

Transfer of Tonapah Fishhook Cactus *Sclerocactus nyensis* from Appendix II to Appendix I. Proponent: United States of America.

Summary: The Tonapah Fishhook Cactus *Sclerocactus nyensis* is a small cactus endemic to the USA, where it is only known from Nye and Esmeralda counties, Nevada. At least some populations occur on land managed by the US Bureau of Land Management (BLM), the regulations of which may only permit the collection of 'sensitive' plants for scientific or educational purposes or for conservation or propagation of the species, although officials provide conflicting information as to whether a permit is required for the harvest of wild specimens. The species has been included in Appendix II since 1975 under the general listing for the family Cactaceae. The total number of individuals is unknown. It is considered as 'critically imperilled' by NatureServe (a non-government organisation) and as a Special Status Sensitive Species by the BLM. It is thought that potential habitat for this species may be affected by agriculture, industrial development, off-road vehicle use and highway maintenance. There is no documentation of any legal or illegal international trade in wild-collected plants but there is concern about the increasing availability of *S. nyensis* seeds over the internet across Europe. Under annotation #4, seeds of the species are currently exempt from the provisions of the Convention. The proposal seeks to transfer the Tonapah Fishhook Cactus from Appendix II to Appendix I. *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 (of which *Sclerocactus nyensis* is one) and five subspecies. Currently seven of the accepted species and one subspecies within the genus are included in Appendix I. Distinguishing between many of the forms is problematic.

Analysis Following Resolution Conf. 9.24, there is insufficient information to determine whether the species meets the biological criteria for inclusion in Appendix I. However, the very limited distribution of known populations and a number of identified threats, including habitat destruction and collection, indicate that it may meet criteria B of Annex 1, Resolution Conf. 9.24. There is evidence of international demand for the species, although this appears to be currently met by seeds. There is no evidence that collection of seeds has an adverse affect on wild populations. Under an Appendix I 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
	<u>Taxonomy</u>
Synonym: <i>Pediocactus nyensis</i> .	<i>For many years seed catalogues referred to the taxon as Sclerocactus blainei. When S. blainei was officially accepted it was discovered to have been derived from an erroneous type locality, changing the application of the name. The taxon was consequently renamed as Sclerocactus nyensis with S. blainei becoming a synonym of S. spinosior (TRAFFIC North America, 2002).</i>
	<u>Range</u>
USA	
	<u>IUCN Global Category</u>
Not listed	

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 individuals in the wild is unknown, as the species lacks thorough surveying. It is ranked

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<p>by NatureServe (a non-government organisation) as 'critically imperilled'.</p> <p><u>B) Restricted area of distribution</u> (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</p> <p>Known populations occur in Nye and Esmeralda counties, Nevada, USA, at two locations within a narrow altitudinal range.</p> <p>The species is usually found widely scattered among sparse vegetation. Its habitat may be under threat from agriculture and/or industrial development, off-road vehicle use, and highway maintenance. The location of one large population is now an active gold-mine which has resulted in severe habitat degradation.</p> <p>As a slow-growing species it is easily susceptible to over-harvesting.</p> <p><u>C) Decline in number of wild individuals</u> (i) Ongoing or historic decline; (ii) inferred or projected decline</p> <p>The species lacks any thorough scientific surveying.</p> <p><u>D) Status suggests inclusion in Appendix I within 5 years</u></p>	<p><i>The Nevada Natural Heritage Program has only mapped two occurrences of the species in central Nye County, with a maximum range dimension of 79.8 km² (Nevada Natural Heritage Program, 2001). Those familiar with its distribution confirm that it is not common and restricted to a relatively confined area (Brack, 2002; Ferguson, 2002).</i></p> <p><i>The taxon is reportedly subject to large fluctuations of mortality and recruitment from year to year. Favourable growing conditions can result in robust population growth, while environmental factors such as insect infestation can eliminate most plants in a population (Brack, 2002).</i></p>

Trade criteria for inclusion in Appendix I

The species is or may be affected by trade

<p>CITES Annual Report data from the USA show no export of wild specimens between 1994 and 2000.</p> <p>However seeds have become increasingly available over the internet across Europe and the Nevada Natural Heritage Program receives requests for information about the location of the species from individuals in Europe.</p>	<p><i>The species is of interest to a limited number of specialist collectors and has been sold internationally for at least 25 years (Brack, 2002; Ferguson, 2002). The seeds are advertised over the internet where prices can be high, ranging from USD1.57 for five seeds to USD52.00 for 1 000 seeds. Collection localities of seed or parental stock are occasionally provided in catalogues (TRAFFIC North America, 2002).</i></p> <p><i>In addition to the countries listed in the SS, S. nyensis is reportedly also offered for sale in Australia (TRAFFIC North America, 2002).</i></p> <p><i>The species, like other Sclerocactus species, is regarded as difficult to grow and has limited general appeal (Jenkins, 1992).</i></p>
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Other information

Threats

Threats include habitat loss and degradation through agriculture and/or industrial development, off-road vehicle use, highway maintenance and gold mining.

The species is desirable and therefore under threat from poaching and hobbyist collection, involving both plants and seeds.

Conservation, management and legislation

The species is also listed as Special Status Sensitive Species on land managed by the US Bureau of Land Management.

The 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

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<p>The Nevada Natural Heritage Program protects location information for the species because it is considered under threat from poaching, vandalism, harassment and hobby collecting.</p>	<p><i>specimens from BLM managed lands, although a permit and plant tag appear mandatory (TRAFFIC North America, 2002).</i></p> <p><i>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.</i></p> <p><i>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).</i></p> <p><i>The Nevada Division of Forestry has not issued any collection or shipping permits for <i>S. nyensis</i> in the past 18 years, nor has the agency received any requests to collect the species (Jones, 2002).</i></p>
<u>Similar species</u>	
<p>The species is similar in appearance to <i>S. blainei</i>, <i>S. pubispinus</i> and <i>S. spinosior</i>.</p>	<p><i>Seeds are extremely difficult to identify (Jenkins, 1993).</i></p>
<u>Artificial propagation</u>	
<p>The genus <i>Sclerocactus</i> is typically difficult to propagate.</p>	

Reviewers: TRAFFIC North America.

References:

- Brack., S., 2002. *in litt.* to Robbins, C.S., 2002.
 Ferguson, D., 2002. *in litt.* to Robbins, C.S., 2002.
 Jenkins, M., 1993. *The wild plant trade in Europe: results of a TRAFFIC survey of European nurseries.* TRAFFIC Europe unpublished report, 67 pp.
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 Nevada Natural Heritage Program, 2001. *Rare Plant Fact Sheet: Sclerocactus nyensis.*
<http://www.state.nv.us/nvnhp/atlas/sclernyens.pdf>. Viewed August 2002.
 TRAFFIC North America, 2002. *in litt.* to TRAFFIC International, Cambridge, UK.