

AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

A. PROPOSAL

Transfer of Astrophytum asterias from Appendix II to Appendix I.

B. PROPONENT

The United Kingdom of Great Britain and Northern Ireland.

C. SUPPORTING STATEMENT

1. Taxonomy

11. Class: Dicotyledoneae
12. Order: Caryophyllales
13. Family: Cactaceae
14. Species: Astrophytum asterias (Zuccarini) Lemaire
- Synonyms: Also found in United States literature as Echinocactus asterias (Zuccarini)
15. Common Names: English: star cactus, sea-urchin cactus  
French:  
Spanish:
16. Code Numbers:

2. Biological Data

21. Distribution: N.E. Mexico (Tamaulipas and Nuevo León), S. Texas [near the Rio Grande, in Cameron, Starr & (?) Hidalgo Counties]. Recorded in the 1950s and '60s from c. four localities in southern Texas (Benson, 1969) but continued existence there needs to be confirmed. Weniger (1970) states that it has never been found more than about 15-20 miles north of the Rio Grande where its foothold is 'at best precarious'. It has been collected by the thousands for the cactus trade and 'with the widespread clearing of the area (for agriculture) which is now going on, this cactus may well be eliminated in Texas...' (Weniger, loc. cit.). Weniger believes the species is abundant in Mexico, but only five localities in Nuevo León and Tamaulipas are recorded. In recent years only one locality, in S. Tamaulipas, has been found to hold plants (Sanchez-Mejorada et al., unpublished).
22. Population: In the only recently studied (1986) Mexican population there were at most 100 small individuals (from 7 cm or less) in an area of less than 1 km<sup>2</sup>. Eight years earlier the plants had been more abundant and larger (up to 15 cm) but the best specimens have since been collected. Up-to-date information on other localities is not available, although a reported site near Linares (Nuevo León) has been searched without success (G. Hinton, pers. comm. to N.P. Taylor, 1986).

23. Habitat: Astrophytum asterias is found in dry and very hot thorny brushlands ("Bosque espinoso" of Rzedowski, 1978) at low elevations (c. 150 m.s.m. in S. Tamaulipas). Benson (1982) mentions grasslands as a habitat, but it seems likely that such vegetation has been taken over for agriculture now. In Mexico, the species occurs on gentle rocky slopes in brushland with other cacti and agaves. Other and possibly more suitable habitats have already been developed for agriculture in NE Mexico. The species is fragile and will almost certainly not withstand tillage of the soil.

### 3. Trade Data

31. National Utilization: In Mexico: none. In United States: collected in the past (and present) for cactus trade.

32. Legal International Trade:

International Trade in Seeds: Seeds of this species are offered for sale in Europe and North America. It is doubtful, however, whether many or any of these originate from wild sources. The species is not uncommon in cultivation and seeds can be produced by cross-pollination of separate individuals. Trade in seeds and plants of cultivated origin should be encouraged as far as possible.

International trade in live plants: Most trade in this species probably involves artificially propagated stock. However, non-commercial European collectors are known to have visited the wild population in S. Tamaulipas and have removed plants (N.P. Taylor, pers. comm.). Field-collected plants were seen on sale in a FR German nursery in 1984 (Oldfield, 1985) and significant trade of this species (at least in part from wild material) has been reported in Japan (Milliken, 1986). According to Weniger (1970) commercial collection of the species has occurred in Texas, but it is not known whether this is continuing. A recent report (Sanchez-Mejorada et al., unpubl.) regarded this species as endangered and any further removal of plants from wild populations will place it nearer extinction.

33. Illegal Trade: Mexican.

The removal of plants by individual private collectors noted above is almost certainly illegal. Mexico has had a law prohibiting such collection since 1983 and export licences are difficult to obtain for non-scientific means or without recourse to corruption.

34. Potential Trade Threats: Wild collected plants may be traded in the USA. Mexican wild plants have been removed by successive private collectors operating mainly to satisfy personal hobby requirements. However, the demand for the plant in Japan may have encouraged larger and commercial interests to remove plants from habitat (Milliken, loc. cit.).

### 4. Protection Status

41. National: Protected by 1938 Mexican legislation banning collection of cacti and orchids. This law U.S. protection.

42. International: Listing in CITES Appendix II has not prevented removal of wild plants in Mexico by the collection of wild stocks less easy since licences should not be available for export/import on other than grounds of scientific study or conservation rescue.
43. Additional Protection Needs:
5. Information on Similar Species
- A. asterias is unlike any other cactus and readily distinguishable from the three other species of Astrophytum.
6. Comments from Countries of Origin
- Sr H. Sanchez-Mejorada (Botanic Garden, National Autonomous University of Mexico), a specialist on Cactaceae of Mexico, believes A. asterias should be placed in Appendix I of the Convention (H. Sanchez-Mejorada, 1982).
7. Additional Remarks
- Wild collected plants of this species are very difficult to cultivate under glass in Europe, being extremely sensitive to excess moisture and cool winter conditions. However, seed raised artificially propagated specimens are much easier and relatively freely available in Europe, North America and other countries where cacti are grown. Therefore there is no need for further removal of plants from the wild.
8. References
- Benson, L., 1969. Cactaceae in Lundell, C. Fl. of Texas, vol. II.
- \_\_\_\_\_, 1982. Cacti of the United States and Canada, 723-725.
- Milliken, T., 1986. Draft report of TRAFFIC (Japan) survey into the cactus trade. Unpublished.
- Oldfield, S., 1985. In Traffic Bulletin 7:44-57.
- Rzedowski, J., 1978. Vegetación de Mexico.
- Sanchez-Mejorada, H., E.F. Anderson, N.P. Taylor and R.E. Taylor, 1986. Draft report of Stage I of WWF sponsored survey of endangered cacti in NE Mexico, unpublished.
- Weiger, D., 1970. Cacti of the Southwest, 70.
- Personal Communications to and from N.P. Taylor, Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey, UK.

