50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination of Oxypolis Canbyi (Canby's Dropwort) To Be an Endangered Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines *Oxypolis canbyi* (Canby's dropwort) to be an endangered species. This plant will now be provided the protection of the Endangered Species Act of 1973, as amended. This species is known from one site in Maryland, one site in North Carolina, five sites in South Carolina, and three sites in Georgia. Its continued existence is threatened by the loss of wetland habitats in the coastal plain of the mid-Atlantic region, highway improvements, and insect predation. Critical habitat is not being designated.

DATES: The effective date of this rule is March 27, 1986.

ADDRESS: The complete file for this rule is available for inspection, by appointment, during normal business hours at the Service's Regional Office, One Gateway Center, Suite 700, Newton Corner, Massachusetts 02158.

FOR FURTHER INFORMATION CONTACT: Richard W. Dyer at the above address (617/965–5100 or FTS 829–9316).

SUPPLEMENTARY INFORMATION:

Background

Canby's dropwort is a plant of the parsley family (Apiaceae) found at only ten locations in Maryland, Georgia, North Carolina, and South Carolina. The perennial plants have a slight dill fragrance, stand 0.8–1.2 meters (2.6–3.9 feet) tall, have slender "quill-like" leaves, and bear compound umbels of small flowers. The five-parted flowers appear from May through early August and have white petals and pale green sepals, some of which are tinged with red. The species' habitats include swamps, shallow pineland ponds, and wet pine savannas.

Oxypolis canbyi was originally described as a variety of a more common species, *Oxypolis filiformis*, by Coulter and Rose in 1900; however, Meritt L. Fernald elevated the taxon to a full species in 1939. Recent studies by Tucker *et al.* (1983) and Kral (1981) support Fernald's treatment. Although superficial examination has been cause for some confusion between the two taxa, *Oxypolis canbyi* is clearly distinguishable from *Oxypolis filiformis* on analysis of the mature fruit, leaves, and, most notably, the rootstock. *Oxypolis canbyi* has a strong colonizing habitat and spreads vigorously by a pale, fleshy rhizome. The most significant threat to *Oxypolis canbyi* has been and continues to be the loss of wetland habitats on the lowland plain of the mid-Atlantic coast. Several populations have been lost as shallow ponds and wetlands were ditched and drained for conversion to lowland pasture, pine plantations, soybean fields, and other agricultural uses. Alteration of groundwater tables as a result of suburban development, road construction, and other forms of human encroachment is also believed to be a cause of the species' decline.

Ten populations are known to occur in the States of Maryland, North Carolina, South Carolina, and Georgia; the species is believed extirpated from Delaware. A brief State-by-State summary of the species' status follows.

Delaware: Oxypolis canbyi has not been known to occur in the State since 1894. At least seven visits to collect specimens of the plant were made in the "swamps and meadows" east of Ellendale in Sussex County between the years 1867 and 1894. No other historical collections are known to exist from the State. Much of the area east of Ellendale, where the population is believed to have occurred, have been ditched and drained for agricultural purposes. Recent intensive field searches of the historical site and other suitable sites have failed to locate any *Oxypolis canbyi*. The ditching and draining with subsequent changes in vegetative succession and land use has greatly modified the area, and the plant is now considered extirpated from the State.

Maryland: One population of approximately 36 stems (Boone *et al.* 1984) was found within the Chester River watershed in Queen Annes County in 1982. Previously, the species had not been known to occur in the State. The population, however, is within the area of the proposed Upper Chester River Watershed Channelization Project. The Soil Conservation Service (SCS) has been officially advised of the species' occurrence in the project area and of the proposed status of the species. The U.S. Fish and Wildlife Service (FWS) and SCS are optimistic that proper project design and implementation will provide solutions to protecting the species and its habitat. The site of this single extant Maryland population was acquired by the Maryland Chapter of The Nature Conservancy in early 1984.

Georgia: Oxypolis canbyi is officially listed by the State of Georgia as an endangered species. Extant populations are known in Burke, Lee, and Sumter Counties. There is a record for Dooly County near Unadilla but the last known collection from that site was in 1953. Two Burke County records exist from the vicinity of Waynesboro.

North Carolina: Oxypolis canbyi is recorded for one site in North Carolina. The population occurs in a Carolina bay (a physiographic land form that typically appears as a shallow egg-shaped depression) in Scotland County. The site was first discovered in 1984 and is owned in part by The Nature Conservancy.

South Carolina: Five extant populations of *Oxypolis canbyi* are known to occur in the State. There are two additional, historical, sites where the species no longer exists. A vigorous population of approximately 600 stems occurs on private land in Bamberg County and a second population of about 500 stems in colonies of 10–20 stems each, exists in Colleton County. The Colleton site is now owned by The Nature Conservancy. Protection efforts are also underway for the Bamberg site; however, both populations could be threatened by possible roadside maintenance or improvements. Three new populations were found in 1984 as a

result of intensive field work. One population was discovered in Richland County and two were found in Barnwell County. The South Carolina Heritage Trust Program is working to protect the sites.

The historical Hampton County population is along a railroad near Luray. It has not been observed since 1956 and is believed extirpated. The former Berkeley County population near Pineville was last confirmed in 1961. The Berkeley County habitat, a grass-sedge Carolina bay, is now bisected by a small secondary road. Although *Oxypolis canbyi* was positively identified at the site in 1961, recent investigations have determined that only *Oxypolis filiformis* now occurs there. Road construction may have possibly altered the hydrology and vegetative succession of the site, as the area is no longer suitable for *Oxypolis canbyi*.

Oxypolis canbyi was first recommended for Federal listing as a threatened plant species by the Smithsonian Institution in its December 15, 1974, report to Congress, "Report on Endangered and Threatened Plant Species of the United States." On July 1, 1975, the Service published a notice of review in the **Federal Register** (40 FR 27823-27924) of its acceptance of the Smithsonian report as a petition within the context of Section 4(c)(2) of the Act (petition acceptance is now covered by Section 4(b)(3) of the Act, as amended). Canby's dropwort was recognized as a "category-2" candidate in the Service's **Federal Register** notice of December 15, 1980 (45 FR 82480). Category-2 candidates are defined as taxa for which existing information indicates the possible appropriateness of proposing to list as endangered or threatened, but for which sufficient information is not presently available to biologically support a proposed rule.

In recent years, intensive field investigations have been undertaken by State natural resource agencies, private conservation groups, and professional botanists to more thoroughly assess this species' status throughout its range. As a result of this work, *Oxypolis canbyi* was determined to be a "category-1" plant in the Service's November 28, 1983, supplement (48 FR 53639) to the 1980 notice. Category 1 taxa are defined as species for which sufficient information is on hand to support the biological appropriateness of proposing to list.

The Endangered Species Act Amendments of 1982 required that all petitions pending as of October 13, 1982, be treated as having been newly submitted on that date. The species listed in the December 15, 1980, Notice of Review were considered to be petitioned and the deadline for a finding on those species, including *Oxypolis canbyi* was October 13, 1983. On October 13, 1983, and again on October 13, 1984, the petition finding was made that listing *Oxypolis canbyi* was warranted but precluded by other pending listing actions, in accordance with Section 4(b)(3)(B)(iii) of the Act. Such findings require a recycling of the petition, pursuant to Section 4(b)(3)(i) of the Act. The proposed rule of March 28, 1985 (50 FR 12345), constituted the Service's most recent positive finding on this species.

Summary of Comments and Recommendations

In the March 28, 1985, proposed rule (50 FR 12345) 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, conservation and scientific organizations, and other interested parties were contacted and requested to comment. Newspaper notices inviting general public comments were published in six different papers in the vicinity of known populations. Fifteen comments were received, all of which supported the proposed rule. The comments are discussed below.

Favorable comments were received from each of the five State natural resource agencies. The Delaware Department of Natural Resources and Environmental Control stated that, although *Oxypolis canbyi* is believed to be extirpated from the State, it would continue to conduct periodic surveys for the plant. The Maryland Forest, Park and Wildlife Service supported the rule, suggesting that establishing additional populations on State-owned land within the species' potential range be considered as part of the species' recovery strategy. The North Carolina Department of Agriculture and Department of Natural Resources and Community Development expressed strong support for the Service's proposed rule and indicated they anticipate the plant soon being added to the official North Carolina Protected Plant List. The South Carolina Wildlife and Marine Resources Department stated it has looked in many potential sites for the species but has found very few new populations. It also commented that insect predation by the larvae of the black swallowtail butterfly may be seriously limiting the species' reproductive success.

Two Federal agencies commented. The Department of the Army submitted comments from two Corps of Engineers divisions. Their comments were supportive and indicated their willingness to consider the dropwort with regard to the Upper Chester River Watershed (UCRW) project. The U.S. Department of Agriculture's Soil Conservation Service commented that it is aware of the occurrence of the dropwort in the UCRW project area and will continue to work with the Service and the State of Maryland to protect the plant.

The Nature Conservancy Chapters in Maryland, North Carolina, and South Carolina all favored the proposed rule and stated they were actively working to protect the known sites in their respective States. Three other comments were received, all supportive and from conservation organizations and private individuals. All comments are now incorporated into this rule and the Service greatly appreciates the assistance of all parties.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Oxypolis canbyi* 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 *Oxypolis canbyi* (Coulter and Rose) Fernald (Canby's dropwort) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The most significant threat to *Oxypolis canbyi* is the direct loss or alteration of its wetland habitats. Ditching and draining of lowland areas has altered the groundwater table and changed the vegetative composition in many areas of the mid-Atlantic coastal plain where the species historically occurred. Most of the ditching and draining has been for agricultural purposes, including increasing acreage for soybean production, lowland pasture, and pine plantations. Some shallow ponds and depressions have also been dredged to create small reservoirs and "tanks" for watering livestock. In addition to causing direct loss of wetland habitats, the lowering of the water table enables other plants to become established, modifies vegetative succession, and

makes sites less conducive to the growth and reproduction of *Oxypolis canbyi*. Road construction at the Berkeley County, South Carolina, site may have altered the water table and thus eliminated the dropwort. Roadside maintenance or improvements could also threaten other remaining South Carolina populations.

The only known Maryland population is within the area of the SCS Channelization Project for the Upper Chester River Watershed. The purposes of the project are to provide watershed protection, flood protection, and agricultural drainage on approximately 12,141 hectares (30,000 acres) of farmland, forests, and wetlands in both Maryland and Delaware. The project is evaluating 327 kilometers (203 miles) of drainage channel and would be completed over a seven-year period. Flexibility in final project design and fulfillment of the provisions of an interagency agreement signed by the SCS and the FWS on January 13, 1983, will assist in developing solutions to potential conflicts.

The extant populations in southwestern Georgia and North Carolina are also threatened by the continued loss or drainage of shallow wetlands and wet pineland savannas. The draining of areas for pine plantations and soybean fields causes the most significant impacts. Although The Nature Conservancy has required or in some way protected the sites of four extant populations, activities beyond the boundaries of the sites could still have serious adverse impacts on these areas.

B. *Overutilization for commercial, recreational, scientific or educational purposes.* Many collections were made for educational and scientific purposes at the now extirpated Ellendale, Delaware, site. Scientific collecting does not appear to have been the major cause of the species' decline. However, since only ten populations are now known to occur and most of these are located in easily accessible sites, the existing populations could be harmed if exploited for educational or scientific purposes.

C. *Disease or predation.* Canby's dropwort appears to be a favored food plant for the larvae of the black swallowtail butterfly. Some of the South Carolina sites have been subject to predation, but the degree of predation among populations and its overall effects on seed set and plant viability are not yet clear. Recent work by a graduate student has suggested that predation by the butterfly larvae might have a major adverse impact on the viability of known populations.

D. *The inadequacy of existing regulatory mechanisms.* Georgia presently lists *Oxypolis canbyi* as an endangered species under protection of the Georgia Wild Flower Preservation Act of 1973, which prohibits digging, removal, or sale of State-listed plants from public lands without the approval of the State management authority (Georgia Department of Natural Resources). North Carolina's legislation to protect rare plants (N.C. General Statute 19–B, 202.12–202.19) provides protection from intrastate trade and provisions for monitoring and proper management. The State of North Carolina anticipates that the dropwort will soon be added to the official State list.

Section 404 of the Federal Water Pollution Control Act could potentially provide some protection to the species' habitats; however, many of the sites where the plants occur do not meet "wetlands" criteria under Section 404. South Carolina, Maryland, and Delaware do not have State legislation officially protecting rare and endangered plants. The Endangered Species Act will provide additional protection.

E. *Other natural or manmade factors affecting its continued existence.* Alteration or modification of groundwater by increasing suburban development and resultant drawdowns for water supply, and site drainages could indirectly impact the species' habitats. There are indications that roads and highways have altered the groundwater regime where *Oxypolis canbyi* historically occurred. Although it is difficult to state with certainty that one specific factor caused the plant's demise, the impacted areas no longer provide the plant's needed life requirements.

The Service has carefully assessed the best scientific 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 *Oxypolis canbyi* as endangered. Due to the immediate and continuing loss of wetland habitats, the remaining populations are particularly vulnerable and in need of protection. In addition, the protection of the local areas where the plants occur may not provide sufficient protection if development or actions in other areas of the watershed (i.e., tributary streams) affect the local flow regime or groundwater table. An understanding of the groundwater flow regime and total watershed management considerations, therefore, become particularly crucial to properly protecting existing *Oxypolis* sites.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate any habitat of a species which is considered to be 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 this species at this time. The Service, the natural resource agencies of the States in which the species occur, and The Nature Conservancy believe that publication of specific areas in which *Oxypolis canbyi* occurs would likely subject the species to increased disturbance by curiosity seekers and vandals. These potential threats are of particular significance since the sites are easily accessible, the habitats are fragile, and increased public access would be difficult to control under existing authorities. Consequently, no critical habitat is proposed for this plant species.

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 and State agencies, private conservation organizations, and individuals. Because of the precarious status of *Oxypolis canbyi*, The Nature Conservancy has already made significant contributions to conserving the species by acquiring the habitat of three of the known populations, and is actively working to protect other sites as well. Other conservation measures, including required protection efforts by Federal agencies and 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, and are now under revision (see proposal at 48 FR 29990, June 29, 1983). 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 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 agency must enter into formal consultation with the Service. The only known current Federal action that may affect *Oxypolis canbyi* is the SCS Channelization Project for the Upper Chester River Watershed. Cooperative discussions between the FWS and the SCS have been initiated and field inspections are currently being planned.

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 plant species. With respect to *Oxypolis canbyi*, 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, or sell or offer for sale this species in interstate or foreign commerce. 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. There is no known commercial trade in *Oxypolis canbyi* and the Service therefore anticipates few, if any, requests for such permits.

Section 9(a)(2)(B) of the Act, as amended in 1982, prohibits the removal and reduction to possession of endangered plant species from areas under Federal jurisdiction. Permits for exceptions to this prohibition are available through regulations published September 30, 1985 (50 FR 39681, to be codified at 50 CFR 17.62). This prohibition will apply to *Oxypolis canbyi*, although no known populations exist on Federal lands. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Federal Wildlife Permit Office, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235–1903).

National Environmental Policy Act

The 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).

Literature Cited

Boone, D.D., G.H. Fenwick, and F. Hirst. 1984. The Rediscovery of *Oxypolis canbyi* on the Delmarva Peninsula. Bartonia 50:21–22.

Kral, R.D. 1981. Notes on Same "Quill"-Leaved Umbellifers. Sida 9:124–134.

Tucker, A.O., N.H. Dill, C.R. Broome, C.E. Phillips, and M.J. Maciarello. 1979. Rare and Endangered Vascular Plant Species in Delaware. U.S. Fish and Wildlife Service, Region 5, Newton Corner, Massachusetts.

Tucker, A.O., N.H. Dill, T.D. Pizzolato, and R.D. Kral. 1983. Nomenclature, Distribution, Chromosome Numbers, and Fruit Morphology of *Oxypolis canbyi* and *Oxypolis filiformis* (Apiaceae). Systematic Botany 8:299–304.

Author

The author of this final rule is Richard W. Dyer, Endangered Species Staff, U.S. Fish and Wildlife Service, One Gateway Center, Suite 700, Newton Corner, Massachusetts 02158 (617/965–5100 or FTS 829–9316).

List of Subjects in 50 CFR Part 17

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

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: Pub. L. 93–205, 87 Stat. 884; Pub. L. 94–359, 90 Stat. 911; Pub. L. 95–632, 92 Stat. 3751; Pub. L. 96–159, 93 Stat. 1225; Pub. L. 97–304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*).

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

§ 17.12 Endangered and threatened plants.

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(h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Apiaceae—Parsley family:						
Oxypolis canbyi	Canby's dropwort	U.S.A. (DE, GA, MD, NC, SC)	E	217	NA	NA

Dated: February 9, 1986.

P. Daniel Smith,

Deputy Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 86–3974 Filed 2–24–86; 8:45 am]

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