

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

Thirteenth meeting of the Conference of the Parties  
Bangkok (Thailand), 2-14 October 2004

Interpretation and implementation of the Convention

Amendment of the Appendices

ANNOTATIONS FOR MEDICINAL PLANTS IN THE APPENDICES

1. This document has been submitted by the Plants Committee.

Background

2. At its 12th meeting (CoP12, Santiago, 2002), the Conference of the Parties amended Decision 11.118 as follows:

*The Plants Committee shall consider the annotations in Appendices I and II relating to species of plants used for medicinal purposes and shall make recommendations to clarify the annotations, for consideration at the 13th meeting of the Conference of the Parties.*

3. At its 13th meeting (Geneva, August 2003), the Plants Committee recommended that a consultant be contracted to identify specific problems in the current CITES Appendices for medicinal plants. In December 2003, the Secretariat commissioned the IUCN/SSC Medicinal Plant Specialist Group to carry out this review. The Plants Committee also established a supervisory group comprising the regional representatives of Central and South America and the Caribbean and North America and observers from Canada, France, Germany, the United Kingdom and the United States of America.
4. At its 14th meeting (Windhoek, February 2003), the Plants Committee decided to cover the following elements in its report for CoP13:
  - a) Definitions of all trade-related medicinal terms used in the present annotations;
  - b) Identification of taxa for which the current annotations inadequately reflect the trade commodities;
  - c) Identification of cases in which improved annotations can be easily achieved and recommendations in this respect; and
  - d) Guiding principles for the future drafting of annotations.

Medicinal plant species included in the Appendices

5. Since 1975, a total of 19 species have been included in Appendix I or II because of their over-exploitation for medicinal purposes. The majority of these species were included in the 1990s; most of them are single-species listings (with the exception of *Guaiacum* spp. in 2002). Other medicinal species are included in Appendix II through the listing of whole genera and families (e.g. *Aloe ferox* through *Aloe* spp. and *Dendrobium nobile* through Orchidaceae spp.).
6. In total, the CITES Appendices include nearly 300 plant species with medicinal or aromatic trade value. The family Orchidaceae alone accounts for about 220 of these medicinal plant species. For most of these species international trade is marginal. Species in the CITES Appendices which are

frequently and predominantly traded because of their medicinal or aromatic value are included in Annex 1, Table 1.

#### # annotations for medicinal plant species

7. Most of the plant species included in Appendices II and III have an annotation of the # series. These annotations have been developed to specify the parts and derivatives which are included in the Appendices in addition to living or dead specimens [see Article I, paragraph (b) (iii), of the Convention].
8. While trade for horticultural purposes is mostly in live specimens, the medicinal trade is often in plant parts or in processed material. Annotations #2, #3 and #7 were developed to define which parts and derivatives of medicinal plants are subject to the provisions of the Convention.
9. However, some terms in annotations #2, #3 and #7 are ambiguous and need clarification: chemical derivatives, confectionery, derivatives, extracts, finished pharmaceutical products, logs, pills, powders, roots, teas, tonics, unprocessed broken material, wood-chips. After consultation of various sources within the pharmaceutical and herbal industries, the scientific community and Customs administrations, definitions have been prepared for these terms (Annex 1, Table 2). A comprehensive glossary of terms will be provided by the Plants Committee at a later stage of the ongoing review.

#### Appropriateness of current # annotations

10. Annex 1, Table 3 shows that in some cases the existing annotations exclude relevant trade commodities from CITES controls. In these cases CITES annual reports do not adequately reflect the current international trade in the species and are not helpful with regard to the making of non-detriment findings and reviews of significant trade. Amendment proposals should be drafted by the Plants Committee to improve the annotations for consideration at CoP14.
11. *Cistanche deserticola* has no #-annotation which means that only living and whole dead specimens but no parts and derivatives are covered by the Convention. The main trade commodity is the underground stem which is therefore not covered by the Appendix-II listing. Annotations #1 or #2 can be used to correct this situation.
12. All *Guaiaecum* species are annotated with #2. With this annotation, the trade in resin and oil of *Guaiaecum officinale* and *Guaiaecum sanctum* is excluded from CITES controls. During future amendments, these commodities should be covered (P. Davila, Scientific Authority of Mexico, pers. comm., March 2004). Annotation #1 can be used to correct this situation.
13. The main trade commodities of *Taxus wallichiana* are leaves and extract. Annotation #2 excludes chemical derivatives, which is widely interpreted to include extracts. Therefore one of the main commodities in trade of *Taxus wallichiana* is not covered by CITES. Annotation #1 can be used to correct this situation.
14. The term 'derivative' is frequently used in the Convention text in the expression 'parts or derivatives' [see Article I, paragraph (b) (iii), and XVI, paragraph 1)], and is generally interpreted broadly to refer to everything produced from the species in question, other than live or whole dead specimens. This creates confusion with the use of the term 'chemical derivative' as understood in the pharmaceutical and botanical industry and trade. It is therefore suggested that annotations amended or drafted in the future should refrain from using the term 'derivative'.
15. The IUCN-SSC Medicinal Plant Specialist Group, within its Memorandum of Understanding with the Secretariat, will continue to review the open questions outlined in Annex 1, Table 3, and will assist the Plants Committee with recommendations for amending annotations.

#### Guiding principles

16. Decisions on controls of parts and derivatives of CITES-listed plant species must be consistent with the purpose of the Convention "to ensure that no species of wild fauna or flora becomes or remains subject to unsustainable exploitation because of international trade" and "to ensure that international

trade in wild fauna and flora is increasingly and consistently conducted at sustainable levels” (The Strategic Plan for the Convention, Notification to the Parties No. 1999/76).

17. Many years of experience with CITES implementation show that the more parts and derivatives are subject to controls the more difficult thorough and consistent trade reporting for CITES species is becoming. It is therefore advisable to restrict CITES controls to those commodities that need to be monitored in order to regulate international trade efficiently.
18. At its 14th meeting, the Plants Committee recommended that two main principles be followed as standard guidance when drafting future #-annotations for medicinal plants in CITES:
  - a) Controls should concentrate on those **commodities that first appear in international trade** as exports from range States. Those commodities may range from crude to processed material; and
  - b) Controls should include only those **commodities that dominate the trade and the demand for the wild resource**.
19. Annotations for medicinal plants in CITES need to be tailored to suit the management needs of individual species. When assessing the significance of commodities, it has to be kept in mind that commodities such as oils or extracts may seem marginal by volume but their production may still have a strong impact on the species populations and therefore should not be excluded from CITES controls.
20. These principles provide the following advantages:
  - a) Commodities identified under these principles comprise the significant part of trade that is most likely to have caused the conservation concern which led to the inclusion in CITES;
  - b) Plant parts in an early stage of processing can be identified more easily than derived products;
  - c) The bulk trade in large quantities can more easily be controlled than retail trade in finished products; and
  - d) Double-counting of consignments at subsequent steps in the trade chain is avoided.

#### COMMENTS FROM THE SECRETARIAT

- A. This report by the Plants Committee aims to identify and resolve specific problems with the current annotations for medicinal plants, although as explained in Table 3 in Annex 1, not all tasks directed to it in Decision 11.118 (Rev. CoP12) could be completed. However this document provides a solid basis for the Plants Committee to finalize this task.
- B. The Secretariat commends this document for highlighting the problems encountered with the drafting of some plant proposals and the imperfect grasp of the use of annotations.
- C. The Conference of the Parties may wish to consider including the guiding principles that the Plants Committee proposes in paragraph 18 into a separate decision directed to the Parties.
- D. It should be noted that the definition of ‘Root’, given in Annex 1, is only valid in this particular context and has been formulated for practical purposes.
- E. As annotations are part of the Appendices the draft decisions in Annex 2 would need to clarify that any amendment proposals prepared by the Plants Committee should be submitted to the Conference of the Parties by the Depositary Government. The fourth draft decision instructs the Secretariat to prepare training materials. The Secretariat would like to indicate that the compliance with this decision would be subject to the availability of external funding.

- F. It should be noted that with respect to *Cistanche deserticola*, a proposal to add annotation #1 has been submitted to this meeting of the Conference of the Parties (Proposal CoP13 Prop. 45) as well as a proposal for Amendment of the current annotation #2 of *Taxus wallichiana* (Proposal CoP13 Prop. 47).

Table 1: Major medicinal plant species included in the CITES Appendices

| Family           | Taxon                           | App. | Annot. | Entry into force |
|------------------|---------------------------------|------|--------|------------------|
| Apocynaceae      | <i>Rauvolfia serpentina</i>     | II   | #2     | 18/01/1990       |
| Araliaceae       | <i>Panax ginseng</i>            | II   | #3     | 19/07/2000       |
|                  | <i>Panax quinquefolius</i>      | II   | #3     | 01/07/1975       |
| Berberidaceae    | <i>Podophyllum hexandrum</i>    | II   | #2     | 18/01/1990       |
| Compositae       | <i>Saussurea costus</i>         | II   |        | 01/07/1975       |
|                  |                                 | I    |        | 01/08/1985       |
| Dicksoniaceae    | <i>Cibotium barometz</i>        | II   | #1     | 01/07/1975       |
| Dioscoreaceae    | <i>Dioscorea deltoidea</i>      | II   | #1     | 01/07/1975       |
| Droseraceae      | <i>Dionaea muscipula</i>        | II   | #1     | 11/06/1992       |
| Leguminosae      | <i>Pterocarpus santalinus</i>   | II   | #7     | 16/02/1995       |
| Liliaceae        | <i>Aloe ferox</i>               | II   | #1     | 01/07/1975       |
| Orchidaceae      | <i>Bletilla striata</i>         | II   | #8     | 01/07/1975       |
|                  | <i>Cremastra variabilis</i>     | II   | #8     | 01/07/1975       |
|                  | <i>Dendrobium nobile</i>        | II   | #8     | 01/07/1975       |
|                  | <i>Gastrodia elata</i>          | II   | #8     | 01/07/1975       |
| Orobanchaceae    | <i>Cistanche deserticola</i>    | II   |        | 19/07/2000       |
| Ranunculaceae    | <i>Adonis vernalis</i>          | II   | #2     | 19/07/2000       |
| Ranunculaceae    | <i>Hydrastis canadensis</i>     | II   | #3     | 18/09/1997       |
| Rosaceae         | <i>Prunus africana</i>          | II   | #1     | 16/02/1995       |
| Scrophulariaceae | <i>Picrorhiza kurrooa</i>       | II   | #3     | 18/09/1997       |
| Taxaceae         | <i>Taxus wallichiana</i>        | II   | #2     | 16/02/1995       |
| Thymelaeaceae    | <i>Aquilaria malaccensis</i>    | II   | #1     | 16/02/1995       |
| Valerianaceae    | <i>Nardostachys grandiflora</i> | II   | #3     | 18/09/1997       |
| Zygophyllaceae   | <i>Guaiacum coulteri</i>        | II   | #2     | 13/02/2003       |
|                  | <i>Guaiacum officinale</i>      | II   | #2     | 11/06/1992       |
|                  | <i>Guaiacum sanctum</i>         | II   | #2     | 01/07/1975       |

**Table 2: Definitions of terms used in annotations #2, #3 and #7**

| <b>Term</b>                     | <b>Definition / Explanation</b>   | <b>Used in</b> |
|---------------------------------|---|----------------|
| Chemical derivative             | A processed material or substance from a plant, used for its medicinal values, having the essential elements of the parent substance.<br><br>[Explanatory note: The term 'derivative' is used in the Convention text in the combination of 'parts or derivatives' [Article I, paragraphs (b) (ii) and (iii), and XVI, paragraph 1)], and is generally interpreted broadly to refer to everything produced from the species in question, other than live or whole dead specimens. This creates confusion with the use of the term "chemical derivative" as understood in the pharmaceutical industry and trade. It is therefore proposed that annotations amended or drafted in the future should refrain from using the term 'derivative'.] | #2             |
| Confectionery                   | A sweetened mixture including elements with medicinal properties.<br><br>[Explanatory note: The term 'confectionery' is often associated with baked goods and will not be well understood by Custom officials to include items such as candies, pastilles, lozenges. It is therefore proposed that annotations amended or drafted in the future should refrain from using this term.]   | #3             |
| Extract                         | A concentrated preparation from plant raw material, in the form of a tincture, fluid, solid or powder.  | #3             |
| Finished pharmaceutical product | A preparation packaged, labeled and ready for retail market.  | #2             |
| Log                             | All wood in the rough, whether or not stripped of bark or sapwood, or roughly squared, for processing, notably into sawn wood, pulpwood or veneer sheets<br><br>[Explanatory note: Definition given in Resolution Conf. 10.13 and in document PC14 Doc. 7.5.2 (Rev.1) prepared by the United States. Cf. HS Code 4403.]   | #7             |
| Pill                            | A tablet or pellet, often coated, intended for chewing or swallowing.   | #3             |
| Powder                          | A dry, solid substance in the form of fine or coarse particles.   | #3             |
| Root                            | The underground organ or part of a plant, including primary and secondary roots, and underground stems such as bulbs, rhizomes, corms, caudices, and tubers.  | #3             |
| Tea                             | Leaves or other plant parts used to prepare a beverage by infusing them in hot water.   | #3             |
| Tonic                           | A substance considered to increase or restore health and vigour, often in the form of a beverage.   | #3             |
| Unprocessed broken material     | Chips, slices or other pieces of plants.  | #7             |
| Wood-chip                       | A small piece broken or cut from a woody part of a plant.   | #7             |

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**Table 3: Medicinal plant species requiring amended annotations**

| Species   | Commodities   | Assessment  |                  |
|---|---|---|------------------|
| <b>Presently no annotation</b>  |   |   |                  |
| <i>Cistanche deserticola</i>  | Mainly dried stem.  | No Annotation means that parts and derivatives are not controlled. Annotation #1 or #2 may be used. | amendment needed |
| <b>Annotation #2: Designates all parts and derivatives, except: a) seeds and pollen; b) seedling or tissue cultures obtained <i>in vitro</i>, in solid or liquid media, transported in sterile containers; c) cut flowers of artificially propagated plants; and d) chemical derivatives and finished pharmaceutical products.</b>  |   |   |                  |
| <i>Guaiacum officinale</i> ,<br><i>Guaiacum sanctum</i>   | Mainly timber, pieces of heartwood, pieces of resin. Also powdered wood and resin, essential oil, bark. | Resin and oil are not covered by CITES controls but should be included. Annotation #1 may be used.  | amendment needed |
| <i>Podophyllum hexandrum</i>  | Very little trade information in CITES Annual reports.  |   | (2)              |
| <i>Rauvolfia serpentina</i>   | Dried roots, whole or cut. Also powdered roots, extract and essential oil.                              | Extracts and oil are excluded from CITES controls.  | (1)              |
| <i>Taxus wallichiana</i>  | Mainly extract, dried twigs, needles, and bark, often chopped.  | The current Annotation excludes extracts from CITES controls. Annotation #1 may be used.            | amendment needed |
| <b>Annotation #3: Designates whole and sliced roots and parts of roots, excluding manufactured parts or derivatives such as powders, pills, extracts, tonics, teas and confectionery.</b>   |   |   |                  |
| <i>Hydrastis canadensis</i>   | Mainly rootstock. Also powdered rootstock and perhaps extract.  | Powder and extract are excluded from CITES controls.  | (1)              |
| <i>Nardostachys grandiflora</i>   | Mainly whole rootstocks and roots. Also the powdered rootstock and essential oil.                       | Oil and powder are excluded from CITES controls.  | (1)              |
| <i>Picrorhiza kurrooa</i>   | Mainly the dried, coarsely cut rootstock. Also extract, oil.  | Extract and oil are excluded from CITES controls.   | (1)              |
| <b>Annotation #7: Designates logs, wood-chips and unprocessed broken material.</b>  |   |   |                  |
| <i>Pterocarpus santalinus</i>   | Dried pieces of the heartwood. Also the powdered heartwood, essential oil and extract.                  | Powder, extract and oil are excluded from CITES controls.   | (1)              |
| <p>(1) Recommendations regarding these species can only be made after the ongoing review has clarified whether essential oils, extracts or powders are significant commodities for these species, both in their relative volume of the overall trade and in the relative volume of the wild resource required for their production.</p> <p>(2) Trade volumes and commodities need to be confirmed before recommendations can be made.</p> |   |   |                  |



DRAFT DECISIONS OF THE CONFERENCE OF THE PARTIES

Directed to the Plants Committee

- 13.xx The Plants Committee shall prepare annotations for medicinal plants included in Appendix II that adequately reflect the current commodities in international trade and their relative impact on the wild populations in range States.
- 13.xx The amended annotations shall focus on those commodities that first appear in international trade as exports from range States and on those that dominate the trade and the demand for the wild resource.
- 13.xx The Plants Committee shall draft amendment proposals in this respect for consideration at the 14th meeting of the Conference of the Parties.

Directed to the Secretariat

- 13.xx The Secretariat shall prepare a glossary with definitions and training materials that illustrate and visualize the content of the amended annotations, the terms used and their practical application during enforcement and controls.