

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



Fifteenth meeting of the Conference of the Parties
Doha (Qatar), 13-25 March 2010

Interpretation and implementation of the Convention

Species trade and conservation

SNAKE TRADE AND CONSERVATION MANAGEMENT

1. This document has been submitted by the United States of America and the People's Republic of China.*

Overview

2. Snakes are globally distributed and their trade and consumption are a global issue as well. While they occur throughout the Asian region, East, South, and Southeast Asia contain a rich diversity of terrestrial snakes. Records maintained by the TIGR (The Institute for Genomic Research) Reptile Database (www.reptile-database.org/) show that this area may contain 30% of the world's described snake species. Many wild snakes are harvested and traded internationally, and are used locally as food or for the production of traditional medicine, leather, and other products. Snakes have been used for food and medicine for centuries, and ancient Chinese texts list snake among the recognized traditional medicinal ingredients (Zhou and Jiang 2004, and Dharmananda 1997). Liver, gallbladder, and venom are among the therapeutic body parts and products, and some species are used to relieve pain and stimulate blood circulation. Snake is also prescribed for rheumatism, neuralgia, polio, hemiplegia, and hepatic fibrosis or cirrhosis of the liver (Ibid and Chang *et al.* 2005).
3. Asia's snakes have also been harvested in large numbers for the skin trade since the early part of the 20th century, starting with Javan species around 1910. By the mid-1920s a regular supply chain had opened with snakes from the Sunda Islands (Indonesia) and India, and expanded to what are now Sri Lanka, Thailand, the Philippines, and other regions (Parker 1933, as cited in Jenkins and Broad 1997). Today the international trade in snake skins is a large industry, primarily for the production of consumer goods. The impact of harvest on wild populations has been reviewed to varying degrees (Jenkins and Broad 1997, Groombridge and Luxmore 1991, Erdelen, ed. 1998, Shine *et al.* 1995), but a comprehensive examination has not been undertaken.
4. The trade in Asian snake species is one of the largest under-regulated trades in terrestrial wildlife globally. While a legal regional trade occurs in both CITES-listed and unlisted species (although the majority of the trade appears to be in unlisted species), the illegal trade does not discriminate between listed and unlisted species. Estimates of international and domestic trade volumes vary widely, possibly because the majority of affected species are not CITES-listed and the trade is not reported to or recorded by the authorities.
5. TRAFFIC (Nguyen and Nguyen 2008) reported on commercial snake farming in Viet Nam. The authors indicated that 70-100 tons of snake were produced annually (2005 to 2006), primarily including Appendix-II spectacled cobra (*Naja naja*), but also some king cobra (*Ophiophagus hannah*) specimens. Another 2008 report indicated that snake production at one commune in Viet Nam in 2006 was 250 tons, up from 60 tons in 2000 (Nguyen *et al.*, 2007). TRAFFIC found that the snakes produced on these farms are sold to local

* *The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat or the United Nations Environment Programme concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.*

traders for domestic resale or illegal export to China. The snakes from these facilities are also utilized domestically for the production of snake wine, meat, medicinal gel, and poison (a manufactured venom derivative): TRAFFIC notes that meat and poison are also exported to China, although a review of CITES annual report data show no such meat and minimal derivative exports. These claims need to be investigated and a thorough examination is necessary to clarify the trade situation.

6. Guo *et al.* (1996) reported several hundred snake farms in China producing 427,000 specimens of three commonly traded species (*Agkistrodon acutus*, *Bungarus multicinctus*, and *Zaocys dhumnades*). Zhao (1998) reported that approximately 100 Chinese farms produced their first *A. acutus* hatchlings in the late 1970s, and that wild populations are “much reduced” due to habitat destruction and harvest. Recent published information on the snake trade and population declines in China (Zhou and Zhigang 2004 and 2005) have reportedly resulted in increased species protection efforts by the government (Zhou, personal communication).
7. It is not clear what level of wild harvest supports snake farming. Some facilities may operate as closed-cycle operations with little or no input of wild-caught specimens. Alternatively, some facilities may serve to raise wild-caught juvenile snakes to a marketable size. Nevertheless, some authors are questioning the conservation value of snake farming in Asia (Shi 2002 and WCS 2009).
8. Wildlife managers not only face strong consumer demand for snakes, but demand may be increasing. In China’s Anhui Province, annual consumption of snakes from 1997 to 2000 increased from 15,170 to 91,592 kg (Gu 2000, as cited in Zhou and Jiang 2004), more than a 600% rise in 3 years.
9. However, the authorities in China have taken action for the protection of the species; from 2003, China generally suspended the utilization of wild-caught snakes for restaurants, and started an annual quota control system for snakes for human consumption, gradually employing a product labeling system for almost all snake products. All stocks of the regulated species will also be managed under the official registration system with a program employing the use of container seals.

Conservation implications

10. Da Nóbrega Alves *et al.* (2008) noted “the urgent need to increase our knowledge concerning the harvesting and trading of reptiles in traditional medicine and to assess the impacts caused by this commercial exploitation.” The lack of data on actual threats to wild populations is a recurrent theme in the conservation literature (Ibid and Schlaepfer, *et al.* 2005). Schlaepfer *et al.* (2005) noted that available trade data are not adequate, but highlighted that the “volumes of animals taken from the wild...is large enough to potentially extirpate populations or species.”
11. In some cases the negative effects of collection are evident. Stuart *et al.* (2000) noted that the 1999-2000 harvest of over 8,500 water snakes (Homalopsinae) per day in Cambodia’s Tonle Sap, as a feed source for local crocodile farms, represented the world’s “greatest exploitation of any single snake assemblage.” A significant population decline resulted (Brooks *et al.* 2007 and Stuart *et al.* 2000). Sasaki *et al.* (2009) reported on Japan’s endemic mamushi snake (*Gloydius blomhoffi*), heavily hunted for food and medicinal purposes. The authors found that heavy hunting pressure encourages rapid deleterious evolutionary changes, affecting the ability of the species to recover from human harvest.
12. While the global recession has the short-term potential to lower the volume of wildlife trade, population growth and economic expansion of the region are likely to result in increases in demand. Knowledge of the population status of snakes in Asia is poor. Many species may not be impacted by harvest, but there are reports of population declines for others. While the growth in consumer demand for snakes may compare to that affecting freshwater turtles in the 1990s and 2000s, the conservation impacts of the snake trade and the effects of farming on wild populations are poorly understood.

Recommendations

13. The United States believes that an examination of the conservation implications of the snake trade in Asia is warranted. We recommend a workshop to consider the biological, implementation, and enforcement issues related to the trade. Given the variety of issues involved, we believe the workshop should result in a report that would inform recommendations of the Standing and Animals Committees to the Conference of the Parties at CoP16. Therefore, the United States recommends adoption of the following Decisions:

Directed to the Secretariat

The Secretariat shall, subject to available funds, convene a technical workshop to consider the conservation priorities and management and enforcement needs related to the trade of snakes in Asia, with a particular focus on the markets and commercial trade in East, South, and Southeast Asia. The Secretariat shall invite the members of the Animals and Standing Committees, representatives from range, exporting, and consumer states, and relevant inter-governmental and non-governmental organizations to participate in this workshop, to be held within 12 months of the conclusion of the 15th meeting of the Conference of the Parties. The Secretariat shall contract with appropriate technical experts to prepare documents on Asian snake conservation, trade management, enforcement, and biology for the workshop and shall invite workshop participants to submit the same. The findings and recommendations of this workshop should be reported by the Secretariat to the Animals and Standing Committees.

Directed to the Animals Committee

The Animals Committee shall consider the results of this workshop and make their own recommendations to the 16th meeting of the Conference of the Parties.

Directed to the Standing Committee

The Standing Committee shall consider the results of this workshop and make their own recommendations to the 16th meeting of the Conference of the Parties.

Directed to the Parties, non-governmental organizations, commercial traders, and donors

Parties and non-Parties, inter-governmental organizations, non-governmental organizations, commercial traders, and donors are encouraged to provide funding to the Secretariat for this technical workshop.

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COMMENTS FROM THE SECRETARIAT

- A. The Secretariat welcomes and supports the initiative from China and the United States of America to initiate discussions on the matter of snake trade, conservation and management. The Secretariat notes that, in Asia, snakes are harvested in large numbers for food, medicine and skin trade, and that no comprehensive examination of the impact of harvest on wild populations has been undertaken.
- B. The Secretariat further notes that trade in snakes in Asia includes CITES listed and non-listed species, and that commercial snake farming is taking place in the region. This needs to be studied and a thorough examination is necessary to ensure that such trade is sustainable and legal.
- C. The Secretariat supports the initiative to convene a technical workshop to consider conservation priorities and management and enforcement needs related to snake trade in Asia, but it believes that the workshop should primarily focus on CITES-listed species and species that may warrant listing.
- D. Concerning the draft decision directed to the Standing Committee, the Secretariat suggests that the Standing Committee consider the recommendations by the Animals Committee before making its own recommendations at CoP16.
- E. The Secretariat also wishes to point out that, in order for it to be able to contract appropriate technical experts to write preparatory documents and to convene the workshop within the proposed time limit of 12 months after CoP15, funds for this workshop would need to be provided soon after the present meeting.

DRAFT DECISIONS OF THE CONFERENCE OF THE PARTIES

Directed to the Secretariat

- 15.xx The Secretariat shall, subject to available funds, convene a technical workshop to consider the conservation priorities and management and enforcement needs related to the trade of snakes in Asia, with a particular focus on the markets and commercial trade in East, South, and Southeast Asia.
 - a) The Secretariat shall invite the members of the Animals and Standing Committees, representatives from range, exporting, and consumer states, and relevant inter-governmental and non-governmental organizations to participate in this workshop, to be held within 12 months of the conclusion of the 15th meeting of the Conference of the Parties.

- b) The Secretariat shall contract appropriate technical experts to prepare documents on Asian snake conservation, trade management, enforcement, and biology for the workshop and shall invite workshop participants to submit the same.
- c) The findings and recommendations of this workshop should be reported by the Secretariat to the Animals and Standing Committees.

Directed to the Animals Committee

- 15.xx The Animals Committee shall consider the results of this workshop and make their own recommendations to the 16th meeting of the Conference of the Parties.

Directed to the Standing Committee

- 15.xx The Standing Committee shall consider the recommendations by the Animals Committee and make their own recommendations to the 16th meeting of the Conference of the Parties.

Directed to the Parties, non-governmental organizations, commercial traders, and donors

- 15.xx Parties and non-Parties, inter-governmental organizations, non-governmental organizations, commercial traders and donors are encouraged to provide funding to the Secretariat for the technical workshop.