

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Relict *Trillium*

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines *Trillium reliquum* Freeman (relict trillium) to be an endangered species under the authority of the Endangered Species Act of 1973 (Act), as amended. *Trillium reliquum* is known from only ten locations—Alabama (two sites), Georgia (five sites), and South Carolina (three sites). The species is endangered by timber harvesting, wildfires, and development of its habitat. This action will implement the Federal protection provided by the Act for *Trillium reliquum*.

EFFECTIVE DATE: May 4, 1988.

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

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

SUPPLEMENTARY INFORMATION:**Background**

Trillium reliquum, a herbaceous member of the lily family, was recognized as a distinct species by Freeman (1975) after his extensive study of this complex and taxonomically difficult group. During his research, Freeman examined more than 10,000 *Trillium* specimens from over 80 herbaria and extensively collected and observed members of the group in the field. This rare species is distinguished from other sessile-flowered *Trillium* by its decumbent or S-curved stems, distinctively shaped anthers, and the color and shape of its leaves. The flowers appear in early spring and are greenish to brownish purple or occasionally pure yellow in color. The fruit is an oval-shaped, berry-like capsule, which matures in early summer.

Trillium reliquum is perennial from a tuberous rhizome; and, like other members of the genus, it dies back to this rhizome after the fruit matures (Freeman 1975, Freeman 1985).

Trillium reliquum is found primarily in moist hardwood forests that have had little or no disturbance in the recent past. The soils on which it grows vary from rocky clays to alluvial sands, but all exhibit a high organic matter content in the upper soil layer. Most sites appear to be free from the influence of fire, both in the recent and distant past. Timber harvesting at the known sites has been limited to selective cutting (Freeman 1985). Relict trillium does occur on less than optimum sites, such as power and sewer line rights-of-way, and can apparently become reestablished after intensive disturbance to its habitat, such as agricultural activity (Martin *in litt.*, Boardman *in litt.*, Barrett *in litt.*). However, Rayner (1987) notes that the best populations are found in the rich wooded areas that also support other species considered rare or endangered in South Carolina. Reestablishment within power line and sewer line rights-of-way would be expected, provided that maintenance activities did not include broad spectrum herbicides or other intensive disturbances. Reestablishment of the species after intensive agricultural activities would be anticipated provided that there is a nearby source of seeds for the plants and if the original soil, moisture, and vegetational associates are reestablished on the disturbed site.

There are currently ten known extant populations and one extirpated population of *Trillium reliquum*. Alabama has two extant populations, Georgia has five extant populations and one extirpated population, and South Carolina has three populations. The following discussion of the status of each State's populations is primarily extracted from a status report on the species prepared by Freeman (1985). Freeman's 1985 information is supplemented as appropriate by the additional information noted below.

Site 1, Henry County, Alabama. This small population (approximately 150 plants on one-third acre) is on land managed as a recreation area by the U.S. Army Corps of Engineers. Roads constructed in the area, as well as an existing power transmission line, have altered the area and may have destroyed habitat occupied by *Trillium reliquum*. At the present time, illegal trash and refuse dumping and digging for fish bait are potential threats to the species at this location.

Site 2, Lee County, Alabama. This is the second largest known population of the species. Several thousand plants are distributed over an area of 120 acres. This privately owned site is near an expanding urban population; the major threat to the site is expansion of an adjacent residential subdivision. The site is currently for sale and could, in the near future, be lost to intensive residential development or conversion to intensive pine monoculture.

Site 3, Clay County, Georgia. This moderate-sized population occurs along a small creek that is a tributary of the Chattahoochee River. The plants occur within a small (3-acre) area bounded by development on three sides and unsuitable habitat on the fourth side. The site is privately owned and is threatened by timber harvesting and/or residential development.

Site 4, Columbia County, Georgia. This moderate-sized population occurs on approximately 15 acres within a privately owned tract in the vicinity of an expanding urban area. Historically, part of this population was destroyed by a quarrying operation. Current threats to the site include residential development and timber harvesting.

Site 5, Columbia County, Georgia. This very small population (less than 50 plants) occurs on unprotected, privately owned land. Recent residential development and timber harvesting have altered many areas adjacent to the site. Potential threats to this population include development, logging, and wildfires.

Site 6, Early County, Georgia. This small population was adversely impacted by a tornado that struck the area in 1983. The only plants observed in 1985 were near the edge of the impacted area. The mature hardwood forest that formerly occurred at this site has been completely destroyed and replaced with a thick tangle of broken tree trunks and limbs intertwined with greenbrier, blackberry, and grape vines.

Site 7, Talbot County, Georgia. This small population of 20 plants was discovered in the spring of 1987. It is located on a wildlife management area controlled by the Georgia Department of Natural Resources. Recent timber management activities have drastically altered the site, and its continued existence is not assured. The management agency (Georgia Department of Natural Resources) responsible for the site will ensure that future activities there are undertaken in a manner consistent with the protection of *Trillium reliquum* (Tom Patrick, Georgia Natural Heritage Inventory, pers. comm.).

Site 8, Lee County, Georgia. This site is represented by an old collection of relict *Trillium* made by Mrs. M. G. Henry in 1939. Thorough searches of the original collection site and adjacent, apparently suitable, habitat failed to reveal the presence of an extant population in this area. *Trillium reliquum* appears to have been extirpated from Lee County by the numerous land use changes that have occurred in the area since 1939 (John Freeman, Auburn University, pers. comm.).

Site 9, Aiken and Edgefield Counties, South Carolina. This is the largest known population of *Trillium reliquum*. The population consists of a series of about ten subpopulations (or colonies) containing from a few hundred to several thousand plants. These colonies occur along a narrow band of suitable habitat that extends for approximately 3 miles. Historically, the plants were probably nearly continuously distributed over this entire area; however, extensive habitat alteration within the population has resulted in the current pattern of irregularly distributed colonies.

A portion of this population site has been purchased as a nature preserve by the South Carolina Wildlife and Marine Resources Department. An additional small colony is within a highway right-of-way owned by the South Carolina Department of Transportation. The remainder of the area is in private ownership and is threatened by residential development resulting from the expansion of an adjacent urban area. A portion of the best habitat that occurred at this location was apparently destroyed by activities associated with highway construction. A small portion of the site is currently being adversely impacted by grazing cattle. In the spring of 1986, several hundred plants were cut (while in bloom) by vandals or uninformed wildflower enthusiasts (Roger Jones, The Nature Conservancy, pers. comm.). A small population segment located on approximately 100 acres in private ownership is apparently protected from destruction by the owners' stated goal of maintaining the area in its natural condition (Boardman *in litt.*). An additional 80 acres, a portion of which supported *Trillium reliquum*, was recently logged and planted in pines (Baggott *in litt.*). Rayner (*in litt.*) states that the best segment of this population has recently been subdivided and is currently for sale. Aiken County and the City of North Augusta are currently planning the construction of new sewer lines in the northern part of Aiken County and adjacent Edgefield County. The sewer line routes have been

altered to some extent to reduce direct impacts on *Trillium reliquum* (Martin *in litt.*, Rayner *in litt.*). However, the development that will follow this expansion of the wastewater collection system may increase the threats to the population. Subsequent increases in land values will make it more difficult to protect a viable population through landowner agreements, nondevelopment easements, or acquisition of property (Rayner *in litt.*).

Site 10, Aiken County, South Carolina. This small (10-acre) population is in a rich, vegetatively diverse ravine adjacent to the Savannah River. A portion of the site is municipally owned, while the remainder is in private ownership. Threats to the privately owned portion of the site include wildfires, trampling by visitors to the area, timber harvesting, and development. The municipally owned portion is protected by the city's informal agreement to maintain the area in its natural state (Charles Martin, North Augusta City Administrator, pers. comm.).

Site 11, Aiken County, South Carolina. This healthy population occurs along the lower slope of a bluff that parallels the Savannah River. It is the third largest of the known *Trillium reliquum* sites, is privately owned, and currently receives no protection. Threats to this location include wildfires, logging, development, and livestock grazing.

Additional appropriate sites were searched for the presence of *Trillium reliquum* during the 1984 and 1985 field seasons (Freeman 1986). Habitat characteristics such as slope, soils, vegetation, and topography were used to indicate suitable habitat. Including the known sites, Freeman (1985) searched a total of 44 locations for presence and distribution of *Trillium reliquum*. Upon completion of the status survey, the Service provided copies to the appropriate State agencies for review and comment. Rayner responded (*in litt.*) that one additional area (the Oconee River drainage) may support the species and suggested that an attempt be made to determine if, in fact, the species occurs in that area. The Service searched seven areas in Baldwin County, Georgia, during the spring of 1986. The related species *Trillium maculatum* and/or *Trillium cuneatum* were found at most of these sites, but no additional populations of *Trillium reliquum* were found. The areas searched were those which, based upon soils, slope, vegetation, and topography, appeared to be most likely to support *Trillium reliquum*.

Federal government actions on this species began with the November 28, 1983, publication of a supplement to the Notice of Review for Native Plants in the *Federal Register* (48 FR 53640). *Trillium reliquum* was included in this supplement as a category-2 species. 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 proposed rules. Subsequent to this notice, the Service funded a status survey of the species. Field work for this survey was conducted during the 1984 and 1985 field seasons, and the Service accepted the final report (Freeman 1985) in late September 1985. This status report and other available information indicate that the addition of *Trillium reliquum* to the Federal list of Endangered and Threatened Plants is warranted.

All plants included in the comprehensive plant notices are treated as under petition. Section 4(b)(3)(B) of the Endangered Species Act, as amended in 1982, requires the Secretary to make certain findings on pending petitions within 12 months of their receipt. On October 12, 1984; October 11, 1985; and October 10, 1986, the Service found that listing *Trillium reliquum* may be warranted but was precluded by other higher priority listing actions.

On January 14, 1987, the Service published, in the *Federal Register* (52 FR 1497), a proposal to list *Trillium reliquum* as an endangered species. That proposal constituted the final finding as required by the 1982 amendments to the Endangered Species Act. The proposal provided information on the species' biology, status, and threats, and the potential implications of listing. The proposal also solicited comments on the status, distribution, and threats to the species.

Summary of Comments and Recommendations

In the January 14, 1987, proposed rule, the June 4, 1987, notice of a public hearing and extension of the comment period (52 FR 21088); the June 22, 1987, public hearing; and notifications associated with these activities, 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 following newspapers:

Abbeville Herald, Abbeville, Alabama; *Opelika-Auburn News*, Opelika, Alabama; *Cuthbert Times and News Record*, Cuthbert, Georgia; *Early County News*, Blakely, Georgia; *Columbia News-Times*, Martinez, Georgia; *Edgefield Advertiser*, Edgefield, South Carolina; and *Aiken Standard*, Aiken, South Carolina.

In response to a formal request, a public hearing on the proposal to list *Trillium reliquum* as an endangered species was held on June 22, 1987, at the North Augusta Community Center in North Augusta, South Carolina. A notice of the hearing and reopening of the comment period to July 2, 1987, was published in the *Federal Register* on June 4, 1987 (52 FR 21088). The public hearing notice announced the purpose, time, and location of the hearing and extended the formal comment period on the proposal in order to ensure that all interested parties had ample time to provide information on the proposed rule.

All written comments and oral statements presented at the public hearing and those received during comment periods are covered in the following discussion. Comments of similar content are grouped together. These issues and the Service response to each, are discussed below.

Nineteen responses to the proposed rule were received during the initial comment period and five verbal statements and seven written responses were provided at the public hearing. Two Federal agencies and three State agencies provided comments. The remaining comments came from private organizations or individuals.

The U.S. Army Corps of Engineers (Mobile District), Tennessee Valley Authority, Alabama Forestry Commission, Georgia Department of Natural Resources, and the South Carolina Wildlife and Marine Resources Department either supported the proposal or stated their activities would have no effect on the species.

The Sierra Club (South Carolina Chapter), South Carolina Nature Conservancy, and four individuals and private organizations provided comments supporting the proposal. One individual provided information on additional South Carolina locations. Another individual who supported the listing provided additional information on threats to one of the Alabama populations, and requested that critical habitat be designated. The Service has incorporated the additional information on status and threats to the species as appropriate into this document. Also, the Service does not believe that it

would be prudent to determine critical habitat for relict trillium (see Critical Habitat Section for discussion).

One landowner requested a public hearing and in a subsequent letter requested information on several aspects of the Endangered Species Act regulations developed to implement it. The Service provided the information requested by this individual.

The public hearing on the proposed rule to list relict trillium as an endangered species was held on June 22, 1987, at the North Augusta Community Center in North Augusta, South Carolina. The hearing officer was Mr. John Harrington of the Secretary of the Interior's Office of the Solicitor. The Service was represented by Messrs. Richard Biggins and Robert Currie of the Asheville Field Office. The objectives and procedures of the hearing were first reviewed by Mr. Harrington. This introduction was followed by a review of the Endangered Species Act and the status of relict trillium by Mr. Currie. Public comments on the proposed rule were then accepted. The comment session was followed by a short question and answer period. The hearing began at 7:30 p.m. and ended at 8:24 p.m. A transcript of the hearing was prepared by Culpepper Reporting Service, Inc., Augusta, Georgia. Five verbal statements were made at the public hearing and seven written comments were provided, three of which were copies of verbal statements given.

The Sierra Club, the South Carolina Wildlife and Marine Resources Department, and two private organizations restated their support of the proposal. Two individuals also supported the listing.

A landowner stated that he owned a 1.49-acre tract of land that supported relict trillium and that he had not received official notification from the Service on its proposal to add the species to the Federal list of endangered species. He further stated that there was an abundance of potential habitat for relict trillium in the vicinity of North Augusta, South Carolina, and Augusta, Georgia, and that not enough searches for the species had been conducted to determine the actual status of the species. He stated that he did not believe that the available information supported consideration of relict trillium as an endangered species. He stated he and his father, who owns 98 acres of land surrounding his property, have no plans to adversely affect the portion of the relict trillium population found there. Also, he provided information on the ability of relict trillium to recover from

fire, cattle grazing, and timber harvesting.

The additional information provided on the response of relict trillium to habitat alterations such as fire, logging, or agricultural activities has been incorporated into this final rule. The Service regrets that one landowner failed to receive official notification of the rule proposing that relict trillium be added to the Federal endangered species list. The Service makes every effort to ensure that all appropriate parties are notified but occasionally fails in this endeavor. Also, the Service has made every effort to survey potential habitat and determine the status of existing populations (see Background section for a more detailed description).

An attorney for a landowner stated that he believed that because of the difficulty in identifying relict trillium and the amount of potential habitat for the species, the Service should delay adding the species to the endangered species list until more field searches have been conducted. He pointed out that the number of known populations had grown from two in 1975 to ten in 1987, and he stated that most of the threats to the species would not be alleviated by adding the species to the Federal list of endangered species.

This attorney further stated that relict trillium does not merit addition to the Federal list because this recently described species has not been adequately studied nor is there evidence that it is actually declining. He requested that final action on the proposal to list the species be delayed for 1 year. The purpose of the delay would be to conduct additional field work. This additional work would include searches for additional populations and further monitoring of the known populations. This would provide a better understanding of trends in the populations and determine if they are actually declining or not. (See Service response below).

The Service acknowledges that some members of the sessile-flowered trillium group are difficult for the inexperienced to identify. However, all individuals conducting relict trillium searches for the Service and State conservation agencies are thoroughly familiar with the group and can be confidently relied upon to correctly identify the species.

The increase in the number of known relict trillium populations from two in 1975 to ten in 1987 is the direct result of the intensive searches that have been conducted for additional populations. Most of these additional populations were found by Dr. John Freeman of Auburn University (under contract to

the Service to search for additional populations) and by Dr. Doug Rayner (South Carolina Wildlife and Marine Resources Department); the latter searched for the plant as a part of his duties as botanist for the South Carolina Heritage Trust Program. Work to date on the distribution of relict trillium has been extensive and is reviewed in the "Background" section of this final rule. A few additional populations, if discovered, are not anticipated to significantly change the known distribution of relict trillium. Any new populations will also be vulnerable to many of the same threats that are facing those currently known.

The Service recognizes that the addition of a plant to the Federal list of endangered and threatened species will not protect the species from all of the actions and activities that threaten its continued existence. The species will still be susceptible to taking at most of the known populations; non-Federal construction and habitat modification activities that may adversely affect the species will continue to affect the species regardless of whether the species is listed or not. However, there are many benefits that addition to the Federal list provides. These benefits are reviewed in the "Conservation Measures" section of this final rule.

Another landowner stated that she owned land supporting relict trillium; although she was sympathetic with the goal of protecting the species, she could not afford to make her property a preserve. She requested that the appropriate agencies preserve what land is needed to protect the species or that agreements for protecting the species be worked out with the individuals who have bought or will buy her property as residential lots.

The Service acknowledges that many private landowners will not be able to or will choose not to protect the relict trillium colonies growing on their property. The Service, in cooperation with the appropriate State agencies and private groups, will endeavor to ensure that a sufficient number of colonies and populations of relict trillium are protected to ensure that the species will continue to exist. The mechanisms that will be used to accomplish this goal include purchase of habitat and habitat protection through acquisition of binding or nonbinding easements.

The city administrator, City of North Augusta, provided additional information on the nature of the habitat where relict trillium is found. He stated that with the meager amount of information available, more searches for the species need to be conducted before

the species is added to the Federal list. (See Service response above).

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Trillium reliquum* 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 promulgated to implement the listing provisions of the Act (50 CFR Part 424) 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 *Trillium reliquum* Freeman (relict trillium) are as follows:

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

All of the known *Trillium reliquum* populations are currently threatened by one or more human activities (Freeman 1985, Rayner *in litt.*). The most significant of these threats is the loss or alteration of their habitat resulting from residential development. Most populations are adjacent to rapidly expanding urban areas, and the direct impacts of construction activities associated with an expanding population are significant. In addition to these direct impacts, activities such as, power transmission line construction, gas, water, and sewer line installation, and road construction all may have indirect or direct impacts on the species if not planned in a way to protect this rare species. Logging of areas occupied by the species constitutes a significant threat, as does conversion or use of the sites for pine monoculture, pastures, or row crop agriculture. Historically, quarrying of stone has adversely affected one population; and stone, sand, and clay quarrying remains a potential threat to at least portions of the known populations. Fires, whether caused by arson, accident, or for timber management, threaten all populations. All populations have been impacted to some extent by one or more of these activities, and all populations, at least in part, remain vulnerable to them (Freeman 1985).

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

Trillium reliquum is not currently a significant component of the commercial trade in native plants; however, the

species has potential for horticultural use, and publicity of the species could generate an increased demand.

C. Disease or Predation

A portion of the *Trillium reliquum* population at Site 7 is currently being adversely impacted by cattle that are being permitted to graze within the wooded areas supporting the species. This activity is a potential threat to most of the known populations. No other threats related to disease or predation are currently known.

D. The Inadequacy of Existing Regulatory Mechanisms

In Alabama, *Trillium reliquum* is informally listed as an endangered species (Freeman *et al.* 1979, Freeman 1979). However, the species has no legal status or protection in the State. *Trillium reliquum* is not included in Georgia's Protected Plants (McCollum and Ettman 1977) and therefore does not receive any legal protection in the State. This list has only been revised once since it was originally published, and it is anticipated that relict trillium will be added to the Georgia list as an endangered plant in a future revision of the Protected Plant List (Chuck Rabolli, Georgia Department of Natural Resources, pers. comm.). South Carolina includes *Trillium reliquum* as an endangered species on its informal list of rare native vascular plants (Rayner *et al.* 1984). Although South Carolina does not have an official plant protection program, the State is pursuing protection of this rare species through its natural areas acquisition program. The only South Carolina population protected from taking is the portion of Site 7 that has been purchased by South Carolina as a natural area. Plants can only be collected from a State-owned natural area by permit from the appropriate State agency. This prohibition is difficult to effectively enforce and the plants there, as at all of the other known sites, remain vulnerable to taking by hobbyists, collectors, and vandals.

E. Other Natural or Manmade Factors Affecting its Continued Existence

Trillium reliquum is a species that currently exists in three very small clusters of populations. Whether these represent remnant populations of a species that was once much more widely distributed or a species that has always been rare is impossible to determine, based upon the information currently available. In addition to the factors A-D discussed above, the remaining populations appear to be threatened by an additional human-related factor, which is adversely

affecting the native flora throughout the Southeast. The woody vine, *Lonicera japonica* (Japanese honeysuckle), is an aggressive, weedy species that was introduced into this country. This species is, in some areas, replacing the native flora. Freeman (1985) notes that this species may represent a serious threat to *Trillium reliquum*. In recognition of this threat, the South Carolina Wildlife and Marine Resources Department recently initiated a honeysuckle control program on the preserve supporting the species (Rayner 1987).

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 *Trillium reliquum* as an endangered species. Endangered status seems appropriate because of the severity of the threats facing the species throughout its rather limited range. 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 designate critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for *Trillium reliquum* at this time. The species has potential for horticultural use. Increased publicity and the provision of specific location information associated with critical habitat designation could result in taking pressures on the species. Publication of critical habitat descriptions would make *Trillium reliquum* more vulnerable to taking, since most of the known populations are on privately owned land. Many of the populations consist of only a small number of individuals, and the loss of even a few could jeopardize the species. The landowners involved in managing the habitat of the relict trillium have been informed of the locations of this species and of the importance of protecting it. 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 *Trillium reliquum* at this time.

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 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. Nine of the ten known populations of *Trillium reliquum* are on privately or State-owned lands. One small population is located on a federally owned recreation area managed by the U.S. Army Corps of Engineers. There are no currently planned programs or projects which would adversely affect this population.

The South Carolina Department of Health and Environmental Control administers the Clean Water Act's section 201 (33 U.S.C. 1281) grant program in South Carolina. This program provides partial Federal funding for wastewater treatment facilities. The City of North Augusta is currently conducting final planning studies for an expansion of this system into the area supporting the largest known population of *Trillium reliquum*. The city has been working with the South Carolina Wildlife and Marine Resources Department to ensure that the installation of the wastewater treatment facilities does not have a significant adverse effect on relict trillium. Based upon past experience with the section 7 consultation program, the Service believes that future coordination on this project will proceed in a cooperative manner and that relict trillium will be

protected from activities that would jeopardize its continued existence while the installation of a needed wastewater treatment system will be permitted. There are no other known current or planned Federal activities that may affect any other populations.

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 *Trillium reliquum*, 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. Certain exceptions can 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 *Trillium reliquum* 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 27329,

Washington, DC 20038-7329 (202/343-4955).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined by 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).

Literature Cited

Freeman, J.D. 1975. Revision of *Trillium* Subgenus *Phyllantherum* (Liliaceae). *Brittonia* 27:1-82.
 Freeman, J.D. 1979. Endangered, threatened, and special concern plants of Alabama. Auburn Univ. Agr. Exp. Sta., Botany and Microbiology Department Ser. #3 2A pp. iii.
 Freeman, J.D. 1985. Status Report on *Trillium reliquum*. Unpublished report to the U.S. Fish and Wildlife Service, Southeast Regional Office, Atlanta, Georgia. 36 pp.
 Freeman, J.D., A.S. Causey, J.W. Short, and R.R. Haynes. 1979. Endangered, threatened, and special concern plants of Alabama. *J. Ala. Acad. Sci.* 30:1-28.
 McCollum, J.L., and D.R. Eitman. 1977. Georgia's Protected Plants. Georgia Department of Natural Resources and USDA-SCS, Atlanta, Georgia. 64 pp.
 Rayner, D.A., C. Aulbach-Smith, W.T. Betsem, and C.L. Rogers. 1984. Native vascular plants (rare, threatened, or endangered) in South Carolina. Unpublished list.

Author

The primary author of this final 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 wildlife, 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: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-350, 90 Stat. 511; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-150, 93 Stat. 1225; Pub. L. 97-304, 90 Stat. 1411 (16 U.S.C. 1531 et seq.); Pub. L. 99-625, 100 Stat. 3500 (1986), unless otherwise noted.

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

§ 17.12 Endangered and threatened plants.

* * * * *
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Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Liliaceae—Lily family:						
<i>Trillium reliquum</i>	Relict trillium	U.S.A. (AL, GA, SC)	E	306	NA	NA

Dated: March 25, 1988.
 Susan Rozco, Acting Assistant Secretary for Fish and Wildlife and Parks.
 [FR Doc. 88-7290 Filed 4-1-88; 8:45 am]
 BILLING CODE 4310-35-M