

Inclusion of Keeled Box Turtle *Pyxidea mouhotii* in Appendix II. Proponent: China and United States of America.

Summary: The Keeled Box Turtle *Pyxidea mouhotii* is a small to medium sized (carapace length up to 18 cm), forest dwelling, terrestrial turtle that rarely enters the water. It is found in China, India, Lao PDR, Myanmar and Viet Nam. Little is known about the biology of the species. In India, one to three eggs are produced per clutch. Like other turtles, this species probably takes a long time to reach maturity, has high juvenile mortality, and long adult survivorship. Populations are thought to have undergone drastic declines in China and considerable declines in Lao PDR; the populations of the remaining range States are believed to be in decline, but specific information is not available. IUCN classifies this species as Endangered. The main threat to the species throughout its range is collection for domestic consumption. In most countries, international trade and habitat loss and alteration are also considered threats. Little information is available on the quantities of this species in international trade. Viet Nam exported 6 560 specimens from 1994 to 1999. A total of 2 345 live specimens were imported into the USA from 1998 to August 2001 and may have been destined for the pet trade. Captive-breeding is limited. The proponents seek inclusion of the Keeled Box Turtle in Appendix II in accordance with Resolution Conf. 9.24, Annex 2a criteria A and Bi) on the grounds that if international trade is not strictly regulated the species will meet the criteria for inclusion in Appendix I in the next five years and that harvesting of specimens from the wild will exceed, over an extended period, the level that can be continued in perpetuity.

Analysis Following Resolution Conf. 9.24, the available evidence suggests that the Keeled Box Turtle meets the criterion for inclusion in Appendix II (A and Bi) on the basis that international trade is known, inferred or projected to be unsustainable. Populations are reportedly in decline and available trade information indicates that there is substantial international demand. As this species is not CITES-listed, most customs data do not record to a species level and it is likely that there may be an additional quantity in trade which is unrecorded.

Supporting Statement (SS)	Additional information
<u>Taxonomy</u>	
Synonyms are: <i>Cyclemys mouhotii</i> , <i>Cyclemys mouhoti</i> , <i>Geomyda mouhoti</i> .	
<u>Range</u>	
China, India, Lao PDR, Myanmar, Viet Nam.	
<u>IUCN Global Category</u>	
EN A1d+2d	

Biological and trade criteria for inclusion in Appendix II

A) Trade regulation needed to prevent future inclusion in Appendix I

Where there is information available for the trade impacts to *P. mouhotii*, it is thought that the levels of harvest for both national and international trade are unsustainable. Throughout its range it is considered to be endangered or rare, with the exception of North Cachar Hills, Assam and Namdapha TR, India, where it appears to be common. The viability of surviving populations is thought to be compromised.

The species is considered as 'at risk' in Lao PDR (Duckworth et al., 1999). Nguyen Quang Truong (2002) states that this species is rare in Viet Nam.

B) Harvesting for international trade has, or may have, detrimental impact on population

(i) exceeds sustainable yield; (ii) reduces population to potentially threatened level

The species has a generally low reproductive rate, which makes it susceptible to over-exploitation. International trade is considered one of the main threats throughout the species' range.

Analysis of US trade data show that a total of 2 345 live specimens were imported into the USA from 1998 to August 2001, most likely destined for the pet trade. The majority originated from China with a few from Viet Nam (TRAFFIC East Asia, 2002).

This species is considered 'endangered' in China where it is thought that populations have declined drastically due to trapping and collecting. Villagers have reported

The "Identification Manual for Common Turtles and Tortoises" recently published by the CITES Management

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<p>that the species was once very common but has since become difficult to obtain. Population trends are unknown in India, though it still appeared common in some parts of its range. The species has a naturally restricted range in Lao PDR where there is evidence that turtle populations have declined, although there are no long-term monitoring programmes. It is considered 'endangered' in Viet Nam.</p> <p>Between 1994 and 1999, 6 560 Keeled Box Turtles were legally exported from Viet Nam; no official export statistics are available for other countries. Legal trade of <i>P. mouhotii</i> is not permitted from India and Myanmar. Illegal trade of turtles occurs in most range States and it is suspected that <i>P. mouhotii</i> is amongst these.</p>	<p><i>Authority of China describes P. mouhotii as frequently occurring in trade (TRAFFIC East Asia, 2002). However, the statistics on Chinese imports from 1998-2000 presented for the 12 most commonly imported turtle species do not mention P. mouhotii, indicating that total recorded legal imports of the species are fewer than 2 000 animals per year (Endangered Species Import and Export Management Office, China, 2002 cited in TRAFFIC Southeast Asia, 2002). The species is apparently common in wildlife trade seizures in Viet Nam along northern ground transport routes-(TRAFFIC, 1999), which mainly supply export to China (TRAFFIC Southeast Asia, 2002).</i></p> <p><i>Although no trade data are available, specimens seen in the food markets (such as in Guangzhou and Shanghai) are believed to have originated in Viet Nam and Lao PDR (Ma Jianfan, 2002 cited in TRAFFIC East Asia, 2002). The species has been occasionally recorded in the Traditional Chinese Medicine trade in Taiwan POC (Chen et al., 2000). It has also been observed in markets in Hong Kong SAR (TRAFFIC East Asia, 2002) and Japan (Kameoka, in prep).</i></p>

Other information

Threats

The main threat to the species is collection for the food trade, including local and export markets. Habitat loss and alteration also pose a threat to the species.

Conservation, management and legislation

No population monitoring programmes or *in situ* conservation actions have been identified for this species.

China has recently taken several legal/regulatory measures to control imports and exports of freshwater turtles.

There is no legal international trade in *P. mouhotii* in India.

Myanmar law prohibits the commercial exploitation of natural resources, including tortoises and freshwater turtles, but allows subsistence use outside of protected areas and reserved forests. Permits for collection are not issued and stiff penalties are given to anyone trading in turtles.

The species is not protected in Lao PDR although legislation is planned.

In Viet Nam the species is not listed directly under any legislation, although Directive 359 generally restricts trade in wildlife and animal parts and prohibits the sale of wildlife in restaurants. The export of all native turtle species is prohibited.

A Turtle Conservation and Ecology project was initiated in Viet Nam in 1998, which receives and translocates turtles confiscated from the wildlife trade.

For information on recent import restrictions to China, see Conservation, Management And Legislation section of the analysis of CoP 12 Prop. 20, to include Platysternon megacephalum in Appendix II.

Legislation to protect chelonians in Myanmar is not effectively enforced (CITES Management Authority of Myanmar, 2002).

Captive Breeding

Small numbers of captive bred yearlings of Keeled Box Turtle have been reported for sale in pet shops in China.

Zhao (1998) reported that there were no known facilities in China breeding this species in large numbers, although some zoos and collectors were reported to

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<p>In India <i>P. mouhotii</i> has been recorded in one captive breeding centre although there are no records to show that breeding has actually occurred.</p>	<p><i>have successfully bred this species. Shi and Parham (2000) report captive breeding of this species on one farm in China.</i></p> <p><i>A small number of imports to the USA (185 between February 1998 and August 2001) are reported as having originated from captive breeding programs, mostly in China. A US reptile dealer reported that there is limited breeding by hobbyists, but he was unaware of any captive breeding on a commercial scale (TRAFFIC East Asia, 2002).</i></p>

Other comments

The consensus recommendation of the Technical workshop on trade in freshwater turtles and tortoises in Asia, Kunming, China, 25-28 March 2002, was that *P. mouhotii* is one of the 11 highest priority species for inclusion in Appendix II.

Reviewers: Nguyen Quang Truong, TRAFFIC East Asia, TRAFFIC East Asia – Japan, TRAFFIC North America, TRAFFIC Southeast Asia, TRAFFIC Southeast Asia – Indochina.

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