Transfer of Blaine's Pincushion Cactus *Sclerocactus spinosior* ssp. *blainei* from Appendix II to Appendix I. Proponent: United States of America.

Summary: Blaine's Pincushion Cactus *Sclerocactus spinosior* ssp. *blainei* is a small cactus confined to the western USA. There is considerable uncertainty over its taxonomic status and over which cactus populations in the wild might be ascribed to it. Populations ascribed to the taxon occur in Nevada and possibly Utah. *S. spinosior* ssp. *blainei* is classified as Endangered (pre-1994 criteria) by IUCN and is regarded as 'critically imperilled' by NatureServe, a non-government organisation. Some populations are on land managed by the U.S. Bureau of Land Management (BLM), by whom it is considered a Special Status Sensitive Species. It has been listed in CITES Appendix II since 1975, under the general listing of the Cactaceae. Reports on the status of the taxon in the wild conflict, this being based at least in part on the uncertainty regarding which populations should be assigned to it. Potential habitat for the taxon in Nevada may be affected by agriculture, industrial development, off-road vehicle use and highway maintenance. There is no documentation of any international trade in wild-collected plants from the USA between 1994 and 2000, but the proponents express concern over the apparently increasing availability of seeds over the internet abroad. *Sclerocactus* species in general are difficult to grow and to propagate and are of interest to only a small group of specialist collectors. The most recent (2001) CITES checklist of Cactaceae recognises 18 species and six subspecies in the genus and provisionally recognises a further two species and five subspecies (of which *S. spinosior* ssp. *blainei* is one); currently seven of the accepted species and one subspecies within the genus are included in Appendix I.

Analysis Following the Resolution Conf. 9.24, because of conflicting information and uncertainty regarding the status of the taxon, it is not possible to say whether *S. spinosior* ssp. *blainei* meets the biological criteria for inclusion in Appendix I. There appears to be small-scale international demand for *S. spinosior blainei,* although, as far as is known, this demand is confined to seeds which, under annotation #4, are currently exempt from the provisions of the Convention. There is no evidence that collection of seeds has an adverse affect on wild populations. Under an Appendix 1 listing, seeds would be covered by the provisions of the Convention. In Resolution Conf. 11.11, on regulation of trade in plants, the Conference of the Parties recommended that Parties contemplating preparing a proposal to transfer an individual plant species from a higher-taxon listing in Appendix II to a separate listing in Appendix I consider a number of factors, *inter alia*, whether the increased protection possible by transfer to Appendix I would compensate for the increased risk created by attracting the attention of traders to the species, and any practical problems in identifying the species, particularly in the form in which it may be traded.

Supporting Statement (SS)	Additional information
Taxonomy	
Synonyms are *Sclerocactus blainei, S. schlesseri, Pediocactus spinosior* spp. *blainei, P. s.* spp. *schlesseri.*	*Treatment of* S. spinosoir *ssp.* blainei *as a discrete taxon is questionable. It may be an erroneously defined variant of* S. spinosior *that replaces the nominate variety in south-west Utah and Nevada.* S. spinosior *comprises a number of regional and local forms, which may result in multiple taxonomic treatments and potential confusion (Ferguson, 2002).*
Range	
USA.	
IUCN Global Category	
EN (pre-1994 criteria) in the 1997 IUCN Red List of Endangered Plants.	

Biological criteria for inclusion in Appendix I

A) Small wild population

(i) Population or habitat decline; (ii) small sub-populations; (iii) one sub-population; (iv) large population fluctuations; (v) high vulnerability due to biology or behaviour

The total number of wild individuals is unknown although it has been reported as rare and hard to find. No information is available on the status of the	*Contrary to the SS, the species is purportedly locally common and occurs in widely scattered populations in Iron County, Utah, where thousands of specimens*

species in Utah.	*have been observed (Ferguson, 2002).* *Much of the potential habitat for the species in Nevada has not been surveyed and population data are therefore incomplete (Morefield, 2002).*

B) Restricted area of distribution

(i) Fragmented or localised population; (ii) large fluctuations in distribution or sub-populations; (iii) high vulnerability due to biology or behaviour; (iv) decrease in distribution, population, habitat or reproductive potential

S. spinosior ssp. *blainei* is known from about ten locations in Nevada.	*Taxonomic confusion between this and other taxa precludes effective surveying and determination of area of distribution (Morefield, 2002). Brack (2002) reports that the taxon appears widespread and not rare in nature.* *The Nevada Natural Heritage Program (2001) has only mapped three occurrences of the species in Nevada, with a maximum range dimension of under 90 km^2.*

C) Decline in number of wild individuals

(i) Ongoing or historic decline; (ii) inferred or projected decline

There is no information on population trends.	

D) Status suggests inclusion in Appendix I within 5 years

Trade criteria for inclusion in Appendix I

The species is or may be affected by trade

The species is desirable, and vulnerable to collection. Its seeds have become increasingly available over the internet across Europe.	*CITES trade data reports only two occurrences of the species being in international trade since 1992. However the taxon is marketed in several countries, implying demand and international trade in the species is greater than reflected in the trade data (TRAFFIC North America, 2002).*

Other information

Threats

It is suggested that the long-term survival of the species may be affected by unregulated over-harvest, due to the species existing in small populations and being slow growing.	*Different experts offer conflicting opinions on the level of threats facing this taxon. According to one expert the taxon is not endangered but is impacted by livestock grazing and, to a much lesser extent, b y collection and off-road vehicle use (TRAFFIC North America, 2002).*

Conservation, management and legislation

The species is listed on the State of Nevada Rare Species List, and is also listed as a Special Status Sensitive Species by the US Bureau of Land Management (BLM). The US Lacey Act provides protection against illegal trade in the species. BLM regulations state that the collection of “sensitive” plants may only be permitted for scientific or educational purposes.	*Bureau of Land Management (BLM) officials provide conflicting information as to whether or not a harvest permit is needed from the BLM to collect wild specimens from BLM managed lands (TRAFFIC North America, 2002).* *The Nevada state government requires individuals to notify the Nevada Division of Forestry regarding their intent to harvest wild cacti for commercial purposes. Commercial collection is defined as the removal or possession of six or more cactus plants on any one calendar day, or the removal of fewer plants during a period of seven consecutive days or more. Collection of fewer specimens does not require a harvest permit, but requires written permission from the land-owner. Nevada state law does not regulate the commercial collection of cactus seeds under permit, however,*

	written permission from the private or public land-owner is required. *Individuals are required to obtain shipping permits and plant tags for commercially harvested cacti traded within or from Nevada. Nevada state law also prohibits the wilful destruction or possession of cactus plants from private or public land without written permission of the land owner (TRAFFIC North America, 2002).* *The Nevada Division of Forestry has not issued any collection or shipping permits for* S. spinosoir *ssp.* blainei *in the past 18 years, nor has the agency received any requests to collect the species (Jones, 2002).*
Similar species	
There have been a few documented cases where *S. s. blainei* has been reported to look similar to *S. pubispinus* and *S. spinosior.*	*Similar species include other* Sclerocactus spinosior *populations. Also intermediates of* S. spinosior *and* S. pubispinus *share a portion of their natural range and therefore may produce intermediates that share many of the same morphological characteristics (Ferguson, 2002). Seeds are extremely difficult to identify.*
Artificial Propagation	
The genus *Sclerocactus* is difficult to propagate.	*Although one of the easiest* Sclerocactus *species to cultivate, like other members of the genus it has specialised growing needs (TRAFFIC North America, 2002).*

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References:

Brack., S., 2002. *in litt.* to Robbins, C.S., 2002.
Ferguson, D., 2002. *in litt*. to Robbins, C.S., 2002.
Jones, J., 2002. *in litt.* to Robbins, C.S., 2002.
Nevada Natural Heritage Program., 2001. Rare Plant Fact Sheet: *Sclerocactus blainei.* http://www.state.nv.us/nvnhp/atlas/sclernyens.pdf. Viewed August 2002.
Morefield, J.D., 2002. *in litt.* to Robbins, C.S., 2002.
TRAFFIC North America, 2002. *in litt.* to TRAFFIC International, Cambridge, UK.