

EFFECTIVE DATE: June 8, 1992.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours, at the Jacksonville Field Office, U.S. Fish and Wildlife Service, 3100 University Boulevard South, suite 120, Jacksonville, Florida 32216.

FOR FURTHER INFORMATION CONTACT: David J. Wesley, Field Supervisor, at the above address (telephone: 904-791-2580 or FTS 946-2580).

SUPPLEMENTARY INFORMATION:

Background

These three plant species were described by A.W. Chapman (1860), a physician and distinguished botanist of Apalachicola, Florida.

Euphorbia telephioides is a member of the spurge family (Euphorbiaceae). Small (1933) split the huge genus *Euphorbia* into smaller genera, renaming this species *Galarhoeus telephioides*. Webster (1967) established a new subsection of the genus *Euphorbia*, *Inundatae*, that includes *Euphorbia telephioides* and two other species native to the Florida panhandle: *Euphorbia floridana* and *E. inundata*.

Euphorbia telephioides is a perennial herb with a stout storage root. Stems and numerous, giving the plant a bushy appearance, up to 30 centimeters (1 foot) tall. Stems and leaves are smooth and have latex (milky sap). The largest leaves are 3-6 centimeters (1-2 inches) long, elliptic or oblanceolate, with the midrib and margins usually maroon. The inflorescence is a cyathium (a structure resembling a flower, containing a single stalked female flower and several male flowers, each reduced to a single stamen). Flowering is from April through July (Kral 1983). Clewell (1985) and Kral (1983) provide guidance for distinguishing this species from the most similar species, *Euphorbia inundata*, a taller plant of moister habitats.

Euphorbia telephioides is known from only 22 sites (Florida Natural Areas Inventory (FNAI) 1989; D. White, FNAI, pers. comm., 1990), all within 4 miles of the Gulf of Mexico (FNAI 1989; D. White, *in litt.*, 1990). The plant occurs in Bay, Gulf, and Franklin Counties from Panama City Beach to east of Apalachicola.

The genus *Macbridea* belongs to the mint family (Lamiaceae or Labiatae). The genus consists of two species (Kral 1983, Godfrey and Wooten 1981). *Macbridea alba* was first collected about 1860 by A.W. Chapman and a friend named Gausman (Roger Sanders, Fairchild Tropical Garden, *in litt.*, 1977). *Macbridea alba* is an upright, usually

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AB52

Endangered and Threatened Wildlife and Plants; Threatened Status for Three Florida Plants

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines three plants from the Florida panhandle to be threatened species pursuant to the Endangered Species Act of 1973 (Act), as amended. They are: *Euphorbia telephioides* (Telephus spurge, spurge family), *Macbridea alba* (white birds-in-a-nest, mint family), and *Scutellaria floridana* (Florida skullcap, mint family). The plants occur in four counties in the Florida panhandle. All three species are threatened by habitat degradation due to lack of prescribed fire and by forestry practices. *Euphorbia telephioides* is also threatened by real estate development in its habitat. This final rule implements the protection and recovery provisions afforded by the Act for the three plants.

single-stemmed, odorless perennial herb with fleshy rhizomes. It is about 30–40 centimeters (1 foot) tall with opposite leaves up to 10 centimeters (4 inches) long, 1–2 centimeters (0.5–1 inches) broad, with winged petioles. With one exception, all the plants at a site are either smooth or hairy (L. Anderson, Florida State University, pers. comm., 1990; Anderson in FNAI 1989). The flowers are clustered at the top of the plant in a short spike with bracts. Each flower has a green calyx about 1 centimeter (0.5 inch) long and a brilliant white corolla 3 centimeters (1 inch) long. The corolla is two-lipped, the upper lip hoodlike. Flowering is from May into July (Kral 1983, Godfrey and Wooten 1981). In flower, *Macbridea alba* is conspicuous and unmistakable. The other species in the genus, *Macbridea caroliniana*, has rose-purple flowers (Kral 1983) and is a candidate for Federal listing (55 FR 6184).

The range of *Macbridea alba* is in Bay, Gulf, Franklin, and Liberty Counties, Florida. The Apalachicola National Forest has the most vigorous populations, with the largest numbers of individuals of this species. The Florida Natural Areas Inventory surveys show the Forest as having 41 of the 83 known sites for the plant, although this number may be misleading because the FNAI divided patches of *Macbridea alba* into occurrences recognizing the Forest Service's compartment/stand system of parcelling the land into small management units (D. Hardin, in litt., 1991). This resulted in a higher count of occurrences (sites) in the National Forest than would have been the case on private land. Revisits to *Macbridea* sites in the National Forest in 1990 yielded different stem counts than in 1987, much lower at some sites, higher at others (J. Walker, in litt., 1991).

Scutellaria floridana is a member of the mint family. Chapman's (1860) treatment of this plant was upheld by Epling (1942). It is a perennial herb with swollen storage roots. Its stems are quadrangular and sparingly branched, solitary or in small groups. The leaves are opposite, 2–4 centimeters (1–1.5 inches) long, linear, with the margins strongly inrolled and a blunt, purplish tip. The flowers are solitary in the axils of short leafy bracts. Flower stalks are 5 mm (0.2 inches) or less long. The flower has a bell shaped calyx with a cap or "scutellum" on its upper side. The corolla is bright lavender-blue, at least 2.5 centimeters (1 inch) long, with a throat and an upper and lower lip. The lower lip is white in the middle. Flowering is in May and June (Kral 1983). The Florida panhandle has eight

other species of *Scutellaria* (Clewell 1985).

Scutellaria floridana is presently known from 11 sites in Gulf, Franklin, and Liberty Counties, Florida, including 5 sites in Apalachicola National Forest (FNAI 1989; D. White, in litt., 1990). The plant is not nearly as widespread in Apalachicola National Forest as *Macbridea alba* (J. Walker, USDA Forest Service, Tallahassee, pers. comm., 1990).

These three plant species are restricted to the Gulf coastal lowlands near the mouth of the Apalachicola River, roughly from the southwestern part of Apalachicola National Forest west to the vicinity of Panama City. The three plant species inhabit grassy vegetation on poorly drained, infertile sandy soils. The wettest sites occupied by these plants are grassy seepage bogs on gentle slopes at the edges of forested or shrubby wetlands. Less permanently wet sites are savannahs (also spelled savanna; also called grass-sedge bogs or wet prairies) (Frost et al. 1986), which are nearly treeless and shrubless but have rich floras of grasses, sedges, and herbs. All three species occur in seepage bogs and savannahs. "*Scutellaria [floridana]* is most commonly found in seepage bog communities or savannahs near the edges of included wetlands such as bay stringers. Its habitat requirements are more restricted than those for *Macbridea*." (J. Walker, in litt., 1991). *Macbridea alba* occurs sparingly on drier sites with longleaf pine and runner oaks (mesic flatwoods) (J. Walker, USDA Forest Service, pers. comm., 1990). *Euphorbia telephioides* also occurs in scrubby oak vegetation near the shoreline of the Gulf of Mexico (FNAI 1989).

The grassy understory of flatwoods (largely wiregrass, *Aristida stricta*) and grassy savannahs and bogs are maintained by frequent fires. Lightning fires usually occur during the growing season, and the region's history of human fire-setting (and suppression) is long and complex. The frequency and season of fire are very important to the plant species that make up the vegetation, but fire effects can be subtle and research is needed if fire management is to be applied scientifically to conserving the native flora (Robbins and Myers in preparation, Clewell 1986). Fire during the growing season can stimulate and/or synchronize flowering in many species (Platt et al. 1988), including *Macbridea alba* (J. Walker, pers. comm., 1990), although it is not yet clear whether this plant thrives better with growing or dormant season fires.

"Observations suggest that *Scutellaria* is very dependent on fire; individuals etiolate and do not flower in sites unburned for even 3 years. *Scutellaria* responds positively and dramatically to growing season fire" (J. Walker, in litt., 1991).

The Apalachicola region has many endemic (locally distributed) plant species, most of them native to savannahs, including *Cuphea aspera*, *Justicia crassifolia*, *Verbesina chapmanii*, *Lythrum curtissii*, and *Pinguicula ionantha* (violet butterwort). The coastal distribution of the endemic *Liatris provincialis* parallels that of *Euphorbia telephioides* (Anderson 1989). Savannahs resembling those of the Apalachicola area occur in the Cape Fear region of North Carolina (Walker and Peet 1985) and in coastal Alabama and Mississippi (Norquist 1984).

Savannahs become more valuable when they are planted to pine trees or converted to pasture. Before pines are planted, sites are typically prepared by bedding and other mechanical methods, which is destructive to these plants (Kral 1983). After site preparation, and for the first few years after a new crop of pines is planted, surviving native herbs often prosper. For example, all six sites where *Scutellaria floridana* was found in 1988 were in recently cutover or replanted pine plantations. Understory grasses and herbs on such sites are usually adversely affected by shading as pines grow taller (Kral 1983). Savannah plants often persist on road rights-of-way (for example, the endangered *Harperocallis flava*), power line rights-of-way (*Euphorbia telephioides*), or other areas where infrequent mowing or bush-hogging substitutes for fire.

Section 12 of the Endangered Species Act of 1973 directed the Secretary of the Smithsonian Institution to prepare a report on plants considered to be endangered, threatened, or extinct. This report, designated as House Document No. 94–51, was presented to the Congress on January 9, 1975. On July 1, 1975, the Service published a notice in the Federal Register (40 FR 27823) of its acceptance of the report as a petition in the context of Section 4(c)(2) (now Section 4(b)(3)) of the Act, as amended, and of its intention to review the status of the plant taxa contained within. *Euphorbia telephioides* and *Scutellaria floridana* were included in these documents as threatened species; *Macbridea alba* was considered endangered. On June 16, 1976, the Service published a proposed rule (41 FR 24524) to determine endangered status for some 1,700 U.S. vascular plant species, including *Macbridea alba*, for

which that status had been recommended by the Smithsonian report. This proposal was withdrawn in 1979 (44 FR 12382).

On December 15, 1980, the Service published a notice of review for plants (45 FR 82480), which designated *Euphorbia telephioides*, *Macbridea alba*, and *Scutellaria floridana*, as category 1 candidates (taxa for which the Service currently has on file substantial data on biological vulnerability and threats to support proposing to list them as endangered or threatened species). A supplement to the notice of review published on November 28, 1983 (48 FR 53640) changed all three species to category 2 candidates (taxa for which data in the Service's possession indicate listing is possibly appropriate); the three species retained category 2 status in a notice of review published September 27, 1985 (50 FR 39526). The notice of review published on February 21, 1990 (55 FR 6184) made all three species category 1 candidates, based on field work conducted by Loran Anderson, Wilson Baker, and Angus Gholson in the Apalachicola National Forest in 1987 (D. White, *in litt.*, 1990) and outside the National Forest in 1988 (FNAI 1989). On December 18, 1990, the Service published a proposal to list the three plants as threatened species (55 FR 51936).

Section 4(b)(3)(B) of the Act, as amended in 1982, requires the Secretary to make findings on certain pending petitions within 12 months of their receipt. Section 2(b)(1) of the 1982 Amendments further requires that all petitions pending on October 13, 1982, be treated as having been newly submitted on that date. This was the case for these three species because the Service had accepted the 1975 Smithsonian report as a petition. In each October of 1983 through 1989, the Service found that the petitioned listing of these species was warranted but precluded by other listing actions of a higher priority, and that additional data on vulnerability and threats were still being gathered. Publication of the proposal to list these plants constituted the final petition finding.

Summary of Comments and Recommendations

In the December 18 proposed rule and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. Appropriate state agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. Newspaper

notices were published in the "New-Herald", Panama City; "The Gulf County Breeze", Wewahitchka; the "Apalachicola Times"; and the "Calhoun County Record", Blountstown, all on January 10, 1991. The proposed rule's comment period was extended until August 26, 1991 (56 FR 37200, August 5, 1991) on request of several commentors who desired a public meeting (which was ultimately not held), to allow inclusion of information from the 1991 growing season, and to incorporate into the record several comments that were submitted late.

The Service received 3 letters acknowledging receipt of copies of the proposal and 13 comments. The USDA Forest Service, the Northwest Florida Water Management District, the Center for Plant Conservation, and one biologist supported listing the species. Listing the species as endangered, rather than threatened, was urged by the Florida Natural Areas Inventory, three biologists familiar with these plants, and a conservation organization. The Service's response to this and other issues raised by commentors are discussed below:

Issue: The Forest Service commented that current management for *Macbridea alba* and *Scutellaria floridana* is to protect them and their habitat, but incorporated a statement that "both are found in areas suitable for timber management, and currently acceptable management practices, such as intense mechanical treatments and target stocking densities, probably threaten the viabilities of both." Two other commentors were concerned that Forest Service management practices include intensive site preparation followed by high pine stocking densities, methods that have caused declines in these species on private lands. Listing the two plants as endangered will obligate the Forest Service to conserve them.

Service Response: The Endangered Species Act makes the same demands on Federal agencies for threatened species as it does for endangered ones. The Forest Service has a good record of dealing with other listed plants in the National Forests in Florida (*Harperocallis flava* and *Bonamia grandiflora*) and can reasonably be expected to conserve the habitat of the two newly-listed plants.

Issue: One comment pointed out that the proposal overstated the number of sites for *Macbridea alba* in the Apalachicola National Forest because a plant inventory conducted by the Florida Natural Areas Inventory listed "occurrences" (the Inventory's technical term) by stand/compartiment (the

Forest's management units). This procedure resulted in tabulating more occurrences than would have been the case on private land.

Service Response: The Service concurs with this comment.

Issue: One comment asked for an accounting of extirpated sites, especially for *Macbridea alba*. How many of the localities where *Macbridea* was collected over the years are still extant? How many were searched for in recent surveys, and how many were so vague as to be unlocatable?

Service Response: The older records of *Macbridea alba* (mostly information from labels on herbarium specimens) generally lack information on population sizes. Judging whether populations in commercial pineland are still extant is difficult because *Macbridea alba*, in commercial pinelands, is usually in evidence at the time of site preparation and replanting, and difficult to find at other times. As a result, the existing data from private land do not, by themselves, document changes in abundance of this plant. However, competent filed botanists who have observed the area for many years consider *Macbridea* to be declining and *Macbridea alba* is clearly thriving better in the National Forest than on private land.

Issue: One comment pointed out that the purpose of the Endangered Species Act (Section 2(b)) is to conserve the ecosystems upon which endangered species and threatened species depend, and asked how many sites for *Macbridea alba* or *Euphorbia telephioides* are in native ecosystems, outside pine plantations or roadsides?

Service Response: The stated purpose of the Act to conserve ecosystems is not directly incorporated into the criteria for listing species as endangered or threatened (Section 4). A species that is secure in artificial or altered habitats does not qualify for listing. However, the security of plants in artificial habitats is often questionable because habitat management can change; e.g. herbicide use is a concern on road rights-of-way. Most of the known plants of *Macbridea alba* and *Scutellaria floridana* are in native vegetation, modified for timber production. For *Euphorbia telephioides*, 5 of 22 known sites (including the site with the most individuals) are on rights-of-way.

Issue: A forest products company noted that these plants occur on land recently disturbed by forestry site preparation and perhaps by treefalls from hurricanes, and that the plants tend not to be seen in less disturbed areas; this raises concerns over how to

protect such ambulatory plants and raises questions about whether the listing proposal was based excessively on assumptions about the life cycles of these plants.

Service Response: The scientific data on effects of forestry practices on these and other native herbs are sketchy. It is possible that the three plants maintain "seed banks" of viable seed in the soil that germinate when disturbance exposes bare mineral soil, or that individuals repressed by shade or competition flower if neighboring trees or understory plants are removed. However, seed banking is well known in *Rhexia* (meadow beauty), which is abundant in savannahs and road edges (R. Kral, pers. comm., 1991), and extensive seed banking by the three plants would probably have been noticed by field botanists. It appears more likely that *Macbridea alba* and *Scutellaria floridana* thrive best with relatively little ground disturbance and frequent fire, conditions that can be provided more readily for the plants on Forest Service than on private land.

Issue: The same forest products company was concerned that listing these species as threatened could force the cessation of silvicultural activities within their ranges, causing a major economic impact.

Service Response: The Act does not protect plants on private land from landowners' activities (except for activities that require Federal permits, such as use of herbicides). Listing under the Act is intended to encourage states and local governments to take actions to protect plant species; Florida has State land acquisition programs and has incorporated plant conservation measures in its comprehensive planning program and in its regulation of large real estate developments. Florida law does not protect plants from the effects of silviculture.

Issue: The Florida Natural Areas Inventory submitted a table comparing the FNAI's global rankings and numbers of occurrences for the three Apalachicola plant species with those for Federally listed species native to scrub vegetation in central Florida. The three species are all ranked as globally endangered (FNAI's most threatened category), and the numbers of element occurrences ("sites") for the three plants and the Central Florida endangered plants are similar. The three plants are also listed as endangered by the State of Florida. FNAI commented that habitat threats appear at least as severe in the Apalachicola area as in central Florida scrub, and that consistency in listing requires the three Apalachicola plants to be given endangered status.

Service Response: Although botanical survey information for the lower Apalachicola area (where the three proposed plants occur) is very good, surveys of the central Florida scrub flora are more complete, partly because of the limited total area of central Florida scrub, partly because the scrub plants are likely to flower every year without the stimulus of fire. In addition, the threat to central Florida scrub is simple—scrub is cleared to make way for agriculture or development. In the lower Apalachicola flatwoods, forestry practices generally do not immediately extirpate the grass and herb flora, so plant species may persist for a long time. For these reasons, the Service believes, pending further evidence of threat, that these plants best fit the Act's definition of "threatened" species.

Issue: One comment suggested that the final rule should use the technical term "occurrence" as used by the Florida Natural Areas Inventory rather than the vernacular "site".

Service Response: "Occurrence", used as a technical term, has a different meaning than found in dictionaries. "Site" is less likely to cause misunderstanding.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that all three species should be classified as threatened. Procedures found at section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act were followed. A species may be determined to be endangered or threatened due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Euphorbia telephioides* Chapman (Telephus spurge), *Macbridea alba* Chapman (white birds-in-a-nest), and *Scutellaria floridana* Chapman (Florida skullcap) are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

Destruction of habitat is most important for *Euphorbia telephioides* because its entire distribution is within four miles of the Gulf coast, where rapid development is expected. Planned road construction in the Panama City Beach area may destroy *Euphorbia telephioides* habitat (Fish and Wildlife Service, Panama City, Florida, *in litt.*, 1991). "Coastal development in the lower Apalachicola river and

Apalachicola Bay will dramatically increase over the next several years due to the approval of a golf resort community development plan and general upgrade of infrastructure including airports, sewage treatment facilities, and water facilities * * *" (D.J. Cairns, Bureau of Environmental Management & Resource Planning, Northwest Florida Water Management District, *in litt.*, 1991).

All three species occur adjacent to the town of Port St. Joe, so expansion of the town would affect them as well as the endangered Chapman rhododendron, *Rhododendron chapmanii*, which occurs in the same vicinity. Development of improved cattle pastures probably has destroyed habitat of these species (Kral 1983), but documentation of the extent of such habitat loss is not available.

All three species are affected by habitat modification by the forest products industry to plant and harvest slash pine (and by the Forest Service to plant longleaf pine). Site preparation that precedes tree planting may destroy these plants (Kral 1983, FNAI 1989), although populations of these species may recover in the sunny conditions that prevail for several years in young pine stands. Shading of these plants by neighboring grasses and by pine trees after canopy closure probably affects these plants seriously (Kral 1983, FNAI 1989), although long-term data are not available.

Landowner liability for fire discouraged prescribed burning of pinelands in Florida, and lack of prescribed fire may have adversely affected these three plants. The Florida legislature addressed this problem by passing a new law encouraging prescribed burning in 1990. Prescribed fire has generally been applied in the dormant season, but much of the pineland flora would thrive better under a regime of growing season burns (Robbins and Myers *in prep.*; Platt *et al.* 1988). It is not yet clear whether *Macbridea alba* prefers dormant or growing season fires (J. Walker, *in litt.*, 1991). *Scutellaria floridana* reacts positively to growing season fire and appears to require fire to remain vigorous. Additionally, *Scutellaria floridana* usually grows at wetlands interfaces at "stand edges where the impact of fire line plowing is disproportionately high. Fire line construction can destroy habitat directly, or indirectly by excluding future prescribed fires. Because * * * the potential for woody plant encroachment is high, growing season fire to control hardwoods is especially important." (J. Walker, USDA Forest

Service, *in litt.*, 1991). Because fire is essential to maintain both *Scutellaria floridana* and its habitat, it must be assumed that the lack of prescribed fire constitutes a threat to this species.

Power line rights-of-way provide habitat for these three species, especially *Euphorbia telephioides* in Franklin County (FNAI 1989). On such rights-of-way, use of herbicides to control the vegetation, rather than bush-hogging or mowing, could adversely affect *Euphorbia telephioides* and the other species.

The recorded occurrences of *Macbridea alba* (FNAI 1989; D. White, *in litt.*, 1990) provide evidence that this species has declined in most of its range. Although the plant occurs in 4 counties, 41 of its 63 reported localities are in the Post Office Bay area of Apalachicola National Forest, within 15 miles of each other (about 10 more sites have been located in the Apalachicola National Forest since then (J. Walter, *in litt.*, 1991)). Ten of the 13 sites with at least 100 *Macbridea alba* plants were in the National Forest, including the largest site with an estimated 1500 plants. The present distribution of existing *Macbridea* plants indicates that *Macbridea alba* has declined severely outside the National Forest, because it is unlikely that the National Forest originally had the most, or the largest populations of *Macbridea alba*. The National Forest is at the edge of this plant's range and areas southwest of the National Forest have richer floras of endemic plants. The present distribution and abundance of *Macbridea alba* is consistent with Godfrey's (1979) assertion that "modern forestry practices are destroying this species," and Kral's (1983) opinion that drainage, lack of fire, and mechanical site preparation for tree planting reduces or eliminates this and other species including *Verbesina chapmanii*, *Justicia crassifolia*, *Scutellaria floridana*, and *Cuphea aspera*. *Scutellaria floridana* is a rarer plant than *Macbridea alba*, so forestry activities would seem to affect it more seriously.

The Forest Service conducts some prescribed burns during the growing season to reduce the incidence of brown-spot infection of longleaf pine seedlings (Robbins and Myers in preparation). This practice may favor *Macbridea alba* and other herbs. Most private land is planted with slash pine, which is not burned in the seedling stage. Forest Service management practices are intended to benefit *Macbridea alba*, *Scutellaria floridana*, and other sensitive species including the endangered *Harperocalis flava*, but

management to date has been based on casual observation rather than scientific monitoring to observe whether practices actually benefit the plants (J. Walker and D. White, pers. comm., 1990).

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

None known. *Macbridea alba* has handsome flowers, but it is apparently not cultivated, nor is it known to be taken in the Apalachicola National Forest (where taking of spider lilies has recently been observed in the same habitat) (J. Walker, Forest Service, pers. comm., 1990).

C. Disease or Predation

Not applicable.

D. The Inadequacy of Existing Regulatory Mechanisms

All three species are listed as endangered species under the Preservation of Native Flora of Florida law (section 581.185-187, Florida Statutes), which regulates taking, transport, and sale of plants but does not provide habitat protection. The Endangered Species Act will provide additional protection through sections 7 and 9, and through recovery planning.

E. Other Natural or Manmade Factors Affecting its Continued Existence

The limited geographic distributions of these plants, and the uniformity of habitat alteration practices through most of the ranges of these plants exacerbate the risks posed to the three species by the preceding four factors, making it possible that unless conservation measures are taken, each species might become extinct in a significant portion of its range in the foreseeable future.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by these species in determining to make this rule final. Based on this evaluation, the preferred action is to list *Euphorbia telephioides*, *Macbridea alba*, and *Scutellaria floridana* as threatened. As discussed under Factor E., each of these species is likely to become extinct in a significant portion of its range within the foreseeable future, fitting the Act's definition of a threatened species. Endangered classification would not be appropriate because none of the species is in imminent danger of extinction, having at least short-term security due to the number of populations and their distribution over several counties. Additionally, two of the species receive some protection because they occur in the Apalachicola National Forest.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for these species. Most of the populations of these species are small and localized. Although none of the plants is presently known to be affected by take (as discussed for *Macbridea alba* under Factor B in the Summary of Factors Affecting the Species), listing these species as threatened could lead to collecting or deliberate destruction of populations; in the Orlando area, for example, there has been at least one instance of deliberate destruction of endangered plants by a landowner reacting to the prospect of plant conservation measures to be implemented as part of the Orange County comprehensive plan (Orlando Sentinel, May 19, 1991). Listing as threatened protects *Euphorbia telephioides*, *Macbridea alba* and *Scutellaria floridana* from removal and reduction to possession from lands under Federal jurisdiction; however, since the Act does not otherwise protect threatened plants on either Federal or private lands publication of critical habitat descriptions and maps would only add to the threats faced by these species. Furthermore, although the removal and possession of listed plants from Federal lands is prohibited, such provisions are difficult to enforce.

The Forest Service is aware of the locations of all populations of *Macbridea alba* and *Scutellaria floridana* on its lands, and other involved parties and principal landowners can be notified of the location and importance of protecting these species' habitat through several mechanisms, including Florida's system for protecting endangered and threatened species from pesticide application, and Florida's regional and local planning procedures. Protection of these species' habitat will be addressed through the recovery process and through the section 7 consultation process. For these reasons, it would not be prudent to determine critical habitat for *Euphorbia telephioides*, *Macbridea alba*, or *Scutellaria floridana*.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for

Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against certain activities involving listed plants are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

The populations of *Macbridea alba* and *Scutellaria floridana* in Apalachicola National Forest are already managed with the intention of benefitting these and other sensitive plant species. Listing will encourage further research and management efforts by the Forest Service. On private lands, listing of these species will probably result in measures to ensure that they are not adversely affected by pesticide (especially herbicide) use under a state program approved by the Environmental Protection Agency. Listing of these plants will also encourage their conservation through Florida's planning procedures, supervised by the Florida Department of Community Affairs.

The Act and its implementing regulations found at 50 CFR 17.71 and 17.72 for threatened plants, set forth a series of general prohibitions and exceptions for all threatened plants. All trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.71, apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, sell or offer for sale these species in interstate or foreign commerce, or to remove and reduce to possession these species from areas under Federal jurisdiction. Seeds from

cultivated specimens of threatened plant species are exempt from these prohibitions provided that a statement of "cultivated origin" appears on their containers. In addition, for endangered plants, the 1988 amendments (Pub. L. 100-478) to the Act prohibit the malicious damage or destruction on Federal lands and the removal, cutting, digging up, or damaging or destroying of endangered plants in knowing violation of any State law or regulation, including State criminal trespass law. Section 4(d) of the Act allows for the provision of such protection to threatened species through regulations. This protection may apply to threatened plants once revised regulations are promulgated. Certain exceptions apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened species under certain circumstances.

It is anticipated that few trade permits will be sought or issued because the three species are not cultivated. Requests for copies of the regulations on listed plants and inquiries regarding prohibitions and permits may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive, room 432, Arlington, Virginia 22203 (703/358-2104).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

References Cited

- Anderson, L.C. 1989. Noteworthy plants from North Florida. IV. SIDA 13:497-504.
- Chapman, A.W. 1860. Flora of the southern United States: containing abridged descriptions of the flowering plants and ferns of Tennessee, North and South Carolina, Georgia, Alabama, Mississippi, and Florida. New York. Pp. 322, 325, and 402.
- Clewell, A.F. 1985. Guide to the vascular plants of the Florida panhandle. Univ. Presses of Fla., Gainesville. 605 pp.
- Clewell, A.F. 1986. Natural setting and vegetation of the Florida panhandle. U.S. Army Corps of Engineers, Mobile District, Mobile, AL. 773 pp. [text dated 1981].
- Epling, C. 1942. The American species of *Scutellaria*. Univ. Calif. Publ. in Botany 20:1-146.

- Florida Natural Areas Inventory (FNAI). 1989. Final report on potentially endangered plants of the pine flatwoods and savannahs of Panhandle Florida. U.S. Fish and Wildlife Service, Jacksonville, FL. 6 pp + 293 data sheets + maps.
- Frost, C.J. Walker, and R.K. Peet. 1986. Fire-dependent savannahs and prairies of the southeastern coastal plain: original extent, preservation status, and management problems. Pp. 348-357 In: Kulhavy, D.L., and R.N. Conner (eds.). Wilderness and natural areas in the eastern United States. School of Forestry, Stephen F. Austin State Univ., Nacogdoches, TX.
- Godfrey, R.K. 1979. *Macbridea alba*. In Rare and endangered biota of Florida. Vol. 5: Plants, D.B. Ward, ed. Univ. Presses of Fla., Gainesville.
- Godfrey, R.K., and J.W. Wooten. 1981. Aquatic and wetland plants of southeastern United States. Dicotyledons. Univ. of Ga. Press. Athens. Pp. 610, 611.
- Kral, R. 1983. A report on some rare, threatened, or endangered forest-related vascular plants of the South. USDA Forest Service Tech. Publ. R8-TP 2. 2 vols., 1305 pp.
- Norquist, H.C. 1984. A comparative study of the soils and vegetation of savannahs in Mississippi. M.S. thesis, Mississippi State Univ.
- Platt, W.J., G.W. Evans, and M.M. Davis. 1988. Effects of fire season on flowering of forbs and shrubs in longleaf pine forests. *Oecologia* 76:353-363.
- Robbins, L.E., and Myers, R.L. in prep. Seasonal effects of prescribed burning in Florida: a review. Prepared for Fla. Game and Fresh Water Fish Comm., Nongame Wildlife Program, Tallahassee.
- Small, J.F. 1933. Manual of the Southeastern flora, p. 801. Chapel Hill, NC.
- Walker, J., and R.K. Peet. 1985. Composition and species diversity in pine-wiregrass savannahs of the Green Swamp, North Carolina. *Vegetatio* (sic) 55:163-179.
- Webster, G.L. 1967. The genera of the Euphorbiaceae in the southeastern United States. *J. Arnold Arboretum* 48:303-430.

Author

The primary author of this final rule is Mr. David Martin (see ADDRESSES section).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

PART 17—[AMENDED]

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

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

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.

2. Amend § 17.12(h) by adding the following, in alphabetical order, to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

* * * * *
(h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Euphorbiaceae—Spurge family:						
<i>Euphorbia telephioides</i>	Telephus spurge	U.S.A. (FL)	T	463	NA	NA
Lamiaceae—Mint family:						
<i>Macbridea alba</i>	White birds-in-a-nest	U.S.A. (FL)	T	463	NA	NA
<i>Scutellaria floridana</i>	Florida skullcap	U.S.A. (FL)	T	463	NA	NA

Editorial Note: This document was received at the Office of the Federal Register on May 5, 1992.

Dated: January 22, 1992.

Richard N. Smith,
Acting Director, Fish and Wildlife Service.
[FR Doc. 92-10711 Filed 5-7-92; 8:45 am]
BILLING CODE 4310-55-M