
DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17****Endangered and Threatened Wildlife
and Plants; Proposal to Determine
Carex speculicola To Be a Threatened
Species and To Determine Its Critical
Habitat****AGENCY:** Fish and Wildlife Service,
Interior.**ACTION:** Proposed rule.

SUMMARY: The U.S. Fish and Wildlife Service proposes to list a plant, *Carex specuicola*, as a threatened species under the authority contained in the Endangered Species Act of 1973, as amended. Critical habitat is being proposed. This plant occurs in Coconino County, Arizona, on the Navajo Indian Reservation. The three known populations and their habitat are currently threatened with impacts from livestock grazing and water development. A final determination of *Carex specuicola* to be a threatened species will implement the protection provided by the Endangered Species Act of 1973, as amended. The Service seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by June 11, 1984. Public hearing requests must be received by May 29, 1984.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Regional Director, U.S. Fish and Wildlife Service, P.O. Box 1306, Albuquerque, New Mexico 87103. Comments and materials received will be available for public inspection during normal business hours, by appointment, at the Service's Regional Office of Endangered Species, 421 Gold Avenue, SW., Room 407, Albuquerque, New Mexico.

FOR FURTHER INFORMATION CONTACT: Dr. Russell L. Kologiski, Botanist, Region 2 Endangered Species staff (see ADDRESSES above) (505/766-3972).

SUPPLEMENTARY INFORMATION:

Background

Carex specuicola is a perennial sedge in the Cyperaceae (sedge) family. This species was first collected by J. T. Howell in 1948 and the description was published by him in 1949. *Carex specuicola* has a triangular stem 25-40 centimeters high, and an elongate, slender rhizome or underground stem. The leaves are pale green, 1-2 millimeters wide, 12-20 centimeters long and clustered near the base. The flowers are in 2-4 groups or spikes. The terminal spike has both male and female flowers with the female flowers above the male flowers. The lateral spikes contain only female flowers. The flowers are reduced and not showy; they consist of small, green-brown, scale-like parts 2-3 millimeters long and 1-1.5 millimeters wide. Flowering and fruit set occur from spring to summer, but most of the reproduction appears to be vegetative.

Carex specuicola occurs in sandy to silty soils within the Navajo Sandstone Formation. The plants grow in shady seep-spring areas. The vegetation is

pinyon-juniper woodland at elevations of 1740-1824 meters, with an average annual precipitation of 19.4 centimeters (at Kayenta). Within its habitat *Carex* is locally common, growing in dense clumps from the rhizomes. Each population covers an area of less than 200 square meters along the outflow from the seeps and springs. In 1980, all plants were healthy and vigorous (Phillips *et al.*, 1981).

Previous actions involving *Carex specuicola* began with Section 12 of the Endangered Species Act of 1973, which directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be endangered, threatened, or extinct. This report, designated as House Document No. 94-51, was presented to Congress on January 9, 1975. On July 1, 1975, the Service published a notice in the *Federal Register* (40 FR 27823) of its acceptance of the report of the Smithsonian Institution as a petition within the context of Section 4(c)(2), now Section 4(b)(3)(a), of the Act and of its intention thereby to review the status of those plants. On June 16, 1976, the Service published a proposed rule in the *Federal Register* (41 FR 24523) to determine approximately 1,700 vascular plant species to be endangered species pursuant to Section 4 of the Act. *Carex specuicola* was included in the Smithsonian petition and the 1976 proposal. General comments received in relation to the 1976 proposal were summarized in an April 26, 1978, *Federal Register* publication (43 FR 17909).

The Endangered Species Act Amendments of 1978 required that all proposals over 2 years old be withdrawn. A 1-year grace period was given to proposals already over 2 years old. In the December 10, *Federal Register* (44 FR 70796), the Service published a notice of withdrawal of the June 16, 1976, proposal, along with four other proposals that had expired. *Carex specuicola* was included as a category 1 species in a revised list of plants under review for threatened or endangered classification published in the December 15, 1980, *Federal Register* (45 FR 82480). Category 1 is comprised of taxa for which the Service presently has sufficient biological information to support their being proposed to be listed as endangered or threatened species.

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 *Carex specuicola*, was October 13, 1983.

On October 13, 1983, the petition finding was made that listing *Carex specuicola* was warranted but precluded by other pending listing actions, in accordance with Section 4(b)(3)(B)(iii) of the Act. Such a finding requires a recycling of the petition, pursuant to Section 4(b)(3)(C)(i) of the Act. Therefore, a new finding must be made; this proposed rule constitutes the finding that the petitioned action is warranted and proposes to implement the action, in accordance with Section 4(b)(3)(B)(ii) of the Act.

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 (codified at 50 CFR Part 424; under revision to accommodate the 1982 amendments) set forth procedures for adding species to the Federal list. 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) of the Act. All of the factors and their application to *Carex specuicola* J. T. Howell are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* *Carex specuicola* has only been found in the vicinity of Inscription House Ruin on the Navajo Indian Reservation, where it was originally discovered. The habitat of *Carex specuicola* is vulnerable to changes resulting from water development for livestock. Water supplies are frequently used by livestock so the immediately adjacent areas receive intensive use. Two of the three known populations of *Carex* occur in areas used for livestock watering. The *Carex* populations and habitat should be monitored to determine the impacts of grazing. If necessary, the plants should be fenced to protect them from grazing impacts. Water developments should be carried out in such a manner as to protect this species where it is present. Severe impacts to any of these populations would affect a large portion of the species (Phillips *et al.*, 1981).

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Commercial or other trade in this plant is not known to exist (Phillips *et al.*, 1981).

C. *Disease or predation* (including grazing). Several species within the genus *Carex* are palatable to livestock and wildlife. Two of the three *Carex* sites are used by livestock (mainly sheep),

especially the population at Inscription House Ruin Spring. An increase in grazing pressure could be harmful to the species, and should be avoided until the grazing impact is thoroughly assessed (Phillips *et al.*, 1981).

D. *The inadequacy of existing regulatory mechanisms.* *Carex specuicola* is not protected by Federal law or the Arizona Native Plant Law. A permit is needed, however, from the Navajo Tribe for plant study or collection on the Reservation.

E. *Other natural or manmade factors affecting its continued existence.* The specific habitat requirements of *Carex specuicola*, the limited distribution, and small number of populations (3) make the existence of this species especially precarious in the event of a habitat disturbance or loss of a significant number of individuals.

The proposed action has been arrived at through the careful assessment of the best scientific and commercial information available, as well as the best assessment of past, present, and future threats faced by this species. Based on this evaluation the proposed action is to list *Carex specuicola* as threatened with critical habitat. Threatened status seems appropriate because of its restricted distribution and the small size of the populations which, although they are vigorous and reproducing well, are threatened by livestock grazing, habitat deterioration due to water development, and livestock trampling of areas around water sources.

Also considered was the fact that the only protection for this species is a Navajo Tribal Law prohibiting study or collection of this species without a permit. No other laws, State or Federal, provide protection to this species. The Navajo Tribal Law offers no protection against habitat modification, reduction of water supply, or grazing.

Critical Habitat

Critical habitat, as defined by Section 3 of the Endangered Species Act and at 50 CFR Part 424, means: (i) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species, and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of Section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

The Act in Section 4(a)(3) requires that critical habitat be designated to the maximum extent prudent and determinable concurrent with the determination that a species is endangered or threatened. Critical habitat is being proposed for *Carex specuicola* to include the entire three known populations of the plant. The locations are on the Navajo Indian Reservation in Coconino County, Arizona, and consist of 40 x 5 meter rectangular areas (oriented along watercourse) centered on the following points: (1) Latitude 36° 39' 53" N, longitude 110° 47' 18" W; (2) latitude 36° 40' 07" N, longitude 110° 47' 55" W; and (3) latitude 36° 40' 18" N, longitude 110° 48' 15" W. The total area proposed comprises about 600 square meters, and contains all habitat presently known to be occupied by the species. Constituent elements are moist sandy to silty soils at shady seep-spring areas within the Navajo Sandstone Formation (Phillips *et al.*, 1981).

Section 4(b)(8) of the Act requires any proposal which designates critical habitat to be accompanied by a brief description and evaluation of those activities (public or private) which may adversely modify such habitat or may be affected by such designation. The activities that may adversely modify the critical habitat are spring development and grazing. Spring development could affect the free-flowing seeps and hanging gardens upon which the species is dependent. Livestock use has caused some soil erosion on the steeper sandy soil sites at the Inscription House Ruin Spring Site. Also, trampling and grazing by livestock have been observed.

Section 4(b)(2) of the Act requires the Service to consider economic and other impacts of specifying a particular area as critical habitat. The Service will reevaluate the geographic critical habitat designation at the time of the final rule, after considering all additional information obtained.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species which are initiated by the Service following listing. The protection required by Federal agencies,

and the taking prohibitions 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. 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 29989; June 29, 1983). 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 proposed species or result in destruction or adverse modification of proposed critical habitat. This protection will now accrue to *Carex specuicola*. Moreover, if a species is subsequently listed, Section 7 requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of this species or to destroy or adversely modify its critical habitat. If proposed, spring development could affect this plant once listed and Bureau of Indian Affairs (BIA) funding or authorization is involved, the BIA must enter into consultation with the Service prior to issuance of a BIA permit or funding. Permits for grazing are also issued by BIA.

The Act and implementing regulations found at 50 CFR 17.71 and 17.72 set forth a series of general trade prohibitions and exceptions which apply to all threatened plant species. With respect to *Carex specuicola* all trade prohibitions of Section 9(a)(2) of the Act, implemented by 50 CFR 17.71, would apply. These prohibitions, in part, would make it illegal for any person subject to the jurisdiction of the United States to import or export, to deliver, receive, carry, ship or transport in interstate or foreign commerce in the course of a commercial activity, or to sell or offer for sale this species in interstate foreign commerce. Seeds from cultivated specimens of threatened plant species are exempt from these prohibitions provided that a statement of "cultivated origin" appears on their containers. Certain exceptions can apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened species under certain circumstances. International and interstate commercial trade in *Carex specuicola* is not known to exist. It is anticipated that few trade permits would ever be sought or issued since this plant is not common in cultivation or in the wild.

Section 9(a)(2)(B) of the Act, as amended in 1982, states that it is unlawful to remove and reduce to possession endangered plant species from areas under Federal jurisdiction. Section 4(d) provides for the provision of such protection to threatened species through regulations. This new protection will accrue to *Carex specuicola* when revised regulations are promulgated. Proposed regulations implementing this new prohibition were published on July 8, 1993 (48 FR 31417), and these will be finalized following public comment. All three populations of *Carex specuicola* are on the Navajo Indian Reservation.

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).

If listed under the Act, the Service will review this species to determine whether it should be considered for placement on the Annex of the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, which is implemented through Section 8A(e) of the Act, and whether it should be considered for other appropriate international agreements.

Public Comments Solicited

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

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to *Carex specuicola*;

(2) The location of any additional populations of *Carex specuicola* and the reasons why any habitat of this species 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;

(4) Current or planned activities in the subject area and their possible impacts on *Carex specuicola*; and

(5) Any foreseeable economic and other impacts resulting from the proposed critical habitat.

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

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed 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, P.O. Box 1306, Albuquerque, New Mexico 87103.

National Environmental Policy Act

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

References

Howell, J. T. 1949. Three new Arizona plants. *Leaflets of Western Botany* 5(9):148.
 Phillips, A. M., B. G. Phillips, L. T. Green, J. Mazzoni, and N. Brian. 1981. Status report: *Carex specuicola* J. T. Howell. Office of Endangered Species, U.S. Fish and Wildlife Service, Albuquerque, NM. 12 pp.

Authors

The authors of this proposed rule are Sandra Limerick and Margaret Olwell, Endangered Species staff, U.S. Fish and Wildlife Service, Department of the Interior, P.O. Box 1306, Albuquerque, New Mexico 87103. The editor was John L. Paradiso, Office of Endangered Species, Washington, D.C. 20240. Status information and a preliminary listing package were provided by Dr. A. M. Phillips, Dr. B. G. Phillips, L. T. Green, J. Mazzoni, and N. Brian, Museum of Northern Arizona, Route 4, Box 720, Flagstaff, Arizona 86001.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Fish, Marine Mammals, Plants (agriculture).

Proposed Regulations Promulgation

PART 17—[AMENDED]

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:

1. The authority citation for Part 17 reads 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. It is proposed to amend § 17.12(h) by adding, in alphabetical order, by family, genus, and species the following Plant taxon:

§ 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					
Cyperaceae—Sedge family						
<i>Carex specuicola</i>	None	U.S.A. (AZ)	T		17.96(a)	NA.

3. It is further proposed to amend § 17.96(a) by adding the critical habitat of *Carex specuicola* as follows (the position of this critical habitat entry under 17.96(a) will be determined at the time of publication of a final rule):

§ 17.96 Critical habitat—plants.

(a) * * *
 Family Cyperaceae
Carex specuicola
 Arizona: Coconino County, Navajo

Indian Reservation. The 40×5 meter rectangular area (along the watercourse) around each of the following points: (1) Latitude 36°39'53"N, longitude 110°47'18"W; (2) latitude 36°40'07"N, longitude 110°47'55"W; and (3) latitude 36°40'18"N, longitude 110°48'15"W.

