

## AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

### Other Proposals

#### A. PROPOSAL

Inclusion of *Coptis teeta* in Appendix II.

#### B. PROPONENT

India.

#### C. SUPPORTING STATEMENT

##### 1. Taxonomy

11. Class: Dicotyledoneae
12. Order: Ranales
13. Family: Ranunculaceae
14. Scientific Name: *Coptis teeta* Wallich in Trans. Med. & Phys. Soc. Calc. 7: 347. 1838
15. Scientific Synonyms: None
16. Common Names: English:  
French:  
Spanish:  
Beng. &  
Asm.: Tita  
Hindi: Mamira, Mamiran  
Guj.: Haladiovachnag  
Mishmi: Mishmi - tita
17. Code Numbers:

##### 2. Biological Data

21. Population Status: Listed as "Vulnerable" in the Red Data Book of Indian Plants vol.3.
22. Population Trend: Vulnerable.
23. Distribution: Arunachal Pradesh (Lohit, Dibang Valley, Siang and upper reaches of Upper Sabansiri districts.)
24. Habitat Availability: In moist, shady forest floor preferably on sandy peat soil at alt. of 2500-3000 m.
25. Geographic Trend: Endemic to, and not so far recorded outside, Arunachal Pradesh.

26. Threats: The wild populations are quickly being destroyed due to over-collection for the medicinal value of its rhizomes and also due to habitat disturbance including clearing for jhum cultivation.
3. Utilization and Trade:
31. National Utilization: The medicinal herb commonly known as "mishmi tita". The extract of rhizomes is used in the preparation of an all round tonic and for various eye diseases.
32. Legal International Trade: Banned for export from India under Export (Control) Order.
33. Illegal Trade: Insufficient data available. Large quantities of rhizomes said to be exported every year.
34. Actual Potential Trade Impact: The rhizomes contain an alkaloid known as "berberine" which is stomachic and is used in the preparation of an all round tonic. It has also been found efficacious in debility, atonic dyspepsia and in mild forms of intermittent fevers.
35. Captive Breeding or Artificial Propagation (outside country of origin): It is reported to be cultivated in China.
4. Conservation and Management:
41. Legal Status:
411. National: Export prohibited under Export (Control) Order.
412. International: Export of rhizomes has made this species vulnerable therefore international co-operation is sought to check the unrestricted export.
42. Species Management:
421. Population Monitoring: Attempt being made.
422. Habitat Conservation: The Namdapha National Park in Arunachal Pradesh includes some of its original habitats and as such the species is conserved as a part of *in situ* conservation and protection there.
423. Management Measures: Multiplication and propagation programmes through tissue culture method are being adopted to introduce the species in other protected areas of similar habitat.
43. Control Measures:
431. International Trade:
432. Domestic Measures Measures are being taken to regulate collection and exploitation from wild sources.
5. Information on Similar Species
51. Similarity in Appearance: The rhizomes of *Coptis teeta* are sometimes adulterated with those of *Picrorrhiza* spp. and *Thalictrum foliolosum*. The rootstocks of *Picrorrhiza* spp. are densely

clothed with withered leaf bases and devoid of any fibrous root as are characterised in *Coptis teeta*.

52. Nature of Specimen in Trade: The rhizomes, which are yellowish-brown externally and golden-brown internally, exhibit a radiating structure.

6. Comments from Countries of Origin

7. Additional Remarks

Description: Stemless perennial herbs. Rhizomes (roots) are finger like thick and often remain associated with leaf bases and fibrous roots. The rhizome are yellowish-brown externally and golden brown, exhibiting a radiating structure, internally. Leaves 5-6, 3-lobed, pinnatifid with long petiole. Flowers small, greenish. Fruit a folicle, many seeded.

8. References

Anonymous 1950. *The wealth of India: A dictionary of Indian raw materials and industrial products*, New Delhi. Vol 2: 322.

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Lal, J. 1990. In *Red Data Book of Indian Plants*. 3: 209. eds. Nayar & Sastry. BSI.

Mudgal, V. & Jain, S.K. 1980. *Coptis teeta* Wall. Local uses distribution and cultivation in *Bull. Bot. Surv. India* 22: 179-180.

