

To delete the current annotation to *Cistanche deserticola* in Appendix II. Proponent: China.

Summary: A number of *Cistanche* species are important medicinal plants in traditional Chinese medicine. *C. deserticola* is found in China and Mongolia and possibly one or more central Asian republics. It is parasitic and primarily found on the roots of *Haloxylon ammodendron*. The dried stem is referred to as Herba Cistanches and is used to treat a variety of conditions including kidney problems, impotence and infertility. The species is in demand for trade both nationally in China and internationally, and supplies are becoming over-exploited. National demand within China was estimated at 450 – 550 tonnes in 1995 with 120 tonnes produced for international trade. China reported the export of 4 200 kg of *Cistanche* derivatives of wild origin to Japan in 2000. In Hong Kong SAR alone, at least 42 different brands of proprietary Chinese medicinal products containing parts or derivatives of this species are available. The species is now listed as 'endangered' in the Chinese Angiosperm Red List. The dried stem is very similar to those of *C. ambigua*, *C. tubulosa*, *C. salsa* and *C. sinensis*, which are also traded.

With a restricted range and very specific habitat requirements, *Cistanche deserticola* is known to be threatened by both direct over-exploitation for its medicinal properties and by over-exploitation of its host plant. Cultivation of the species is in its infancy. *Cistanche deserticola* is advertised for sale both as a single ingredient and as mixed formulations in the United Kingdom, USA, China and Hong Kong SAR. The species was included in Appendix II in 2000 under annotation #3, which designates whole and sliced roots and parts of roots, excluding manufactured parts or derivatives such as powders, pills, extracts, tonics, teas and confectionery. The proposal notes that this annotation, adopted at CoP 11, was incorrect in referring to roots rather than stems, and now seeks to remove the annotation completely so that specimens of the species and all readily recognisable parts and derivatives will be subject to CITES controls in order to conserve wild stocks.

Analysis Many species of medicinal plants included in Appendix II are annotated to exclude either chemical derivatives and finished pharmaceutical products or to exclude manufactured parts and derivatives such as powders, pills, extracts, tonics, teas and confectionery. Concern has been expressed in the past that such exemptions may have conservation implications for the species in question, as they could result in significant quantities of material from those species being traded in an unregulated manner. The counter-argument maintains that without such annotations, implementation of the provisions of the Convention would become very unwieldy without necessarily having real benefit for the species concerned. Manufactured products containing *Cistanche deserticola* are generally marked or described as containing *Cistanche*. According to the Pharmacopeia of China, Herba Cistanches refers only to the species *Cistanche deserticola*, but it is possible that other species are traded under this name. Those medicines labelled Herba Cistanches could be considered readily recognisable under the provisions of Resolution Conf 9.6, although it is unclear what proportion of such manufactured medicines would be reliably identified to species level. Equally, the problem of distinguishing specimens of *C. deserticola* from specimens of *Cistanche* not included in the Appendices also appears to apply to the stems. Given the high levels of trade and the apparent vulnerability of the species to over-exploitation, the Parties will need to consider what proportion of the trade is likely to be in products that would potentially be regulated if the annotation were removed and balance this against the burden of regulating trade in manufactured parts and derivatives.

Supporting Statement (SS)	Additional information
Discussion	
<p>At CoP 11, the Parties included <i>Cistanche deserticola</i> in Appendix I with annotation #3: Designated whole and sliced roots and parts of roots, excluding manufactured parts or derivatives such as powders, pills, extracts, tonics, teas and confectionery.</p> <p>In Notification to the Parties No.2001/067 of 1 October 2001, the Secretariat informed the Parties that the annotation was incorrect because <i>Cistanche deserticola</i> is a parasite and does not have roots. The Notification indicated that the reference to 'roots' in the annotation should be interpreted as applying to</p>	<p><i>Cistanche deserticola</i> is found in China and Mongolia. It is parasitic and primarily found on the roots of <i>Haloxylon ammodendron</i>. The species is important in traditional Chinese medicine where the dried stem is referred to as Herba Cistanches and is used to treat a variety of conditions including kidney problems, impotence and infertility.</p> <p>The species is in demand for trade nationally and internationally and supplies are becoming over-exploited. National demand within China was estimated at 450–550 tonnes in 1995 with 120 tonnes</p>

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<p>the inflorescence of this species.</p> <p>The main part of the <i>Cistanche deserticola</i> plant is comprised of stems whether subterranean or aboveground, and it is mainly these stems that are used for medicinal purposes.</p> <p>The current proposal seeks to delete the current annotation to <i>Cistanche deserticola</i>, so that the whole species is included in Appendix II, in line with the original intent of the proponent.</p>	<p><i>produced for international trade. According to traders about 80 mt p.a. was imported to Hong Kong SAR before CoP11, but this has now decreased to about 10 tonnes p.a. Consequently, the wholesale price has increased eight-fold (Lee, 2001).</i></p> <p><i>The species is listed as 'endangered' in the Chinese Angiosperm Red List. The available supply is thought to be insufficient to meet demand and the species is only cultivated in very small quantities (Huang, 2002). The dried stem is very similar to those of C. ambigua, C. tubulosa, C. salsa and C. sinensis, which are also traded (IUCN/SSC and TRAFFIC, 2000).</i></p> <p><i>Harvest of this species has been prohibited in China since 2000. However, enforcement of this ban is weak and Cistanche deserticola is still traded in raw and processed forms including pharmaceutical products and medicated wine for use as food tonics (TRAFFIC East Asia, 2002).</i></p> <p><i>As it stands, the current annotation excludes manufactured parts or derivatives such as powders, pills, extracts, tonics, teas and confectionery containing Cistanche deserticola from CITES regulation.</i></p> <p><i>This annotation was recommended by the Secretariat in their considerations of proposals (Doc 11.59.3 submitted to the Parties prior to CoP 11). When introducing the proposal at CoP 11, China amended it with the recommended annotation, which was adopted by consensus.</i></p> <p><i>The current CoP 12 proposal from China does not simply correct the annotation to read stems rather than roots for this parasitic plant, but actually removes the complete annotation. This would have the effect that all readily recognisable parts and derivatives, such as medicines labelled with their ingredients, would be regulated by CITES documentation.</i></p> <p><i>Given that China has a well-developed domestic pharmaceutical industry that trades globally and that Cistanche deserticola can be administered as single ingredient or in mixed formulations, it appears that China is aiming to keep strict regulation on this species.</i></p> <p><i>It is not clear what proportion of the trade is likely to be in stem pieces and what proportion is in ready manufactured medical powders, tonics pills etc (TRAFFIC East Asia, 2002). However, much of the trade in this species could be in ready-made tonics and medicines. In Hong Kong SAR alone, at least 42 different brands of proprietary Chinese medicinal products containing parts or derivatives of this species are available (Chu and Lee, in prep). Resolution Conf 9.6 notes that a readily recognisable part or derivative shall be interpreted to include any specimen which appears from an accompanying document, the packaging or a mark or label, or from any other circumstances to be a part or derivative of an animal or plant of a species included in the Appendices, unless such a part is specifically exempted from the provisions of the Convention. It is not clear what proportion of medicines labelled as</i></p>

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	<p><i>containing Cistanche identify the species concerned.</i></p> <p><i>China reported the export of 4200 kg of Cistanche derivatives of wild origin to Japan in 2000.</i></p> <p><i>The intent of the proponent is to remove the complete annotation, so that trade in readily recognisable parts and derivatives will be regulated (Baoguo, 2002).</i></p>

Reviewers: TRAFFIC East Asia.

References:

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