



ENDANGERED SPECIES TECHNICAL BULLETIN

Department of the Interior • U.S. Fish and Wildlife Service • Endangered Species Program, Washington, D.C. 20240

SERVICE LISTS 32 PLANTS

Acting to protect some of the world's rarest plant species, the Service has added 30 native and 2 foreign plants to the U.S. List of Endangered and Threatened Species.

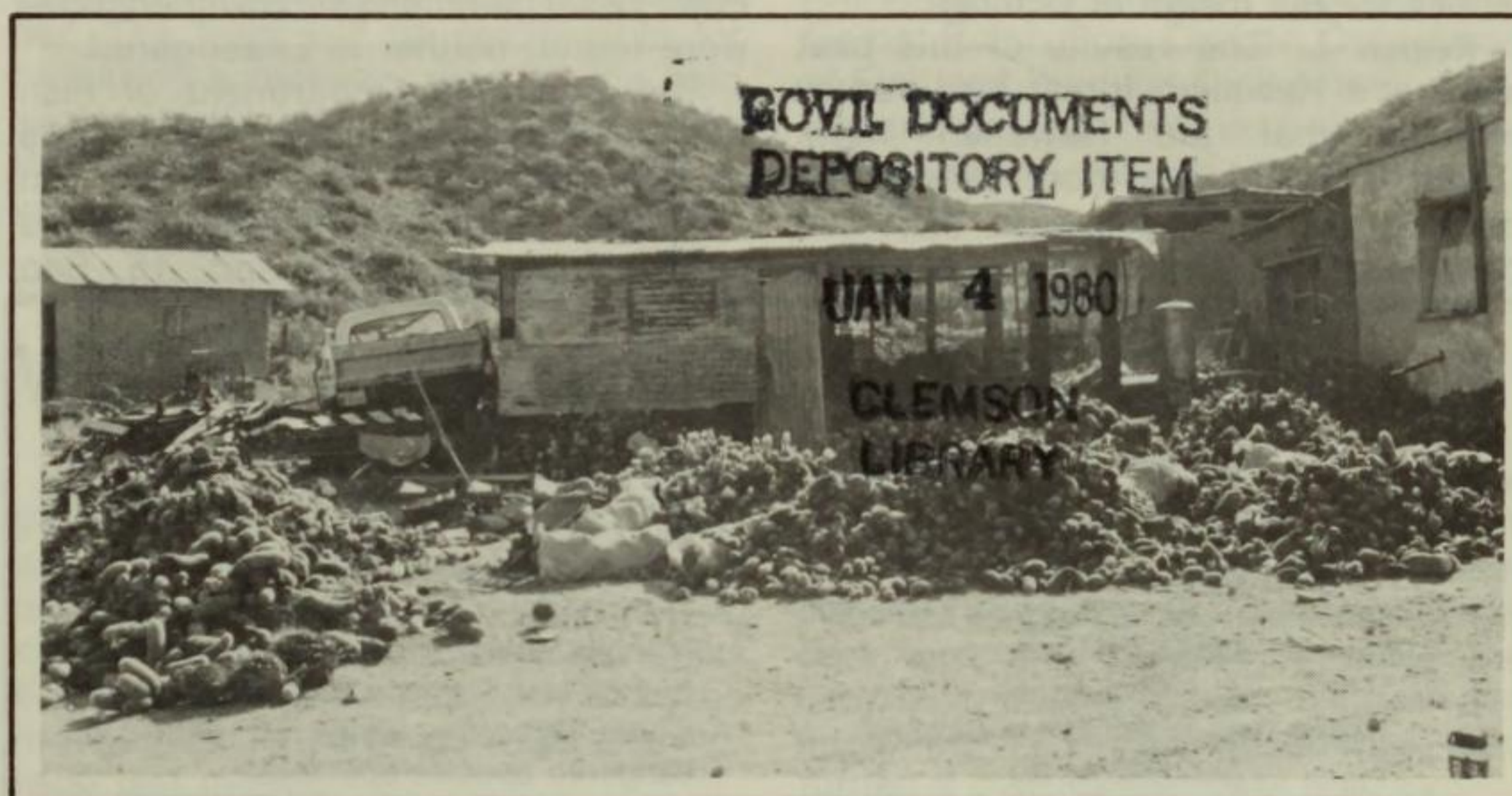
Most of the U.S. plants (listed between October 2 and November 7) are cacti—generally prized by collectors for their unique beauty, and threatened by domestic and international commerce (as well as other factors) which will be more readily controlled under Endangered Species Act provisions.

As with most endangered species, plants are especially vulnerable once they are distinguished for their rarity—a label that sometimes boosts their value (until they are sufficiently propagated and available in cultivation), making their protection difficult. International commerce in cacti (all of which are protected under Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, or CITES) and other plant species remains lucrative, and massive taking of these plants for the world market has seriously diminished their numbers in the wild.

According to the Agriculture Department's Animal and Plant Health Inspection Service (APHIS)—having import/export enforcement responsibility for plants, some 6.8 million specimens of cacti and succulents were shipped into the U.S. during Fiscal Year 1978. The Fish and Wildlife Service's Wildlife Permit Office recorded the lawful export of over 5,000 cacti from the U.S. during calendar 1978.

In addition to exploitation by collectors and dealers, entire plant communities are often obliterated by urban development, strip mining, land drainage, flooding, habitat erosion, fire, grazing, and ORVs (off-road vehicles).

All of the native plants protected in the Service's recent rulings were



The practice of cactus rustling, as seen here, poses severe problems for the existence of many species.

among 1,783 plant taxa proposed for Endangered classification in the June 16, 1976, *Federal Register*. This proposal was based in large part on the January 9, 1975, report of the Secretary of the Smithsonian Institution, which cited over 3,100 U.S. vascular plant taxa considered endangered, threatened, or extinct. (On July 1, 1975, the Service published a notice of review indicating acceptance of the Smithsonian report as a petition, and soliciting data on these plants. This notice remains in effect, with comments sought.)

Two foreign species, the Guatemalan fir and Chilean false larch, were proposed separately for listing (F.R. 9/26/75) after the Fund for Animals petitioned the Service to provide Federal protection to all species included on Appendix I of CITES.

Public hearings were held on all of the proposed plant listings, and comments have been summarized in the

respective final listings. General comments on the native plants were contained in the Service's final rules detailing permit regulations for protected plants (F.R. 6/24/77) and with the listing of 13 plants last year (F.R. 4/26/78).

Native Plants

Twenty-one of the recently listed plants are members of the cactus family. The status and distribution of all 30 native taxa (as well as threats to their existence) are discussed below by family.

Asteraceae (Aster family):

- *Lipochaeta venosa*—This shrubby, sunflower-like plant, belonging to a genus that has evolved extensively in the Hawaiian Islands, has been listed as Endangered (F.R. 10/30/79). Once more widespread on the Island of Hawaii, *Lipochaeta venosa* is now confined to Kipuka Kalawamauna on the "Big Island" (on the western flank of

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BLACK RHINO PROPOSED AS ENDANGERED

The African black rhinoceros (*Diceros bicornis*), hunted extensively for its valuable horn, is proposed for listing by the Service as an Endangered species (F.R. 10/1/79).

Although still the most numerous of the five rhinoceros species occurring in Africa and southeast Asia, the black rhino population may be approaching extinction. Over the last five to eight years, probable losses of black rhinos have been estimated at up to 95 percent in Kenya's Tsavo National Park, 85 percent in Amboseli, and over 90 percent in Meru National Park. Two years ago Meru National Park could have been considered the last stronghold of rhinos in northern Kenya; today, it has less than 20 individuals.

Based on available evidence, the Service believes there are fewer than 1,500 black rhinos in Kenya, less than 10 percent of the numbers only 10 years ago. Fewer than 15,000 black rhinos may remain in all of Africa. There have been marked declines of the species in African parks—70 percent in Ngorongoro, 70-80 percent in Ruaha, 80 percent in Tarangire, and 80-85 percent in Manyara over the last 10 years.

The major reason for the dramatic decline in the species is trade in its parts and products, especially rhino horn. Legal exports of rhino horn from East Africa have quadrupled since 1971 to over 4 tons in 1976. In one importing country, official statistics show that rhino horn imports averaged 7.6 tons per year during 1976 and 1977. A horn typically weighs about 3.5 kilos, or nearly 8 pounds, which means at least 4,000 rhinos were killed in that 2-year period to meet the demand in that country alone.

Illegal poaching has become a lucrative business as prices for rhino horn have jumped from \$23 per kilo in 1969, to \$112 in 1976. Rhino horns are carved into dagger handles which sell for as much as \$6,000. In the Far East, powdered horn is sold for medicinal purposes and as an aphrodisiac, although there is no known scientific basis for these uses. In some markets rhino horn sells for as much as \$350 per ounce.

Another factor that may be contributing to the decline in the species is a low reproductive rate. A female rhinoceros produces only one calf every four years, and the infant may

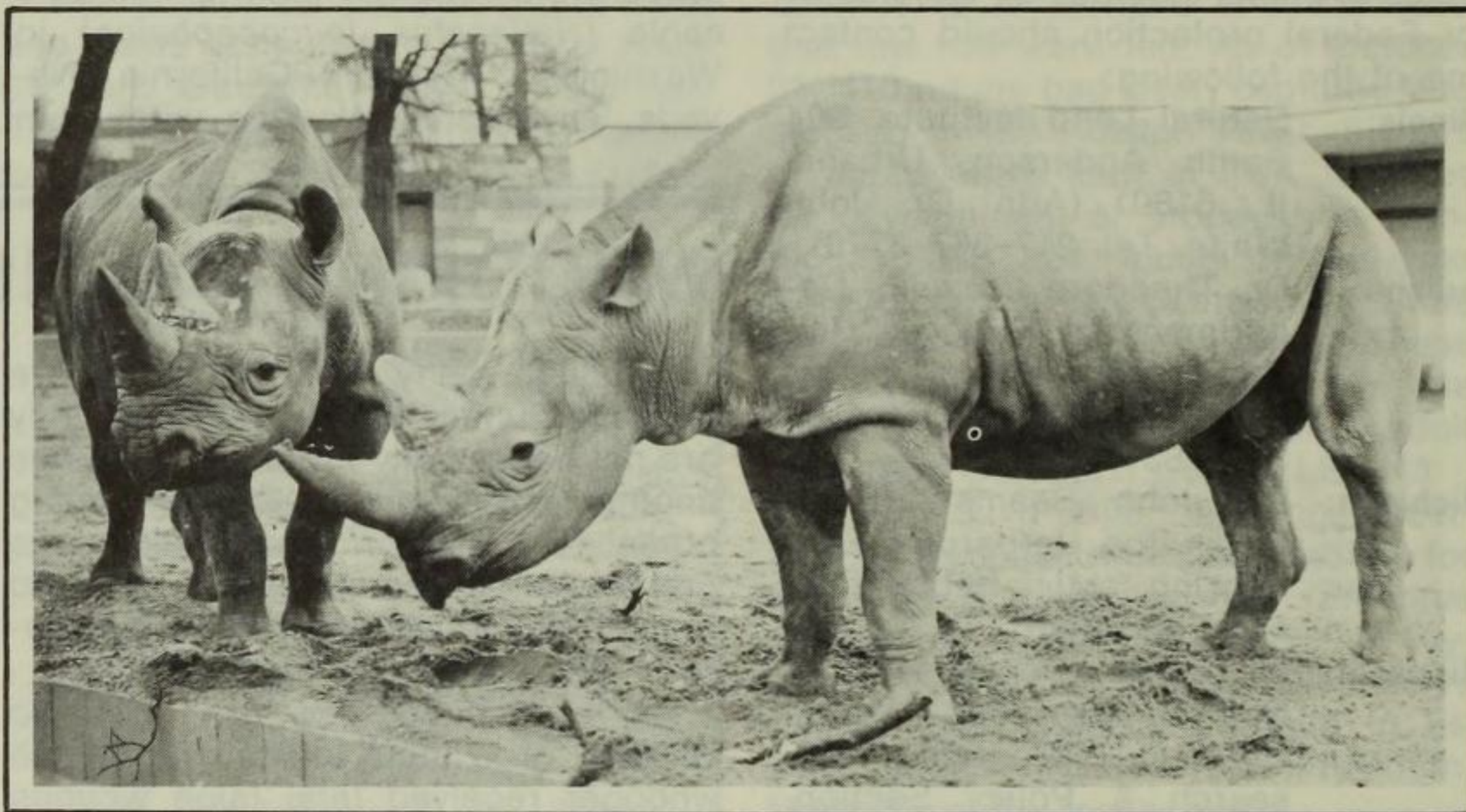
remain dependent on the mother for two years or more. Also, rhinos are easy to stalk, and the remaining population is showing signs of disturbance in response to harassment by poachers.

Listing the black rhinoceros as Endangered will give added protection to the species, which is listed on Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). (The People's Republic of China—one of the world's largest rhino horn markets—recently signed CITES, and will now

actively monitor trade in the species' products.) The Endangered Species Act of 1973 will provide further import prohibitions, as well as restrictions on transportation or sale in interstate or foreign commerce.

Under both the Convention and the Act, permits are available in certain instances for scientific and other specified purposes. However, given the present precarious status of the black rhino, the Service believes that the issuance of permits for the importation of any sport hunting trophies (allowable under CITES under certain conditions), including hardship permits for this purpose, is inconsistent with the conservation of the species and therefore proposes to deny all such applications under the Act.

Comments on this proposed rule were accepted by the Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240 through November 30, 1979.



The black rhinoceros, pursued for its valuable horn, has suffered drastic declines in the last decade.

Photo courtesy of Lothar Schlawe

WARNING TO DIVERS

The Manatee is an endangered species. It is fully protected by state and federal laws. Divers and swimmers may observe and enjoy these docile animals only in a manner which does not result in their disturbance.

Divers may:
Dive in Manatee areas and passively observe the animals unless the areas are specifically closed to diving. Photograph Manatees which approach them voluntarily.

Divers may not:
Actively pursue Manatees for any purpose, whether underwater or by boat. Attempt to ride, harness or in any way disturb, harm or harass Manatees. Interfere with the normal behavior of Manatees in any manner.

SAVE THE MANATEE

Florida Department of Natural Resources

U.S. Department of the Interior
Fish and Wildlife Service

MANATEE PROTECTION AREAS AUTHORIZED

To protect the Florida manatee from boat injuries and other human-related threats, the Service has finalized regulations allowing the establishment of special protection areas for this Endangered marine mammal (F.R. 10/22/79).