

range by habitat alteration; residential, commercial, or industrial development; livestock grazing; and conversion of its limited habitat to pasture. This proposal, if made final, would extend the protection of the Act to *Dalea foliosa*. The Service seeks data and comments from the public.

**DATES:** Comments from all interested parties must be received by May 29, 1990. Public hearing requests must be received by May 11, 1990.

**ADDRESSES:** Comments, materials, and requests for a public hearing concerning this proposal should be sent to the Field Supervisor, Asheville Field Office, U.S. Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina 28801. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** Mr. Robert R. Currie at the above address (704/259-0321 or FTS 672-0321).

**SUPPLEMENTARY INFORMATION:**

**Background**

*Dalea foliosa* (Gray) Barneby, a perennial, is a member of the pea family (Fabaceae) that has only been collected from Illinois, Tennessee, and Alabama. The erect 0.5-meter (1.5-foot) tall stems arise from a hardened root crown. The plant's pennately compound alternate leaves are 3.5 to 4.5 centimeters (1.4 to 1.8 inches) long and are composed of 20 to 30 leaflets. The small purple flowers are borne in dense spikes at the end of the stems (Smith and Wofford 1980). Flowering begins in late July and continues through August. Seeds ripen by early October, and the above-ground portion of the plant dies soon afterward. The dead stems remain erect and disperse ripened seeds from late fall to early spring (Baskin and Baskin 1973).

*Dalea foliosa* was described by Gray in 1868 as *Petalostemum foliosum* (Gray 1868). Barneby (1977) included the species of the genus *Petalostemon* (alternative spelling) within his concept of the genus *Dalea*, and his treatment of the group is followed by the Service.

*Dalea foliosa* is typically found growing in close association with the cedar glades of central Tennessee and northern Alabama. However, it seems to prefer the deeper soil of the prairie-like areas along the boundaries of, and within, the rocky cedar glades (Smith and Wofford 1980). In Illinois the species is now found only along the Des Plaines River, growing in prairie remnants that occur on thin-soil areas overlying limestone (Kurz and Bowles 1981). A description of the species'

status within each State where it occurs is provided below.

*Alabama.*

The two known locations for *Dalea foliosa* in Alabama were discovered in the late 1960s (Baskin and Caudle 1967). At the time of their discovery, one population (Franklin County) was small and contained only a few plants. The other population (Morgan County) was relatively larger and contained several hundred individuals. Smith and Wofford (1980) reported that no plants were found at the Franklin County site during the 1980 field season. They further reported that while the Morgan County population only supported about 50 individuals, it appeared to be a healthy, reproducing population.

*Illinois*

*Dalea foliosa* was originally known from six counties in the northeastern portion of the State (Kurz and Bowles 1981). Only four known populations are now left in the State. All are in Will County and are growing in prairie remnants along the Des Plaines River. Historically the species was also found in Boone, Ogle, Kane, La Salle, and Kankakee Counties. The Illinois Department of Conservation recently attempted to reestablish the species at one of the historic Kankakee County sites. In the spring of 1988, 105 individuals were planted in suitable habitat at this historic location. The spring and summer of 1988 were very dry in northern Illinois, and only six individuals survived to the fall of 1988 (John Schwegman, Illinois Department of Conservation, personal communication, 1989). It is not known whether a viable, reproducing population will become reestablished at this site.

Two of the known Illinois sites are protected and managed by the Will County Forest Preserve District. A third site, recently rediscovered by the Illinois Natural History Survey, is adjacent to the right-of-way for a proposed new highway. A portion of the fourth location was recently destroyed. The Will County Forest Preserve District will attempt to acquire this area and will restore the *Dalea foliosa* population located there, provided suitable habitat still exists at the site (De Mauro *in litt.*).

*Tennessee*

The following information on *Dalea foliosa* in Tennessee was primarily derived from Smith and Wofford (1980) and Dr. Paul Somers (Tennessee Department of Conservation, personal communication, 1989).

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**RIN 1018-AB38**

**Endangered and Threatened Wildlife and Plants: Proposed Endangered Status for Dalea Foliosa (Leafy Prairie-clover)**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule.

**SUMMARY:** The Service proposes to list *Dalea foliosa* (leafy prairie-clover) as an endangered species under the Endangered Species Act of 1973 (Act), as amended. This rare plant is presently known from only one site in Alabama, seven sites in Tennessee, and four sites in Illinois. It is threatened throughout its

Only 7 populations of *Dalea foliosa* are known to survive in Tennessee, and most of these populations are small, containing fewer than 30 individual plants. Historically, the plant was known from five Rutherford County sites. One of these sites was destroyed by industrial construction, and the species has not been observed on three other Rutherford County sites in the recent past. In Rutherford County the only known currently occupied site is in a State park, and it contains 25 to 30 individuals. Wilson County supports one small privately owned population containing 12 plants. Marshall County had one known *Dalea foliosa* site, but the species has not been observed in the recent past and is likely extirpated from the county. Davidson County once supported four populations. One of the sites has been bulldozed for development and is considered to be lost to the species. Another site is slated for development and is expected to be lost, and two very small populations, discovered in 1985, have not been observed since their discovery. Williamson County supports one population of the species, and most of this site has been acquired through donation by The Nature Conservancy and is protected. However, a small portion remains in private ownership and could be lost. The largest and healthiest Tennessee population is owned by the Tennessee Valley Authority and is located in Maury County. This site is within the floodpool of the proposed Columbia Dam project and will be flooded if the project is constructed as originally proposed (See the "Summary of Factors Affecting the Species" section of this proposed rule for further discussion of this project). The Tennessee Department of Conservation conducted a survey of over 200 cedar glades and cedar glade remnants in the central basin of Tennessee during 1987 and 1988. Despite this thorough search of most of the available habitat for *Dalea foliosa*, no new populations of the species were found.

Federal government actions on this species began with 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 those plants considered to be endangered, threatened, or extinct. This report, designated as House Document No. 94-51, was presented to Congress on January 9, 1975. On July 1, 1975, the Service published a notice (40 FR 27823) that formally accepted the Smithsonian report as a petition within the context of

section 4(c)(2) (now section 4(b)(3)) of the Act. By accepting this report as a petition, the Service also acknowledged its intention to review the status of those plant taxa named within the report. *Dalea foliosa* (*Petalostemum foliosum*) was included in the Smithsonian report and the July 1, 1975, notice of review. On June 16, 1976, the Service published a proposed rule (41 FR 24523) to determine approximately 1,700 vascular plant taxa to be endangered species pursuant to section 4 of the Act; *Dalea foliosa* was included in this proposal.

The 1976 amendments to the Act required that all proposals over 2 years old be withdrawn. On December 10, 1979 (44 FR 70796), the Service published a notice withdrawing plants proposed on June 16, 1976. *Dalea foliosa* was included as a category 1 species in the revised notice of review for native plants published on December 15, 1980 (45 FR 82480). Category 1 species are those for which the Service has information that indicates that proposing to list them as endangered or threatened is appropriate. This species was changed to a category 2 species when the notice of review for native plants was revised in 1983 (48 FR 53640) and again in 1985 (50 FR 39526).

Category 2 species are those for which the Service has information that indicates that proposing to list them as endangered or threatened may be appropriate but for which substantial data on biological vulnerability and threats are not currently known or on file to support the preparation of rules. This was the case with *Dalea foliosa*. The Service believed that additional searches of potential habitat in central Tennessee were needed before a decision could be made whether to prepare a proposed rule to add the species to the list or not. The Service funded a survey in 1979 to determine the status of *Dalea foliosa* in Alabama and Tennessee; a final report on this survey was accepted by the Service in 1980. A report summarizing the status of the species in Illinois was completed by Kurtz and Bowles in 1981. During the 1987 and 1988 field seasons, personnel with the Tennessee Department of Conservation conducted an extensive inventory of cedar glades in central Tennessee. Over 200 sites were visited during this inventory, and no additional populations of *Dalea foliosa* were discovered.

Section 4(b)(3)(B) of the Act, as amended in 1982, requires the Secretary to make certain findings on 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 *Dalea foliosa* because of the acceptance of the 1975 Smithsonian report as a petition. In 1983, 1984, 1985, 1986, 1987, 1988, and 1989, the Service found that the petitioned listing of *Dalea foliosa* 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 this proposal constitutes the final 1-year finding.

#### Summary of Factors Affecting the Species

Section 4(a)(1) of the Act and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal lists. 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 *Dalea foliosa* (Gray) Barneby (leafy prairie-clover) (= *Petalostemum foliosum* Gray) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* All but 3 of the 12 known populations of *Dalea foliosa* are threatened with destruction or adverse modification of their habitat. The plant is best protected in Illinois, where two of the four sites are being managed to protect the species. One of the Illinois sites could be adversely affected by construction of a proposed highway. However, with proper planning and appropriate care during actual construction, it should be possible to protect this population. The fourth Illinois population has been partially destroyed, and it is not known if the site can be protected and the *Dalea foliosa* population restored to its original condition (De Mauro *in litt.*, Kurtz and Bowles 1981).

The Franklin County, Alabama, population was apparently destroyed by a series of construction activities that included road-widening, associated construction and, later, installation of an underground pipeline (Cary Norquist, Service, personal communication, 1989). The small Morgan County, Alabama, population is vulnerable to loss or alteration by residential construction or conversion to livestock pasture (Smith and Wofford 1980).

Two of Tennessee's seven currently confirmed populations are partially protected. Most of the only Williamson

County population has been acquired by The Nature Conservancy through donation and is thereby protected from destruction or alteration of its habitat. The portion of this population that is privately owned and unprotected remains vulnerable to loss in the future.

The best and largest Tennessee population is located on land owned by the Tennessee Valley Authority (TVA) in Maury County. This site was acquired as a part of the Columbia Dam project area.

Completion of this project has been delayed while TVA has been pursuing a mussel conservation plan aimed at avoiding jeopardy to federally listed endangered mussels that inhabit the project impact area. Several alternatives to the original project are currently being evaluated by the Tennessee Valley Authority (Tennessee Valley Authority 1988). These alternatives could involve lower floodpool levels than originally proposed. Should they be chosen, the altered project would have no impact on the *Dalea foliosa* population. If the full-pool alternative is implemented, the Maury County population will be inundated.

Davidson County has four recorded occurrences for *Dalea foliosa*. One of these has recently been bulldozed in preparation for development of the site. The Tennessee Department of Conservation and the Center for Plant Conservation are attempting to put the few plants remaining at this location into cultivation in order to ensure that the genetic material they contain is not lost. Two sites discovered in 1985 are very small and have not been observed to support any plants since the original discovery.

An early report that the species occurred in Knox county was apparently based upon the collection of a specimen from a transplanted population. The species was not native to Knox County, and the transplanted population has died out.

All of the known *Dalea foliosa* locations are threatened by the encroachment of more competitive herbaceous vegetation and/or woody plants, such as cedar, that produce shade and compete for limited water and nutrients. Active management is required to ensure that the species continues to survive at all sites. In Illinois, experiments on the use of fire to maintain the available habitat in a condition conducive to *Dalea foliosa* are being evaluated. The species does not survive intensive livestock grazing (Kral 1983), and this factor remains a threat to all but the three protected and the two urban populations. Direct destruction of habitat for commercial, residential, or

industrial development and intensive right-of-way maintenance activities are the most significant threats to the species at this time (Smith and Wofford 1980).

**B. Overutilization for commercial, recreational, scientific, or educational purposes.** There is little or no commercial trade in *Dalea foliosa* at this time. Most populations are very small and cannot support collection of plants for scientific or other purposes. Inappropriate collecting for scientific purposes or as a novelty is a potential threat to the species.

**C. Disease or predation.** Disease and predation are not known to be factors affecting the continued existence of the species at this time.

**D. The inadequacy of existing regulatory mechanisms.** *Dalea foliosa* is listed as an endangered plant in Tennessee under that State's Rare Plant Protection and Conservation Act. This protects the species from taking without the permission of the landowner or land manager. In Illinois, the species is listed as endangered by the Illinois Department of Conservation's Order 154. Although this is an official listing, it does not provide any legal protection. In Alabama, the species does not receive any protection by the State.

Should the species be added to the Federal list of endangered and threatened species, additional protection from taking will be provided to the one population on Federal land and to the other populations when the taking is in violation of any State law, including State trespass laws. Protection from inappropriate commercial trade would also be provided.

**E. Other natural or manmade factors affecting its continued existence.** The only other additional factors that threaten *Dalea foliosa* are the extended drought conditions that the species has faced during the past few years. The extremely dry summer of 1988 is probably responsible for the low survival rate of plants reintroduced to one of the Kankakee County, Illinois, locations. Only 6 of 105 plants transplanted to the site survived to the end of the summer. These conditions can be expected to be causing higher than normal mortality of seedlings in the natural populations and could, if they continue over an extended period of time, have an adverse effect on the survival of *Dalea foliosa*.

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 propose this rule. Based on this evaluation, the preferred action is to list *Dalea foliosa*

as an endangered species. With only 12 relatively small populations, and 9 of these threatened with destruction or adverse modification of the habitat, and all populations in need of long-term management, a classification of endangered is commensurate with the definition of "endangered species" found in section 3(6) of the Act. Critical habitat is not being designated for the reasons discussed below.

#### Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that, to the maximum extent prudent and determinable, the Secretary propose critical habitat at the time the species is proposed to be endangered or threatened. Most populations of this species are small, and loss of even a few individuals to activities such as collection for scientific purposes could extirpate the species from some locations. Taking, without permits, is prohibited by the Act from locations under Federal jurisdiction; however, only one of the known populations is under Federal jurisdiction. Therefore, publication of critical habitat descriptions and maps would increase the vulnerability of the species without significantly increasing protection. The owners and managers of all the known populations of *Dalea foliosa* have been made aware of the plant's location and of the importance of protecting the plant and its habitat. Protection of this species' habitat will be addressed through the recovery process and through the Section 7 jeopardy standard. No additional benefits would result from a determination of critical habitat. Therefore, the Service concludes that it is not prudent to designate critical habitat for *Dalea foliosa*.

#### 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. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking 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)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in the destruction or adverse modification of proposed critical habitat. If a species is subsequently listed, 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 but one of the known populations of *Dalea foliosa* are on privately owned or State-owned land. One Tennessee population is on land owned by the Tennessee Valley Authority. The population is within the impoundment area of a proposed dam project. For further information on this project and its effects on *Dalea foliosa*, see the "Background" and "Summary of Factors Affecting the Species" sections of this proposed rule. One of the Illinois populations is near the right-of-way of a federally funded highway. The Illinois Department of Conservation and the Will County Forest Preserve District are working with the Illinois Department of Transportation to ensure that construction of the highway does not result in the loss or significant alteration of this population.

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. 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 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 resolution, 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 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 22203-3507 (703/358-2104).

#### Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as affective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

- (1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to *Dalea foliosa*;
- (2) The location of any additional populations of *Dalea foliosa* and the reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act;
- (3) Additional information concerning the range and distribution of this species; and
- (4) Current or planned activities in the subject area and their possible impacts on *Dalea foliosa*.

Final promulgation of the regulation on *Dalea foliosa* will take into consideration the comments and any additional information received by the Service, and such communications may lead to adoption of a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the date of this proposal. Such requests must be made in writing and addressed to the Field Supervisor, Asheville Field Office, U.S. Fish and Wildlife Service, 100 Otis Street, Room 224, Asheville, North Carolina 28801.

#### 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

- Barneby Rupert C. 1977. Daleae Imagines. An Illustrated Revision of *Errazurizia* Philippi, *Psorothamnus* Rydberg, *Marina* Liebm., and *Dalea* Lucanus emend. Barneby, including all species of Leguminosae tribe Amorphaeae Borissova ever referred to *Dalea*—*Dalea foliosa*, Mem. New York Bot. Garden 27:244-245, 702-703.
- Baskin, J.M., and C. Caudle. 1967. *Petalostemon filiosus* in Alabama. *Rhodora* 69:383-384.
- Baskin, J.M., and C. Baskin. 1973. The Past and Present Geographical Distribution of *Petalostemon filiosus* and Notes on Its Ecology. *Rhodora* 75:132-140.
- Gray, Asa. 1868. Proceedings Amer. Acad. 7:336 (type description).
- Kral, Robert. 1983. A Report on Some Rare, Threatened, or Endangered Forest-related Vascular Plants of the South. USDA, Forest Service Tech. Pub. R8-TP2 Vol. 1. 718 pp.
- Kurz, D.R., and M.L. Bowles. 1981. Report on the Status of Illinois Vascular Plants Potentially Endangered or Threatened in the United States. Unpublished report, Natural Land Institute, Rockford, Illinois. 7 pp.
- Smith, D.K. and B.E. Wofford. 1980. Status Report—*Petalostemon filiosum* Gray (*Dalea foliosa* (Gray) Barneby). Unpublished report for the USDI, Fish and Wildlife Service, Southeast Region, Atlanta, Georgia. 31 pp.
- Tennessee Valley Authority. 1988. Biological Assessment of Columbia Dam Alternatives, Duck River, Tennessee. Unpublished report, Knoxville, Tennessee. 28 pp., plus 3 appendices.

#### Author

The primary author of this proposed rule is Mr. Robert R. Currie, 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).

#### Proposed Regulation Promulgation

Accordingly, it is hereby proposed to amend part 17, subchapter B of chapter

I, title 50 of the Code of Federal Regulations, as set forth below:

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 (1986), unless otherwise noted.

order under Fabaceae to the List of Endangered and Threatened Plants:

**PART 17—[AMENDED]**

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

2. It is proposed to amend § 17.12(h) by adding the following, in alphabetical

§ 17.12 Endangered and threatened plants.  
\* \* \* \* \*  
(h) \* \* \*

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Fabaceae—Pea family:						
<i>Dalea foliosa</i> (= <i>Petalostemum foliosum</i> ).	Leafy prairie-clover	U.S.A. (AL, IL, TN)	E		NA	NA

Dated: February 28, 1990.  
**Richard N. Smith,**  
 Acting Director, U.S. Fish and Wildlife Service.  
 [FR Doc. 90-6814 Filed 3-26-90; 8:45 am]  
 BILLING CODE 4310-55-M