

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17****Endangered and Threatened Wildlife and Plants; Proposal To Determine *Cycladenia humilis* var. *jonesii* To Be and Endangered Species****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule.

SUMMARY: The Service proposes to determine *Cycladenia humilis* var. *jonesii* (Jones cycladenia) to be an endangered species under the authority of the Endangered Species Act, as amended. There are three general areas where this taxon occurs in the Canyon Lands section of southeastern Utah, in Emery, Garfield, and Grand Counties. The four populations total less than 2,900 individuals; over half are on public land managed by the Bureau of Land Management (BLM). One major site is on State of Utah land, about 300 plants are on public land in the Glen Canyon National Recreation Area of the National Park Service (NPS), and one small population is possibly on private land. A fifth population may still occur in southern Utah or in Mohave County, Arizona, but is known only from an indefinite collection in 1882.

The taxon grows on low hills and outwash plains below mesas. The two larger populations are crisscrossed with vehicle tracks associated with mineral and/or oil and gas exploration. There is motorcycle disturbance to one of the smaller populations, and the risk of loss of the smallest population from erosion. This proposal, if made final, would implement protection provided by the Endangered Species Act of 1973, as amended. The Service is requesting comments on this action.

DATES: Comments from all interested parties must be received by March 11, 1985. Public hearing requests must be received by February 25, 1985.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Regional Director, U.S. Fish and Wildlife Service, P.O. Box 25486, Denver Federal Center, Denver, Colorado 80225. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the Service's Regional Endangered Species Division at 134 Union Boulevard, 4th floor, Lakewood, Colorado.

FOR FURTHER INFORMATION CONTACT: Dr. James L. Miller, Regional Botanist, Regional Endangered Species Staff, at

either address above. 303-234-2496; FTS 234-2496.

SUPPLEMENTARY INFORMATION:**Background**

Cycladenia humilis var. *jonesii* (Jones cycladenia) is a herbaceous perennial 10-15 centimeters tall, with clumps of bright green leaves and "...rosy flowers (that) somewhat resemble small morning-glories and have a charm that thrills the beholder" (Eastwood, 1942). Alice Eastwood described the plant in 1942 as *Cycladenia jonesii* based on a collection from the San Rafael Swell by Marcus E. Jones in 1914. Except for two other San Rafael Swell (Emery County) collections in the 1930's, this taxon was not seen again until a single plant was discovered by Dr. Stanley Welsh in 1968 in Castle Valley northeast of Moab (Grand County), about 65 miles east of the San Rafael Swell (Welsh, 1970). Land ownership of this site is unclear: it could be BLM, State or private. He and Dr. Duane Atwood later changed Jones cycladenia to varietal status (Welsh, Atwood and Reveal, 1975). During subsequent inventories in this new area, about 12-20 individuals were located in a third population on BLM land about 5 miles to the northeast of the second, along Onion Creek. These plants are growing in the lower edge of the pinyon-juniper community (5000-5500 feet) on sparsely vegetated siltstone hills of the Cutler Formation.

In 1979, James Harris, then a graduate student with Dr. Welsh (who was studying the flora of the San Rafael Swell), rediscovered Jones cycladenia in the area of the 1914 collection. There are at least 30 total acres of habitat in 2 sites 2 miles apart. The larger site with some 2,000 plants is on public land managed by the BLM, the other has some 500 plants on State of Utah land. This San Rafael Desert population, which is east of the San Rafael Reef and south of Interstate 70, consists of mostly mature plants, many of which are connected by underground stems. Therefore, the number of separate individual plants is hard to determine but is certainly lower than the number of "separate" above-ground stems. These plants are growing on sparsely vegetated gypsiferous clay hills, a habitat similar to the one in Grand County, but of a different formation (Summerville) at a different elevation (4600 feet) and hence in a different plant community: Mixed desert shrub with Mormon tea (*Ephedra torreyana*), shrubby wild-buckwheat (*Eriogonum corymbosum*), and other herbaceous perennials. A fourth population was found during the 1983 field season on

the Chinle Formation on and near the Purple Hills, west of Waterpocket Fold in the Glen Canyon National Recreation Area, Garfield County. This population is about 90 miles south of the first and consists of approximately 300 individuals on approximately two acres (Welsh, 1983, 1984a). A fifth population from further south in Utah or from northern Arizona (possibly the Pipe Spring area, Mohave County) may remain; it is known only from an 1882 collection by Siler, but the locality information is indefinite and the site has never been relocated (Holmgren, 1984; Welsh, 1984b).

Cycladenia humilis var. *jonesii* is the only member of its genus in the Intermountain West; the genus consists of only the one species with two or three additional varieties restricted to California. While the known occurrence of this taxon in three general areas over 60 miles apart with different geologic formations and elevations indicates some ecological amplitude, the populations are still quite localized and limited in number of individual plants.

The Canyon Land section of Utah has more plant endemics than any other portion of the State, about 70 taxa (Reveal, 1979). In addition to the *Cycladenia*, about 13 of these taxa are candidates for possible listing under the Endangered Species Act (48 FR 53639). The Canyon Lands are considered relatively ancient floristically, having "been less affected by the special conditions of recent changing [geological] epochs" (Holmgren, 1972, p. 103; cf. Reveal, 1979).

Threats to Jones cycladenia include oil and gas exploration at all populations, mineral explorations to the San Rafael Swell and Waterpocket Fold populations, motorcycle activity on the Onion Creek population, and erosion at Castle Valley. The San Rafael Swell and Waterpocket Fold populations are staked with mining claims and crisscrossed with vehicle tracks; the former is pockmarked from exploration, while the latter is near the major access road into the Moody Canyon oil lease area. Motorcycle use at the Onion Creek locale has caused denuded strips through the population. The single plant clump at Castle Valley is on the bank of a deep gully subject to erosion, and the area has been subject to bulldozer activity in the past.

Section 12 of the Endangered Species Act of 1973 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

Director published a notice in the **Federal Register** (40 FR 27823) of his acceptance of this report as a petition within the context of section 4(c)(2) of the 1973 Act, and of his intention thereby to review the status of the plant taxa named within. On June 16, 1976, the Service published a proposed rule in the **Federal Register** (41 FR 24523) to determine approximately 1,700 vascular plant taxa to be endangered species pursuant to section 4 of the Act. This list was assembled on the basis of comments and data received by the Smithsonian Institution and the Service in response to House Document No. 94-51 and the July 1975 **Federal Register** notice. *Cycladenia humilis* var. *jonesii* was included (as *Cycladenia jonesii*) in the July 1975 notice (40 FR 27880) and the June 1976 proposal (41 FR 24527). General comments received in relation to the 1976 proposal are summarized in the April 26, 1978, **Federal Register** publication (43 FR 17909). Comments on this taxon that are received during the comment period for this new proposal will be summarized in the final rule.

The Endangered Species Act Amendments of 1978 required that all proposals over 2 years old be withdrawn. On December 10, 1979, the Service published a notice of the withdrawal of the still applicable portions of the June 1976 proposal along with other proposals that had expired (44 FR 70796). The July 1975 notice was replaced on December 15, 1980, by the Service's publication in the **Federal Register** (45 FR 82479) of a new notice of review for plants, which included *Cycladenia humilis* var. *jonesii* (45 FR 82501). No comments on this taxon have been received in response to the 1980 notice. On February 15, 1983, the Service published a notice in the **Federal Register** (48 FR 6752) of its prior finding that the petitioned action on this taxon may be warranted, in accord with section 4(b)(3)(A) of the Act as amended in 1982.

In the spring of 1981, new field work was carried out at the large San Rafael Swell population by Service botanists and Utah Native Plant Society members. This investigation showed that the population remains limited in known occurrence, and the impacts of mineral exploration continue. The Waterpocket Fold population and threats to it were discovered in 1983 during a survey for rare plants funded by the National Park Service. The Onion Creek population was checked in 1984.

On October 13, 1983, the petition finding was made that listing Jones cycladenia was warranted but precluded by other listing actions, in accordance with section 4(b)(3)(B)(iii) of

the Act; notification of the finding was published in the January 20, 1984, **Federal Register** (49 FR 2485). 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; we find that the petitioned action is warranted and hereby publish the proposed rule to implement the action, in accord 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 to be codified at 50 CFR Part 424; see 49 FR 38900, October 1, 1984, set forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or a threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Cycladenia humilis* Bentham var. *jonesii* (Eastwood) Welsh *et* Atwood, Jones cycladenia, are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Off-road vehicle use associated with mineral and oil and gas explorations and with recreation is impacting the habitat of *Cycladenia humilis* var. *jonesii*. The tracks of bulldozers, trucks, and motorcycles have been observed in the area of the largest population (Anderson, 1981; Hreha and Greenwood, 1980). This San Rafael Swell habitat has been staked with mining claims. Although none of the claims have been developed and most may be simply speculative, the danger of future mining for uranium remains a possibility. Also, annual assessment work is required to maintain a valid claim. This assessment work is a continual disturbance to the habitat. Vehicle tracks and mining claims are also in evidence at the Waterpocket Fold population (Welsh, 1983). Motorcycle activity is particularly heavy in the midst of the small Onion Creek population.

Oil and gas leases have been issued either on or immediately adjacent to all population sites. Vehicle tracks in the San Rafael Swell and Onion Creek habitats may relate to the oil and gas leases, as well as mining exploration in the former habitat and recreation at the latter locale. Leases issued and pending adjacent to the population west of Waterpocket Fold indicate interest in tar sand development. Bulldozers were active in 1977 in the Castle Valley area

in connection with oil and gas exploration (Holmgren *et al.*, 1977; Welsh, 1978).

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Not known.

C. *Diseases or predation.* The solitary *Cycladenia* plant clump found in Castle Valley in 1968 was extant in 1984. It had been partially damaged by trampling from cattle when observed in 1980. Trampling also is a potential threat to the San Rafael Swell population because it is accessible to livestock, but the probability of serious damage is low.

D. *The inadequacy of existing regulatory mechanisms.* No Federal or State laws directly protect *Cycladenia humilis* var. *jonesii* or its habitat. Although the BLM is aware of this taxon, it is not currently obligated to regulate activities so as to provide for the conservation of the *Cycladenia*, the National Recreation Area is under management guidelines for multiple use, which could minimize surface disturbance but provide for mineral extraction. The Endangered Species Act offers possibilities for additional protection of this taxon through section 7 (interagency cooperation) requirements and through section 9, which prohibits removing and reducing to possession a plant from an area under Federal jurisdiction.

E. *Other natural or manmade factors affecting its continued existence.* The arid climate and harsh soils of the habitat of Jones cycladenia make its ecosystem a fragile one, easily degraded by surface disturbances and slow to recover its natural condition. The two populations at Onion Creek and Castle Valley may be reproducing only by vegetative propagation, and they are very small. They may have little genetic adaptability over time. The Castle Valley plant is on the bank of a gully subject to continuing erosion.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this taxon in determining to propose this rule. Based on this evaluation, the preferred action is to list *Cycladenia humilis* var. *jonesii* as an endangered species. With less than 2,900 individuals known in four populations and the risk of damage to the *Cycladenia* and its habitat, endangered status seems an accurate assessment of the taxon's condition. It is not prudent to propose critical habitat because doing so would increase risk for the taxon, as detailed 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 that is considered to be critical habitat concurrent with the determination that a species is endangered or threatened. The designation of critical habitat is not considered to be prudent when such designation would not be of benefit to the taxon involved (50 CFR 424.12). The Service finds that designation of critical habitat is not prudent for *Cycladenia humilis* var. *jonesii* at this time.

Critical habitat is not being proposed due to the possible threats to the taxon from vandalism and collecting. The potential for vandalism exists from the accessibility of the *Cycladenia* habitats to vehicles and the nature of the threats. In addition, the plant is attractive and conspicuous, and could be taken despite the Federal collecting prohibition discussed below because of the difficulty of enforcing it. For example, if critical habitat were designated, the population on State land would be part of it but the Federal collecting prohibition could not apply. Publication of critical habitat localities and maps would therefore increase the risk of vandalism and taking for all populations, and thus would be detrimental to the survival of the taxon and not a beneficial and prudent course of action. Federal and State agencies are aware of the taxon's locations.

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 can result in conservation actions by Federal, State, 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 as appropriate following listing. The protection required by Federal agencies and the prohibitions against taking and trade 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 29990; June 29, 1983). Section 7(a)(4) requires Federal agencies to confer informally with the Service on

any action that is likely to jeopardize the continued existence of a proposed species. If a species is listed subsequently, 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. If a Federal action may affect a listed species, the responsible Federal agency must enter into formal consultation with the Service. Possible effects from BLM and NPS activities are expected to be quite limited. Their management would be affected, but not to any great extent. The two agencies funded some of the field surveys on this taxon, and are aware of it for planning purposes. Restricting traffic to some existing roads and some fencing might be required, as well as special care in administering mining claims and oil and gas leases so that the taxon is accommodated in exploration or any development activity.

The Act and its implementing regulations found at 50 CFR 17.61, 17.62, and 17.63 set forth a series of general trade prohibitions and exceptions that apply to all endangered plant species. With respect to *Cycladenia humilis* var. *jonesii*, all trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61, 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, transport in interstate or foreign commerce in the course of a commercial activity, or sell or offer for sale this taxon in interstate or foreign commerce. Certain exceptions can apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.62 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered species under certain circumstances. No such trade in *Cycladenia humilis* var. *jonesii* is known. It is not anticipated that many trade permits would be sought or issued since this plant is not common in the wild or known in cultivation.

Section 2(a)(2)(B) of the Act, as amended in 1982, prohibits the removal and reduction to possession of endangered plant species from areas under Federal jurisdiction. This new prohibition would apply to Jones cycladenia. Permits for exceptions to this prohibition are available through section 10(a) of the Act, until revised regulations are promulgated to incorporate the 1982 amendments. Proposed regulations implementing this new prohibition were published on July 8, 1983 (48 FR 31417), and it is anticipated that these will be made final following

public comment. The taxon occurs in large part on land managed by the BLM and NPS. It is likely that few collecting permits for the *Cycladenia* will be requested because it has only been of scientific interest. 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 this taxon is listed under the Act, the Service will review it to determine whether it should be placed upon 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 each 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 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 *Cycladenia humilis* var. *jonesii*;

(2) The location of any additional populations of *Cycladenia humilis* var. *jonesii* and the reasons why any habitat of this taxon should or should not be designated critical habitat as provided by Section 4 of the Act;

(3) Additional information concerning the range and distribution of this taxon; and

(4) Current or planned activities in the subject areas and their possible impacts on *Cycladenia humilis* var. *jonesii*.

Final promulgation of the regulation on *Cycladenia humilis* var. *jonesii* 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 (see ADDRESSES section above).

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).

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Authors

The primary authors of this proposed rule are John Anderson, Endangered Species Staff Botanist, U.S. Fish and Wildlife Service, Grand Junction Field Office, Grand Junction, Colorado (303/243-2779) and Dr. Bruce MacBryde, then of the Service's Washington Office of Endangered Species. Dr. James L. Miller of the Service's Denver Endangered Species Staff served as editor.

List of Subjects in 50 CFR Part 17

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

Proposed Regulation 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 the following, in alphabetical order in the family Apocynaceae, 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					
Apocynaceae—Dogbane family:						
<i>Cycladenia humilis</i> var. <i>jonesii</i>	Jones cycladenia	U.S.A. (AZ, UT)	E		NA	NA

Dated: December 12, 1984.

G. Ray Arnett,

Assistant Secretary for Fish and Wildlife and
Forks

[FR Doc. 85-693 Filed 1-9-85; 8:45 am]

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