CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

Transfer of *Sclerocactus nyensis* from Appendix II to Appendix I.

B. Proponent

The United States of America.

C. Supporting statement

1. Taxonomy

1.1 Class: Dicotyledoneae

1.2 Order: Caryophyllales

1.3 Family: Cactaceae

1.4 Species: *Sclerocactus nyensis* Hochst≅tter 1992

1.5 Scientific synonyms: *Pediocactus nyensis* (Hochst≅tter) Halda 1998

1.6 Common names: English: Tonopah fishhook cactus
French:
Spanish:

1.7 Code numbers:

2. Biological parameters

2.1 Distribution

S. nyensis is endemic to Nevada; known populations occur in Nye and Esmeralda counties (NatureServe, 2002).

2.2 Habitat availability

S. nyensis is found between 1756 and 1768 meters in elevation in isolated, saltbush-dominated desert habitat on dry rocky soils and low outcrops, and on gentle slopes in open areas or under shrubs in the upper salt desert and lower sagebrush zones (Nevada Natural Heritage Program, 2001; NatureServe, 2002). Associated species are *Micropuntia gracilicylindrica* and *Escobaria vivipara* var. *deserti*, and at one locality *Sclerocactus polyancistrus* is present (NatureServe, 2002). The species is usually widely scattered among sparse vegetation, which are predominantly desert species in the genera *Artemisia, Gutierrezia*, and *Atriplex* (Hochst≅tter, 1993 as cited in Nevada Natural Heritage Program, 2001).

2.3 Population status

S. nyensis is known from two localities in Nevada (Morefield, 2002). Total number of individuals is unknown. The taxon had not been described when the IUCN Red List was published in 1998.

S. nyensis is ranked as S1 and G1. The ranking of S1 and G1 are applied to taxa that have been identified as critically imperiled in the state (S1) and globally (G1). These taxa are at great risk of extirpation due to extreme rarity, imminent threats, and/or biological factors (NatureServe 2002). Furthermore, *S. nyensis* is listed as a Special Status Sensitive Species on lands managed by the U.S. Bureau of Land Management (http://www.blm.gov/nhp/efoia/nv/98im/nvim98-013.htm).

2.4 Population trends

Currently unknown.

2.5 Geographic trends

Specific information about the geographic trends of *S. nyensis* is not available. However, potential habitat for this species in Nevada may be affected by agricultural and/or industrial development, off-road vehicle use, and highway maintenance (NatureServe, 2002).

2.6 Role of the species in its ecosystem

S. nyensis is a small cactus that forms clusters of two or three stems (Anderson, 2001). Flowers are funnelform, rose to purple to magenta (Anderson, 2001), and usually bloom in the late spring (Nevada Natural Heritage Program, 2001). The fruit are barrel shaped, green to tan in color, and dry at maturity (Anderson, 2001).

An important aspect of cactus flowers is the presence of different syndromes or sets of characters facilitating pollination by bats, birds, or insects. Red flowers are frequent in regions where bird pollination is common (Anderson, 2001). Cactus fruits are a source of food for numerous animals, including many species of birds. The most common method of cactus fruit or seed dispersal is by birds (Anderson, 2001).

2.7 Threats

This species is desirable and vulnerable to hobby collectors and poachers (Lüthy, 1999; Morefield, 2002). The seeds of this species have become increasingly available on several European web sites (Lüthy, 1999). The Nevada Natural Heritage Program receives requests from individuals in Europe for population location information for this cactus (Morefield, 2002). Most species in the genus have been adversely affected by illegal collection (Anderson, 2001).

Since the discovery of *S. nyensis* in 1992, threats to this species have increased. The location of one large population is now an active gold mine, which has resulted in severe habitat degradation and destruction. Cactus hobbyists have shown an increasing interest in obtaining plants and have collected (and continue to collect) plants and or seed from the field (Porter, 2002). Other threats to this species include agricultural or industrial development, off-road vehicle use, and highway maintenance (NatureServe, 2002).

3. Utilization and trade

3.1 National utilization

The seeds of *S. nyensis* are commercially available on the Internet.

3.2 Legal international trade

The U.S. CITES Annual Report data show no exports of wild specimens of *S. nyensis* from 1994 to 2000 (U.S. Fish and Wildlife Service, 2002). Seeds from this species are available on the Internet from web sites located in the Austria, the Czech Republic, Germany, Malta, and the Netherlands.

3.3 Illegal trade

There is no documentation of illegal international trade in wild-collected specimens from the United States of America.

3.4 Actual or potential trade impacts

The potential trade impacts to *S. nyensis* include the over-harvest of wild plants and seeds. Because these are slow-growing plants from small populations, unregulated harvest of individual plants may affect the long-term survival of this cactus.

3.5 Artificial propagation for commercial purposes (outside country of origin)

Although *S. nyensis* is commercially available, the genus *Sclerocactus* is one of the most difficult to propagate (Anderson 2001).

4. Conservation and Management

4.1 Legal status

4.1.1 National

S. nyensis is listed on the State of Nevada Rare Species List, and also listed as Special Status Sensitive Species by the U.S. Bureau of Land Management. The U.S. Lacey Act (described in 4.3.2.) provides protection against the illegal trade of this cactus.

4.1.2 International

S. nyensis has been listed in CITES Appendix II since 1975.

4.2 Species management

4.2.1 Population monitoring

S. nyensis have not yet been systematically surveyed for in Nevada (Nevada Natural Heritage Program, 2001).

4.2.2 Habitat conservation

S. nyensis occurs on land managed by the U.S. Bureau of Land Management (BLM) in Nevada, and is listed on the BLM State Director's Sensitive Species List (http://www.blm.gov/nhp/efoia/nv/98im/nvim98-013.htm).

4.2.3 Management measures

According to BLM regulations, collection of "sensitive" plants may be permitted only for scientific or educational purposes, or conservation or propagation of the species, and must be authorized by a BLM permit (BLM Manual 6840.06C.) In addition, the State of Nevada regulates the harvest of this cactus (Nevada Natural Heritage Program, 2001).

4.3 Control measures

4.3.1 International trade

S. nyensis has been subject to the trade controls of CITES Appendix II since 1975. Thus, all exports of living or dead plants require the issuance of an export permit by the country of

origin, and re-export require the issuance of re-export certificates by the country of re-export. However, seeds of this species are exempted from the listing in Appendix II by annotation.

4.3.2 Domestic measures

S. nyensis is protected by the U.S. Lacey Act, which makes it unlawful to possess any wild plant (including roots, seeds, and other parts) that is indigenous to any State and which is either listed in an appendix to the Convention on International Trade in Endangered Species of Wild Fauna and Flora, or listed pursuant to any State law that provides for the conservation of species threatened with extinction. According to the Act, it is unlawful to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any wild plant (including roots, seeds, and other parts) taken, possessed, transported, or sold in violation of any State law or regulation. It is also unlawful to import, export, transport, sell, receive, acquire, or purchase any wild plant (including roots, seeds, and other parts) taken or possessed in violation of any U.S. law, treaty, or regulation or in violation of Indian tribal law (http://www.xmission.com/-gastown/herpmed/lacey.htm).

The Nevada Natural Heritage Program protects location information in Nevada for this cactus because they are considered especially vulnerable to poaching, vandalism, harassment, and hobby collecting.

5. Information on Similar Species

A few documented specimens of *S. nyensis* have been reported to be similar in appearance to *S. blainei, S. pubispinus*, and *S. spinosior* (Porter, 2002).

6. Other Comments

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7. Additional Remarks

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8. References

Anderson, E. F. 2001. The Cactus Family. Timber Press, Portland, Oregon. 776 pp.

Lüthy, J. Switzerland Management Authority. 1999. *In litt.* to the Division of Scientific Authority, U.S. Fish and Wildlife Service.

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NatureServe: An online encyclopedia of life [web application]. 2001. Version 1.5. Arlington, Virginia, USA: Association for Biodiversity Information. Available: http://www.natureserve.org/. (Accessed:XXX, 2002).

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