

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

Twenty-first meeting of the Plants Committee
Veracruz (Mexico), 2-8 May 2014

Interpretation and implementation of the Convention

Species trade and conservation

Periodic review of species included in Appendices I and II [Resolution Conf. 14.8 (Rev. CoP16)]

PROGRESS REPORT ON THE PERIODIC REVIEW OF THE GENUS *SCLEROCACTUS*
AND *LEWISIA SERRATA*

1. This document has been prepared by the United States of America*.
2. According to the *CITES Cactaceae Checklist* (Hunt 1999), there are 31 *Sclerocactus* taxa listed in the CITES Appendices. The latest treatment of Cactaceae (Hunt et al. 2006) recognizes 28 taxa. The taxonomy of *Sclerocactus* has always been controversial (Anderson 2001; Heil and Porter 2003; Hunt et al. 2006; Porter and Prince 2011). The genus has a long history of circumscription uncertainty, with treatments ranging from two to five genera included in *Sclerocactus* as a single genus, as well as taxonomic uncertainty at both the species and infraspecific ranks (Anderson 2001; Heil and Porter 2003; Hunt et al. 2006; Porter and Prince 2011).
3. The majority of *Sclerocactus* species are endemic to the southwestern United States, with several taxa also occurring in northern Mexico, and two species are endemic to Mexico. All species are low-growing cacti that flower in the spring. Many species have restricted distributions and small populations (Anderson 2001; Porter and Prince 2011).
4. At the 12th meeting of the Conference of the Parties (CoP12; Santiago, 2002), the United States submitted proposals to transfer *Sclerocactus nyensis* and *Sclerocactus spinosior* subspecies *blainei* from Appendix II to Appendix I. The Parties adopted by consensus the proposal to transfer *S. nyensis* to Appendix I. The United States, however, withdrew the proposal for *S. spinosior* ssp. *blainei* due to taxonomic concerns raised at the meeting.
5. At the 15th meeting of the Plants Committee (PC15, Geneva, 2005), the United States as a member of the periodic review working group, volunteered to review the genus *Sclerocactus* [PC15 WG3 Doc. 1 (Rev. 1)]. The Plants Committee adopted the list of taxa for periodic review proposed by the working group, which included the genus *Sclerocactus* (PC15 Summary Record).
6. At the 19th meeting of the Plants Committee (PC19, Geneva, 2011), the United States informed the Committee that the U.S. Scientific Authority had contracted with a researcher who specializes in *Sclerocactus* to conduct a status and taxonomic review of *Sclerocactus* (PC19 Doc. 13.3).

* The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat or the United Nations Environment Programme concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.

7. Based on the consultant's work and a preliminary assessment by the U.S. Scientific Authority, we find that the Appendix-II listed endemic *Sclerocactus sileri* meets the criteria for Appendix I in Resolution Conf. 9.24 (Rev. CoP16). We also find that the remaining endemic *Sclerocactus* taxa and the taxa that occur in the United States and Mexico, with stable nomenclature, are appropriately listed in the Appendices based on the listing criteria. We will consult with Mexico to seek additional information and support for the periodic reviews of shared taxa, and to discuss how the periodic reviews of the two Mexican endemic species will be completed.
8. The United States anticipates submitting a draft proposal with the results of the periodic review to transfer *Sclerocactus sileri* from Appendix II to Appendix I, and the results of the periodic review of the U.S. endemic taxa with stable nomenclature to the Plants Committee at its 22nd meeting.
9. As reported at previous meetings of the Plants Committee, we find the problem of taxonomic uncertainty of the remaining *Sclerocactus* taxa, whether such taxa should remain in the genus, or be separated into multiple species or subspecies, prevents our ability to complete periodic reviews for those taxa until the taxonomy is resolved. To help resolve some of the more immediate nomenclatural issues relating to this genus, the U.S. Scientific Authority recently provided a list of *Sclerocactus* taxa recognized in Mexico and the United States to the Nomenclature Specialist of the Plants Committee for consideration in the third edition of the *CITES Cactaceae Checklist*. We may in the future revisit the periodic review of such taxa when the classification of *Sclerocactus* is stable and widely accepted in the scientific community.
10. The United States is also conducting a periodic review of the Appendix-II listed *Lewisia serrata*, a U.S. endemic species. We anticipate submitting a draft proposal with the results of the periodic review to the Plants Committee at its 22nd meeting.

References:

- Anderson, E. F. 2001. *The Cactus Family*. Timber Press, Portland, Oregon. USA.
- Heil, K. D. and J. M. Porter. 1994. *Sclerocactus* (Cactaceae): A revision. *Haseltonia* 2: 20-46.
- Heil, K. D. and J. M. Porter. 2003. *Sclerocactus*. In: *Flora of North America* Editorial Committee, eds. *Flora of North America North of Mexico*. Vol. 4, pp. 193, 197-206. New York and Oxford. <www.fna.org/volumes>. Accessed February 18, 2014.
- Hunt, D. 1999. *CITES Cactaceae Checklist*. Second Edition. Remous Limited: Milborne Port, England.
- Hunt, D., N. Taylor and G. Charles, eds. 2006. *The New Cactus Lexicon*. Two volumes. DH Books. Milborne Port, England.
- IUCN. 2013. *IUCN Red List of Threatened Species*. Version 2013.2. <www.iucnredlist.org>. Accessed February 18, 2014.
- Porter, J. M. and L.M. Prince. 2011. Report on the evidence supporting generic and species circumscriptions in the genus *Sclerocactus* with recommendations for a biologically justified taxonomy that will be stable into the future; and biological assessments of species of concern. Final report to the U.S. Fish and Wildlife Service.