

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

Amendment of the annotation for *Taxus wallichiana* (currently annotation #2), to read:

Designates all parts and derivatives, except:

- a) seeds and pollen; and
- b) finished pharmaceutical products.

B. Proponent

The People's Republic of China and the United States of America, in accordance with the consensus recommendation of the Plants Committee at its 12th meeting of (Leiden, May 2002).

C. Supporting statement1. Taxonomy

- 1.0 Division: Coniferophyta
- 1.1 Class: Pinopsida
- 1.2 Order: Taxales
- 1.3 Family: Taxaceae
- 1.4 Species: *Taxus wallichiana* L.
- 1.5 Scientific synonyms: *Taxus baccata* L. subsp. *wallichiana* (Zucc.) Pilger 1903
Taxus nucifera Wall. 1784
Taxus contorta Griff. 1848
Taxus orientalis Bertol. 1862
Taxus yunnanensis W. C. Cheng & L. K. Fu 1975
Taxus wallichiana Zucc. var. *yunnanensis* (W. C. Cheng & L. K. Fu)
C. T. Kuan 1983
Taxus chinensis (Pilg.) Rehder var. *yunnanensis* (W. C. Cheng & L. K. Fu) L. K. Fu 1993 (Farjon 2001)
- 1.6 Common names: English: Himalayan yew
French: If de l'Himalaya
Spanish: Tejo del Himalaya
Chinese: ximalaya, hongdoushan
- 1.7 Code numbers: ---

2. Biological parameters

Since *Taxus wallichiana* was included in Appendix II at CoP9 (Ft. Lauderdale, 1994), the bulk of international trade has consisted of chemical extracts (e.g., paclitaxel) exported by large pharmaceutical suppliers (e.g., 21 CEC, Kingherb International, Hande Technological Development Co. Ltd, Phytogen Life Sciences, Sigma-Aldrich Inc., SiniWest Holdings, Inc.). In a review of CITES-listed medicinal plants, Schippmann (2001) concluded that the annotation for *Taxus wallichiana* included extracts in the listing, and therefore such specimens should be subject to CITES controls. However, exporting countries, particularly China and India, were not reporting trade in these commodities. The author suggested that the CITES Parties involved may consider chemical extracts

to be “finished pharmaceutical products” and therefore exempt from CITES controls. The extract (e.g., crude, semi-purified, and active pharmaceutical ingredient) is the commodity actually exported rather than plant biomass (Shah 1994; Bertrand von Arx, personal communication, May 2002). Therefore, to regulate the commodities in trade and allow range countries (especially China, India and Nepal) to better monitor and control the export and import of this species, and to prevent unsustainable harvest of *Taxus wallichiana*, a new annotation is being proposed to include all parts (except seeds and pollen) and chemical derivatives, but exclude finished pharmaceutical products.

3. Utilization and trade

None.

4. Conservation and management

None.

5. Information on similar species

None.

6. Other comments

The United States of America sent a draft proposal to all Parties within the range of *Taxus wallichiana*, but only received a response from China. China fully supports and is co-sponsoring this proposal. The United States of America also sought comments on this proposal via public notice in the U.S. *Federal Register*, Volume 69 (7): 1757-1761, January 12, 2004.

7. Additional remarks

When the Parties agreed to list *Taxus wallichiana* in Appendix II (Fort Lauderdale, 1994), they agreed not to regulate the chemical derivatives derived from this species. However, because of this exclusion the current annotation for *Taxus wallichiana* fails to capture and control the majority of trade in this species.

This proposal was developed as a consequence of a review of the current listing of *Taxus wallichiana*, which was begun at the 10th meeting of the Plants Committee (Shepherdstown, 2000). At the 11th meeting of the Plants Committee (Langkawi, 2001), it was determined that the listing and annotation for *Taxus wallichiana* was not effective because it exempts, or is interpreted to exempt, chemical derivatives (and extracts) from CITES regulations. At the 12th meeting of the Plants Committee (Leiden, 2002), it was agreed that the United States of America and other potential sponsors should submit a proposal for the 12th meeting of the Conference of the Parties (CoP12) (Santiago, 2002). However, there was not sufficient time to prepare a proposal before the deadline for CoP12.

Additionally, the original proposal to list *Taxus wallichiana* in Appendix II was adopted with an annotation to include only a single taxonomic synonym, *Taxus baccata* L. subsp. *wallichiana* Zuccarni. At the Twelfth Meeting of the Conference of the Parties (Santiago, 2002), the World Checklist and Bibliography of Conifers (2001) by Aljos Farjon was adopted (Resolution Conf. 12.11) as the official CITES standard checklist for conifer species. According to Farjon (2001), there are six additional synonyms of *Taxus wallichiana*: *Taxus nucifera* Wall.; *Taxus contorta* Griff.; *Taxus orientalis* Bertol.; *Taxus yunnanensis* W. C. Cheng & L. K. Fu; *Taxus wallichiana* Zuccarni var. *yunnanensis* (W. C. Cheng & L. K. Fu) C. T. Kuan; and *Taxus chinensis* (Pilger) Rehder var. *yunnanensis* (W. C. Cheng & L. K. Fu) C. T. Kuan (Farjon 2001). Of the six synonyms, only three, *Taxus contorta*, *Taxus orientalis*, and *Taxus yunnanensis*, are in use today. Furthermore, the CITES identification sheet for *Taxus wallichiana* includes the synonyms *Taxus contorta*, *Taxus orientalis*, and *Taxus yunnanensis* (Lange and Schippmann).

The researchers Cheng and Fu (1978) identified and illustrated two species of *Taxus* from southwest China. The specimens restricted to southwest Xizang were identified as *Taxus wallichiana* Zuccarini, whereas those specimens from southwest Sichuan, western Yunnan, and southeastern Xizang were

recognized as *Taxus yunnanensis* Cheng and L. K. Fu. However, further taxonomic work by Nam Li and L. K. Fu (1997) demonstrated that the critical study of types and the authentic material revealed Cheng and Fu's specimens of *Taxus yunnanensis* to be *Taxus wallichiana*. Furthermore, the specimens described by Cheng and Fu as *Taxus wallichiana* were subsequently recognized as a new species, *Taxus fuana* Nan Li and R. R. Mill (Wu and Raven 1999).

8. References

- Cheng, W. C., and L. K. Fu. 1978. Taxaceae. Fl. Reipubl. Popularis Sin. 7: 439-467.
- Farjon, A. 2001. *World Checklist and Bibliography of Conifers*. 2nd edition. Bath Press, Bath, England.
- Lange, D., and U. Schippmann. 2001. Medicinal and aromatic plants: *Taxus wallichiana*. Scientific Authority of Germany, German Federal Agency for Nature Conservation. Bonn, Germany.
- Nam, L., and L. K. Fu. 1997. Notes on gymnosperms I. Taxonomic treatments of some Chinese conifers. *Novon* 7(3): 261-264.
- Schippmann, U. 2001. CITES medicinal plants significant trade study. Project S 109. German Federal Agency for Nature Conservation. Bonn, Germany.
- Shah, N. C. 1994. Central Institute of Medicinal and Aromatic Plants, Lucknow: in litt. to N. McGough, Royal Botanic Gardens Kew. Reported in Information Document 3, "Revision of the # annotations for medicinal plants and aromatic plants included in the CITES Appendices," for the 14th Meeting of the Plants Committee, Windhoek, February 16-20, 2004.
- Wu, Z., and P. H. Raven (editors). 1999. *Flora of China*. Vol. 4. Science Press, Beijing, China, and Missouri Botanical Garden Press, St. Louis, USA. Available at: <http://flora.huh.harvard.edu/china/mss/volume04/TAXACEAE.published.pdf>. (Accessed March 2, 2004.)