50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination of Agalinis acuta (Sandplain Gerardia) to be an Endangered Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines a plant, *Agalinis acuta* (sandplain gerardia) to be an endangered species, and thereby provides the species protection under the authority contained in the Endangered Species Act of 1973, as amended. This species is known to occur at two sites on Cape Cod, Massachusetts, six sites on Long Island, New York, and one site in Baltimore County, Maryland. Historically, it also occurred in Connecticut and Rhode Island, but is now believed extirpated in these States. The species is endangered by changing land use patterns, residential and commercial development, and encroachment of

woody vegetation. Historically, grazing by sheep and cattle and periodic burning of the coastal grasslands and pitch pine—scrub oak forests maintained large areas in early stages of succession. Sandy open areas free of dense competing vegetation are required for successful establishment and growth of *Agalinis acuta*. Changing land use patterns and residential development, which now necessitate the suppression of fires, have significantly altered and reduced the species' required habitat. Areas subjected to periodic disturbance, such as roadside rights-of-way, airport perimeters, power lines, etc., offer the best hope of finding as yet undiscovered populations. Due to the sensitivity and vulnerability of the few known populations, critical habitat is not being determined.

EFFECTIVE DATE: The effective date of this rule is October 7, 1988.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, One Gateway Center, Suite 700, Newton Corner, Massachusetts 02158.

FOR FURTHER INFORMATION CONTACT: Anne Hecht at the above address (617–965–5100 or FTS 829–9316).

SUPPLEMENTARY INFORMATION:

Background

The sandplain gerardia is a plant of the snapdragon family (Scrophulariaceae) found at nine locations in Massachusetts, New York, and Maryland. The plant is an annual light-green herb from 4 to 8 inches (1 to 2 decimeters) and occasionally up to 16 inches (four decimeters) tall. The stem is weakly angular and has few branches. The leaves are opposite, linear, and up to 1 inch (2.5 centimeters) long. The pink-purple, bell-shaped flowers appear from late August through September, are 0.4–0.5 inches (1 to 1.3 centimeters) long, and have two yellow lines and red or purple spots in the corolla throat. The corolla lobes are slightly notched at the tip. The species grows in dry, sandy, open areas.

The plant has a very restricted distribution due to its dependence on the periodic disturbance of its specialized and limited habitat. Most collection records for *Agalinis acuta* date back to the late 1800's and early 1900's. Historically, the plant was known from Cape Cod and Nantucket Island to western Long Island, inland to western Middlesex and Worcester Counties in Massachusetts and Hartford County in Connecticut. Recent collections of the species in Baltimore County, Maryland represent the southern limit of its distribution.

The most significant threat to the species has been the continuing loss of grassland habitat along the coastal plain of southern New England, western Long Island, and the offshore islands of Nantucket and Martha's Vineyard. Residential, commercial and recreational development with ancillary developments such as shopping facilities, expanding roadways, etc., have rapidly increased in this region in the last 25–30 years.

From the turn of the century to the early 1940's, the species was known to have occurred in at least 24 towns and occasionally at several sites within a given town. Intensive field searches for the species during the last few years have resulted in location of only nine existing populations. Year-round residential developments, summer cottages, and marinas now mark historical locations of the plant. The secondary impacts of this increased urbanization, however, have also had a severe impact on the species' remaining habitat. *Agalinis acuta* appears to require periodic disturbance of its habitat to maintain the required sandy open areas free of dense competing vegetation. Historically, the grazing of sheep and cattle throughout the region helped maintain the grasslands or "moors." Extensive fires, often set intentionally, also helped perpetuate the grassland and suppress dense scrub oak and pitch pine forests. Agricultural use of the area has changed, however, and urbanization now requires prompt fire suppression. Dense woody vegetation has encroached on many historical sites for the plant. It is probably not by coincidence that the two extant populations on Cape Cod occur on the periphery of old cemeteries, where caretaking activities have helped maintain conditions favorable to *A. acuta*.

The six known populations on Long Island are also seriously threatened by expanding urbanization and industrial development. The plant was once known from six sites in Rhode Island, but has not been reported there since 1941 and is believed to be extirpated from the State (pers. comm. R. Enser, Rhode Island Natural Heritage Program, 1985). The last Connecticut record for the species was in the 1930's, and it is also believed extirpated there (Mehrhoff 1978).

Agalinas acuta was first recommended for Federal listing as a threatened 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 in the **Federal Register** (40 FR 27823–27924) a Notice of Review of its acceptance of the Smithsonian report as a petition within the context of section 4(b)(2) of the Act (petition acceptance is now covered by section 4(b)(3) of the Act, as amended). The sandplain gerardia 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 the past seven years, intensive field investigations to more thoroughly assess the species' status in southern New England and New York have been undertaken by State natural resource agencies, The Nature Conservancy, private conservation groups and professional and amateur botanists. As a result of this work, *Agalinis acuta* was included in Category 1 of the Service's November 28, 1983 supplement (48 FR 53639) to the 1980 notice and a revised notice of September 27, 1985 (50 FR 39526). Category 1 taxa are defined as species for which sufficient information is on file to support the biological appropriateness for proposing to list. The presence of one population of this species in Baltimore County, Maryland was later brought to the Service's attention. Preliminary information regarding this southernmost population was provided by the Maryland Natural Heritage Program.

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 deadline for a finding on those petitions, including the one for *A. acuta*, was October 13, 1983. On October 13, 1983, October 12, 1984, October 11, 1985, and again on October 10, 1986, the petition finding was made that listing *Agalinis acuta* was warranted but precluded by other pending listing actions, in accordance with section 4(b)(3)(B)(iii) of the Act. Recycling of the petition, pursuant to section 4(b)(3)(c)(i) of the Act, resulted in a finding deadline of October 10, 1987. A proposed rule finding that the petitioned action was warranted, and proposing to implement the action in accordance with section 4(b)(3)(B)(ii) of the Act was published on November 19, 1987 (52 FR 44450–44453).

Summary of Comments and Recommendations

In the November 19, 1987 proposed rule, all interested parties were requested to submit factual information that might contribute to the development of a final rule. Appropriate State resource agencies in the species' range, county governments, scientific organizations, and other interested groups were contacted and requested to comment. Notices inviting public comment were published in several newspapers. Written comments were received from four parties during the public comment period. All letters supported the proposed listing. One commenter advised of additional populations on Long Island; another recommended a cooperative study among the three States with extant populations. Maryland Department of Natural Resources advised that they have listed *Aqalinis acuta* as a State endangered species, and New York State Department of Environmental Conservation hopes to do so by June 1988. All commenters expressed willingness with the Service in recovery efforts.

Summary of Factors Affecting the Species

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) 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 *Aqalinis acuta* Pennell (sandplain gerardia) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The most significant threat to *Aqalinis acuta* is the direct loss or alteration of its coastal grasslands habitats. The plant is found in open sandy grasslands of southern New England and Long Island and is one of several rare species associated with the "coastal prairie" habitat type (Crow 1982). Six other plants considered by the State of Massachusetts Natural Heritage Program as being rare and threatened occur on sandplain grasslands (Coddington and Field 1978). Fifteen rare species listed by the New York Heritage program co-occur with *A. acuta* on one or more of the Long Island sites (pers. comm. S. Clements, New York Natural Heritage Program, 1988), while two candidates for Federal listing are found on the Maryland site (pers. comm. D.E. MacLauchlan, Maryland Dept. of Natural Resources, 1987). Another candidate for Federal listing, the regal fritillary butterfly (*Speyeria idalia*), is also associated with the coastal grasslands habitat.

Land use practices have changed significantly throughout much of the coastal plain region since the turn of the century. During the early 1800's, extensive areas of the coastal grasslands were used as "commonlands" for pasturing of sheep and cattle. Individual farms and private landholdings became established during the mid 1800's, but grazing and tilling for agricultural crops were still predominant. The late 1800's saw a decline in agriculture; however, the hunting of shorebirds became an important activity on the abandoned fields. Through the early 1920's, extensive areas of the "moorlands" were burned intentionally in late summer to attract feeding birds to the cooked fruits of heathland plants.

The grazing and burning of the grasslands through the mid 1900's was an important factor in maintaining the coastal plain ecosystem. These periodic disturbances were also essential to maintaining sandy areas critical to the existence of *Aqalinis acuta*. Intensive agricultural use of the grasslands today has greatly diminished and fires are accidental, infrequent, and quickly suppressed. Residential homes, summer cottages, and commercial developments have claimed many areas where *Aqalinis acuta* formerly occurred. The suppression of fires has also allowed woody vegetation to encroach upon the open grasslands, further reducing available suitable habitat for the growth and reproduction of *Aqalinis acuta*.

The one population of this species in Maryland occurs at Soldier's Delight, an area of unusual vegetation on serpentine-derived soil. It is a State Natural Environmental Area.

B. *Overutilization for commercial, recreational, scientific or educational purposes.* Although historical collections were made at many sites on Cape Cod and the islands of Nantucket and Martha's Vineyard, scientific collecting does not appear to have been a major cause of the species' decline. However, because only nine populations, all located in easily accessible sites, are now known to occur, the species could be threatened by exploitation for educational or scientific purposes in the future.

C. *Disease or predation.* One of the *A. acuta* populations on Long Island, New York appears to be heavily browsed by rabbits and/or deer. It is not known, however, if the effect is deleterious or beneficial since wildlife may act as seed dispersal agents or browse competing vegetation (Zaremba 1983).

D. *The inadequacy of existing regulatory mechanisms.* Maryland has listed *Agalinis acuta* as an endangered species; as such, it is afforded some protection from taking without the permission of the landowner and from trade. Massachusetts officially lists *Agalinis acuta* as endangered, but the listing serves only to recognize the plant's rarity and provides it no legal protection. New York State Department of Environmental Conservation has stated its intention to include the species on a State list of rare plants currently in preparation. None of these existing or proposed State listings protects plants from the habitat modification (described under factor A, above) which poses the major threat to this species.

All States with extant and historical populations of *Agalinis acuta* have cooperative plant agreements as specified under section 6(c)(2) of the Endangered Species Act. Section 6 cooperative agreements between the appropriate State agencies and the Service provide opportunities to carry out further conservation programs on behalf of listed species. Listing under the Endangered Species Act will therefore provide further protection for this species.

E. *Other natural or manmade factors affecting its continued existence.* Although it is known that the sandplain gerardia is an annual plant and requires open sandy areas for successful germination and growth, other aspects of the species' biology are not well understood. The small number and size of existing populations are causes for concern, as natural factors or chance adverse event could have serious impacts on the species' continued existence. Natural successional changes, random destructive events that might severely alter the species' habitats, or any failure in reproduction resulting in genetic depletion could be catastrophic.

The Service has carefully assessed the best scientific information available regarding the past, present and future threats faced by this species in determining to finalize this rule. Based on this evaluation, the preferred action is to list *Agalinis acuta* as endangered. Due to the encroachment of woody vegetation on coastal grasslands and rapid residential and commercial development, the few remaining populations are particularly vulnerable and in need of protection. Critical

habitat is not being designated for the reasons outlined below.

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 believes that publication of specific areas in which *Agalinis acuta* 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, and increased public access would be difficult to control under existing authorities. Consequently, no critical habitat is determined for this 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. The Nature Conservancy has already made significant contributions to conserving the species by contacting the owners of land containing known populations in Massachusetts and New York and encouraging them to assist in protecting the sites. Additional recovery measures might include maintaining coastal plain grassland vegetation by controlling the encroachment of woody species and reintroducing the species into areas of historical habitat from which it is now extirpated. Other conservation measures, including required protection efforts by Federal agencies and prohibitions against collecting are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402. Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible agency must enter into formal consultation with the Service. The Federal Aviation Administration (FAA) reports that it may declare land it owns on which this species is found to be excess property. The FAA has been advised as to its responsibilities under section 7 and has expressed no concerns regarding anticipated conflicts due to the listing.

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 certain exceptions, these prohibitions make it illegal for any person subject to the jurisdiction of the United States to import or export any endangered species of plant, transport it in interstate or foreign commerce in the course of a commercial activity, sell it or offer it for sale in interstate or foreign commerce, or remove it from an area under Federal jurisdiction and reduce it to possession. 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 *Agalinis acuta* and the Service therefore anticipates few, if any, requests for such permits. Requests for copies of the regulations on plant and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, Washington, DC 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).

References Cited

Church, G.L. and R.L. Champlin. 1978. Rare and endangered vascular plant species in Rhode Island. U.S. Fish and Wildlife Service, Region 5, Newton Corner, Massachusetts.

Coddington, J. and K.G. Field. 1978. Status Report: *Agalinis acuta* in Massachusetts. U.S. Fish and Wildlife Service, Region 5, Newton Corner, Massachusetts, 5 pp. Unpublished report.

Crow, G.E. 1982. New England's rare, threatened, and endangered plants. U.S. Government Printing Office, Washington, DC, 129 pp.

Mehrhoff, L.F. 1978. Rare and endangered vascular plant species in Connecticut. U.S. Fish and Wildlife Service, Region 5, Newton Corner, Massachusetts.

Zaremba, R.E. 1984. Site survey summary. New York Heritage Program. Unpublished report.

Authors

The primary authors of this final rule are Paul R. Nickerson and Anne Hecht (see **ADDRESSES** section).

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.*); 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 Scrophulariaceae, 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					
Scrophulariaceae—Snapdragon Family:						
*	*	*	*	*	*	*
Aqalinis acuta	Sanplain gerardia	U.S.A. (CT, MA, MD, NY, RI)	E	325	NA	NA
*	*	*	*	*	*	*

Dated: August 11, 1988.

Susan Recce,

Acting Assistant Secrtary for Fish and Wildlife and Parks.

[FR Doc. 88-20299 Filed 9-6-88; 8:45 am]

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