

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Proposal To Determine *Helonias bullata* (Swamp Pink) To Be a Threatened Species**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule.

SUMMARY: The Service proposes to determine *Helonias bullata* to be a threatened species and thereby provide the species needed protection under the authority contained in the Endangered Species Act of 1973, as amended. Approximately 60 populations are known to occur throughout the species range from New Jersey to Georgia. Thirty-five of the known populations occur in the freshwater wetlands of New Jersey's coastal plain. Eight populations are known in Virginia, North Carolina has seven, and Delaware has six populations. Georgia, Maryland and South Carolina each have one known population, and the plant is believed to be extirpated from New York. The species is threatened by the filling and draining of its wetland habitats and by private collecting. Critical habitat is not being determined. Comments are solicited.

DATES: Comments from all interested parties must be received by April 25, 1988. Public hearing requests must be received by April 11, 1988.

ADDRESSES: Comments and materials concerning this proposal should be sent to: Regional Director, U.S. Fish and Wildlife Service, One Gateway Center, Suite 700, Newton Corner, Massachusetts 02158. Comments and materials received will be available for public inspection by appointment during normal business hours at the above address.

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

SUPPLEMENTARY INFORMATION:**Background**

The swamp pink (*Helonias bullata*) represents a monotypic genus in the lily family (Liliaceae), which historically occurred along small streams and in swamps, bogs, and other wetlands from New York to northern Georgia. Although the first collection of the plant is

uncertain, it probably occurred in the Philadelphia area in the mid-1700's by Swedish naturalist Peter Kalm. Based on Kalm's collections, the plant was described by Linnaeus in the first edition of *Species Plantarum* (Brown 1910).

This perennial species is strikingly attractive and very distinctive. It has many smooth, lance-shaped, evergreen leaves, which grow in a basal rosette from a tuberous rhizome. The stout, hollow stem is 1-2 feet (3-6 decimeters (dm)) tall and is topped by a short, dense raceme of pink or purplish flowers that appear in April or early May. The species inhabits a variety of freshwater wetlands including spring seepages, swamps, bogs, meadows, and margins of meandering small streams.

The most significant threat to *Helonias bullata* is the direct loss or alteration of its wetland habitats. Many eastern States have lost a significant percentage of their wetlands since the mid-1900's (Tiner 1986). Ditching and draining of lowlands for agricultural purposes and logging of hardwood swamps is continuing, but the greatest ongoing threat is the direct filling or alteration of inland wetlands due to expanding urbanization. Loss of swamp pink habitat can be attributed to channelization for flood control, ditching and draining for increased agriculture, and filling for housing projects, industrial developments, and highways. The quality of wetlands has also been degraded by sedimentation, water pollution and waste disposal. Several New Jersey populations of *Helonias bullata* have been completely destroyed or severely depleted by severe erosion and siltation from housing project construction activities.

Approximately 100 populations were known to exist historically in the State of New Jersey. Only 35-40 populations exist there today, and most of the historical sites are presumed lost to the filling, draining, and development of wetland habitats. A few populations have been found as a result of recent intensive field surveys but these new populations are small and usually in the vicinity of another existing colony. Some protection from development is provided to those populations that occur within the Pine Barrens National Reserve. These colonies are small, however, and virtually all of the State's largest populations are on private land outside of the Reserve and vulnerable to expanding urbanization (Snyder 1981).

Seven populations are known to occur in North Carolina, the largest of which is on Forest Service property. The remaining colonies are on private or corporate land. In North Carolina the

plants are found exclusively in mountain bogs. This type of habitat is very rare in the State and local experts have thoroughly searched most areas where the swamp pink could potentially occur (Sutter 1984). *Helonias bullata* is listed as a threatened species under North Carolina's State Plant Law (N.C. General Statute 19-B, 202.12-202.19) which provides protection from intrastate trade and provisions for monitoring and proper management.

Destruction of swamp pink habitat has been particularly severe in Delaware due to agricultural drainage and urbanization. Five colonies are known to have been lost to development and only six extant populations remain in the State. Some potential habitat remains to be checked but the possibilities of finding any significant populations are remote. The Delaware Department of Natural Resources and Environmental Control is working toward the protection of the most significant colonies.

Eight populations are known to occur in Virginia, five of which, including one of the State's largest, are on Federal land. One population occurs on Park Service land and four on U.S. Forest Service property. Three Forest Service populations are offered some protection because they occur within Special Interest Areas or Wilderness Areas and the Forest Service is diligently working to protect the plants. The remaining populations are on private property.

Georgia, South Carolina and Maryland have only one known population each. The swamp pink occurs in high mountain bogs in Georgia and South Carolina. This habitat type is very limited in both States and local experts believe there is little chance of discovering additional populations. The Georgia plants occur on private land and the South Carolina plants occur on State Heritage Trust Land which was recently purchased to protect the site. The single Maryland population occurs on private land and is threatened by cutting and thinning of trees and other woody vegetation. Another historical population in the State was destroyed by ditching and draining of its wetland habitat for increased agriculture.

The swamp pink reaches its northern limit of range in New York. The New York plants were reported to occur on Staten Island and were last seen in the late 1800's. Surveys have been conducted in other potential habitats and the plant is now believed to be extirpated from the State. Previous records of the plants' occurrence in the State of Pennsylvania are believed to be in error.

Helonias bullata was first recognized by the Service in the comprehensive Federal Register notice of December 15, 1980 (45 FR 82480). The swamp pink was recognized as a "Category 2" candidate, the category in which it remained in the 1985 updated notice (50 FR 39526). Category 2 candidates are 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.

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 species, including *Helonias bullata*, was October 13, 1983. In October of 1983, 1984, 1985, 1986, and 1987, the petition finding was made that listing *Helonias bullata* was warranted but precluded by other pending listing actions, in accordance with section 4(b)(3)(iii) of the Act. Such findings require a yearly recycling of the petition, pursuant to section 4(b)(3)(C)(i) of the Act. This proposal constitutes the final one-year finding on the petition for this species.

In the fall of 1986 the Service completed a project with the Eastern Regional Office of The Nature Conservancy that assessed the range-wide status of 32 plant candidates including *Helonias bullata*. Extensive field searches were conducted in each State throughout the species' range under direction of the State Natural Heritage Programs. As a result of these investigations, the Conservancy recommended that *Helonias bullata* warranted Federal protection under the Endangered Species Act as a threatened species. This proposed rule constitutes the Service's concurrence with that recommendation.

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 *Helonias bullata* Linnaeus are as follows:

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

The most significant threat to *Helonias bullata* is the direct loss or alteration of its wetland habitats. The plant has been extirpated from many sites in the mid-Atlantic States due to expanding residential, commercial and industrial developments. Increased development has not only directly destroyed important wetland habitats but pollution and sedimentation, associated with urban and agricultural runoff have adversely impacted remaining habitats and the sites are no longer suitable for the species.

Ditching and draining of lowland areas to improve or create additional agricultural land have altered the groundwater table of swamp pink habitats. The alteration of the water table modifies vegetative succession permitting other more aggressive or non-native plants to become established. Additionally, because the swamp pink seems to prefer "seepage or spring swamps" for successful growth and reproduction, changes in natural succession of the woody vegetation due to a modified groundwater table have adversely impacted swamp pink populations.

The single Maryland population occurs in the approach path to a major airport. Due to safety regulations and instrumentation requirements, the vegetation in the approach corridor needs to be periodically cut, removed, trimmed, etc. Fish and Wildlife Service and State natural resource agency representatives have met with airport officials to discuss management alternatives that would conserve the site yet not compromise safety considerations. A management agreement for the site is currently being formulated with the State Aviation Administration. The agreement would protect the area where the plants occur, however, other potential private developments adjacent to the site are cause for concern.

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

Helonias bullata is referred to as one of the most beautiful plants in the eastern United States in several wildflower books and field guides. Its striking beauty has caused the plant to be sought by garden hobbyists and curiosity seekers. Many plants have also been taken for scientific purposes in documenting the species' range and distribution. Plants have been frequently taken from the single Georgia population

by botanists and private collectors without the knowledge and consent of the landowner. The plant is also known as a highly desirable species for home wildflower gardens. A popular wildflower garden guide, *How to Grow Wildflowers, Wild Shrubs and Trees in Your Own Garden*, identifies the desirability of the swamp pink and recommends the plant for private gardens. Commercial collecting and selling of wild plants, however, does not appear to be significant at this time. A few commercial nurseries or gardens do sell plants cultivated from seed.

C. Disease or Predation

Disease is not known to be a threat to existing populations. Deer have extensively browsed some swamp pink colonies, but what specific role deer may play in the life history and ecology of the plant has not as yet been determined.

D. The Inadequacy of Existing Regulatory Mechanisms

North Carolina and Georgia are the only States that have placed *Helonias bullata* on an official State list. The North Carolina legislation to protect rare plants provides protection from intrastate trade, and contains provisions for monitoring and proper management. The Georgia Wild Flower Preservation Act of 1973 prohibits digging, removal, or sale of State listed plants from public lands without the approval of the Georgia Department of Natural Resources. The single Georgia population, however, is on private land. 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 may not meet "wetlands" criteria under Section 404.

E. Other Natural or Manmade Factors Affecting its Continued Existence

Alteration or modification of the groundwater table by activities adjacent to *Helonias bullata* sites could indirectly impact the species' habitats and requirements for growth. Several swamp pink populations, particularly in the southern portion of the species' range, are associated with more northern plant communities. Groundwater-influenced soils help maintain the required perennial cool temperature regimes. Ditching and draining of adjacent lands for agricultural purposes, suburban development, industrial parks, etc., or the withdrawal of groundwater for public water supply could alter the groundwater regime in the plants'

habitat and adversely impact the species.

The Service has carefully assessed the best scientific 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 *Helonias bullata* as threatened. Due to the small number of populations and the threats to its wetland habitats the plant is in need of protection. In addition, the protection of the specific areas where the plants occur may not provide sufficient protection if development projects or other actions in the watershed significantly affect the local groundwater regime. An understanding of the species and its habitat requirements are important considerations in the protection and recovery strategy for the species.

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 designation of critical habitat is not considered to be prudent when such designation would not be of benefit to the species involved (50 CFR 424.12). In the present case, the Service believes that designation of critical habitat would not be prudent, because no benefit to the taxon can be identified that would outweigh the potential threat of collection, which might be caused by the publication of a detailed critical habitat description and map.

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 and State natural resource agencies are actively working to protect the sites of several populations. The single South Carolina population was recently purchased to protect the area as State Heritage Trust land under auspices of the South Carolina Wildlife and Marine Resources Department.

Four of the known swamp pink populations occur in National Forests. This proposed rule has been discussed with Forest Service personnel and they

are supportive and are taking action to conserve and protect the species. The swamp pink colonies on Forest Service land are within officially designated Special Interest Areas or Wilderness Areas. Conservation and protection of the unique habitats and natural resources in these areas has high priority. Other conservation measures, including required protection efforts by Federal agencies and prohibition 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 informally confer with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. When a species is 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 agency must enter into formal consultation with the Service. There are no known Federal projects at this time that may affect *Helonias bullata*.

The Act and its implementing regulations found at 50 CFR 17.71 and 17.71 set forth a series of general trade prohibitions and exceptions that apply to all threatened plant species. With respect to *Helonias bullata* all trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.71 would apply. With certain exceptions, these prohibitions make it illegal for any person subject to the jurisdiction of the United States to import or export, any threatened plant, transport it in interstate or foreign commerce in the course of a commercial activity, sell or offer it for sale in interstate or foreign commerce, or remove it from areas under Federal jurisdiction and reduce it to possess. Seeds from cultivated specimens of threatened plant species are exempt from these prohibitions provided that a statement of "cultivated origin" appears on their containers. The Act and 50 CFR 17.17 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened species under certain circumstances. Commercial trade in wild *Helonias bullata* is not known to

exist at this time, although some plants grown in cultivation from seed are known to be sold by a few private nurseries. The Service, therefore, anticipates a few requests for permits. 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.

Public Comments Solicited

The Service intends that any final rule adopted will be accurate and as effective as possible in the conservation of endangered or threatened species. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning any aspect of this proposed rule are hereby solicited. Comments are particularly sought concerning:

- (1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to *Helonias bullata*;
- (2) The location of any additional populations of this species 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 that may impact existing populations.

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

The Endangered Species Act provides for a public hearing on this proposal if requested. Requests must file within 45 days of the date of the proposal. Such requests must be made in writing and addressed to the Regional Director, U.S. Fish and Wildlife Service, One Gateway Center, Suite 700, Newton Corner, Massachusetts 02158.

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).

Literature Cited

Brown, S. 1910. *Helonias bullata* L. in New Jersey. *Bartonia* 3:1-6.
 Rawinski, T., and J.C. Cassin. 1986. Status report on *Helonias bullata*. *Unpublished report prepared for U.S. Fish and Wildlife Service*.
 Snyder, D.B., and V.E. Vivian. 1981. Rare and endangered vascular plant species in New Jersey. U.S. Fish and Wildlife Service, Newton Corner, Massachusetts.
 Sutter, R.D. 1984. The Status of *Helonias bullata* L. (Liliaceae) in the southern Appalachians. *Castanea* 49:9-16.
 Tiner, R.W., and J.T. Finn. 1986. Status and recent trends of wetlands in the five mid-Atlantic States. U.S. Fish and Wildlife Service, Newton Corner, Massachusetts.

Author

The primary author of this rule is Richard W. Dyer (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, 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:

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. 94-359, 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. It is proposed to 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.

* * * * *
 (h) * * *

| Species | | Historic range | Status | When listed | Critical habitat | Special rules |
|-------------------------------|-----------------|--|--------|-------------|------------------|---------------|
| Scientific name | Common name | | | | | |
| Liliaceae—Lily family: | | | | | | |
| <i>Helonias bullata</i> | Swamp pink..... | U.S.A. (DE, GA, MD, NC, NJ, NY, SC, VA). | T | | NA | NA |

Dated: January 13, 1988.
Susan Recce,
 Acting Assistant Secretary for Fish and Wildlife and Parks.
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