propagation or survival of the species and/or for incidental take in connection with otherwise lawful activities.

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

Ahlstedt, S.A. 1986. Cumberland Mollusk Conservation Program. Activity 1: Mussel Distribution Surveys. Tennessee Valley Authority, Norris, Tennessee. January 1986. 125 pp.

Ahlstedt, S.A., and J.J. Jenkinson. 1987. A Mussel Die-off in the Powell River, Virginia and Tennessee, in 1983. *In:* Proceedings of the Workshop on Die-offs of Freshwater Mussels in the United States. June 23–25, 1986. Davenport, Iowa. Richard Neves, Editor. Pp. 21–28.

Bates, J.M., and S.D. Dennis. 1985. Mussel Resource Survey—State of Tennessee. Tennessee Wildlife Resources Agency Technical Report No. 85–3. P. 125.

Bogan, A.E., and P.W. Parmalee. 1983. Tennessee's Rare Wildlife, Volume II: The Mollusks. 123 pp.

Isom, Billy G. 1974. Mussels of the Green River, Kentucky. Trans. Kentucky Acad. Sci., 35(1–2):55–57.

Kentucky Nature Preserves Commission. 1980. Kentucky Natural Area Plan—Appendix A. (*Hemistena* (=*Lastena*) *lata*) (Rafinesque).

Ortmann, Arnold E. 1926. The Naiades of the Green River Drainage in Kentucky. Annals Carnegie Mus., 17:167–188.

Rafinesque, Constantine S. 1820. Monographie des Coquilles Bivalves Fluviatiles de la Riviere Ohio, Contenant Douze Genres et Soixantehuit Especies. Ann. Gen. des Sci. Physiq. Brux., 5:287–322.

Soulé, M.E. 1980. Threshold for Survival: Maintaining Fitness and Evolutionary Potential. Pages 151–169 *In:* M.E. Soulé and B.A. Wilcox (eds.), Conservation Biology. Sinauer Assoc., Inc., Sunderland, Massachusetts.

Stansbery, David H. 1970. Eastern Freshwater Mollusks (I) The Mississippi and St. Lawrence River Systems. Malacologia, 10(1):9–22.

Author

The primary author of this proposed rule is Richard G. Biggins, U.S. Fish and Wildlife Service, Asheville Field Office, 100 Otis Street, Room 224, Asheville, North Carolina 28801 (704/259–0321 or FTS 672–0321).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—[AMENDED]

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

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1543; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. Amend § 17.11(h) by adding the following, in alphabetical order under CLAMS, to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
CLAMS							
*	*	*	*	*		*	
Pearly mussel, cracking	*Hemistena* (=*Lastena*) *lata*	U.S.A. (AL, IL, IN, KY, OH, TN, and VA)	NA	E	365	NA	NA
*	*	*	*	*		*	

Dated: September 13, 1989.

Richard N. Smith,

Acting Director, Fish and Wildlife Service.

[FR Doc. 89–22847 Filed 9–27–89; 8:45 am]

BILLING CODE 4310-55-M

---

50 CFR Part 17

RIN 1018-AB 23

Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for Rhus Michauxii (Michaux's Sumac)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines *Rhus michauxii* (Michaux's sumac), a dioecious shrub limited to 16 populations in North Carolina and Georgia, to be an endangered species under the authority of the Endangered Species Act of 1973, as amended (Act). *Rhus michauxii* is endangered by suppression of fire, conversion of habitat for silviculture and agriculture, industrial and residential development, highway construction and improvements, hybridization with other species, and geographic isolation of small, single-sex populations. This action implements Federal protection provided by the Act for *Rhus michauxii*.

EFFECTIVE DATE: October 30, 1989.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina 28801.

FOR FURTHER INFORMATION CONTACT: Ms. Nora Murdock, at the above address (704/259–0321 or FTS 672–0321).

SUPPLEMENTARY INFORMATION:

Background

Rhus michauxii, described by C. S. Sargent (1895) from material collected in North Carolina, is a rhizomatous shrub. It is sometimes called "false poison sumac" because of its superficial resemblance of *Rhus vernix*. The erect stems grow from 0.2 to 0.4 meter in height, and the entire plant is densely pubescent. The narrowly winged or wingless rachis supports 9 to 13 sessile, oblong to oblong-lanceolate leaflets that are each 4 to 9 centimetes long, 2 to 5 centimeters wide, and acute to acuminate. The bases of the leaflets are rounded, and their edges are simply or doubly serrate. Flowering in this dioecious species occurs in June. The small flowers are borne in a terminal, erect, dense cluster, with each one being four- to five-parted and greenish-yellow to white. The fruit, which is a red,

densely short-pubescent drupe, 5 to 6 millimeters broad, is borne on female plants from August to September (Radford *et al.* 1964, Cooper *et al.* 1977, Sargent 1895). *Rhus michauxii* differs from other similar species of the genus by its short stature, dense overall pubescence, and evenly serrate leaflets.

Rhus michauxii is a species endemic to the inner coastal plain and lower piedmont of North Carolina, South Carolina, and Georgia, where it is currently known from 15 locations in North Carolina and 1 location in Georgia. The species occurs in sandy or rocky open woods, perhaps in association with basic soils (Cooper *et al.* 1977), and appears to be dependent upon some form of disturbance to maintain the open quality of its habitat. Artificial disturbances, such as railroad and highway right-of-way maintenance, are maintaining some of the openings historically provided by naturally occurring periodic fires. Thirty-two populations of *Rhus michauxii* have been reported historically from 23 counties in North Carolina, South Carolina, and Georgia. Sixteen of these populations remain in existence in North Carolina and Georgia. The following is a summary of the most current information for this species.

Georgia: Five populations were reported historically in the State from the counties of Cobb, Newton, Rabun, Columbia, and Elbert. Only the Elbert County population is known to remain, with just four plants surviving. The site is on land owned by the U.S. Army Corps of Engineers, leased to the Georgia Department of Natural Resources as part of the Board River Wildlife Management Area (T. Patrick, Georgia Heritage Inventory, personal communication, 1988). The Newton County population is believed to have been destroyed during the construction of a water tower. Causes for the disappearance of the populations in Rabun, Cobb, and Columbia Counties are not known.

South Carolina: Two populations were reported historically from Florence and Kershaw Counties. Although extensive searches have been conducted in these areas and other areas of potentially suitable habitat, the species is believed to have been extripated from the State.

North Carolina: Rhus michauxii was once known to occur at 25 sites in this State. The species has been extirpated at 10 of these localities, with the causes for extirpation being largely unknown. One population is believed to have been extirpated in each of the following counties. Orange, Wake, Wilson, Robeson, Moore, Lincoln, Franklin, Durham, Mechlenberg, and Hoke. The distribution of the 15 extant populations by county is as follows. Three populations remain in Hoke County. One of these sites, with several hundred female plants, is privately owned; another, with 23 plants, is located on Ft. Bragg Military Reservation and is owned by the U.S. Department of Defense; and the third, a severely disturbed site where only four plants remain, is partially in private ownership and partially owned by the Nature Conservancy.

Six populations occur in Richmond County. One of these (consisting of 2 plants) is privately owned, and 4 (3 with less than 50 plants each and one with 137 plants) are located on land administered by the North Carolina Wildlife Resources Commission as part of the Sandhills Gamelands. The sixth population, with only eight plants, is on Ft. Bragg Military Reservation, owed by the U.S. Department of Defense.

Two populations occur in Scotland County on the Sandhills Gamelands, which are administered by the North Carolina Wildlife Resources Commission. Both of these populations are large, with 1 covering an area of 76 meters by 137 meters, but containing only female plants. The other consists of 300 to 400 male plants.

One population survives in each of the following counties: Franklin, Davie, Robeson, and Wake. The Franklin County population is privately owned and contains over 250 plants of both sexes. The Davie County population, also in private ownership, consists of about 30 plants covering a 0.9-meter square area. The Robeson County population, in private ownership, consists of several hundred male plants. The Wake County population, owned by the City of Raleigh, consists of 279 plants of both sexes.

Many of these populations are in vulnerable locations, such as highway rights-of-way or on the edges of plowed fields. Those that are not adjacent to some maintained opening or that are not exposed to periodic disturbance are endagnered by natural succession.

On December 15, 1980, the Service published a revised notice of review for native plants, in the **Federal Register** (45 FR 82480); *Rhus michauxii* was included in that notice as a category 1 species. Category 1 species are those for which the Service presently has sufficient information on hand to support the biological appropriateness of their being listed as endangered or threatened species. Subsequent revisions of the 1980 notice have maintained *Rhus michauxii* in cagegory 1.

On January 6, 1989, the Service published in the **Federal Register** (54 FR 441) a proposal to list *Rhus michauxii* as an endangered species.

Summary of Comments and Recommendations

In the January 6, 1989, 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 inviting public comment were published in the "Athens News" (Athens, Georgia) on January 28, 1989, in the "Fayetteville Times" (Fayetteville, North Carolina) on January 28, 1989, and in the "Raleigh News and Observer" (Raleigh, North Carolina) on January 29, 1989.

Eleven comments were received. Of these, seven respondents expressed support for the proposal, including the Natural Heritage Program of the North Carolina Department of Natural Resources and Community Development, the Plant Conservation Program of the North Carolina Department of Agriculture, the Georgia and South Carolina State offices of The Nature Conservancy, the Corps of Engineers (Wilmington District), the Georgia Department of Natural Resources, and the World Conservation Monitoring Centre. The remaining four comments offered additional information but stated no position on the proposal. All of the new information supplied by these 11 comments has been incorporated into appropriate sections of the final rule.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Rhus michauxii* should be classified as an endangered species. 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 *Rhus michauxii* Sargent (Michaux's sumac) are as follows:

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

Rhus michauxii has been and continues to be endangered by destruction or adverse alteration of its habitat. Since discovery of the species, 50 percent of the known populations have been extirpated, partly as a result of conversion of habitat for silvicultural and agricultural purposes and for industrial and residential development. Fire suppression appears to be a problem for this species and will be discussed in detail under Factor E below. Of the 16 populations that have been extirpated, 1 is known to have been eliminated by industrial development and 1 by conversion of the site to pine plantation. Causes for extirpation of the others are unknown. Many of the remaining populations are on the edges of highway or railroad rights-of-way or cultivated fields. Fourteen of the 16 remaining populations are currently threatened by habitat alteration.

In addition to the major threats listed above, those populations on military land are potentially threatened by mechanized military training activities. Although this has not been a documented problem for this species thus far, some of the small sites occupied by the species could easily be destroyed by heavy, tracked vehicles such as tanks. Nontheless, populations probably persist on military lands and State gamelands where they have not survived on adjacent privately owned land because of the prescribed burning programs of the Defense Department and the North Carolina Wildlife Resources Commission, and periodic fires incidental to military training (J. Carter, North Carolina State University, personal communication, 1987; J. Moore, North Carolina Natural Heritage Program, personal communication, 1987). Activities associated with intensive timber management on publicly owned land, such as timber harvesting, road building, and conversion of habitat to pine plantation, if done in a manner not consistent with the protection of *Rhus michauxii* populations, could adversely affect the species, as has been the case on private lands in the past.

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

Rhus michauxii is not currently a significant component of the commercial trade in native plants. However, because of its small and easily accessible populations, it is vulnerable to taking and vandalism that could result from increased publicity.

C. Disease or Predation.

Not applicable to this species at this time.

D. The Inadequacy of Existing Regulatory Mechanisms

Rhus michauxii is afforded legal protection in North Carolina by North Carolina General Statutes, § 106–202.12 to 106–202.19 (Cum. Supp. 1985), which provide for protection from intrastate trade (without a permit) and for monitoring and management of State-listed species, and which prohibit taking of plants without written permission of landowners. *Rhus michauxii* is listed in North Carolina as endangered and of special concern (Sutter *et al.* 1983). The species is recognized in South Carolina as extirpated in the State and of national concern by the South Carolina Advisory Committee on Rare, threatened, and Endangered Plants in South Carolina; however, this State offers no official protection. The species is not listed by the State of Georgia where it was thought to have been extirpated until very recently. State prohibitions against taking are difficult to enforce and do not cover adverse alterations of habitats, such as exclusion of fire. The Endangered Species Act would provide additional protection and encouragement of active management for *Rhus michauxii.*

E. Other Natural or Manmade Factors Affecting Its Continued Existence

As mentioned in the "Background" section of this rule, many of the remaining populations are small in numbers of individual stems and in area covered by the plants. Of the 16 remaining populations, 9 have less than 100 plants, with 3 of these containing less than a dozen plants each. The rhizomatous nature of the species indicates that there are many fewer individual plants in existence than stem counts would indicate. In addition, only two of the remaining populations contain both male and female plants. The dioecious nature of the species further increases the vulnerability of extremely small populations where plants of only one sex remain. Existing conditions at most of the occupied sites are indicative of low genetic variability within populations, which makes it more important to maintain as much habitat and as many of the remaining colonies, particularly those containing both sexes, as possible. The North Carolina Natural Heritage Program's response to the proposed rule stated that, because of the clonal nature of this species and the scarcity of populations containing both male and female plants, the remaining "populations" may actually consist of only about two dozen genetic individuals; "considering the profound threats to its habitat and that the total remaining population of Michaux's sumac is almost certainly below fifty, a stronger case for Federal listing can hardly be made." The North Carolina Plant Conservation Program's response echoed this assessment of the species' status and stated further that *Rhus michauxii* is one of the "* * * most endangered species in North Carolina * * *" and "* * * is severely threatened by suppression of fire, development, and geographic isolation of single sex populations."

Another potential threat to this species, particularly in populations where only a few plants remain, is hybridization with sympatric species such as *Rhus glabra* and *Rhus copallina.* Hardin and Phillips (1985) documented the existence of an intermediate form between *Rhus glabra* and *Rhus michauxii* in at least two sites from which *Rhus michauxii* had been reported. Much remains unknown about the demographics and reproductive requirements of this species. Fire or some other suitable form of distrubance, such as mowing or careful clearing, appears to be essential for maintaining the open habitat preferred by *Rhus michauxii.* Without such periodic disturbance, this type of habitat is gradually overtaken and eliminated by the shrubs and trees of the adjacent woodlands. As the woody species increase in height and density, they overtop the *Rhus michauxii,* which is shade-intolerant. The current distribution of the species is ample evidence of its dependence on disturbance. Of the 16 remaining populations, 11 are on roadsides or in the edges of artifically maintained clearings. Two others are in areas that have been exposed to periodic fire, another is in a natural opening on the rim of a Carolina bay (shallow, elliptical depression of unknown origin); the remaining two are in wooded sites and are declining in vigor (J. Moore, personal communication, 1988; T. Patrick, personal communication, 1988).

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to make this rule final. Based on this evaluation, the preferred action is to list *Rhus michauxii* as endangered. With half of the species' populations already having been eliminated and only 16 remaining

in existence (with most of these being very small in size and containing plants of only one sex), and based upon its dependence on some form of active management, it warrants protection under the Act. Endangered status seems appropriate because of the imminent serious threats facing most populations. As stated by Hardin and Phillips (1985), "*Rhus michauxii* is apparently on the verge of extinction * * *." Critical habitat is not being designated for the reasons discussed below.

Critical Habitat

Section 4(a)(3) of the Act requires, to the maximum extent prudent and determinable, that the Secretary designate critical habitat at the time a species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for *Rhus michauxii* at this time. As discussed under Factor B in the "Summary of Factors Affecting the Species" section, *Rhus michauxii* is vulnerable to taking, an activity difficult to enforce against and only regulated by the Act with respect to plants in cases of (1) removal and reduction to possession, of listed plants from lands under Federal jurisdiction, or their malicious damage or destruction on such lands; and (2) removal, cutting, digging up, or damaging or destroying in knowing violation of any State law or regulation, including State criminal trespass law. Such provisions are difficult to enforce, and publication of critical habitual descriptions and maps would make *Rhus michauxii* more vulnerable and would increase enforcement problems. All involved parties and principal landowners have been notified of the locations and importance of protecting this species. Protection of this species' habitat will be addressed through the recovery process and through the Section 7 jeopardy standard. Therefore, it would not be prudent to determine critical habitat for *Rhus michauxii*.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery 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. Such actions are initiated by the Service following listing. 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 any critical habitat. 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 U.S. Department of Defense has jurisdiction over portions of this species' habitat. Federal activities on these and other Federal and private lands that could impact *Rhus michauxii* and its habitat in the future include, but are not limited to, the following: silvicultural activities, including timber harvesting and conversion of sites to pine plantations by means of mechanical site preparation; mechanized military training operations; recreational development; power line construction and certain types of maintenance/improvements; highway construction and certain types of maintenance/improvements; and permits for mineral exploration and mining. The Service will work with the involved agencies to secure protection and proper management of *Rhus michauxii* while accommodating agency activities to the extent possible.

The Act and its implementing regulations found at 50 CFR 17.61, 17.62, and 17.63 set forth a series of general trade prohibitions and exceptions that apply to all endangered plants. With respect to *Rhus michauxii*, all trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61, apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export the species, transport it in interstate or foreign commerce in the course of commercial activity, sell or offer it for sale in interstate or foreign commerce, or remove and reduce the species to possession from areas under Federal jurisdiction. In addition, the 1988 amendments (Pub. L. 100-478) to the Act prohibit the malicious damage or destruction of listed plants on Federal lands, and the removal, cutting, digging up, or damaging or destroying of these plants in knowing violation of any State law or regulation, including State criminal tresspass law. Certain exceptions apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.62 and 17.63 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered species under certain circumstances. It is anticipated that few trade permits would ever be sought or issued, since *Rhus michauxii* is not common in cultivation or in the wild. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, P.O. Box 3507, 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

Cooper, J., S. Robinson, and J. Funderburg. 1977. Endangered and threatened plants and animals of North Carolina: proceedings of the symposium on endangered and threatened biota of North Carolina. North Carolina State Museum of Natural History, Raleigh, North Carolina. 61 pp.

Hardin, J., and L. Phillips. 1985. Hybridization in eastern North American Rhus (Anacardiaceae). Association of Southeastern Biologists Bulletin 32(3):99-106.

Radford, A., H. Ahles, and C. Bell. 1964. Manual of the vascular flora of the Carolinas. University of North Carolina Press, Chapel Hill. 678 pp.

Sargent, C.S. 1895. New or little-known plants: *Rhus michauxii*. Garden and Forest 398:404-405.

Sutter, R., L. Mansberg, and J. Moore. 1983. Endangered, threatened, and rare plant species of North Carolina: a revised list. Association of Southeastern Biologists Bulletin 30:153-163.

Author

The primary author of this proposed rule is Ms. Nora Murdock, Asheville Field Office, U.S. Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina 28801 (704/259-0321 or FTS 672-0321).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—[AMENDED]

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

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1543; 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					
Scientific name	Common name	Historic range	Status	When listed	Critical habitat	Special rules
* * * * * * *						
Anacardiaceae—Cashew family:						
Rhus michauxii	Michaux's sumac	U.S.A. (NC, SC, GA)	E	366	NA	NA
* * * * * * *						

Dated: September 13, 1989.

Richard N. Smith,

Acting Director, Fish and Wildlife Service.

[FR Doc. 89–22848 Filed 9–27–89; 8:45 am]

BILLING CODE 4310–55–M

50 CFR Part 17

RIN 1018–AB23.

Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for Eastern and Western Prairie Fringed Orchids

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service determines *Platanthera leucophaea* (Eastern prairie fringed orchid), and *Platanthera praeclara* (Western prairie fringed orchid) to be threatened species under authority of the Endangered Species Act (Act) of 1973, as amended. Both species have been extirpated throughout much of their former ranges by conversion of habitat for crop fields, grazing, intensive and continuous hay mowing, drainage, fire protection activities, and subsequent decline of prairie habitat. *P. leucophaea* remains extant in approximately 52 populations in seven States and two Canadian Provinces; however, many of these are small, unprotected, and unmanaged populations. *P. praeclara* remains extant in about 37 populations in seven States and one Canadian Province; many of these are small hay meadow populations, where plants are annually cropped before seeds are dispersed. This section will implement Federal protection provided by the Act for *Platanthera leucophaea* and *P. praeclara*.

DATE: Effective date of this rule is October 30, 1989.

ADDRESS: The complete file for this rule is available for inspection by appointment during normal business hours at the Service's Regional Office of Endangered Species, Federal Building, Fort Snelling, Twin Cities, Minnesota 55111.

FOR FURTHER INFORMATION CONTACT: James M. Engel, Endangered Species Coordinator at the above address (612/725–3276 or FTS 725–3276).

SUPPLEMENTARY INFORMATION:

Background

The prairie fringed orchids, *Platanthera leucophaea* and *P. praeclara* are closely related members of the orchid family and are referred to as a species pair (Sheviak and Bowles 1986). Prior to description of *P. praeclara* the two species were considered as *P. leucophaea*, with a total range including 21 states and two provinces (Correll 1950, Luer 1975). Their joint distribution pattern extends from Oklahoma north to Manitoba, and east in a narrowing peninsula through the Great Lakes states to Maine. Populations also range westward through Nebraska in groundwater maintained habitats. *P. leucophaea* occurs primarily east of the Mississippi River, while *P. praeclara* is restricted to west of the Mississippi (Sheviak and Bowles 1986). Both species require full sunlight and usually inhabit tall grass calcareous silt loam or sub irrigated sand prairies. In the east, *P. leucophaea* also occupies calcareous wetlands, including open portions of fens, sedge meadows, marshes, and bogs (Bowles 1983).

The prairie fringed orchids are perennial herbs which regenerate from a fusiform tuber rootstock. Their tubers are dormant during winter and thus are adapted to dormant season prairie fires; such fires and high precipitation levels appear to promote flowering (Sheviak 1974, Roosa and Eilers 1979, Bowles 1983, Currier 1984). Leaves and an inflorescence (if flower primordia were set the prior year) usually emerge in May, and flowering begins by late June to early July. These species are characterized by large white flowers (the largest in the genus) arranged in an inflorescence that may reach 12 decimeters (47 inches) high with up to 40 flowers. The flowers are fragrant after sunset and adapted to pollination by night flying hawkmoths which ingest a high volume nectar resource from long nectar spurs (Bowles 1983). Pollination is required for seed production, while seedling establishment depends upon development of mycorrhizae with a favorable soil inhabiting fungus (reviewed in Bowles 1983). Differences in flower structures and pollination mechanics serve to isolate the species from hybridization; these features can be used to identify living or preserved specimens (Sheviak and Bowles 1986). The western species has larger flowers adapted to placing pollinia (pollen masses) on the compound eyes of visiting pollinators In contrast, the eastern species places pollinia on the proboscis of visiting moths.

Platanthera leucophaea has declined over 70 per cent from original county records and now has about 52 extant populations in seven states. Primarily due to the destruction of large grasslands east of the Mississippi River, extremely large or extensive populations of this orchid do not exist in the United States. In Canada, 12 populations are known from fens and prairies in 12 Ontario counties; one fen population is estimated at 2000 plants (Brownell 1984).

The plant is also known from New Brunswick, where it is considered rare (Hinds 1983). However, most of these populations are not representative of the once vast prairie habitat that supported most populations of this orchid.

Platanthera leucophaea is presumed extirpated from Oklahoma, where the type specimen was collected by Nuttall in 1819 near the confluence of the Kiamichi and Red Rivers; it may have occurred in similar floodplain habitat in adjacent Arkansas (Sheviak and Bowles 1986). This orchid reached its western range limit in Nebraska, where one historic record is known (W.J. Bailey, Jr., Nebraska Game and Parks Commission, *in litt.* 1988). It has not been relocated in Missouri (Morgan 1980), but one small population with three plants remains in Iowa. In the eastern United States, this orchid has not been relocated in New York, Pennsylvania, New Jersey, and Indiana; isolated disjunct populations still occur in Maine and Virginia (Bowles 1983). The Maine population occurs on private land, which is on the State's register of critical areas, in portions of an extensive fen that is undergoing some invasion by woody vegetation. Flowering plants appear erratically at this site. The current population appears to be about 20 adult individuals (Barbara Vickery, The Nature Conservancy, *in litt.* 1988). The small Virginia population occurs in a sedge meadow subject to light grazing. However, this population has not been observed since 1983 when three flowering stems were counted (S.M. Carbaugh, Virginia Department of Agriculture, *in litt.* 1988).

The eastern prairie fringed orchid is known historically from 23 Michigan counties; 18 populations (about half are protected) now are extant from nine counties, where 1322 flowering stems were counted in 1984 (Chapman and Crispin 1985). Southern Michigan populations are small and occur in isolated bog habitats; while several larger populations of over 100 plants occur in lakeside prairies bordering Saginaw Bay. Three large Michigan populations, totalling about 900 plants, occur on degraded upland prairies bordering Lake Erie. These sites are State owned, but extensive management is needed to maintain the orchids as their communities go through successional changes. A population near Bay City disappeared after severe flooding in 1986, and has not been observed since (G.T. Higgs, James Clements Airport Advisory Committee, *in litt.* 1988). The Saginaw Bay region continues to harbor the most viable populations in the state (Chapman and Crispin 1985). Frederick W. Case, Jr. (1987) states that *P. leucophaea* is possibly the region's most endangered orchid because of the destruction of its moist prairie habitat.

Platanthera leucophaea originally occurred in 11 Ohio counties and is now presumed extirpated from at least six. McCance (Ohio Department of Conservation, *in litt.* 1987) reported only two extant populations in 1987. The larger, containing about 60 flowering plants in 1987, was down from 367 plants in 1982. The other population contained 46 flowering plants in 1984, but only six plants were found in 1987. Smith (The Nature Conservancy, *in litt.* 1988) reports this population has further declined to two plants. Two other populations are known from sites frequently inundated by Lake Erie. One of these was located in 1987 when 24 plants were counted. Smith (1981) also observed this population in 1988 and counted 14 plants. The other site has not been relocated (C.R. Moseley, Jr. Ohio Department of Natural Resources, *in litt.* 1988). In Wisconsin, this orchid originally was known from 22 sites in 17 counties in the south and southeast portions of the state (Alverson 1981). Fourteen of these are known to be extirpated (J. Dobberpuhl, Wisconsin Department of Natural Resources, *in litt.* 1988). Nine small populations now occur in eight counties. One large population of several hundred plants occurs in a protected Lake Michigan border sand prairie in Kenosha County.

Illinois probably contained the largest and most extensive pre-settlement populations of the eastern prairie fringed orchid and also sustained the most drastic population decline of any state. Originally it was known from tall grass prairies in 33 counties across the northern two thirds of the State, an area now almost totally converted to agriculture (Bowles and Kurz 1981). Eighteen populations remain in eight counties concentrated in the Chicago region; two additional populations occur in cemetery prairies in eastern and western Illinois counties. Only two populations consist of over 100 plants; both are in a Lake Michigan border county. Most populations are offered some form of protection, and only eight occur on private unprotected land.

Platanthera praeclara has experienced over a 60 percent decline according to county records, with about 37 populations remaining in seven states (Bowles and Duxbury 1986). Apparently, it has been extirpated from South Dakota where it was originally known from two counties. Populations in the southern part of this orchid's range seldom are observed. The two Oklahoma populations occur in privately owned hay meadows and were only observed during their original discovery (Magrath and Taylor 1978). This orchid was widespread in eastern Kansas, where it was originally known from 14 counties. Now, populations are reduced to eight counties where it is believed to occur in seven privately owned hay meadows and one University of Kansas research area (R.E. Brooks, U. of Kansas, *in litt.* 1987). Two small populations currently are known to occur in northwest Missouri. One population of five plants occurs on a private tract, while a second, of about 25 plants, is in a hay meadow recently acquired by the state.

Populations in the northern and central portions of the western prairie fringed orchid's range are larger and more extensive, but still reduced in size and range. This orchid probably was most widespread in the deep loess soils of Iowa, where a total of about 600 plants currently exist. Now, 13 populations are known extant from 11 Iowa counties (D. Howell, Iowa Department of Natural Resources, pers. comm. 1987). Most populations are small, with the largest consisting of about 275 plants. Six of the Iowa populations are in public or private conservation ownership and are managed by burning or mowing.

Platanthera praeclara originally was widespread in eastern Nebraska (Bowles and Duxbury 1986). A questionable historic record from 1842 attributed to Wyoming is now considered to be from Western Nebraska (H. Marriott, The Nature Conservancy, *in litt.* 1987). Five populations are known from four counties. Two populations are small (less than 20 plants each) and disjunct in western Nebraska; one occurs on a railroad right-of-way, while the other is on Federal land (Valentine National Wildlife Refuge) administered by the U.S. Fish and Wildlife Service. The federally owned tract is undergoing brush invasion. Three other sites in eastern Nebraska are on private or public land managed for conservation. Four of the five sites in Nebraska receive some type of protection and management. The largest population consists of about 150 plants. Five other *Platanthera praeclara* sites in Nebraska are assumed extirpated as their status is unknown.

One large scattered population occurs in North Dakota with approximately 2000 plants (Bowles and Duxbury 1986). The North Dakota population represents the type locality for *Platanthera*

praeclara (Sheviak and Bowles 1986) and occurs primarily on Federally owned sand prairie managed by the U.S. Forest Service. The Forest Service has initiated a monitoring program for *P. praeclara* in order to establish some baseline data. Guidelines to protect the plant during haying operations and herbicide applications to control leafy spurge are in place. Research is needed to determine what effects current management has on the orchids, and if increases in grazing intensity would negatively affect their populations. Six populations occur in four Minnesota counties (Smith 1981). The largest is in protected ownership and is found at five sites with about 500 plants. This orchid recently was discovered in similar prairie habitat in Manitoba (Brownell 1984).

Federal Government action on these plants began as a result of Section 12 of the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*), which directed the Secretary of the Smithsonian Institution to prepare a report on plants considered to be endangered, threatened, or extinct. This report (Ayensu and DeFilipps 1978), designated as House Document No. 94–51, was presented to Congress on January 9, 1975. *Platanthera leucophaea*, which at that time was placed in the genus *Habenaria* and included in part the then undescribed *P. praeclara*, was listed as "threatened" in that document. On July 1, 1975, the Service published a notice in the **Federal Register** (40 FR 27823) of its acceptance of the Smithsonian report as a petition within the context of section 4(c)(2) of the Act (now section 4(b)(3)) and of its intention to review the status of plant taxa named within. On June 16, 1976, the Service published a proposed rule in the **Federal Register** (41 FR 24523) to determine approximately 1,700 vascular plant species to be endangered species pursuant to section 4 of the Act. The list of 1,700 plant taxa was assembled on the basis of comments and data received by the Smithsonian Institution and the Service in response to House Document No. 94–51 and the July 1, 1975, **Federal Register** publication. *Platanthera leucophaea* was included in the July 1, 1975, notice of review and the June 16, 1976, proposal. General comments received in relation to the 1976 proposal were summarized in the **Federal Register** on April 26, 1978 (FR 17909). On December 10, 1979, the Service published a notice (44 FR 70796) withdrawing the portion of the June 16, 1976, proposal that had not been made final, along with four other proposals that had expired due to a procedural requirement of the 1978 Amendments to the Act. On December 15, 1980 (45 FR 82479), and September 27, 1985 (50 FR 39525), the Service published revised notices of review for native plants in the **Federal Register**. *Platanthera leucophaea* (including in part the then yet undescribed *P. praeclara*) initially was included in those notices as a category 1 species. Category 1 species are those for which biological information in the Service's possession warrants listing as endangered or threatened. Later, this orchid was dropped to category 2, indicating that further biological research and field study were needed to ascertain its status.

The Endangered Species Act Amendments of 1982 required that all petitions pending as of October 13, 1982, be treated as having been submitted on that date. The deadline for a finding on those species, including *Platanthera leucophaea*, was October 13, 1983. On October 13, 1983, and again in 1984, 1985, 1986, and 1987, the petition finding was that listing of *Platanthera leucophaea* (including in part the then yet to be described *P. praeclara*) was warranted pending finding of further biological information but precluded by other pending listing actions, in accordance with section 4(b)3(B)(iii) of the Act. Such a finding requires that the petition be recycled, pursuant to section 4(b)(3)(C)(i) of the Act. The October 11, 1988 (53 FR 39621) proposal to classify *Platanthera leucophaea* and *P. praeclara* as threatened constituted the final required finding.

Summary of Comments and Recommendations

In the October 11, 1988, 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, landowners, and other interested parties were contacted and requested to comment. Notices inviting public comment were published in the following newspapers: *Chicago Tribune*, Chicago, IL; *The Des Moines Register*, Des Moines, IA; *The Globe-Gazette*, Mason City, IA; *Sioux City Journal*, Sioux City, IA; *Waterloo Courier*, Waterloo, IA; *Lawrence Journal-World*, Lawrence, KS; *The Leavenworth Times*, Leavenworth, KS; *Ottawa Herald*, Ottawa, KS; *Topeka Capitol Journal*, Topeka, KS; *Bangor Daily News*, Bangor, ME; *The Bay City Times*, Bay City, MI; *Detroit Free Press*, Detroit, MI; *Three Rivers Commercial News*, Three Rivers, MI; *Austin Daily Herald*, Austin, MN; *Crookston Daily News*, Crookston, MN; *Rock County Stat-Herald*, Luverne, MN; *St. Joseph News-Press/Gazette*, St. Joseph, MO; *The Grand Island Independent*, Grand Island, NE; *The Lincoln Star* and *Lincoln Journal*, Lincoln, NE; *Valentine Newspaper*, Valentine, NE; *The Forum*, Fargo, ND; *The Ransom County Gazette*, Lisbon, ND; *Daily News*, Wahpeton, ND; *Tulsa Tribune*, Tulsa, OK; *Daily News Leader*, Staunton, VA; *Wisconsin State Journal*, Madison, WI; *The Janesville Gazette*, Janesville, WI; *The Milwaukee Journal*, Milwaukee, WI; *Oshkosh Northwestern*, Oshkosh, WI between October 25, and November 3; and in the *Sioux Falls Argus-Leader*, Sioux Falls, SD, on November 22, 1988. Twenty-four comments were received, none of which opposed the rule. A summary of substantive comments is presented below.

Comments were submitted by two Federal agencies, twelve State agencies, three conservation organizations, and seven individuals. Fourteen responses supported listing while the remainder did not express a position. The U.S. Forest Service commented that the area in North Dakota, within the Sheyenne Ranger District (Sheyenne National Grassland), containing an extensive population of *Platanthera praeclara* (Western Prairie fringed Orchid) has been grazed for about 100 years, and the continued existence of the species, and the possibility it may be increasing, indicates to them that there may not be a need to list the species. However, the Forest Service acknowledges that plants must be listed rangewide, and because the species is declining elsewhere within its range, does not oppose the listing. The Forest Service points out that while overgrazing may be contributing to the decline of the species, there does not appear to be strong evidence that grazing by itself is as detrimental to the species as cropland conversion. The Forest Service has recognized the need to integrate rare species management into management activities on the Sheyenne Ranger District and has developed guidelines to protect the plant during haying and pesticide application. The Forest Service looks forward to a cooperative recovery effort and is initiating an Interim Management Plan specifically for the enhancement of this species, until such time as research has provided the answers for further management. The Soil Conservation Service office in North Dakota commented that a litter buildup may suppress *P. praeclara*, and rotational grazing may be beneficial.

The Sheyenne Valley Grazing Association commented that the Service is proposing to list *Platanthera praeclara* without knowing all the facts about the species, what is ideal habitat, how mowing affects the plant, and if anything other than cropping is harmful to the species. In addition, the Grazing Association expressed concerns about the methods of listing plants, and if plants could be listed by population, the more healthy populations like the one on the Sheyenne National Grasslands would be unaffected. The Association does not oppose the listing, but believes even with listing we will not have all the answers. They want to be kept informed of the situation. The Service has completed range wide status surveys for *Platanthera praeclara* and *Platanthera leucophaea*. As as result of these surveys, and other biological documentation, the Service believes listing is appropriate. There might be instances where some populations of the plant may be in better condition than others, but range wide, both species have declined significantly and will continue to face threats of habitat destruction and alteration. By placing these species under the protection of the Act, the Service, and other cooperating Federal and State agencies will be able to complete recovery plans, initiate and complete research, and complete other management actions that will provide information to enhance both species' survival.

The remaining comments, from State agencies, private conservation organizations, and individuals provided new species status information, advice of additional state protection, or lack thereof, mentioned the existence of localized threats to the species, and offered editorial comments concerning the rule. These comments have been incorporated into this final rule as deemed appropriate. A letter from a private conservation group supporting the listing was signed by 28 members of the organization.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Platanthera leucophaea* (Nutt.) Lindl. and *Platanthera praeclara* Sheviak and Bowles should be classified as threatened species. Procedures found at section 4(a)(1) of the Act 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 *Platanthera leucophaea* (Nutt.) Lindl. and *Platanthera praeclara* Sheviak and Bowles are as follows:

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

The prairie fringed orchids have declined significantly throughout their ranges due to conversion of most of their habitats to cropland, overgrazing, intensive hay mowing, drainage, and for fire protection; these and related threats continue. Many of the largest *Platanthera leucophaea* populations occur in habitats supporting successional vegetation. Without management these populations may decline in response to changing vegetation patterns. Many other populations are small and occur on small isolated prairie remnants, where seed set and reproduction is limited by dependence on chance visitation from pollinators. Over 35 percent of the known populations of *Platanthera praeclara* occur in hay meadows; these plants seldom are seen, and populations apparently are small. Hay mowing annually removes seed capsules and plant biomass before natural seed dispersal can occur. This prevents recruitment of seedlings into populations and probably weakens adult plants, resulting in gradual population decline through attrition (Bowles 1983, Bowles and Duxbury 1986). Changing land use also threatens hay meadow populations. At least four Kansas hay meadows known to support *Platanthera praeclara* populations have been converted to cultivated cropland since their discovery in the 1970's, while one Oklahoma hay meadow now is threatened with subdivision (Bowles and Duxbury 1986). The use of herbicides, especially on highway and railroad rights-of-way, continues to threaten these species in a number of instances (P.E. DeHond, Maine Planning Office, *in litt.* 1988, and L.G. Hiller,. Ft. Ranson, ND, *in litt.* 1988).

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

Native terrestrial orchids rarely are grown from seed; adult plants are often sought for scientific and commercial purposes, or for private gardens. Smaller populations of the prairie fringed orchids would be adversely affected by collecting. Because of higher human population densities in the east, the eastern prairie fringed orchid is subject to greater scientific and commercial pressures; at least one Michigan population was affected by removal of plants. However, because of the recent description of *Platanthera praeclara* (western prairie fringed orchid) and its usually small populations, over-collecting may also become a serious problem for this species. At least one instance of removal of a western prairie fringed orchid plant for commercial purposes has taken place in Minnesota.

C. Disease or Predation

No diseases are known to be adversely affecting either prairie fringed orchid species. All inflorescences were removed from one Minnesota population of *Platanthera praeclara* by an unknown herbivore, but the long term impact remains unknown. Conehead grasshoppers (Orthoptera: *Neoconocephalus*) occasionally are observed eating the flowers or fruits of these orchids. However, the major predator is man through use of this orchid's community for pasture or hay. Long term overgrazing or haying apparently leads to population decline because plants either are harvested or are not allowed to complete their life cycles.

D. The Inadequacy of Existing Regulatory Mechanisms

The prairie fringed orchids are formally or officially listed as endangered, threatened, or rare in ten states (IA, IL, ME, MI, MN, MO, NE, ND, OH, WI) throughout their range. However, only a few states where these species are extant offer protection to listed plants beyond that afforded by their presence on public lands. State laws of Illinois, Iowa, Minnesota, Michigan, and Missouri prohibit the removal and sale of listed plants. Michigan prohibits transport, buying, selling, possessing, or destroying in any manner. In Wisconsin, Ohio, and New York it is illegal to harvest endangered or threatened plants. Although *Platanthera leucophaea* and *P. praeclara* are offered various forms of recognition or protection under state laws, the Endangered Species Act offers possibilities for protection through section 6 by cooperation between States and the Service, and cooperation with other Federal agencies through section 7 (interagency cooperation) requirements. The plants are considered rare in Canada, but are not afforded any official designation or protection.

E. Other Natural or Manmade Factors Affecting Its Continued Existence.

Pollination of the prairie fringed orchids is required for seed set, and is accomplished only by hawkmoths (Sphingidae). As a result, long-term

population survival requires maintenance of hawkmoths. Any threat to these insects (such as the use of insecticides) or their habitats and food plants, is a threat to survival of prairie fringed orchids.

The Service has carefully assessed the best scientific information available regarding the past, present, and future threats faced by these taxa, in determining to make this rule final. Based on this evaluation, the preferred action is to list *Platanthera leucophaea* and *Platanthera praeclara* as threatened species, because of the known loss of most of their populations and habitat, and continued threats to existing populations. For reasons detailed below, it is not considered prudent to propose designation of critical habitat.

Critical Habitat

Section 4(a)(3) of the Act requires, to the maximum extent prudent and determinable, that the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. The designation of critical habitat is not considered to be prudent when such designation would not be of net benefit to the species involved (50 CFR 424.12). In the present case, the Service believes that designation of critical habitat would not be prudent because no benefit to the species can be identified that would outweigh the potential threat of vandalism or collection, which might be exacerbated by the publication of a detailed critical habitat description.

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. It also requires that recovery actions be carried out for all listed species. These recovery actions are initiated by the Service following listing. Some may be undertaken prior to listing, circumstances permitting. Potential habitat management actions that might benefit *Platanthera leucophaea* and *P. praeclara* include: evaluation and specific management actions on public lands to enhance orchid populations, land protection measures which will reduce frequent disturbance to both species' habitat, and a program for landowners to educate them about the nature of their orchid populations and how they might alter management of their property to benefit these species. The protection required by Federal agencies and applicable prohibitions are discussed below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(2) requires Federal agencies to insure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed 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 Food Security Act of 1985 (Pub. L. 99–198) also provides at sections 1314 and 1318 opportunities for the Service and State conservation agencies to acquire restrictive easements beneficial to endangered and threatened species on lands acquired by the Farmers Home Administration in the course of farm foreclosures. Upon notification by the Farmers Home Administration of pending foreclosures, the Service is continually reviewing possible areas where restrictive easements would benefit endangered and threatened species.

No Federal involvement is expected for *Platanthera leucophaea* since the species is not known to occur on Federal lands. *Platanthera praeclara* is known to occur on lands under the jurisdiction of the U.S. Fish and Wildlife Service on the Valentine National Wildlife Refuge, in Nebraska. Grazing management plans on the refuge should consider the effects livestock has on the species. A population monitoring program for *P. praeclara* should be initiated. A widely scattered population of *P. praeclara* is found on the Sheyenne National Grassland, Custer National Forest, Ransom and Richland counties, North Dakota. This population extends over several thousand acres managed by the U.S. Forest Service which in turn leases the area to the Sheyenne Valley Grazing Association for livestock production. The Forest Service and the Grazing Association are aware of *P. praeclara*. The species is found on 25 of the 58 allotments within the Sheyenne National Grassland. In order to meet the intent of the Act, the U.S. Forest Service, in cooperation with the Service, the State of North Dakota, and the Sheyenne Valley Grazing Association, is initiating interim grazing management actions on the Sheyenne National Grasslands which is designed to safeguard *P. praeclara* until such time as recovery research has been completed that should provide results to guide us in future management. Research will soon be underway which will allow us to better understand which types of management actions within the Grassland area might be beneficial to *P. praeclara*. Cooperative discussions between the Forest Service, the Grazing Association, and the Service have been initiated. It will be necessary for the Forest Service to enter into consultation with the Service so that *Platanthera praeclara* plants are considered in the course of activities carried out by that agency. It has been the experience of the Service that the majority of section 7 consultations are resolved so that the species is protected and the project can continue.

The Act and its implementing regulations found at 50 CFR 17.71 and 17.72 set forth a series of general trade prohibitions and exceptions that apply to all threatened plants. With respect to *Platanthera leucophaea* and *P. praeclara*, all trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.71, will 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 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 listed 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 listed plants in knowing violation of any State law or regulation, including State criminal trespass law. Certain exceptions would 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 some trade permits would be issued

because these plants belong to the orchid family, species of which now are sought for cultivation.

On July 1, 1975, *Platanthera leucophaea* was included in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which is implemented through section 8A of the Act. The effect of this listing is that generally, both export and import permits are required before international shipment may occur. Such shipment is strictly regulated by CITES member nations to prevent it from being detrimental to the survival of the species, and generally, cannot be allowed if it is for primarily commercial purposes. If plants are certified as artificially propagated, however, international shipment requires only export documents under CITES, and commercial shipments may be allowed. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, P.O. Box 3507, Arlington, VA 22203, (703/358-2093).

National Environmental Policy Act

The Fish and Wildlife Service has determined that Environmental Assessments, 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** October 25, 1983 (48 FR 49244).

References Cited

Alverson, W.S. 1981. Report on the Wisconsin status of *Platanthera leucophaea*. Unpublished report. 17 pp.

Ayensu, R.E., and R.A. DeFilipps. 1978. Endangered and threatened plants of the United States. Smithsonian Institution and World Wildlife Fund. 403 pp.

Bowles, M.L. 1983. The tallgrass prairie orchids *Platanthera leucophaea* (Nutt.) Lindl. and *Cyripedium candidum* Muhl. ex Willd.: Some aspects of their status, biology, and ecology, and implications toward management. Natural Areas Journal 3: 14-37.

Bowles, M.L., and D. Kurz. 1981. Report on the Illinois status of *Platanthera leucophaea*. Unpublished report. 8 pp.

Bowles, M.L., and A. Duxbury. 1986. Report on the status of *Platanthera leucophaea* Sheviak & Bowles in Oklahoma, Kansas, Nebraska, South Dakota, and North Dakota. Unpublished report. 76 pp.

Brower, A.E. 1977. The prairie white fringed orchid *Habenaria leucophaea* (Nutt.) Gray in Maine and its relevance to the Critical Areas Program. Maine State Planning Office. Unpublished report.

Brownell, V.P. 1984. Report on the prairie fringed orchid (*Platanthera leucophaea*): a rare species in Canada. Unpublished report.

Case, F.W., Jr. 1987. Orchids of the Western Great Lakes Region. Cranbrook Institute of Science. Bulletin 48.

Chapman, K.A. 1981. Report on the Michigan status of *Habenaria leucophaea*. Biology Department. Unpublished report. 7 pp.

Chapman, K.A., and S.R. Crispin. 1985. Report on a comprehensive survey for *Platanthera leucophaea* in Michigan. Unpublished report. 20 pp.

Correll, D.C. 1950. Native orchids of North America north of Mexico. Chronica Botanica Co., Waltham, MA.

Currier, P.J. 1984. Response of prairie fringed orchid to fire and reduction in grazing (Nebraska). Restoration and Management Notes 2: No. 17.

Hauser, L.A., T.J. Crovello, and J.A. Bacone. 1981. Report on the Indiana status of *Platanthera leucophaea* (Nutt.) Lindl. Unpublished report. 6 pp.

Hinds, H.R. 1983. The rare vascular plants of New Brunswick. 23 pp.

Luer, C.A. 1975. The native orchids of the United States and Canada, excluding Florida. New York Botanical Garden.

Magrath, L.K., and J. Taylor. 1978. Orchids and other new and interesting plants from Oklahoma. Publication No. 2. Herbarium, Southeastern Oklahoma State University, Durant.

Morgan, S.M. 1980. Report on the Missouri status of *Platanthera leucophaea* (Nutt.) Lindl. Missouri Department of Conservation. 13 pp.

Roosa, S.J., and L.J. Eilers. 1979. Endangered and threatened Iowa vascular plants. State Conservation Commission. pp. 39.

Sheviak, C.J. 1974. An introduction to the ecology of the Illinois Orchidaceae. Illinois State Museum Scientific Paper 14.

Sheviak, C.J., and M.L. Bowles. 1986. The prairie fringed orchids: a pollinator-isolated species pair. Rhodora 88:267-290.

Smith, W.B. 1981. Report on the Minnesota status of *Platanthera leucophaea* (Nutt.) Lindl. Minnesota. Department of Natural Resources. 10 pp.

Spooner, D.M. 1981. Report on the Ohio status of *Platanthera leucophaea* (Nutt.) Lindl. Ohio Department of Natural Resources. 11 pp.

Tyrl, R.J., J.L. Gentry, Jr., P.G. Risser, and J.J. Crockett. 1978. Field Surveys and Status Evaluation on Proposed and Candidate Endangered and Threatened Plant Species in Oklahoma. Unpublished report. pp. 227-236.

Watson, W.C. 1983. Report of *Platanthera leucophaea* (Nutt.) Lindl. in Iowa. University of Northern Iowa. Unpublished report. 22 pp.

Author

The primary author of this rule is William F. Harrison (see **ADDRESSES** section). Preliminary documentation was prepared under contract by Marlin L. Bowles, The Morton Arboretum, Lisle, IL.

List of Subjects in 50 CFR Part 17

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

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. 1531-1543; 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 under the family Orchidaceae, 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					
*	*	*	*	*	*	
Orchidaceae-Orchid family:						
*	*	*	*	*	*	
Platanthera leucophaea	Eastern prairie fringed orchid	U.S.A. (AR, IA, IL, IN, ME, MI, MO, NE, NJ, NY, OH, OK, PA, VA, WI), Canada (ON, NB).	T	367	NA	NA
Platanthera praeclara	Western prairie fringed orchid	U.S.A. (IA, MN, MO, NE, ND, OK, KS, SD), Canada (MB).	T	367	NA	NA
*	*	*	*	*	*	

Dated: September 14, 1989.

Bruce Blanchard,

Acting Director, Fish and Wildlife Service.

[FR Doc. 89-22849 Filed 9-27-89; 8:45 am]

BILLING CODE 4310-55-M