

50 CFR Part 17

RIN 1018-AB52

Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Plant *Sisyrinchium dichotomum* (White Irisette)**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Final rule.

SUMMARY: The Service list *Sisyrinchium dichotomum* (white irisette) as an endangered species under authority of the Endangered Species Act of 1973, as amended (Act). *Sisyrinchium dichotomum* is endangered primarily by suppression of natural disturbance, conversion of habitat for industrial/residential development, encroachment by exotic species, trampling, and highway construction and improvements. This action implements Federal protection provided by the Act for *Sisyrinchium dichotomum*.

EFFECTIVE DATE: October 28, 1991.

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, 100 Otis Street, room 224, Asheville, North Carolina 28801.

FOR FURTHER INFORMATION CONTACT: Ms. Nora Murdock at the above address (704/259-0321 or FTS 672-0321).

SUPPLEMENTARY INFORMATION:**Background**

Sisyrinchium dichotomum, described by Eugene P. Bicknell (1899) from material collected in North Carolina, is a perennial herb. The dichotomously branching stems grow approximately 11 to 20 centimeters tall. The basal leaves, usually pale to bluish green, are from one-third to one-half the height of the plant. The tiny (7.5 millimeters long) white flowers appear from late May through July in clusters of four to six at the ends of winged stems. The fruit of this species is a round, pale to medium brown capsule containing three to six round or elliptical black seeds (Bicknell 1899, Hornberger 1987).

Sisyrinchium dichotomum is endemic to the upper piedmont of North Carolina, where it is currently known from four locations in Polk, Henderson, and Rutherford Counties. The species occur

on rich, basic soils probably weathered from amphibolite. It grows in clearings and the edges of upland woods where the canopy is thin and often where down-slope runoff has removed much of the deep litter layer ordinarily present on these sites.

White irisette is dependent upon some form of disturbance to maintain the open quality of its habitat. Currently, artificial disturbances, such as power line and road right-of-way maintenance (where they are accomplished without herbicides and at a season that does not interfere with the reproductive cycle of this species), are maintaining some of the openings that may have been provided historically by native grazing animals and naturally occurring periodic fires.

Sisyrinchium dichotomum has always been known as a narrow endemic, limited to an area in North Carolina bounded by White Oak Mountain, Sugarloaf Mountain, and Chimney Rock. Two of the remaining populations are within highway rights-of-way—one maintained by the North Carolina Department of Transportation and one inside a commercial recreation area where roads are privately maintained.

A third population is within an area recently subdivided for residential development; most of the plants in this latter population are also along private road rights-of-way, with some also being underneath power lines. Most of the fourth population is in an area adjacent to a secondary road. Colonies within these populations have been observed to be adversely impacted by road maintenance operations, erosion of steep roadbanks, natural succession due to suppression of disturbance, bulldozing as part of residential/industrial development, complete removal of the tree canopy (this species appears to prefer thin shade rather than complete sun), and trampling by tourists and sightseers. The continued existence of *Sisyrinchium dichotomum* is threatened by these activities, as well as by herbicide use, highway expansion and improvements, and by encroachment of exotic species. Kudzu (*Pueraria lobata*), Japanese honeysuckle (*Lonicera japonica*), and *Microstegium vimineum* are aggressive exotic weeds which threaten populations at all four sites.

Federal government actions on this species began with the publication of the February 21, 1990, revised Notice of Review for Native Plants in the Federal Register (55 FR 6184), in which this species appeared as a category 2 candidate for listing. Category 2 comprises taxa for which information now in possession of the Service

indicates that proposing to list as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threats are not currently available to support proposed rules. Additional surveys recently have been conducted by Service and State personnel, and the Service now believes sufficient information exists to warrant listing *Sisyrinchium dichotomum* as endangered. Therefore, a proposal to that effect was published in the Federal Register on December 20, 1990 (55 FR 52191).

Summary of Comments and Recommendations

In the December 20, 1990, proposed rule 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, scientific organizations, and other interested parties were contacted and requested to comment. A newspaper notice inviting public comment was published in the Tryon Bulletin (North Carolina) on January 9, 1991.

Seven comments were received; all but one expressed support for the proposal. The North Carolina Farm Bureau Federation expressed concern that listing this species without designating critical habitat would result in undue restrictions on the use of agricultural pesticides in the State. The Service believes that the recent consultation with the Environmental Protection Agency has resulted in an effective program for protecting endangered species from pesticides without unduly restricting the commercial use of such chemicals. In addition, the white irisette does not occur in areas immediately adjacent to farmland or commercially managed forests. Critical habitat was not designated for this species (see "Critical Habitat" section of this rule) because it is exceedingly rare and attractive to collectors; publication and general distribution of site-specific maps could result in the further endangerment of these plants, especially at sites where only a few individuals remain.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Sisyrinchium dichotomum* 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 *Sisyrinchium dichotomum* (white irisette) Bicknell are as follows:

A. The present or threatened destruction, modification, or curtailment of its habitat or range. *Sisyrinchium dichotomum* has been and continues to be endangered by destruction or adverse alteration of its habitat. The species is a narrow endemic known from only four populations, each of which has been partially impacted by residential development, road maintenance activities, and trampling by tourists and sightseers. Most of the colonies in the four remaining populations are on roadsides. The Chimney Rock population, located within a commercial recreation area visited annually by hundreds of thousands of tourists, currently has less than 100 individuals remaining. The Pacolet River population has approximately 100 plants surviving, and approximately 200 plants remain at the Sugarloaf Mountain location. The White Oak Mountain population is the largest surviving population, with approximately 1,000 plants; this site was recently subdivided for residential development. All populations have apparently undergone considerable decline over the past 50 years, since Walker (North Carolina Natural Heritage Program 1990) described the species as "fairly common" here in 1942. Because of the proximity of this species' populations to existing roads, it is extremely vulnerable to accidental destruction from road maintenance and improvement activities. Suppression of natural disturbance appears to be a problem for this species and will be discussed in detail under Factor E below.

B. Overutilization for commercial, recreational, scientific, or educational purposes. *Sisyrinchium dichotomum* is not currently a significant component of the commercial trade in native plants; however, with its attractive growth habit and unusual white flowers, the species has potential for horticultural use, and publicity could generate an increased demand by wildflower enthusiasts. Because of the species' small and easily accessible populations, it is vulnerable to taking and vandalism that could result from increased publicity.

C. Disease or predation. Not known to affect this species at this time.

D. The inadequacy of existing regulatory mechanisms. *Sisyrinchium dichotomum* is afforded legal protection in North Carolina by North Carolina General Statutes, §§ 106-202.122, 106-202.19 (Cum. Sup. 1985), which provide for protection from intrastate trade (without a permit) and for monitoring and management of State-listed species; taking of plants without written permission of landowners is also prohibited. State prohibitions against taking are difficult to enforce and do not cover adverse alterations of habitat, such as exclusion of fire and other forms of natural disturbance. Although one site is registered with the North Carolina Natural Heritage Program as a State Natural Area, this designation is voluntary and not legally binding. The Endangered Species Act will provide additional protection and encouragement of active management for *Sisyrinchium dichotomum*.

E. Other natural or manmade factors affecting its continued existence. As mentioned in Factor A, many of the remaining populations are small in numbers of individual stems and in area covered by the plants. Of the four remaining populations, three have a combined total of less than 400 plants. Therefore, there may be low genetic variability within populations, making it more important to maintain as much habitat and as many of the remaining colonies as possible. Another threat to this species is the encroachment of aggressive exotics such as kudzu, Japanese honeysuckle, and *Microstegium vimineum*. All four populations are threatened by the invasion of these aggressive weeds.

Much remains unknown about the demographics and reproductive requirements of this species. Fire, or some other suitable form of disturbance, seems to be essential for maintaining the open habitat preferred by *Sisyrinchium dichotomum*. Fire suppression or lack of other periodic disturbance allows the canopy over these habitats to become too thick, shading out the *Sisyrinchium* and its shade-intolerant associates. Removal of the litter layer by fire, flooding, or other means also seems to be essential to germination and survival of seedlings of this species. The current distribution of this species is ample evidence of its dependence on disturbance, with all four remaining populations being located close to roads, utility line rights-of-way, or trails.

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 *Sisyrinchium dichotomum* as endangered. With only four small populations remaining, all located in areas where they are vulnerable to extirpation from road maintenance/improvement activities or residential development, and, based upon its dependence on some form of active management, the species warrants protection under the Act. Endangered status seems appropriate because of imminent serious threats facing all four populations. According to Hornberger (1987), *Sisyrinchium dichotomum* has the most restricted range of all species of the genus found within the Southeastern United States, with only 11 collections having been made from 1902 through 1985. 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 *Sisyrinchium dichotomum* at this time. As discussed under Factor B in the "Summary of Factors Affecting the Species" section, *Sisyrinchium dichotomum* is vulnerable to taking, and taking prohibitions are difficult to enforce. Take is regulated by the Act with respect to endangered plants only in cases of (1) removal and reduction to possession from lands under Federal jurisdiction, or their malicious damage or destruction on such lands; and (2) removal, cutting, digging up, damaging, or destroying these plants in knowing violation of any State law or regulation, including State criminal trespass law. All populations of *Sisyrinchium dichotomum* are located on private lands. Although the North Carolina General Statute prohibits collection of *Sisyrinchium dichotomum* without permission from the landowner, unlawful taking is difficult to enforce, and publication of critical habitat descriptions would make it more vulnerable, increasing enforcement problems for the State of North Carolina.

In addition, while listing under the Act increases the public's awareness of the species' plight, it can also increase the desirability of a species to collectors. As stated previously, *Sisyrinchium dichotomum* is an attractive wildflower whose populations are located primarily

along existing roadways, with one population located within a commercial recreation area visited by thousands of tourists annually. These sites are easily accessible. The species is extremely rare, existing at only four locations, and discovery and elimination of even one population would compromise the survival of the species. It also could be adversely affected by increased visits to, and associated trampling of, occupied sites as a result of critical habitat designation.

As discussed above, it would not now be prudent to determine critical habitat for *Sisyrinchium dichotomum*. The Federal and State agencies and landowners involved in protecting and managing the habitat of this species have been informed of the plant's locations and the importance of its protection. Protection of this species' habitat will be addressed through the recovery process and through the section 7 consultation process.

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, States, 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 certain activities involving listed plants 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 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 Federal agency must enter into formal consultation with the Service.

Federal activities that could impact *Sisyrinchium dichotomum* and its habitat in the future include, but are not limited to, the following: Power line construction and certain types of maintenance/improvements, highway construction and certain types of maintenance/improvements, and permits for mineral exploration and mining. The Service will work with the involved agencies to secure protection and proper management of *Sisyrinchium dichotomum* while accommodating agency activities to the extent possible.

The Act and its implementing regulations found at 50 CFR 17.61, 17.62, and 17.63 set forth a series of general prohibitions and exceptions that apply to all endangered plants. With respect to *Sisyrinchium dichotomum*, 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 the species, 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 and reduce the species to possession from areas under Federal jurisdiction. In addition, for endangered plants, the 1988 amendments (Pub. L. 100-478) to the Act prohibit the malicious damage or destruction of such plants on Federal lands and their removal, cutting, digging up, damaging, or destroying in knowing violation of any State law or regulation, including State criminal trespass law. 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 expected that few trade permits would ever be sought or issued, since *Sisyrinchium dichotomum* is not common in cultivation or in the wild. Requests for copies of the regulations on listed plants and inquires regarding prohibitions and permits may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive, room 432, Arlington, Virginia 22203 (703/358-2104).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the Federal Register on October 25, 1983 (48 FR 49244).

References Cited

- Bicknell, E. 1899. Studies in *Sisyrinchium*—VI: additional new species from the Southern States. Bulletin of the Torrey Botanical Club, 26:605-616.
- Hornberger, K. 1987. Systematics of the genus *Sisyrinchium* (Iridaceae) in the Southeastern United States. Unpublished Ph.D. dissertation, University of Arkansas. 328 pp.
- North Carolina Natural Heritage Program. 1990. Element occurrence records for *Sisyrinchium dichotomum*. Raleigh, NC. 6 pp.

Author

The primary author of this rule is Ms. Nora Murdock, Asheville Field Office, U.S. Fish and Wildlife Service, 100 Otis Street, room 224, Asheville, North Carolina 28801 (704/259-0321; FTS 672-0321).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

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: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.

2. Amend § 17.12(h) by adding the following, in alphabetical order under family Iridaceae 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					
Iridaceae—Iris family:						
<i>Sisyrinchium dichotomum</i>	White irisette	U.S.A. (NC)	E	438	NA	NA

Dated: September 3, 1991.
Richard N. Smith,
Acting Director, Fish and Wildlife Service.
 [FR Doc 91-23148 Filed 9-25-91; 8:45 am]
BILLING CODE 4310-55-M

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 669

[Docket No. 910793-1223]

RIN 0648-AE17

Shallow-Water Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

ACTION: Final rule.

SUMMARY: The Secretary of Commerce (1) modifies scheduled changes in mesh size requirements, and (2) changes the requirements for degradable panels for fish traps in the shallow-water reef fish fishery, in accordance with the framework procedure of the Fishery Management Plan for the Shallow-Water Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands (FMP). This final rule prescribes minimum allowable mesh sizes for fish traps of (1) 1.5 inches (3.8 centimeters) for hexagonal mesh; (2) 1.5 inches (3.8 centimeters) for square mesh through September 13, 1993; and (3) 2.0 inches (5.1 centimeters) for square mesh effective September 14, 1993. The intended effect is to reduce adverse economic impacts on the industry while continuing the rebuilding program for the shallow-water reef fish resource, some species of which are overfished.

EFFECTIVE DATES: September 20, 1991, except that § 669.24(a)(3) is effective September 20, 1991, through September 13, 1993.

FOR FURTHER INFORMATION CONTACT: Miguel Rolon, 809-753-6910.

SUPPLEMENTARY INFORMATION: The shallow-water reef fish fishery is managed under the FMP, prepared by the Caribbean Fishery Management Council (Council), and its implementing regulations at 50 CFR part 669, under authority of the Magnuson Fishery

Conservation and Management Act (Magnuson Act). In accordance with the framework procedures in the FMP, the Council recommended changes to the mesh size and degradable panel requirements for fish traps used in the fishery.

Discussion of the framework procedure, background for the recommended changes, explanation of the proposed management measures, and analysis of the impacts of the proposed changes are included in the proposed rule (56 FR 41114, August 19, 1991) and are not repeated here.

Comments and Responses

One comment was received during the public comment period, and is addressed below.

Comment: One comment was received from a commercial fishing company in St. Thomas, U.S. Virgin Islands, criticizing the September 14, 1993, deadline for removal of 1.5-inch (3.8 centimeter) square-mesh wire from the fishery. The commenter stated that square-mesh wire traps had a 4-year life expectancy, and documented its August 28, 1990, order of such wire. An exemption from the 2-year phase-out schedule was requested for fishermen with either previous orders or existing inventories of 1.5-inch (3.8 centimeter) square-mesh wire.

Response: According to information provided by the commenter, the order of 1.5-inch (3.8 centimeter) square mesh wire originated after public hearings held in St. Thomas, on April 6, 1989, and on June 27, 1989, at which the Council's intent to eliminate use of the wire was announced. The fish trapping company, which received part of its order on December 31, 1990, and the remainder on August 19, 1991, was already informed that the Council intended to eliminate the 1.5-inch (3.8 centimeter) square mesh wire.

The alleged 4-year trap life expectancy is not supported by a recent survey of the U.S. Virgin Islands Department of Fish and Wildlife that indicated most traps made of vinyl-coated wire last only about 2 years because of loss and theft. The exemption suggested would favor those able to provide appropriate documentation of their investment in

square-mesh wire, in effect extending the phase-out timetable past the gear's life expectancy. Continued use of the 1.5-inch (3.8 centimeter) wire by the exempted fishermen would cause additional resource waste and excessive fishing mortality, thereby impeding rebuilding efforts.

During the phase-out period for the 1.5-inch (3.8 centimeter) square-mesh wire, the Council will pursue studies off Puerto Rico and the U.S. Virgin Islands to evaluate the effectiveness of various mesh sizes and configurations. Additional modifications may be required as a result of these studies.

The proposed rule is published as final with one clarification. In this final rule, the specification of "jute" as a means of attaching an escape panel to a fish trap is revised to read "jute twine."

This final rule, in part, allows the use of fish traps with minimum mesh sizes smaller than 2.0 inches (5.1 centimeters). A requirement for a minimum mesh size of 2.0 inches (5.1 centimeters) became effective September 14, 1991. In this regard, this final rule is a substantive rule that relieves a restriction. Further, a delay in effectiveness of this final rule would prolong an unnecessary and confusing period during which interim minimum mesh size and escape panel requirements would apply. Accordingly, the Assistant Administrator for Fisheries, NOAA, finds that good cause exists under the Administrative Procedure Act (5 U.S.C. 553(d)(1)) to waive the 30-day delayed effectiveness of this final rule.

Other Matters

This action is authorized by the FMP and complies with E.O. 12291.

List of Subjects in 50 CFR Part 669

Fisheries, Fishing.

Dated: September 20, 1991.

Samuel W. McKeen,
Acting Assistant Administrator for Fisheries,
National Marine Fisheries Service.

For the reasons set forth in the preamble, 50 CFR part 669 is amended to read as follows:

PART 669—SHALLOW-WATER REEF FISH FISHERY OF PUERTO RICO AND THE U.S. VIRGIN ISLANDS

1. The authority citation for part 669 continues to read as follows:

Authority: 16 U.S.C. 1801 *et seq.*

2. In § 669.7, paragraphs (h) and (i) are revised to read as follows:

§ 669.7 Prohibitions.

* * * * *

(h) Use or possess in the EEZ a fish trap with a mesh size smaller than the minimum mesh sizes specified in § 669.24(a).

(i) Use or possess in the EEZ a fish trap that does not have the degradable panels specified in § 669.24(a).

* * * * *

3. In § 669.24, paragraph (a) is revised to read as follows:

§ 669.24 Gear limitations.

(a) *Fish traps*—(1) *Mesh size.* A fish trap used or possessed in the EEZ that has hexagonal mesh openings of bare wire must have a minimum mesh size of 1.5 inches (3.8 centimeters), in the smallest dimension measured between

centers of strands. A fish trap used or possessed in the EEZ that has rectangular mesh openings of bare wire, or that has bare wire mesh openings other than hexagonal or square, must have a minimum mesh size of 2.0 inches (5.1 centimeters), in the smallest dimension measured between centers of strands. A fish trap used or possessed in the EEZ that has mesh openings other than bare wire, such as plastic and coated-wire traps, must have a minimum mesh size of 2.0 inches (5.1 centimeters), in the smallest dimension of the opening, rather than between center of strands.

(2) *Degradable panels.* A panel must be located on each of two opposite sides of the trap, excluding the top, bottom, and side containing the trap entrance. The opening covered by the panel must measure not less than 8 inches (20.3 centimeters) by 8 inches (20.3 centimeters). The mesh size of the panel may not be smaller than the mesh size of the trap, and the panel must be attached to the trap with untreated jute twine with a diameter not exceeding 1/8 inch (.3 centimeter). An access door may serve as one of the panels, provided it is

on an appropriate side, it is hinged only at its bottom, and its only other fastening is by jute twine not exceeding 1/8 inch (.3 centimeter) in diameter at the top of the door so that the door will fall open when the jute twine degrades. Jute twine used to secure a panel may not be wrapped or overlapped.

(3) *Interim exception.* Paragraphs (a)(1) and (a)(2) of this section notwithstanding, through September 13, 1993, a fish trap that has rectangular mesh openings with a minimum mesh size of 1.5 inches (3.8 centimeters), in the smallest dimension measured between center of strands, may be used or possessed in the EEZ. The degradable panels on such a trap must cover an opening not less than 9 inches (22.9 centimeters) by 9 inches (22.9 centimeters), and the mesh of the panels may not be smaller than 2-inch (5.1-centimeter) square-mesh wire. The location and attachment of the panels must be as specified in paragraph (a)(2) of this section.

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