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**DEPARTMENT OF THE INTERIOR**
**Fish and Wildlife Service****50 CFR Part 17**
**Endangered and Threatened Wildlife and Plants; Final Rule To Determine *Cowania subintegra* (Arizona Cliffrose) To Be an Endangered Species**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** The Fish and Wildlife Service determines a plant, *Cowania subintegra* Kearney (Arizona Cliffrose) to be an endangered species under the authority contained in the Endangered Species Act of 1973, as amended. Critical habitat is not designated. This plant is endemic to Arizona with only two widely separated populations known to exist, one in Mohave County and one in Graham County. Both areas are subject to browsing and road maintenance; one population could be additionally impacted by mining. This action implements protection provided by the Endangered Species Act of 1973, as amended.

**DATE:** The effective date of this rule is May 29, 1984.

**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, Region 2, 421 Gold Avenue, SW, Albuquerque, New Mexico 87103 (505/766-3972).

**FOR FURTHER INFORMATION CONTACT:** Dr. Russell Kologiski, U.S. Fish and Wildlife Service, Office of Endangered Species, P.O. Box 1306, Albuquerque, New Mexico 87103 (505/766-3972).

**SUPPLEMENTARY INFORMATION:****Background**

*Cowania subintegra* was first collected by Darrow and Crooks on April 20, 1938, and was later described by Kearney (Kearney, 1943). The first population discovered was in southeastern Mohave County, Arizona and covers approximately 600 acres. The second known population is in Graham County, Arizona, and is scattered over about 100 acres. *Cowania subintegra* is an evergreen shrub reaching 75 centimeters in height. The bark is pale gray and shreddy. The

leaves, twigs and flowers are covered with dense, short, white hairs. The leaves are entire to lobed with one prominent vein. The flowers are white or yellow, with petals about 10 millimeters long (Phillips *et al.*, 1980).

*Cowania subintegra* is most closely related to *Cowania ericaefolia* which grows in the Chihuahuan Desert of Trans-Pecos Texas and Coahuila, Mexico. The widely separated ranges of the species suggest a more continuous range in the past that was long ago fragmented into relict populations (Van Devender, 1980). *Cowania subintegra* and other limestone endemics are valuable in the study of the biogeography and evolution of Southwestern floras.

*Cowania subintegra* grows in gravelly clay loam soils over limestone on low rolling hills in the Arizona upland subdivision of the Desert Formation (Brown and Lowe, 1977). The vegetation of the area is dominated by *Larrea tridentata* (creosote bush), *Chrysothamnus nauseosus* (rabbit brush), *Canotia holocantha* (false palo verde), and *Acacia greggii* (catclaw acacia).

All known populations of *Cowania subintegra* occur on either Federal lands or Arizona State lands. The Federal lands are administered by the Bureau of Land Management (BLM) and the Bureau of Indian Affairs (BIA) and the Arizona lands are administered by the Arizona Department of Transportation (DOT). The species is threatened by overgrazing, mining activities, and maintenance of road and pipeline right-of-ways (Van Devender, 1980). The lack of seedlings and the low percent of fruit indicate that the overall reproductive rate is poor for both the Mohave County population and the Graham County population (Phillips *et al.*, 1980).

Federal governmental action involving this species 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 meaning of Section 4(c)(2) of the Act, and of its 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

species to be endangered species pursuant to Section 4 of the Act. This list of 1,700 plant taxa 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 1, 1975, **Federal Register** publication. *Cowania subintegra* was included in the 1975 Smithsonian Report, the 1975 notice, and the 1976 proposal.

The Endangered Species Act Amendments of 1978 required that all proposals over 2 years old be withdrawn, although a 1-year grace period was given to proposals already over 2 years old. On December 10, 1979, the Service published a notice withdrawing the June 16, 1976, proposal, along with four other proposals which had expired. A revised notice for plants was published in the December 15, 1980, **Federal Register** (45 FR 82480) and included *Cowania subintegra* as a category 1 species. Category 1 comprises taxa for which the Service has substantial information on biological vulnerability and threats to support the appropriateness of proposing to list the taxa as endangered or threatened species. This notice has subsequently been accepted as a petition under section 4(b)(3)(A) of the Act, as amended in 1982. The Service published a proposed rule to list *Cowania subintegra* as an endangered species in the July 15, 1983, **Federal Register** (48 FR 32520).

#### Summary of Comments and Recommendations

In the July 15, 1983, proposed rule (48 FR 32520) 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 was published in the *Arizona Republic*, Phoenix, Arizona, on August 11, 1983, which invited general public comment. Eleven comments were received and are discussed below. No public hearing was requested or held.

Comments were received supporting the listing of *Cowania subintegra* from the Arizona Game and Fish Department, the District Botanist and State Director of the Bureau of Land Management (BLM), the Arizona Office of Economic Planning and Development, and the International Union for the Conservation of Nature and Natural Resources. The University of Arizona Office of Arid Lands Studies stated that

the species should be watched to avoid the possibility of extinction.

El Paso Natural Gas Company informed the Service that the pipeline that passes through the Burro Creek area is owned and maintained by Southern Union Gas. This correction has been made in the final rule.

No comment letters were received from the District IV Council of Governments and Southeastern Arizona Governments Association. The Arizona Commission of Agriculture and Horticulture said that the plant was not of any medicinal value. They also recommended strategic fencing by BLM without posting to provide protection from browsing and off-road vehicles.

The BLM, in addition to supporting the proposal, described the parent material at the Burro Creek area as slightly metamorphosed volcanic ash deposits and dolomitic limestone and the soil as shallow to moderately deep cherty clay loam; gypsum was not detected. They also commented that a total of 114 mineral claims are found within a mile radius of the Burro Creek population and 12 of these are located within the same quarter section. This is an additional 105 claims since preparation of the proposal. The BLM is conducting a browse utilization study and has addressed *Cowania subintegra* in the planning documents for this area. Both BLM and the grazing allottee are interested in water development projects in the Burro Creek area which could result in increased utilization of the area for forage. The final rule has been corrected to reflect these comments.

A grazing allottee in the Burro Creek area, commented that extinction is to be expected and he disagrees with spending money on any species that has no commercial or "scenic" value. He believes that it is abundant where found, is threatened by burro overgrazing, and by poor reproduction. However, Congress, in enacting the Endangered Species Act, allowed neither commercial nor "scenic value" to be used as criteria in the Act to determine whether or not to list a species. Only 700 plants are known to exist and populations are vulnerable due to poor reproduction and overgrazing threats, among others. Senator Goldwater and Senator DeConcini also inquired about the proposal in response to the receipt of a copy of the letter from the grazing allottee.

In addition to these comments, the Arizona Plant Recovery Team supports the proposed listing of *Cowania subintegra*.

#### Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Cowania subintegra* 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 promulgated to implement the listing provisions of the Act (codified at 50 CFR Part 424; under revision to accommodate 1982 Amendments—see proposal at 48 FR 36062, August 8, 1983) 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 *Cowania subintegra* Kearney (Arizona cliffrose) and as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* There are two known populations of *Cowania subintegra* covering approximately 600 acres in Mohave County and 100 acres in Graham County. Habitat destruction through mining is one of the threats to the Burro Creek population in Mohave County. At present there are 114 BLM mining claims within a mile radius of this population, but it is not known to what extent the mineral resources of the area will be developed. Twelve of these claims are located within the same quarter sections that *Cowania subintegra* inhabits (Butterwick, pers. comm.). Areas within the population have been bladed thus destroying habitat, apparently to expose subsurface formations for mineral exploration.

A graded road and a portion of the Southern Union Gas pipeline pass through the Burro Creek area. Maintenance work for both involves occasional blading which prevents any plant establishment in these areas. A high voltage power line also passes through the Burro Creek area and some habitat destruction occurred during construction. A highline pole storage area is also in the vicinity of the Burro Creek population and effectively removes that area from habitation by this plant.

A portion of the Graham County population occurs on U.S. Highway 70 right-of-way on top of a hill through which the highway cuts. Protection of this species would involve not destroying the plants on the hill or the hill itself. Widening of the highway would be the greatest threat to *Cowania subintegra*. Herbicides, if sprayed on top of the hill (8-20 feet above the road),

could also harm the plants. Fortunately, current maintenance procedures do not threaten the *Cowania* or its habitat and there are no plans to widen the highway. The State of Arizona Department of Transportation has been contacted concerning protection of this species and has agreed to notify the Service if future construction or maintenance activities could adversely impact the *Cowania* population. To ensure continuation of these conditions, management and protection plans for this site are needed.

**B. Overutilization for commercial, recreational, scientific or educational purposes.** *Cowania subintegra* is not widely sought for horticultural or scientific purposes (Van Devender, 1980). The low numbers of plants, however, makes this species very vulnerable and any future taking for these two purposes would be detrimental. The populations of this species are easily accessible to collectors and vandals.

**C. Disease or predation.** The Burro Creek population of *Cowania subintegra* is heavily browsed, probably by cattle, mule deer, and feral burros. The site has been given a range rating of fair condition with a static trend, indicating overutilization of the range (BLM, 1982). Individual plants are in fair to poor condition, and are usually hedged. There is no evidence of reproduction except in Graham County on the U.S. Highway 70 right-of-way, where there are immature plants (Butterwick 1979; Phillips *et al.*, 1980). Further studies are being conducted to determine the impact of browsing on the plants, and to determine which herbivores are responsible and to what extent. *Cowania subintegra* is addressed in BLM planning documents; however, both BLM and the grazing allottee are interested in water development projects in this area. These projects could result in increased utilization of the plant for forage. Possible results of browsing are poor plant vigor, poor reproduction, and a lack of seedling establishment.

**D. The inadequacy of existing regulatory mechanisms.** Presently, there is no Federal or Arizona State law protecting *Cowania subintegra*, nor is there a management plan in effect for either population. Restrictions concerning the removal of plants from Federal lands are extremely hard to enforce, especially when the habitat is as easily accessible as with *Cowania*.

**E. Other natural or manmade factors affecting its continued existence.** Seeds collected from the Burro Creek population appeared to be non-viable. The lack of fertile seeds and the low

number of seedlings at either locality suggest that reproduction in this species is inadequate to maintain population size (Phillips *et al.*, 1980). Further studies are needed to determine the cause of the poor reproduction.

The Service has carefully assessed the best scientific 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 *Cowania subintegra* as endangered without critical habitat. Endangered status seems appropriate because of the two small populations, restricted distribution, and the current threats to the species. A decision to take no action would exclude *Cowania subintegra* from needed protection available under the Endangered Species Act. A decision to list as threatened would not adequately reflect the threats to the species or possibility of its extinction. Therefore, no action or listing as threatened would be contrary to the Act's intent.

#### Critical Habitat

The Endangered Species Act in section 4(a)(3), 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 this species at this time. The Act does not protect endangered plants from taking or vandalism on lands under non-Federal jurisdiction and regulations on Federal lands are difficult to enforce effectively. This would be especially true for *Cowania subintegra*, whose habitat is located along a highway and is easily accessible. Listing of a species, with attendant publicity, highlights its rarity and attractiveness to collectors. Determining critical habitat for this species would make it more vulnerable to taking by collectors and vandalism, and increase enforcement problems. Designation would not appreciably increase the protection given the plant, since it occurs primarily on Federal land, where the controlling agencies know or can be informed of its location and may not undertake actions likely to jeopardize it. Therefore, it would not be prudent to determine critical habitat for *Cowania subintegra* at this time.

#### 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 possible land acquisition and cooperation with the States and requires that recovery 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 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. 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 requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely 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 consultation with the Service.

The Federal lands on which *Cowania subintegra* occurs are administered by the BLM and the San Carlos Indian Reservation, Bureau of Indian Affairs (BIA). The BLM is aware of the Arizona cliffrose and is planning for the species in its management documents, the Burro Creek Riparian Management Plan and Big Sandy Herd Management Area Plan.

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 *Cowania subintegra*, 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, transport in interstate or foreign commerce in the course of a commercial activity, or sell or offer for sale this species in interstate or foreign commerce. Certain exceptions can apply to agents of the Service and State conservation agencies. The Act and 50 CFR Sections 17.62 and 17.63 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered species under certain circumstances. International and interstate commercial trade in *Cowania subintegra* is not known to exist. It is anticipated that few trade permits would ever be sought or issued since the

species is not common in cultivation or in the wild.

Section 9(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. The new prohibition now applies to *Cowania subintegra*. 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 these will be made final following public comment. *Cowania subintegra* occurs only on BLM, BIA, and Arizona DOT lands. It is anticipated that few taking permits for the species will ever be requested. 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).

The Service will now review this species 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 8(A)(e) of the Act, and whether it should be considered for other appropriate international agreements.

**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).

**Effective Date**

At the time of preparation of the proposed rule, some 9 mining claims were reported located within a mile of the Burro Creek population. Information received since publication of the proposed rule indicates that a total of 114 claims are now located within a mile. Mineral exploration, with consequent bulldozing or grading of ground and plant cover, has already been undertaken, and operational mining permits may be issued as early as May, 1984. The imminence of active development that, if uncontrolled, has the potential for seriously harming the main population of this plant constitutes good cause for giving immediate effect to this rule. Accordingly, this rule shall take effect upon publication.

**Literature Cited**

Brown, D. E., and C. H. Lowe. 1977. Map. Biotic Communities of the Southwest (scale 1:1,000,000). Rocky Mt. Forest and Range Expt. Sta., USDA Forest Service, Fort Collins, Colorado.  
 Butterwick, M. 1979. Report on the status of *Cowania subintegra*. Phoenix District Office, Bureau of Land Management, Phoenix, Arizona.  
 Kearney, T. H. 1943. A new cliff-rose from Arizona. Madrono 7:15-18.  
 Phillips, A. M., III, B. G. Phillips, L. T. Green, J. Mazzoni, and E. M. Peterson. 1980. Status Report: *Cowania subintegra*. Office of Endangered Species, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.  
 U.S. Bureau of Land Management. 1982. Big Sandy Herd Management Area Plan. Phoenix District Office.  
 Van Devender, T. R. 1980. Status Report: *Cowania subintegra*. Arizona Natural Heritage Program, Tuscon, Arizona.

**Authors**

The authors of this final rule are Margaret Olwell and John Pulliam, Endangered Species Staff, U.S. Fish and Wildlife Service, Department of Interior P.O. Box 1306, Albuquerque, New Mexico, 87103 (505/766-3972). The editor is LaVerne Smith, Office of Endangered Species, Washington, D.C. 20240 (703/235-1975). Status information and a preliminary listing package were provided by Dr. Authur M. Phillips III, Dr. Barbara G. Phillips, Mr. L. T. Green, Ms. Jill Mazzoni, and Ms. Elaine M. Peterson, Museum of Northern Arizona, Route 4, Box 720, Flagstaff, Arizona, 86001.

**List of Subjects in 50 CFR Part 17**

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

**Regulation Promulgation**

**PART 17—[AMENDED]**

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is amended as set forth below:

1. The authority citation for Part 17 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. 1351 *et seq.*).

2. Amend § 17.12(h) by adding the following, in alphabetical order, under Rosaceae to the List of Endangered and Threatened Plants:

**§ 17.12 Endangered and threatened plants.**

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- (h) \* \* \*

Species		Historic range	Status	When listed	Critical habitat	Spec rule
Scientific name	Common name					
Rosaceae—Rose Family						
<i>Cowania subintegra</i>	Arizona cliffrose	U.S.A (AZ)	E	147	NA	

Dated: May 16, 1984.  
**G. Ray Arnett,**  
 Assistant Secretary for Fish and Wildlife and Parks.  
 [FR Doc. 84-14201 Filed 5-23-84; 8:45 am]  
**BILLING CODE 4310-55-M**