DEPARTMENT of the INTERIOR

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FIRST CACTI GO ON ENDANGERED LIST; 21 SPECIES ADDED

Adapted since before the Ice Age to the scorching desert sun, extreme drought, hot, dry winds and plunging nighttime temperatures, the bizarrely beautiful cacti of the Southwest are noted for their ability to survive and flourish in an environment almost as barren as a lunar landscape.

But whether these symbols of the desert in all their diversity can survive systematic and at times massive uprooting by hobby collectors, commercial dealers, roadbuilders, and mineral and recreational developers is increasingly in doubt.

During the past several weeks, the Interior Department's U.S. Fish and Wildlife Service has acted to balance the scales a bit on the side of the cacti, adding Federal legal protection and conservation measures to the natural survival skills of some of the most vulnerable spiny plants.

Twenty-one of the rarest and smallest species of cacti--some no bigger than a fingertip--have been placed on the U.S. List of Endangered and Threatened Wildlife and Plants. All are from five Southwestern States: Arizona, Colorado, New Mexico, Texas, and Utah. There, reduced populations cling tenuously but tenaciously to life on exposed canyon walls, rock crevices, cliff tops, and other remote sites. Like other rare plants, they are in serious jeopardy from haphazard destruction of their habitat. Unlike most other rare plants, however, these and other members of the cactus family also face an equally destructive threat from heavy commercial trade.

The listing places strict Federal controls on the lucrative interstate and foreign trade in field-collected plants, and to a lesser extent, on those grown in cultivation, and in seeds. The controls carry considerable clout, with violators subject to fines

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of up to $20,000 and possible jail terms. This protection, aimed at shifting trade away from wild plants, supplements that afforded all cacti by the 54-nation treaty, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, which regulates the import and export of the species.

The 21 plants are the first cacti to be listed under the Endangered Species Act. They join 37 other native and foreign plant species on the U.S. list. With the listing, conservation efforts by the Fish and Wildlife Service can now include research, habitat acquisition and cooperative programs with the States. Additional conservation measures will be carried out by other Federal agencies on land they own or manage, as required by the Endangered Species Act. These agencies will also insure that actions they fund, authorize, or carry out do not jeopardize the cacti's continued existence. Many of the listed cacti occur on Federally owned or managed land.

Some experts believe that cacti are truly native only to the Americas and were transplanted or introduced as seedlings elsewhere in the world, with the possible exception of one group. They grow as far north as Canada and nearly as far south as the tip of South America. In the U.S., cacti are most abundant in the desert and dry areas of the Southwest but they also grow at high, cold elevations, along river banks, in the Everglades, and in open areas of evergreen forests. They are native to every State except Hawaii, Vermont, New Hampshire, and Maine. Many species are valued as hardy outdoor ornamentals, as trouble-free house plants, and by collectors for their unusual shapes, formed to withstand excessive heat and drought, as well as for their large, spectacular flowers. Collectors have been known to pay $25 to $50 and upwards for a newly discovered or rare cactus specimen. Some of the larger cacti may go for $10 a foot or as much as $350 for a single plant.

Most of the 21 protected species are from three principal cactus tribes--as related groups of cacti are sometimes called--the dwarf Coryphantha and the Pediocactus, and the slightly larger, thickly spined Echinocereus. This latter group was given the common name of hedgehog because its many fierce spines resemble the quills of the European hedgehog or porcupine. The common names for others vary from place to place and from expert to expert and some are known only by their scientific name. The cactus family as a whole takes its name from the Greek word "kaktos" meaning thistles.

The two dwarf groups--the corycacti and the pediocacti--are among the most sought after by collectors, partly because of their rarity but also because of their diminutive size. Members of these groups seemingly have adopted special ways to camouflage themselves against this human threat, but the camouflage actually evolved as a shield against the harsh elements where they grow. Not having the large stems that act as natural water reservoirs for bigger cacti, the cory and pedio hug the ground and the roots of some pull the entire plant below the surface to avoid dehydration. Many also shelter in the cover of grasses and other plants, making them difficult to spot except for the brief time each year when their spectacular flowers give them away. With efforts to propagate many of the smaller cacti limited thus far, the only lucrative source for obtaining them is from the wild. Some of the cacti are so difficult to grow that they may survive but a season or two after being transplanted, but collectors nevertheless are anxious to obtain them because of their rarity. Massive uprootings to satisfy this demand have caused serious depletions in the numbers remaining in the wild.

Collectors nearly wiped out the fingertip-size, purple flowering Nellie cory cactus (Coryphantha minima) in the 1960's when a private landowner allowed free access to the plants on his ranch. Now the Nellie cory and a companion dwarf cactus, the Davis green pitaya (Echinocereus viridiflorus var. davisii), exist in the wild only on a single min-

eral outcrop on a ranch in Brewster County, Texas. Until horticulturists find a way to propagate the Nellie cory from seed and grow it in cultivation, the demand for fieldgrown plants pushes it that much closer to extinction. In addition to the continued threat from collecting, the Nellie cory is vulnerable to any alteration of its habitat for range management or mining.

Another collector's item, the bunched cory cactus (Coryphantha ramillosa), may become more vulnerable to collectors and commercial exploitation as recreational access is provided to its habitat along the newly designated scenic river section of the Lower Canyons of the Rio Grande. Slightly larger than a golf ball but with a splashy two inch, pinkish-rose flower, the bunched cory disguises itself by its resemblance to dead, gray grass. It grows in the most rugged country in Texas, protected from all but the most adventurous or foolhardy collector. For this reason, few of the bunched cory have been found in commercial trade. Botanists fear this will change rapidly as this "chameleon" loses its natural protective barrier of inaccessibility. Two other prized coryphanthas, the Lee pincushion from southeastern New Mexico and the Sneed from New Mexico and Texas now are also covered by the Endangered Species Act.

Road construction is responsible for the plight of a very rare, marble-sized pedio, the Peebles Navajo (Pediocactus peeblesianus var. peeblesianus). The few hundred plants left are hard to find in their five-to-seven mile range along the gravelly hills of the Colorado Plateau in northern Arizona. Cactus lovers say the species is easier to locate by touch than by sight and tell of searching on hands and knees for this tiny cactus that goes underground during prolonged dry spells. The Peebles Navajo cactus is festooned annually with a yellow top flower that can spread to an inch in diameter, larger than the plant itself. It is still greatly threatened by collectors and potentially by a nearby gravel pit operation.

Overcollecting was--and remains--the primary factor in the decline of the Knowlton cactus (Pediocactus knowltonii). This plant, varying in diameter from the size of a dime to a quarter, sports a pink flower the size of a half-dollar. Another pedio, the Siler (Pediocactus sileri), is faced with a variety of threats: Gypsum strip-mining, offroad vehicles, grazing, and possible power projects. In all, four species of Pediocactus are now listed as endangered.

Sadly, the same litany of threats can be recounted for the seven species of Echinocereus cacti, and others that have been placed on the U.S. list of protected species: road widening, road construction for recreation and other development, flooding, mineral and oil exploration and extraction and, of course, the omnipresent digger, or collector.

The Echinocereus plants, somewhat larger than the dwarf cory and pedio cacti, range from the size of a silver dollar to the size of a man's fist. They produce some of the cactus family's most elegantly beautiful flowers in varying hues of lavender to magenta. The Echinocereus are thickly covered with fierce, hooked spines and one--the spineless hedgehog cactus from Colorado and Utah--is both noted and named for its peculiar lack of spines. Another--the black lace cactus of Texas--is named for the network of black-tipped spines that give it a lacey look. The unique characteristics of these two make them especially prized by collectors.

Dr. Bruce MacBryde, endangered species botanist with the Fish and Wildlife Service, says the public, including plant dealers, can help save endangered cacti and other imperiled plants.

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"Dealers can help by putting labels on all nursery-produced plants that they are of cultivated origin," MacBryde said. "The public can help by refusing to buy field-collected plants. Ask before you buy and then buy only cultivated plants or seeds. Voice your concern about protecting endangered plants and the habitat they need. And when you go into the field, carry a camera, not a shovel."

With the listing of the first 21 cacti, the Fish and Wildlife Service is now focusing attention on a number of others that may be in jeopardy. As many as one-fourth of the 270 cactus species in the United States may be candidates for the endangered list.

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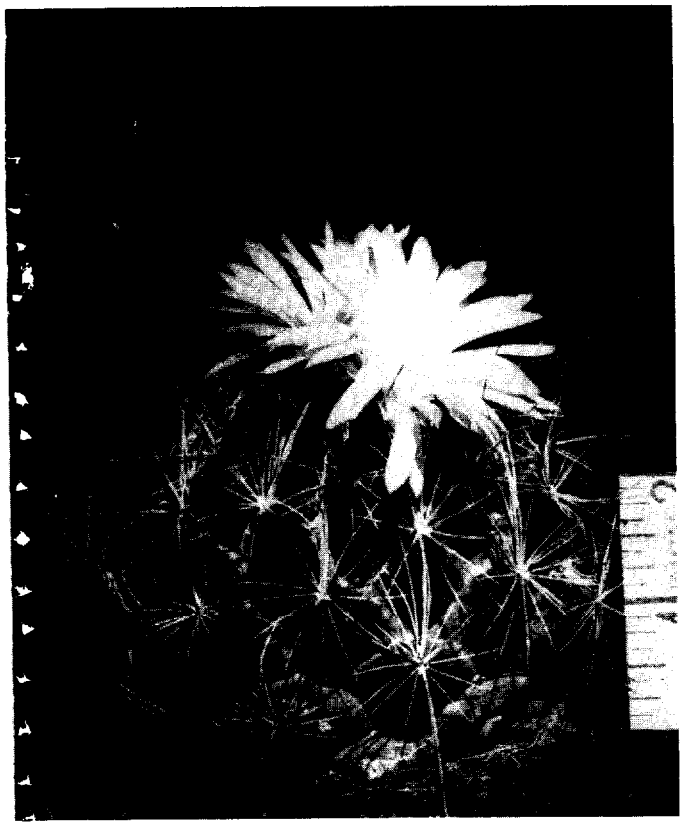
Cacti Added to the U.S. List of Endangered and Threatend Wildlife and Plants:

Scientific Name	Common Name	State	Status (E=Endangered T=Threatened)
Ancistrocactus tobuschii	--------	Texas	E
Coryphantha:			
minima	Nellie cory	Texas	E
ramillosa	Bunched cory	Texas	T
sneedii var. leei	Lee pincushion	New Mexico	T
sneedii var. sneedii	Sneed pincushion	Texas, New Mexico	E
Echinocactus:			
horizonthalonius var. nichollii	Nicholl's turk's head	Arizona	E
Echinocereus:			
engelmannii var. purpureus	purple-spined hedgehog	Utah	E
kuenzleri	Kuenzler hedgehog	New Mexico	E
lloydii	Lloyd's hedgehog	Texas	E
reichenbachii var. alberti	Black lace	Texas	E
triglochidiatus var. arizonicus	Arizona hedgehog	Arizona	E
triglochidiatus var. inermis	Spineless hedgehog	Colorado, Utah	E
viridiflorus var. davisii	Davis' green pitaya	Texas	E
Neolloydia mariposensis	Lloyd's Mariposa	Texas	T
Pediocactus:			
bradyi	Brady pincushion	Arizona	E
knowltonii	Knowlton	New Mexico	E
peeblesianus var. peeblesianus	Peebles Navajo	Arizona	E
sileri	Siler pincushion	Utah, Arizona	E
Sclerocactus:			
glaucus	Uinta Basin hookless	Utah, Colorado	T
mesae-verdae	Mesa Verde	New Mexico, Colorado	T
wrightiae	Wright fishhook	Utah	E

NOTE TO EDITORS: Photos are available upon request by calling the U.S. Fish and Wildlife Service at 202/343-5634.



unched cory cactus (Coryphantha ramillosa)
(Photo by Del Weniger)

Nellie cory cactus (Coryphantha minima)
(Photo by Del Weniger)

Black lace cactus (Echinocereus reichenbachii var. alberti)
(Photo by Del Weniger)