

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

RIN 1018-AB66

**Endangered and Threatened Wildlife and Plants; Endangered Status Determined for the Plant *Clematis morefieldii* (Morefield's Leather Flower)****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Final rule.

**SUMMARY:** The Service determines a plant, *Clematis morefieldii* (Morefield's leather flower), to be an endangered species under the authority contained in the Endangered Species Act (Act) of 1973, as amended. *Clematis morefieldii* is currently believed extant at only five sites in Madison County, Alabama. Three historical populations have been destroyed and two of the remaining sites are imminently threatened by residential development. The continued existence of this species is also jeopardized due to its limited range, small populations, and reduced vigor at sites which are excessively shaded. This action will extend the Act's protection to *Clematis morefieldii*.

**EFFECTIVE DATE:** June 19, 1992.

**ADDRESSES:** The complete file for this rule is available for public inspection, by appointment, during normal business hours at the Jackson, Mississippi, Field Office, U.S. Fish and Wildlife Service, 6578 Dogwood View Parkway, suite A, Jackson, Mississippi 39213.

**FOR FURTHER INFORMATION CONTACT:** Cary Norquist at the above address or telephone (601/965-4900 or FTS 490-4900).

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

*Clematis morefieldii* is a perennial vine in the buttercup family (Ranunculaceae) and is a north Alabama endemic. It was first collected by Morefield in the early 1980's from Round Top Mountain in Madison County, Alabama, and later described by Kral (1987). This species is a member of the *Viornae* subsection of *Clematis*, which is noted for its narrow endemics (Kral 1987). *Clematis* in this subsection are distinguished by urn-shaped flowers which occur singly, or in few-flowered groups, in leaf axils. Their primary flower stalks (peduncles) are subtended by leafy bracts. *Clematis morefieldii* is closely related to *C. viorna*, a more variable species, but *C. morefieldii* has

dense white hairs on the shoot, velvety lower leaf surfaces, and stouter, usually shorter (15-25 millimeters (mm) or 0.6 to 1.0 inch long) peduncles with sessile to nearly sessile bracts at the base (Kral 1987). *Clematis morefieldii* attains heights up to 5 meters (16 feet) and its compound leaves may attain lengths of 2 decimeters (8 inches). Leaves have 9 to 11 leaflets and the terminal 1 to 3 leaflets form tendrils. The flowers are pinkish and 20 to 25 mm (0.8 to 1.0 inch) long. Fruits are clusters of achenes. *Clematis morefieldii* flowers from late May to early July.

Extensive surveys have been conducted for *C. morefieldii*. Currently, it is known from only five locations in Madison County, Alabama. The vines are rooted in basic clay-loam soils in rocky limestone woods on the south and southwest facing slopes of mountains. Plants often sprawl over shrubs and boulders or climb understory shrubs. (Kral 1987). *Clematis morefieldii* occurs locally near seeps within a juniper-hardwoods community with *Cotinus obovatus* (smoketree) as the principal indicator species. Other associate hardwoods include *Carya ovata*, oaks (*Quercus shumardii*, *Q. muhlenbergia*, *Q. alba*, *Q. stellata*), *Ulmus*, and *Fraxinus americana*.

Four of the five populations are within 0.3 to 1.7 kilometers (km) (0.2 to 1.1 miles) of one another on the Huntsville—Monte Sano Mountain complex. A single vine is one site, two sites have approximately 20 plants, and the fourth site has several hundred vines. The fifth site (on Keel Mountain) is disjunct, approximately 8 km (6 miles) from the other sites, and has an estimated 300 vines. On all sites, the plants are clustered within a small area (0.1 hectare (0.25 acre) or less) (Weber 1991). Two populations are located on public land currently owned by the City of Huntsville. The other sites are on private property.

Of the total eight reported populations (including historic and extant sites), three populations are believed to have been destroyed, and two of the remaining five extant sites are imminently threatened by residential development. The continued existence of this species is also jeopardized due to its limited range, small populations, and reduced vigor at sites that are heavily shaded. Management may be necessary to maintain appropriate habitat.

Federal actions involving *Clematis morefieldii* began with field surveys in 1989, after the Service had been alerted to a newly described species of *Clematis* which appeared to be rare and facing imminent threats. In the February 21, 1990, publication of a notice of

review for native plants in the Federal Register (50 FR 6184), *Clematis morefieldii* was included as a category 2 species (the specific name was misspelled in the notice). Category 2 species are those for which listing as endangered or threatened species may be warranted but for which substantial data on biological vulnerability and threats are not currently known or on file to support a proposed rule. The Service contracted for additional surveys in 1990 to further assess this species' rarity and threats to its existence. The contractor submitted a final report on this species' status in 1991. This report (Weber 1991) and other information supported the proposed listing. The data demonstrated a limited distribution and continuing threats to the species. On October 21, 1991, the Service published a proposal (56 FR 52503) to list *Clematis morefieldii* as an endangered species.

**Summary of Comments and Recommendations**

In the October 21, 1991, 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 Federal and State agencies, county governments, scientific organizations, and other interested parties were contacted and requested to comment. A newspaper notice, inviting public comment, was published in the *Huntsville News*, Huntsville, Alabama, on November 9, 1991.

Four written responses to the proposed rule were received, including two from private individuals, one from a private conservation organization (Center for Plant Conservation), and one from a Federal agency (Tennessee Valley Authority). The Federal agency requested site specific information, without expressing an opinion on the proposed rule. The individuals and the Center for Plant Conservation (CPC) supported the proposal. The CPC additionally expressed their interest in assisting in recovery activities for this species. One of the individuals stated that further destruction had occurred at several of the sites.

**Summary of Factors Affecting the Species**

After a thorough review and consideration of all information available, the Service has determined that *Clematis morefieldii* 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 an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Clematis morefieldii* Kral (Morefield's leather flower) are as follows:

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

This species' range is currently recognized as limited to five sites in northern Alabama, all in Madison County. While surveying potential habitat for additional populations, it was noted that residential development had destroyed or adversely modified similar habitats. Residential development on mountains in the Huntsville area is increasing. Two of the existing populations are imminently threatened due to their precarious location on lots in a residential area. Clearing has already impacted habitat and individuals on these sites. Destruction of these two sites would result in approximately a 55 percent loss of total known individuals. At this time, only two of the five sites (22 and 300 plants, respectively) appear to be secure. Within the last few years, three populations have been destroyed by road building, clearing, and herbicide use associated with residential development (Weber 1991).

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

This recently discovered species is currently not known to be a significant component of the commercial wildflower trade; however, it is attractive and has horticultural potential. Publicity from its listing could generate an increased demand. Taking and vandalism pose threats because of its visibility when flowering and the accessibility of many of the sites. Over-collecting for any purposes could extirpate populations, especially at sites with only a few plants.

**C. Disease or Predation**

Seed predation by insects was noted in several populations (Weber 1991) and requires further investigation.

**D. The Inadequacy of Existing Regulatory Mechanisms**

Although it is considered endangered in Alabama (Gunn, Alabama Heritage Program, pers. comm., 1991), there are no State or Federal laws protecting *Clematis morefieldii* or its habitat. Two

populations (totalling less than 25 plants) occur on public land (City of Huntsville) and are currently protected. However, ownership, thus protection, for one of these sites is tenuous. There is a possibility that public ownership will revert to private landowners if sufficient funds are not available to complete payment (Weber 1991). The Act will strengthen existing protection, provide additional protection and encourage active management for *Clematis morefieldii* when it is added to the Federal list of endangered and threatened species (see "Available Conservation Measures").

**E. Other Natural or Manmade Factors Affecting its Continued Existence**

This species is extremely vulnerable because it has a limited range and low numbers of plants at many of the sites. One population has one plant, two have approximately 20 plants, and all sites occupy less than an acre in area. A single unnatural or natural disturbance could destroy a significant percentage of the known populations. In addition, the small number of individuals at three sites may indicate a limited gene pool and, without infusion of gene flow, it is questionable if these smaller populations can survive.

*Clematis morefieldii* appears to have restricted ecological requirements. Plants are locally distributed and seem to require areas where shale seeps are moist for a good part of the year (Weber 1991). One population, located under a closed canopy, appeared to be stressed. Individuals were smaller and fewer flowers were observed, when compared to populations where the canopy was somewhat "open". This species may require habitat management to curtail succession.

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 *Clematis morefieldii* as endangered. Endangered status is appropriate due to the species' restricted range and imminent threats facing several populations. An endangered species, as defined by the Act, is threatened with extinction throughout all or a significant portion of its range. Critical habitat is not being designated for reasons discussed in the following section.

**Critical Habitat**

Section 4(a)(3) of the Act, as amended, 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 Service finds that designation of critical habitat is presently not prudent for this species. This recently discovered *Clematis* occurs in limited numbers at only five locations; three of which are easily accessible. Publication of critical habitat maps in the Federal Register and local newspapers would increase public interest and possibly lead to additional threats for this attractive species.

Take is regulated by the Act with respect to endangered plants only 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. However, the known populations of *Clematis morefieldii* are located only on private and city land. Although the species is considered to be endangered in the State, there are no State laws which provide protection from collecting or vandalism. While listing under the Act increases the public's awareness of the species' plight, it can also increase the desirability of a species to collectors. As stated previously, this *Clematis* is an attractive vine which may be desirable to the wildflower trade or novelty collectors. Discovery and elimination of even one population would compromise the survival of the species. It also could be adversely affected by increased visits to, and associated trampling of, occupied sites as a result of critical habitat designation.

As discussed above, it is not now prudent to determine critical habitat for *Clematis morefieldii*. All involved parties, including appropriate City and State agencies, and key private landowners, have been notified of the location and importance of protecting this species' habitat. Protection of this species' habitat will be addressed through the recovery process and through the Section 7 consultation process.

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

All presently known populations are on private or city-owned land. The only currently known activity to be authorized, funded, or carried out by a Federal agency that would affect *Clematis morefieldii* is consideration of this species by the Environmental Protection Agency relative to pesticide (herbicide) registration.

The Act and its implementing regulations found at 50 CFR 17.61, 17.62, and 17.63 set forth a series of general prohibitions and exceptions that apply to all endangered plants. 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, transport in interstate or foreign commerce in the course of a commercial activity, sell or offer for sale this species in interstate or foreign commerce, or to remove and reduce to possession the species from areas under Federal jurisdiction. 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. 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 because the species is not common in cultivation or in the wild. 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, VA 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**

Kral, R. 1987. A new "Viorna" *Clematis* from northern Alabama. *Ann. Missouri Bot. Gard.* 74:665-669.  
 Weber, S.F. 1991. Status report on *Clematis morefieldii*. Unpublished report to U.S. Fish and Wildlife Service, Southeast Region, Jackson, Mississippi. 10 pp. + appendix.

**Author**

The primary author of this rule is Cary Norquist (see ADDRESSES section), 601/965-4900 or FTS 490-4900.

**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 under Ranunculaceae, 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					
Ranunculaceae—Buttercup family:						
<i>Clematis morefieldii</i>	Morefield's leather flower	U.S.A. (AL)	E	468	NA	NA

Dated: May 4, 1992.  
 Bruce Blanchard,  
 Acting Director, Fish and Wildlife Service.  
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**DEPARTMENT OF THE INTERIOR**  
**50 CFR Part 17**  
**RIN 1018-AB66**  
**Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for Mitchell's Satyr Butterfly**  
**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.  
**SUMMARY:** The U.S. Fish and Wildlife Service (Service) determines the Mitchell's satyre butterfly (*Neonympha mitchellii mitchellii*) to be an endangered species pursuant to the Endangered Species Act (Act) of 1973.