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

Fourteenth meeting of the Conference of the Parties
The Hague (Netherlands), 3-15 June 2007

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal*

Deletion from Appendix II of *Pereskia* spp. and *Quiabentia* spp. (Cactaceae).

B. Proponent

Argentina

C. Supporting statement

1. Taxonomy

1.1 Class: Angiospermae

1.2 Order: Caryophyllales

1.3 Family: Cactaceae

1.4 Genus, species or subspecies, including author and year: *Pereskia* Miller 1754 (type *P. aculeata* Miller), all species, comprising, according to the CITES Cactaceae Checklist, 2nd edition: *P. aculeata*, *P. aureiflora* Ritter, *P. bahiensis* Gürke, *P. bleo* (Knuth) De Candolle, *P. diaz-romeroana* Cardenas, *P. grandifolia* Haworth, *P. guamacho* Weber, *P. horrida* (Knuth) De Candolle, *P. lychnidiflora* De Candolle, *P. marcanoi* Areces, *P. nemorosa* Rojas, *P. portulacifolia* (Linnaeus) Haworth, *P. quisqueyana* Liogier, *P. sacharosa* Grisebach, *P. stenantha* Ritter, *P. weberiana* Schumann and *P. zinniiflora* De Candolle; and *Quiabentia* Britton & Rose 1923 (type *Pereskia zehntneri* Britton & Rose), all species, comprising, according to the CITES Cactaceae Checklist,

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* *Translation provided by Argentina.*

2nd edition: *Q. verticillata* (Vaupel) Vaupel and *Q. zehntneri* (Britton & Rose) Britton & Rose.

1.5 Scientific synonyms: The genus *Rhodocactus* (Berger) F. Knuth 1936 (type: *Pereskia grandifolia* Haworth) was originally described as a subspecies of *Pereskia* and is now included in it (Hunt 1999).

1.6 Common names:

English: due to distribution in the Caribbean region, a number of vernacular names exist for *Pereskia.*

French: due to distribution in the Caribbean region, a number of vernacular names exist for *Pereskia*.

Spanish: due to the wide distribution in Latin America, a considerable number of vernacular names exist for *Pereskia*; *Quiabentia* is commonly called quiabento, from which the scientific name is derived; *Quiabentia verticillata* is called Sacharosa hembra in Argentina, *Q. zehntneri* is called Flor-de-cera, Espinho-de-Santo-Antônio and Cai-cai in Brazil.

1.7 Code numbers: none

2. Overview

It has rather to be considered an artefact resulting from the inclusion of the entire family of Cactaceae spp. in Appendix II, that certain non- or little-succulent, leaf-bearing arborescent taxa are subject to CITES. They are usually regarded as "primitive" by taxonomists and often not even recognized as belonging to Cactaceae by non-experts, due to the presence of leaves and lack of conspicuous succulence. They are not internationally traded in any significant quantities and there is even evidence that there is no demand on the international market; there is no conservation concern related to international trade and most species are widely distributed and not rare or vulnerable and hence do not meet the criteria for inclusion in Appendix II; there is no targeted harvest for international trade. Finally there is little probability for confusion with other taxa of Cactaceae, which comprise rare and endangered, internationally traded species.

In order to adapt and restrict listings in the Appendices to conservation needs and eliminate ineffective and unnecessary listings, *Pereskia* and *Quiabentia* should be delisted. Both taxa are included in the Periodic Review of the Appendices and data available so far (documents PC16 Inf. 6 and Inf. 7) support this proposal.

However, there seem to be considerable problems related to the *modus operandi* of the Periodical Review. In the case of extremely widespread higher taxa like *Pereskia* with a high number of species and range States, it seems virtually impossible – with no funds allocated by CITES – to conduct a very detailed review, comprising complete data for all species and from all range States [see document PC16 Doc. 11 (Rev. 1), Annex 2] and it therefore may be a more pragmatic way forward to present the issue to the CoP for deliberation and decision.

3. Species characteristics

3.1 Distribution

Pereskia

Central America and the eastern side of the Andes to northern Argentina, and eastward to the West Indies, Venezuela, Guyana, eastern Brazil, and northern Uruguay. Doubtfully native in Florida. AN, AR, BO, BR, CO, CR, CU, DO, EC, GF, GT, GY, HN, HT, MX, NI, PA, PE, PR, PY, SR, SV, TT, US, UY, VE, VI, WI (CITES Cactaceae Checklist, 2nd edition, Leuenberger 1986, 1997).

Quiabentia

BR, AR, BO, PY (CITES Cactaceae Checklist, 2nd edition, Leuenberger 1986, 1997).

3.2 Habitat

Pereskia and *Quiabentia* inhabit seasonally dry, deciduous tropical forests, *Pereskia* also semi-deciduous forests.

3.3 Biological characteristics

Part of the shrub- to tree-layer in forest vegetation. *Pereskia sacharosa* is reported to expand into degraded secondary habitats and is locally classified as a native weed, *P. aculeata* is reported to establish after deforestation (document PC16 Inf. 7). *P. lychnidiflora* is reported to be favoured by habitat disturbance (document PC16 Inf. 6).

3.4 Morphological characteristics

Evergreen to seasonally green, spiny shrubs to small trees or climbing vines (*P. aculeata*).

3.5 Role of the species in its ecosystem

No data.

4. Status and trends

4.1 Habitat trends

Habitat is locally converted into farmland, as for example reported from Mexico (document PC16 Inf. 6), Brazil (Taylor, Kiesling & Kraus in Oldfield, ed., 1997), the West Indies (Areces-Mallea in Oldfield, ed., 1997) and Argentina, in regions where the climate is not too arid (document PC16 Inf. 7).

4.2 Population size

Mostly no data available, e.g. for *P. lychnidiflora* in Mexico.

4.3 Population structure

Mostly no data available, e.g. for *P. lychnidiflora* in Mexico.

4.4 Population trends

Mostly no data available, e.g. for *P. lychnidiflora* in Mexico, but partly reported to be favoured by habitat degradation (documents PC16 Inf. 6 and Inf. 7).

4.5 Geographic trends

Not applicable.

5. Threats

No direct threat through targeted harvest is known.

Pereskia

The only species of the genus *Pereskia* listed as endangered (E) in the 1997 IUCN Red List of Threatened Plants is the relatively recently (1977) discovered *Pereskia quisqueyana* (Rosa de Bayahibe) from the Dominican Republic. The species is naturally rare and could become endangered due to its extremely small and exposed habitat on a shoreline near a village with sand beaches (Leuenberger 1986). International trade in wild-collected specimens is not considered a threat (Leuenberger 1992 and pers. comm., García & Rodríguez 1999). No other species of *Pereskia* is listed as rare or endangered. In Brazil, *Pereskia aureiflora*, a native species of the caatinga vegetation, is reported to suffer from forest clearance for agriculture (Taylor, Kiesling & Kraus in Oldfield, ed.,

1997). It is however probably not very rare (Leuenberger, pers. comm. 2001). International trade in wild-collected specimens is not considered a threat.

Quiabentia

No species of *Quiabentia* is listed as rare or endangered. The conservation status of *Quiabentia zehntneri* was assessed as of 'Least Concern' (Taylor & Zappi 2004).

6. Utilization and trade

6.1 National utilization

Pereskia spp. and *Quiabentia* spp. are of little economic importance. *Pereskia grandifolia*, originating from Brazil, is popular in horticulture and has been widely introduced in tropical regions. Other species are also cultivated in tropical regions outside their natural range. *Pereskia grandifolia*, *P. bahiensis* and *P. stenantha* in Brazil, *P. guamacho* in Venezuela and *P. lychnidiflora* in El Salvador and in Mexico are used for construction of livestock fences or as hedges around homesteads (Leuenberger 1986, Taylor, Kiesling & Kraus in Oldfield, ed., 1997; document PC16 Inf. 6). The leaves of *P. aculeata* are still widely used as a potherb or vegetable in some rural areas of Brazil and even sold on markets. The fruits of *P. aculeata* and *P. guamacho* are reported to be edible (Leuenberger 1986).

6.2 Legal trade

Pereskia spp.

1975-2005 exports of 29 live and 4 dried specimens of wild origin are reported and export of 195 potentially wild live specimens plus one kilogram (exports from range States).

The CITES Trade Database 1975-2005 contains information on reported trade in a very small number of specimens of wild or potentially wild origin. Often trade is reported only at the genus level. Up to 1981 no data on sources are available, but there are exports from range States that are potentially of wild origin. 1978: a single shipment of 100 live specimens originating from Mexico is reported, without indication of origin and species. 1983: the export of totally 16 live specimens from Bolivia and the Dominican Republic is reported, partly for scientific purposes. Species and origin are not indicated. 1984: the export of 18 live specimens from Brazil and 25 live specimens from Mexico is reported. Species and origin are not indicated. 1985: the export of 2 live specimens from Ecuador is reported. Species and origin are not indicated. 1986: the export of 24 live specimens from Brazil and of 1 live specimen from the Dominican Republic is reported. Species and origin are not indicated. The export of 8 specimens of *Pereskia saccarosa* from Argentina is reported in the same year, the origin is not indicated. 1988: the export of 1 live specimen of *Pereskia zinniiflora* from Cuba for scientific purposes is reported, the origin is not indicated. 1990 and 1991: the export of 0.5 kilograms each from Guatemala is reported; species and origin are not indicated.

Data on specimens of wild origin starts in 1995. In this year, the export of 5 shipments from the Dominican Republic is reported, with a total of 8 specimens of *Pereskia portulacifolia*, 2 specimens of *P. quisqueyana* and 2 specimens without indication of species. 1996: the export from the Dominican Republic of 8 live specimens of wild origin of *Pereskia portulacifolia* and 8 of *P. quisqueyana* is reported. 1997: the export of 1 wild collected live specimen from Argentina is reported, species and origin are not indicated. 1999: the export of 3 dried wild specimens of *Pereskia aculeata* from Guatemala and 1 dried wild specimen of *Pereskia lychnidiflora* from Costa Rica is reported. 2002 export of 4 wild specimens from Peru is reported; species and terms are not indicated.

Quiabentia spp.

1975-2005: no export of specimens of wild origin is reported. Reporting starts in 1988. All exports from South America are from Peru, which is not a range State of *Quiabentia* spp. and

are reported as originating from artificial propagation and totalling 124 live specimens of *Quiabentia verticillata*.

6.3 Parts and derivatives in trade

Trade in plant material of *Pereskia* sp. by weight is reported (see above).

6.4 Illegal trade

There is no potential for illegal trade and no evidence for such activities.

6.5 Actual or potential trade impacts

Quantities of reported trade seem negligible and are not likely to have any measurable impact on most populations.

Pereskia quisqueyana is naturally rare. Up to 1999, when a female individual was discovered, only a single male individual was known and propagated vegetatively in a few places. After that, seeds were produced. International trade in wild-collected specimens is not considered a threat. Only a few specimens have been exported for scientific purposes (exports total 10 live specimens in 1995 and 1996) and reported trade under CITES implies that this small quantity was non-detrimental. This trade was most likely in cuttings rather than in whole individuals. Plants raised from seeds in the United States were offered for sale in an Internet auction in 2005. Apparently there were no offers at all and it can be concluded that the demand on the international market is very limited. Distribution of this species through horticulture and international trade is rather likely to contribute to *ex situ* conservation.

7. Legal instruments

7.1 National

No specific protection by national legislation, e.g. in Mexico, is reported (document PC16 Inf. 6). Regulation of land use may contribute to conservation in some places.

7.2 International

Listed in Appendix II of CITES under Cactaceae spp.

8. Species management

8.1 Management measures

Pereskia quisqueyana (Rosa de Bayahibe) from the Dominican Republic is subject to a specific conservation programme (Leuenberger 1992, García & Rodríguez 1999) and can be regarded as quite safe (Leuenberger, pers. comm. 2001).

8.2 Population monitoring

No specific monitoring seems to be required, with the exception of *P. quisqueyana*.

8.3 Control measures

8.3.1 International

8.3.2 Domestic

8.4 Artificial propagation

Pereskia quisqueyana and other species are artificially propagated in and outside their range States on a very limited scale. Demand is very low and mostly restricted to botanical gardens.

8.5 Habitat conservation

Seasonally dry, deciduous tropical forests of Central and South America and the Caribbean are under pressure. This habitat is cleared and converted into farmland or consumed by urbanization in many places, and the total surface is already considerably reduced (Areces-Mallea and Taylor, Kiesling & Kraus in S. Oldfield, ed., 1997; documents PC16 Inf. 6 and Inf. 7).

8.6 Safeguards

Deletion from Appendix II is not likely to affect the conservation status negatively.

9. Information on similar species

Another genus of similar, leaf-bearing Cactaceae, *Pereskiopsis* Britton & Rose is presently under review by Mexico and results were presented at PC16 (document PC16 Inf. 6). *Pereskia*, *Pereskiopsis* and *Quiabentia* can be easily distinguished from the rest of Cactaceae (document PC16 Inf. 6). *Pereskiopsis* can be distinguished from *Pereskia* for the presence of glochids (small, brittle spines) and green stems (without peridermis).

10. Consultations

In the context of the Periodic Review of the Appendices by the Plants Committee, Parties were made aware of the questionable status of the listings concerned [see PC15 Summary Record, item 11, and Annex 1: document PC15 WG3 Doc. 1 (Rev. 1)]. CITES Authorities of Argentina, Bolivia, Brazil and Bolivia have been specifically addressed in the frame of this review process and the issue has been discussed with Mexico [see document PC16 Doc. 11 (Rev. 1), Annex 2], apart from discussion within the Plants Committee. Mexico reviewed *Pereskia lychnidiflora* in Mexico (document PC16 Inf. 6) and Argentina reviewed *Quiabentia verticillata* and *Pereskia* spp. in Argentina (document PC16 Inf. 7).

11. Additional remarks

Mexico states that deletion of *Pereskia lychnidiflora* from the Appendices would not be likely to create negative effects on the conservation of this species (document PC16 Inf. 6). The same conclusion is drawn for *P. sacharosa, P. aculeata, P. nemorosa* and *Quiabentia verticillata* in Argentina (document PC16 Inf. 7).

In order to limit the listing of Cactaceae spp. in Appendix II (and of flora in general) to conservation needs, several hybrids, cultivars and mutants of cacti are already excluded.

12. References

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Leuenberger, B. E. (1986): *Pereskia* (Cactaceae). Memoirs of the New York Botanical Garden 41: 1-141.

Leuenberger, B. E. (1992): Leaf-bearing cacti (*Pereskia*) in cultivation. Cact. Succ. J. (Los Angeles) 64 (5): 247-263.

PC15 Summary Record.

PC16 Doc. 11 (Rev. 1). Periodic review of plant species included in the CITES Appendices. Secretariat.

PC16 Inf. 6. Evaluación del estatus del género *Pereskiopsis* y de *Pereskia lychnidiflora* (Cactaceae) en México dentro de los Appendices de la CITES. Autoridad Científica CITES de México.

PC16 Inf. 7. Review of *Pereskia* spp. and *Quiabentia verticillata* (Cactaceae) in Argentina. Chairman of Working Group 3 (PC15 WG3) established by the Plants committee at its 15th meeting (Geneva, May 2005).

Taylor, N. P., R. Kiesling & R. Kraus in S. Oldfield, ed., (1997): Cactus and Succulent Plants - Status Survey and Conservation Action Plan, South America. IUCN/SSC Cactus and Succulent Specialist Group. IUCN, Gland, Switzerland and Cambridge, UK.

Taylor, N. P. & D. Zappi (2004): Cacti of Eastern Brazil. Royal Botanic Gardens, Kew.

Areces-Mallea, A. in S. Oldfield, ed., (1997): Cactus and Succulent Plants - Status Survey and Conservation Action Plan, The West Indies. IUCN/SSC Cactus and Succulent Specialist Group. IUCN, Gland, Switzerland and Cambridge, UK.