
50 CFR Part
Determination that *Echinocereus Kuenzleri* is an Endangered Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines *Echinocereus kuenzleri* (Kuenzler hedgehog cactus), a native plant of New Mexico, to be an Endangered species. The plants are in demand by cactus collectors, and removal by commercial suppliers and private collectors has caused near extinction of the natural populations. Much of the original habitat was destroyed by road improvement,

and grazing and real estate development are also threats. Less than 200 individuals are known in nature, although the plant is available in cultivation. This action will extend to this plant the protection provided by the Endangered Species Act of 1973, as amended.

DATE: This rulemaking becomes effective on November 28, 1979.

FOR FURTHER INFORMATION CONTACT: Mr. John L. Spinks, Jr., Chief, Office of Endangered Species, Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C. 20240, 703/235-2771.

SUPPLEMENTARY INFORMATION:

Background

Echinocereus kuenzleri is known from only two populations at the eastern edge of the Sacramento Mountains, in the

Central Highlands of New Mexico. Most of the original population, discovered in 1961 near Elk, was destroyed with road building. Less than 200 individuals remain in the wild. These are still sought by collectors, despite the fact that the plant is horticulturally propagated and available in cultivation. Grazing and real estate development are also current threats. The two populations are found in Otero and immediately adjacent Chaves Counties, and in Lincoln County north of Elk.

Section 12 of the Endangered Species Act of 1973 required the Smithsonian Institution to prepare a report on plants which might qualify for listing under the Act. The Secretary of the Smithsonian Institution, in response to Section 12, presented his report on plant taxa to Congress on January 9, 1975. This report, designated as House Document No. 94-51, contained lists of over 3,100 U.S. vascular plants considered by the Smithsonian Institution to be endangered, threatened or extinct. On July 1, 1975, the Director published a notice in the *Federal Register* (40 FR 27823-27924) of his acceptance of this report as a petition to list these species under Section 4(c)(2) of the Act, and of his intention thereby to review the status of the plant taxa named within, as well as any habitat which might be determined to be critical.

On June 16, 1976, the Service published a proposed rulemaking in the *Federal Register* (41 FR 24523-24572) to determine approximately 1,700 vascular plant taxa to be Endangered species pursuant to Section 4 of the Act. This list of 1,700 plants 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 above mentioned *Federal Register* publication.

This cactus in its New Mexico range was included in the July 1, 1975, notice of review as *E. hempelii*, with an indication that the taxonomy was in question. The species in its New Mexico and Mexico ranges was proposed as Endangered in the June 16, 1976, proposed rule, again under the name *E. hempelii*. Also in 1976, *Echinocereus kuenzleri* was scientifically described as a new species for the New Mexico population of what had previously been called *E. hempelii*. The true *E. hempelii*, as recently reinterpreted, is known only from a few locations in Chihuahua. Since all New Mexico populations of

what had been called *E. hempeii* are now known as *E. kuenzleri*, we are adopting the latter name in this final rule. Kuenzler hedgehog cactus has also been called *E. fendleri* var. *kuenzleri*, but this name has not yet been officially published in accord with the International Code of Botanical Nomenclature. A public hearing on the June 16, 1976, proposal was held on July 22, 1976, in El Segundo, California. A second public hearing was held on July 12, 1979, in Albuquerque, New Mexico for five New Mexico cacti proposed as Endangered species, including this *Echinocereus*. The notice for that public hearing (44 FR 38611) used the now correct name *E. kuenzleri*, and indicated that the cactus had been called *E. hempeii* previously.

In the June 24, 1977, Federal Register, the Service published a final rule (42 FR 32373-32381, codified at 50 CFR Part 17) detailing the permit regulations to protect Endangered and Threatened plant species. The rule established prohibitions and permit procedures to grant exception to the prohibitions under certain circumstances.

The Department has determined that this listing rule does not meet the criteria for significance in the Department regulations implementing Executive Order 12044 (43 CFR Part 14) or require the preparation of a regulatory analysis.

Summary of Comments and Recommendations

In keeping with the general intent of Section 4(b)(1)(C) of the Act, a summary of all comments and recommendations received is published in the Federal Register prior to adding any plant species to the List of Endangered and Threatened Wildlife and Plants.

Hundreds of comments on the general proposal of June 16, 1976, were received from individuals, conservation organizations, botanical groups, and business and professional organizations. Few of these comments were specific in nature, in that they did not address individual plant species. Most comments addressed the program or the concept of Endangered and Threatened plants and their protection and regulation. These comments are summarized in the April 26, 1978, Federal Register publication which also determined 13 plant species to be Endangered or Threatened species (43 FR 17909-17916). Some of these comments had addressed the general problems of conservation of cacti.

Additionally, many comments on the cactus trade were received in response to the June 7, 1976, proposed rule (41 FR 22915) on prohibitions and permit provisions for plants under Sections

9(a)(2) and 10 of the Act. These comments are summarized in the June 24, 1977, Federal Register final rule (42 FR 32373-32381) on plant trade prohibitions and permit provisions. Several persons at the recent public hearing in New Mexico indicated lack of familiarity with these prohibitions and permit provisions. Requests for copies of these final trade 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.

With the July 2, 1979, Federal Register notice (44 FR 38611) for the second public hearing on certain proposed southwestern cacti, comments on the species were again solicited, with an official comment period of July 2 through July 23, 1979. The Governor of New Mexico was notified of the proposal to list *Echinocereus kuenzleri* as an Endangered species. Although the Governor himself submitted no comment on the proposed action, the New Mexico Natural Resources Department recommends the species be listed as Endangered, without Critical Habitat. They indicated collectors and real estate development as threats, and suggest that a reintroduction program may be necessary.

The New Mexico Department of Agriculture briefly reported on the survival status of the cactus, and also indicated specific areas for the species should not be designated. It indicated that before listing the cactus as Endangered, the possible inadequacy of the laws and their implementation should be considered, and that listing might increase threats to the species. The Service is aware that listing under the Act might be harmful; however, in balance, it considers that providing the provisions of the Act to this species is more likely to prove beneficial than allowing continued inadequate management for the cactus.

Seven other written comments were received concerning this species. The U.S. Forest Service, Region 3, recommend the cactus be listed as Endangered. The Southwest Region Office of the Bureau of Reclamation indicated concern that there was a lack of supporting data for the listing, and a lack of detailed information on Critical Habitat for the cactus. Extensive information on the cactus is on file and available in the Service's Albuquerque Regional Office and Washington Office of Endangered Species; it is not prudent to determine Critical Habitat for the cactus because it would increase threats to it, as explained further below. Three professional botanists and

horticulturists comment that extinction is highly likely because of collectors and that the species should be listed as Endangered. In addition, the Service has received contracted status information indicating the species appears very near extinction, and two private citizens familiar with the species have verbally reported to the Service's Albuquerque Regional Office that it is in severe danger from over-collecting and needs maximum protection soon. The Conservation Committee of the Cactus and Succulent Society of America endorses the listing as an Endangered species. All of these comments used the name *E. kuenzleri*; two indicated it is definitely part of the *E. fendleri* complex of taxa, as is reflected in the as yet unofficial name *E. fendleri* var. *kuenzleri*. With regard to the justification that it is not prudent to determine Critical Habitat for the species, one commented:

If a [collected] plant is to have its [exact] whereabouts in the Federal Register, there may as well be a copy of its death notice too.

At the July 12, 1979, public hearing in Albuquerque, New Mexico, three persons knowledgeable on New Mexico cacti and this species expressed support for listing it as Endangered; none opposed the listing.

Conclusion

After a thorough review and consideration of all the information available, the Director has determined that *Echinocereus kuenzleri* Castetter, Pierce et Schwerin [Kuenzler hedgehog cactus; synonyms: *Echinocereus hempeii* of authors, not of Fobe in 1897, and "*E. pseudohempeii*" (sic) of some nursery catalogs) is in danger of extinction throughout its limited range due to one or more of the factors described in Section 4(a) of the Act.

These factors and their application to *Echinocereus kuenzleri* are as follows:

1. *The present or threatened destruction, modification, or curtailment of its habitat or range.* This species is known from only two populations in Otero, Chaves and Lincoln Counties in the Central Highlands of New Mexico. The plants are found in pinyon-juniper woodland on the east side of the Sacramento Mountains, in the vicinity of Elk and 50 miles to the north. Most of the original population known since 1961 was destroyed during road improvements, and road maintenance remains a threat. Real estate development is also a problem for this species in the area near Elk. Some populations are located on Lincoln National Forest.

2. *Overutilization for commercial, sporting, scientific, or educational purposes.* This species has been collected so heavily that some have thought it extinct in the wild. While some plants have been taken for private collections, other may have been offered for sale under the unofficial nursery name "*E. pseudoheimplii*." The fact that this cactus has been maintained in several private collections in this country and abroad indicates that a readily available cultivated source could be developed, which would reduce collecting pressures on those in the wild. Less than two hundred wild individuals are now known, with collecting still continuing.

3. *Disease or predation* (including grazing). Cattle grazing appears to be damaging the species and its habitat, since the cactus is not found where the surface of the soil is disrupted, and some plants are probably trampled.

4. *The inadequacy of existing regulatory mechanisms.* New Mexico State Law, Chapter 76, Article 5, Section 21, requires an application to sell collected wild plants, and designation of the wild source area. Article 8 of that Law, Section 1-4, affords limited protection within 400 yards of any highway to all plants (except noxious weeds), and mentions that all species of *Echinocereus* are among the protected plants. The protection includes limited prohibitions against destruction, mutilation or removal of living plants (except seeds) on State or private land, along a highway. Some of the existing plants may be within 400 yards along the highway or other roads in the areas where it occurs.

U.S Forest Service regulations (42 FR 2956-2962) prohibit removing, destroying or damaging any plant that is classified as a Threatened, Endangered, rare, or unique species. However, the prohibitions are difficult to enforce, and as yet do not address this cactus directly.

All native cacti are on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora. However, this Convention only regulates export of the cactus and, therefore, does not regulate interstate or intrastate trade in the cactus, or habitat destruction. The Endangered Species Act will now offer additional protection for the species.

5. *Other natural or manmade factors affecting its continued existence.* This cactus is apparently restricted to rock outcrops of a particular kind in the area, and to surfaces that receive little natural disturbance. Ants take its seeds and may help to disperse the species.

Effect of the Rulemaking

Section 7(a) of the Act as amended in 1978 provides:

The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 4 of this Act. Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an "agency action") does not jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with the affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to subsection (h) of this section.

Provisions for Interagency Cooperation were published on January 4, 1978, in the *Federal Register* (43 FR 870-876) and codified at 50 CFR Part 402. These regulations are intended to assist Federal agencies in complying with Section 7 of the Act. This rulemaking requires Federal agencies to satisfy these statutory and regulatory obligations with respect to this species. New rules implementing the 1978 Amendments to Section 7 of the Act are being prepared now by the Service.

Endangered and Threatened species regulations in Title 50 of the Code of Federal Regulations set forth a series of general prohibitions and exceptions which apply to all such species. The principal regulations which pertain to Endangered plant species are found at §§ 17.61-17.63 (42 FR 32378-32380). Section 9(a)(2) of the Act, as implemented by Section 17.61, will apply. With respect to any species of plant listed as Endangered, it is, in general, illegal for any person subject to the jurisdiction of the United States to import or export such species; deliver, receive, carry, transport, or ship such species in interstate or foreign commerce by any means and in the course of a commercial activity; or sell or offer such species for sale in interstate or foreign commerce. Certain exceptions apply to agents of the Service and State conservation agencies.

Section 10 of the Act and regulations published in the *Federal Register* of June 24, 1977 (42 FR 32373-32381, 50 CFR Part 17), provide for the issuance of permits, under certain circumstances, to carry

out otherwise prohibited activities involving Endangered plants, such as trade in specimens of cultivated origin.

Effect Internationally

In addition to the protection provided by the Act, all native cacti are on Appendix II of the Convention of International Trade in Endangered Species of Wild Fauna and Flora, which requires a permit for export of this plant. The Service will review whether it should be considered under the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere or other appropriate international agreements.

National Environmental Policy Act

A final Environmental Assessment has been prepared and is on file in the Service's Washington Office of Endangered Species. The assessment is the basis for a decision that this determination is not a major Federal action which significantly affects the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969.

Critical Habitat

The Endangered Species Act Amendments of 1978 added the following provision to subsection 4(a)(1) of the Endangered Species Act of 1973:

At the time any such regulation [to determine a species to be an Endangered or Threatened species] is proposed, the Secretary shall also by regulation, to the maximum extent prudent, specify any habitat of such species which is then considered to be critical habitat.

Echinocereus kuenzleri has been and is threatened by taking, and the taking of plants is not directly prohibited by the Endangered Species Act of 1973. The State of New Mexico and the U.S. Forest Service have not been able to adequately enforce their general prohibitions on removal of plants. Publication of Critical Habitat maps would make this species more vulnerable to taking and therefore it would not be prudent to determine Critical Habitat.

Echinocereus kuenzleri was proposed for listing as an Endangered species on June 16, 1976 (41 FR 29536). Since it has been determined not to be prudent to designate Critical Habitat for this species at this time, the Service now proceeds with the final rule to determine this species to be Endangered under the authority contained in the Endangered Species Act of 1973, as amended (16 USC 1531-1543; 87 Stat. 884, 92 Stat. 3751).

The primary author of this rule is Dr. Bruce MacBryde, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240, (703/235-1975).

of Chapter I of Title 50 of the U.S. Code of Federal Regulations is amended as follows:

Regulation Promulgation

Accordingly, Section 17.12 of Part 17

1. Add in alphabetical order by family, genus, species, the following plant:

§ 17.12 Endangered and Threatened plants.

Species		Range		Status	When listed	Special rules
Scientific name	Common name	Known distribution	Portion endangered			
Cactaceae—Cactus family:						
<i>Echinocereus kuenzleri</i>	Kuenzler hedgehog cactus.	U.S.A. (NM)	Entire	E	66	N/A

Dated: October 22, 1979.

Robert S. Cook,