if any, additional restrictions to those currently in place and therefore has little or no incremental impact on State and local

governments and their activities. The designation may have some benefit to these governments in that the areas essential to the conservation of the species are more clearly defined and, to the extent currently feasible, the primary constituent elements of the habitat necessary to the survival of the species are specifically identified. While making this definition and identification does not alter where and what federally sponsored activities may occur, doing so may assist these local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

**Civil Justice Reform**

In accordance with Executive Order 12988, the Department of the Interior's Office of the Solicitor has determined that this rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. The Office of the Solicitor has reviewed this final determination. We have made every effort to ensure that this final determination contains no drafting errors, provides clear standards, simplifies procedures, reduces burden, and is clearly written such that litigation risk is minimized.

**Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)**

This rule does not contain any new collections of information that require approval by the Office of Management and Budget (OMB) under 44 U.S.C. 3501 et seq. This rule will not impose new record-keeping or reporting requirements on State or local governments, individuals, businesses, or organizations.

**National Environmental Policy Act**

We have determined that we do not need to prepare an Environmental Assessment or an Environmental Impact Statement as defined by the National Environmental Policy Act of 1969 in connection with regulations adopted pursuant to section 4(a) of the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

**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 512 DM 2, we understand that federally recognized Tribes must be related to on a Government-to-Government basis. We are not aware of any Tribal lands essential for the conservation of the spruce-fir moss spider. Therefore, we are not designating critical habitat for the spruce-fir moss spider on Tribal lands.

**References Cited**

A complete list of all references cited in this rule is available upon request from the Asheville Field Office (see **ADDRESSES** section).

**Author**

The primary author of this document is John Fridell (see **ADDRESSES** section).

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

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

**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. In § 17.11(h), revise the entry for the “Spider, spruce-fir moss” under “ARACHNIDS” to read as follows:

**§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*

(h) \* \* \*

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*	*	*
ARACHINIDS							
*	*	*	*	*	*	*	*
Spider, spruce-fir moss.	<i>Microhexura montivaga.</i>	U.S.A. (NC, TN) .....		NA E	576	17.95 (g) .....	NA
*	*	*	*	*	*	*	*

3. Amend § 17.95 by adding paragraph (g) to read as follows:

**§ 17.95 Critical habitat—fish and wildlife.**

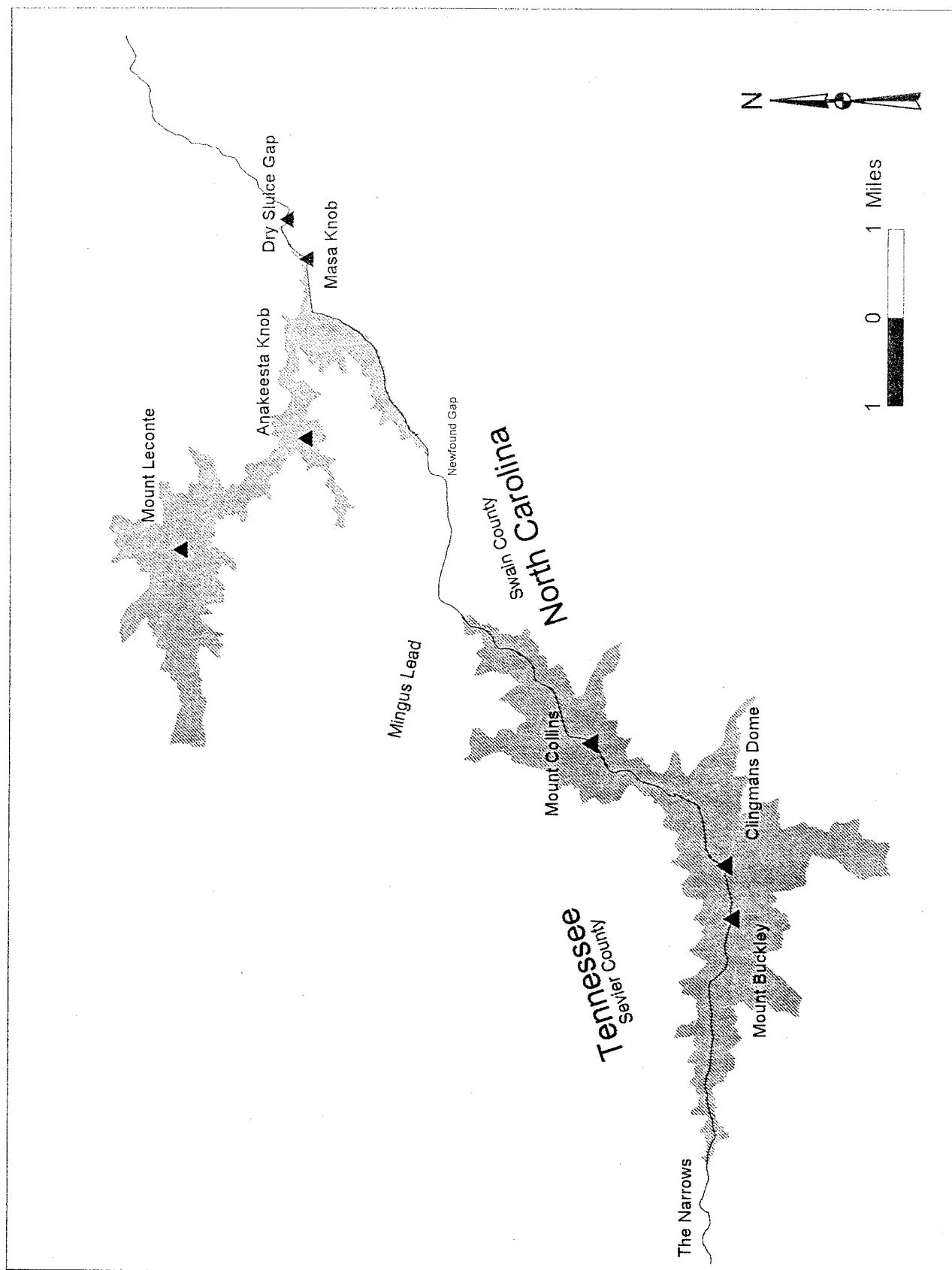
\* \* \* \* \*

(g) *Arachnids.*

**Spruce-Fir Moss Spider (*Microhexura montivaga*)**

1. Critical habitat units and their ownership are described below and depicted in the following maps.

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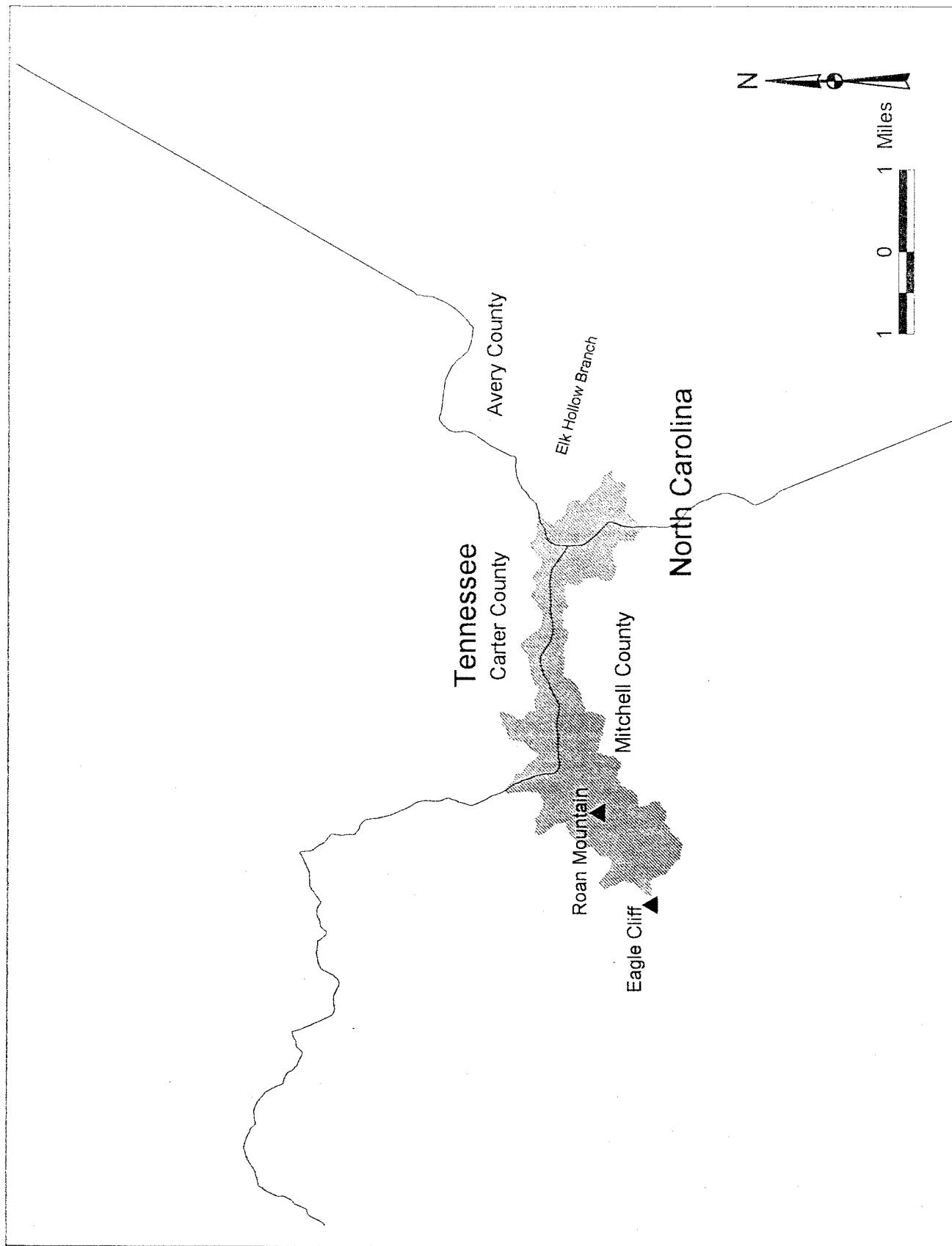
*Unit 1:* Swain County, North Carolina, and Sevier County, Tennessee—all portions of the GSMNP bounded to the north and to the south of the North Carolina/Tennessee State line (State line) by the 1,646-m (5,400-ft) contour, from the intersection of the 1,646-m (5,400-ft) contour with the State line, south of Mingus Lead, Tennessee, southwest and then west to the intersection of the 1,646-m

(5,400-ft) contour with the State line, east of The Narrows and west of Jenkins Knob, North Carolina, and Tennessee.

*Unit 2:* Sevier County, Tennessee—all portions of the GSMNP at and above the 1,646-m (5,400-ft) contour, bounded on the southwest side by the North Carolina/Tennessee State line from the intersection of the State line with the 1,646-m (5,400-ft)

contour near Dry Sluice Gap, southeast to the intersection of the State line with the 1,646-m (5,400-ft) contour at the head of Minnie Ball Branch, North Carolina, northwest of Newfound Gap, North Carolina, and Tennessee.

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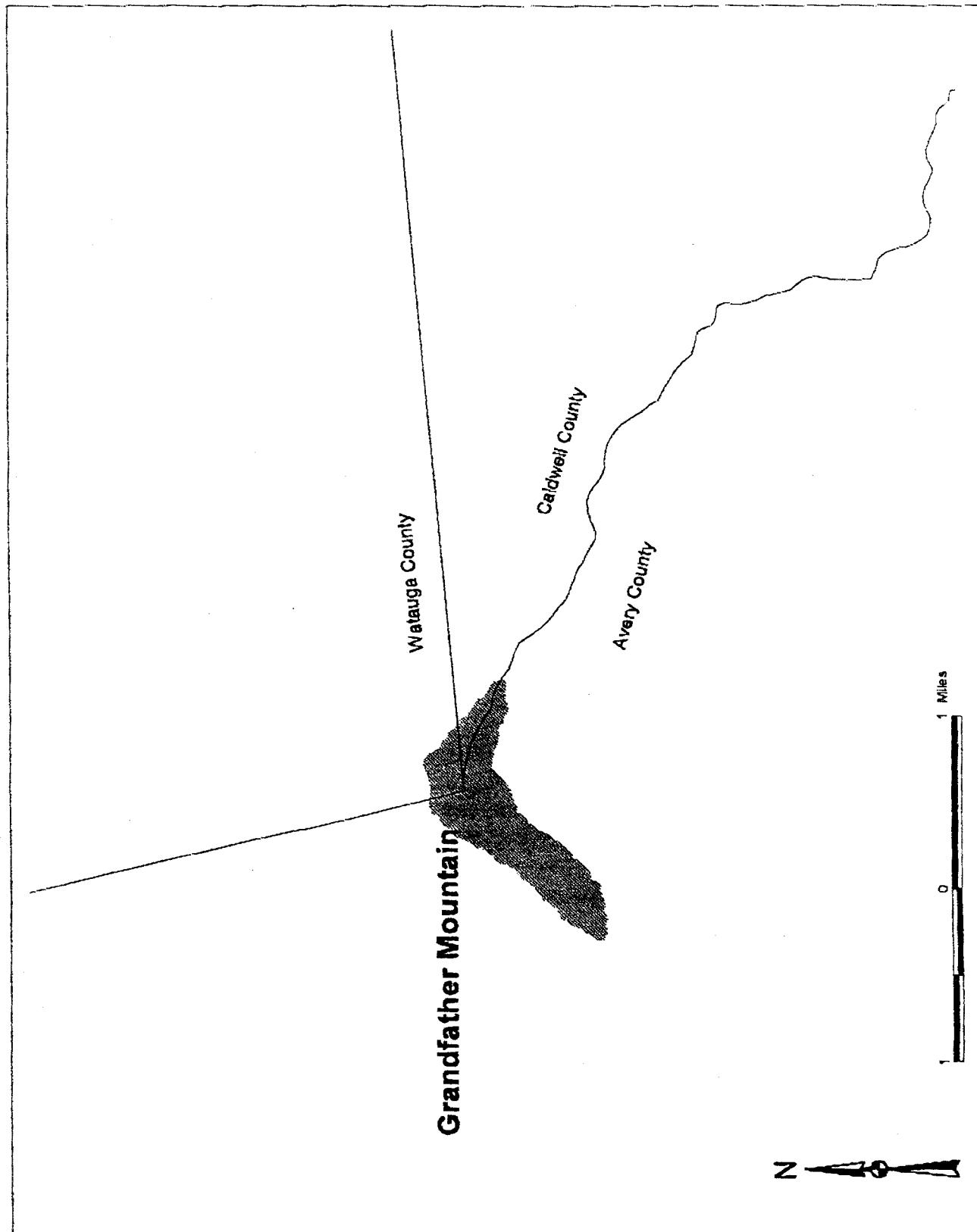


*Unit 3:* Avery and Mitchell Counties, North Carolina, and Carter County, Tennessee—all portions of the Pisgah National Forest in North Carolina and the Cherokee National Forest in Tennessee, bounded to the north

and to the south of the North Carolina/Tennessee State line by the 1,646-m (5,400-ft) contour, from the intersection of the 1,646-m (5,400-ft) contour with the State line north of Elk Hollow Branch, Avery County, North

Carolina, and southwest of Yellow Mountain, Carter County, Tennessee, west to the 1,646-m (5,400-ft) contour at Eagle Cliff, Mitchell County, North Carolina.

**BILLING CODE 4310-55-P**



**Unit 4:** Avery, Caldwell, and Watauga Counties, North Carolina—all areas of Grandfather Mountain at and above the 1,646-m (5,400-ft) contour.

2. Within these areas, the primary constituent elements include:

(i) Fraser fir or fir-dominated spruce-fir forests at and above 1,646 m (5,400 ft) in elevation; and

(ii) Moderately thick and humid, but not wet, moss (species in the genus *Dicranodontium*, and possibly *Polytrichum*) and/or liverwort mats on rock surfaces that are adequately sheltered from the sun and rain (by overhang and aspect) and include a thin layer of humid soil and/or humus between the moss and rock surface.

3. Existing human structures and other features not containing all of the primary constituent elements are not considered critical habitat.

Dated: June 28, 2001.

**Joseph E. Doddridge,**

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

[FR Doc. 01-16866 Filed 7-5-01; 8:45 am]

**BILLING CODE 4310-55-P**

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 648

[Docket No. 001127331-1044-02; I.D. 102600B]

**RIN 0648-AN69**

### Fisheries of the Northeastern United States; Atlantic Mackerel, Squid, and Butterfish Fisheries; 2001 Specifications and Foreign Fishing Restrictions; Correction

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and

Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule; correction.

**SUMMARY:** The final rule to implement the 2001 specifications for the Atlantic mackerel, squid, and butterfish fisheries, published on Friday, March 2, 2001, contained an error in the designation of a paragraph related to distribution of *Loligo* squid commercial quotas. This document corrects the error.

**DATES:** Effective March 2, 2001.

**FOR FURTHER INFORMATION CONTACT:**

William D. Chappell, Fishery Management Specialist, 301-713-2341 or e-mail at [William.Chappell@noaa.gov](mailto:William.Chappell@noaa.gov).

#### SUPPLEMENTARY INFORMATION:

##### Background

The final rule to implement the 2001 specifications for the Atlantic mackerel, squid, and butterfish fisheries was published on March 2, 2001 (66 FR 13024). In that rule, amendatory instruction 2 incorrectly stated that § 648.21(e) was revised. This amendatory instruction should have indicated that § 648.21 (f) was revised. This document corrects the error contained in the March 2, 2001, final rule by moving the text of the current § 648.21 (e) to § 648.21 (f) and reinstating the original language in § 648.21 (e). For the convenience of the user, amendatory instruction 2 and the related regulatory text are reprinted in their entirety.

##### Correction

Accordingly, the publication on March 2, 2001, of the 2001 specifications for the Atlantic mackerel, squid, and butterfish fisheries (I.D. 102600B), which appeared in the final regulations, was the subject of

document FR Doc. 01-5133, is corrected as follows:

#### PART 648—[CORRECTED]

On page 13028, first and second columns, amendatory instruction 2 and the regulatory text following it are corrected to read as follows:

2. In § 648.21, paragraph (f) is revised to read as follows:

##### § 648.21 Procedures for determining initial annual amounts.

\* \* \* \* \*

(f) *Distribution of annual *Loligo* squid commercial quota.* (1) Beginning January 1, 2001, a commercial quota will be allocated annually for *Loligo* squid into quarterly periods, based on the following percentages:

Quarter	Percent
I—January-March .....	33.23
II—April-June .....	17.61
III—July-September .....	17.30
IV—October-December .....	31.86

(2) Beginning January 1, 2001, any overages of commercial quota landed from Quarter I will be subtracted from Quarter III and any overages of commercial quota landed from Quarter II will be subtracted from Quarter IV.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: June 29, 2001.

**William T. Hogarth,**

*Acting Assistant Administrator for Fisheries, National Marine Fisheries Service.*

[FR Doc. 01-16980 Filed 7-5-01; 8:45 am]

**BILLING CODE 3510-22-S**