

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

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Eleventh meeting of the Conference of the Parties  
Gigiri (Kenya), 10-20 April 2000

Interpretation and implementation of the Convention

TRADE IN FRESHWATER TURTLES AND TORTOISES TO AND IN SOUTHEAST ASIA

1. This document has been submitted by Germany and the United States of America.

Introduction

2. Southeast Asia holds the richest diversity of terrestrial turtles in the world, encompassing over 25 per cent of the world's 263 species (Collins, 1998). Most, including the region's tortoises, are traded internationally for the Asian food and Traditional Chinese Medicine (TCM) markets (McCord, 1998).
3. While turtles have been utilized by humans for centuries (Zhao, 1995), recent changes in Asian economics have facilitated international trade (Behler, 1997) including trade in wildlife. Currently, millions of freshwater turtles and tortoises are consumed as food and medicine in south and east Asia annually (McCord, 1998; Salzberg, 1998). As a consequence of this huge and apparently unsustainable trade, the populations of many affected species have been dramatically reduced in the wild and are in need of conservation measures (Collins, 1998; Lehr, 1997). According to Behler, the head of the IUCN/SSC Tortoise and Freshwater Turtle Specialist Group, Southeast Asia "is being vacuumed of its turtles" (Behler, cited in Kaesuk Yoon, 1999).
4. While most of the affected species are not covered by international protection, several species listed in Appendix I and II of CITES are regularly offered for sale in food markets (e.g. Kuchling, 1995; Lau *et al.*, 1995; Li & Dianmo, 1998; McCord, 1998). CITES, as the international treaty responsible for regulating international trade in wildlife, provides an ideal forum for discussions and measures regarding this trade. This item was discussed for the first time in a CITES forum at the 15th meeting of the Animals Committee, in July 1999 (Madagascar). Several range and consumer States, including China and Indonesia, spoke in favour of further CITES engagement in the conservation of Asian freshwater turtles and tortoises.
5. This discussion paper is in no way an indictment of traditional human consumption of turtles and tortoises as sources of food or traditional medicine. However, it addresses the conservation impacts of this increasing trade, which should be the primary concern of the Parties. The goal of the sponsors of this paper is to work co-operatively to ensure that species in international trade are utilized in a biologically sustainable manner, based on sound science and effective management and enforcement.

International trade perspective

6. The trade to supply food markets in certain Asian countries has become one of the main threats to the survival of Southeast Asian turtles and tortoises (Behler, 1997). This trade involves millions of freshwater turtles and tortoises each year (Salzberg, 1998; McCord, 1998) and constitutes a large proportion of the transborder wildlife trade between certain Asian countries. For example, 61 per cent of the wildlife trade between Viet Nam and southern China (Li & Dianmo, 1998) is in chelonians. About 90 per cent of the chelonians in Viet Nameese markets are destined for China (Lehr, 1997; Klemens, 1998). Cambodia exports an estimated 2-4 tonnes of turtles daily from Phnom Penh to Viet Nam (Klemens, 1998), although the export of wildlife is prohibited by Cambodian national law (Martin & Phipps, 1996). Exports of live animals and shells of several

species of freshwater turtles and tortoises from the Lao People's Democratic Republic to Thailand are also reported (Salter, 1993; Lehr *et al.*, 1998).

7. With growing human populations and affluence in many Asian countries, the demand for turtles and tortoises for food and Traditional Chinese Medicine is increasing. For example, the import of chelonians to Hong Kong for use as food rose from 110 tons in 1991 to 3500 tons in 1996 and even 12,000 tons in 1998, an increase of more than a hundredfold (Lau *et al.*, 1995; Barzyk, 1999; Lee, 1999). Although some trade is in captive-bred common species, most is not. It is almost certain that this level of trade is unsustainable. Owing to the explosive economic growth and the continuously rising human population in south and east Asian countries (Vorholz, 1997), it is very likely that the demand and therefore the trade pressure on all available chelonian species will increase even further.
8. The increase in the collection of chelonians in countries that are far from the main markets is likely to be an indication of the depletion of local species. During one survey at food markets in Guangzhou and Sunzhen in China, in February 1998, specimens of species native to China represented only two per cent of the total number of turtles observed (McCord, 1998). The species that were on sale at that market most likely came from Bangladesh, Cambodia, China, India, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Nepal, Pakistan, Papua New Guinea, Thailand, the United States of America and Viet Nam (Artner, 1998; McCord, 1998). However, most of the trade is not recorded, even in CITES-listed species. In many cases, shipments of freshwater turtles and tortoises are declared as seafood (McCord, 1998). This fact, and the difficulty of identifying the species for sale, result in a lack of species-specific monitoring of the trade as well as in serious problems with the enforcement of CITES.
9. The recent increase in demand of western pet markets for freshwater turtles and tortoises (Pro Wildlife, *in prep.*) puts additional pressure on these already declining chelonian populations. In addition to the increasing demand in Asian and western markets, habitat loss because of large-scale deforestation (e.g. Collins, 1990; Gray *et al.*, 1994; van Dijk, 1997; Studley, 1999), fragmentation of rivers by dams (Fu 1997; Moll 1997) and chemical pollution (IUCN/SSC 1991; Sarker & Hossain 1997) is another important factor that puts additional pressure on populations of many Asian chelonians.

#### Illegal trade in CITES Appendix-I and -II species

10. Of particular concern is that many species of chelonians found in the marketplace are listed in CITES Appendix I, *Aspideretes gangeticus*, *Aspideretes hurum*, *Batagur baska*, *Geoclemys hamiltonii*, *Kachuga tecta* and *Morenia ocellata*, and have been found repeatedly at live animal markets in China (Lau *et al.*, 1995; McCord, 1998). Many of the Appendix-II species seen in these live-animal markets are protected from international trade in their countries of origin.
11. Specimens of *Kachuga tecta* and *Geoclemys hamiltonii* – both species native to Bangladesh, India, Nepal and Pakistan – were observed at the Xing Ping market in Guangzhou in August 1995 (Artner, 1998). During a survey at the Ruli market in Yunnan, specimens of *Morelia ocellata* were found for sale (Kuchling, 1995). Kuchling also reported large numbers of *Kachuga tecta*, *Aspideretes hurum*, and *Aspideretes gangeticus* at the Chinese markets of Guangzhou and Shenzhen.
12. Additionally, several CITES Appendix-II species are regularly offered in large numbers in Asian countries to which they are not native. There is no evidence that these species are being traded in accordance with the requirements of CITES. According to Hendrie (1998) *Indotestudo elongata* is perhaps the most commonly traded species in Viet Nam and it appears in most sizeable shipments to China. An abundance of this species at markets in Hong Kong was also described by Lau *et al.* (1995). Wenjun *et al.* (1996) observed *Indotestudo elongata* and *Manouria impressa* "in large quantities" at markets in Guangdong and Guangxi between 1990 and 1994. Kuchling (1995) reported large numbers of several Appendix-II species, *Lissemys punctata*, *Indotestudo elongata* and *Manouria impressa* being offered at markets in Guangzhou and Shenzhen. It must be assumed that this trade takes place without CITES permits at various stages of the international trade in the specimens (Li & Dianmo, 1998). Furthermore there is concern that the large-scale exports of some Appendix-II species are not in accordance with Article IV of the Convention.

### Biological perspective

13. Most freshwater turtle and tortoise species are long-lived, generally slow-maturing, K-selected species. Some of them, such as *Pyxidea mouhotii*, *Sacalia bealei* and *Cuora* species, have a very low reproductive rate with low nesting numbers and small clutch sizes, making them very sensitive to over-collection (Das, 1997). Collection for food is directed at larger adult specimens, further impacting the populations affected. Information on the status of many populations in the wild is limited. Several species, such as *Mauremys iversoni* (Fritz & Obst, 1999) and *Cuora mccordi* (National Environmental Protection Agency of China, 1998), are known only from food and pet markets, with nothing known about their natural habitat or population size and trends. Owing to this lack of information, it is difficult to define quotas based on sustainable off-take for the trade in these species. In 1991 IUCN/SSC urgently recommended detailed population studies of the principal food species, to evaluate the potential for a management plan to achieve sustainable-yield harvesting.

### Conservation perspective

14. The availability of chelonians in Asian food markets has increased dramatically within little more than a decade. Almost all animals on sale are wild caught (Jenkins, 1995; Artner, 1998). Although captive breeding of species is being conducted for commercial purposes (*Pelodiscus sinensis*, *Cuora trifasciata*, and *Apalone* spp.) the number of animals produced is far from satisfying the extensive and increasing demand of the food markets (Jenkins, 1995; National Environmental Protection Agency of China, 1998).
15. The wild populations of many freshwater turtle and tortoise species found in such markets are declining. The IUCN (1996) has classified five species of Asian freshwater turtles and tortoises as critically endangered, seven as endangered, 15 as vulnerable and 12 as near threatened. Directly affected by the demand for them as food items, almost all species native to China are seriously under pressure. In China's Red Data Book, 15 of the 30 native species are classified as 'endangered', four species are 'critically endangered' and two species probably already extinct (National Environmental Protection Agency of China, 1998). Some species, including *Cuora zhoui* and *Cuora pani*, are at least commercially extinct (Behler, 1997; Artner, 1998). A dramatic decline in chelonian populations is also reported for other countries: In India, the populations of *Kachuga sylhetensis* have been reduced by 90 per cent during the last decade (BCPP, 1997). The abundance of other roof turtles in Indian markets is also declining (Choudhury & Bhupathy, 1993).
16. The populations of several Southeast Asian softshell turtles, which are especially favoured as the most palatable non-marine chelonians (Salter, 1993; Jenkins, 1995), are reported to have declined in Bangladesh (Rashid & Swingland, 1997), Myanmar (van Dijk, 1997), Thailand (Thirakhupt & van Dijk, 1997), Nepal (Shrestha, 1997), and Malaysia (Jenkins, 1995). However, the status of turtles in Lao People's Democratic Republic and Viet Nam is not believed to be any better (Lehr, 1997; Kaesuk Yoon, 1999).
17. According to long-term studies by Congdon *et al.* (1993), the removal of even modest numbers of adults and older juvenile turtles has very deleterious effects on their populations, "which cannot easily be offset" (Congdon, cited in Behler, 1997). The results of these studies strongly suggest that many species of long-lived chelonians might not tolerate commercial collection (Congdon *et al.*, 1993).

### Recommendations

18. Owing to the explosive economic growth and the continuously rising human population in south and east Asian countries, it is likely that the demand for and trade pressure on chelonians is bound to increase even further. Only co-operative international efforts can slow the dramatic decline of many Asian freshwater turtles and tortoises.

19. The authors recommend discussion of the following recommendations at the 11th meeting of the Conference of the Parties:
- a) to ENCOURAGE Parties that are range States or importers of the chelonian species used as food, medicine and pets:
    - i) to examine the illegal trade in freshwater turtles and tortoises;
    - ii) to examine and evaluate their current wildlife-trade-law enforcement methods and activities and take steps to enhance their implementation;
    - iii) to conduct research to determine the species involved and their trade levels and work with universities, industry, and non-governmental organizations to determine which additional species, if any, should be listed in the CITES appendices, and to determine whether any species currently listed in Appendix II meets the criteria for inclusion in Appendix I;
    - iv) to study the impact of trade on wild populations of turtles and tortoises, and conduct more extensive market surveys in consumer countries;
    - v) to promote the sustainability of the trade through co-ordinated biologically-based management programmes;
    - vi) to co-operatively research and promote the captive farming of appropriate species of turtles and tortoises for export to and use in the consumer countries;
    - vii) to explore ways to enhance the participation of exporters, importers and consumers in the conservation and sustainable trade in these species;
    - viii) to review regulations controlling the take, export, and import of these species and amend them if necessary; and
    - ix) to co-operate in the production of necessary identification guides for both adult and juvenile specimens;
  - b) to DIRECT the CITES Secretariat to convene a technical workshop in order to establish conservation priorities and actions for sustainable trade in turtles and tortoises used in the food and Traditional Chinese Medicine markets and to invite the Chairman of the Animals Committee to participate in this workshop to be held within six months. Recommendations elaborated from the 'Workshop on Trade in Terrestrial and Freshwater Turtles and Tortoises in Asia' held in Cambodia in December 1999 should be taken into account at this workshop. The findings and recommendations of the recommended workshop should be reported to the Animals Committee by the Secretariat within 90 days of its completion; and
  - c) to DIRECT the Animals Committee:
    - i) to consider and act upon the findings and recommendations of both the December 1999 meeting in Cambodia and the Secretariat's technical workshop, to further the conservation of turtles and tortoises used in the food and Traditional Chinese Medicine markets; and
    - ii) to request that the IUCN Freshwater Turtle and Tortoise Specialist Group update its Action Plan; and
  - d) REQUESTS Germany and the United States of America to co-ordinate with the interested Parties, intergovernmental and non-governmental organizations to provide funding in order to further the recommendations and directives of this discussion paper.

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#### COMMENTS FROM THE SECRETARIAT

- A. The Secretariat generally shares the concerns expressed in this paper and notes the similarity between the issues raised here and those in document Doc. 11.44. The major problem in both cases appears to be that domestic regulations and/or the provisions of CITES are not adequately enforced in the country of origin and/or destination of the species concerned.
- B. Where international trade appears to have negative impacts on the conservation status of a species or a group of species, the obvious response would be to include those species in the appropriate CITES appendix, to ensure that trade in them is brought under the control of CITES. While noting that the genus *Cuora* is proposed for inclusion in Appendix II at this meeting of the Conference of the Parties, the Secretariat urges range States to review the status of all freshwater turtles and tortoises in Southeast Asia and their controls over harvesting and trade in this group and to follow the recommendations directed to range States as well as importers of such species as outlined in this document.
- C. The Secretariat supports the recommendation that it should convene a technical workshop on the establishment of conservation priorities and actions for sustainable trade in turtles and tortoises (provided that sufficient funding is obtained).





### Freshwater turtles and tortoises identified at Asian food markets

**Species in bold letters and underlined** = highly abundant on sale; \* = local commercial exploitation in the range states

Scientific name	Countries of origin	Population status and trends	CITES	National laws	References
<b>Emydidae</b>					
<b><u>Annamemys annamensis</u></b> Annam leaf turtle	Viet Nam	very rarely recorded	-	no data	1) 3) 7) 14) 17)
<b><u>Bataur baska</u>*</b> River terrapin	Bangladesh, India, Indonesia, Malaysia, Myanmar, Thailand, Cambodia? Lao PDR? Singapore?, Viet Nam?	IUCN: „endangered“ (1996); <b>one of the ten most threatened freshwater turtle and tortoise species in Asia</b>	App. I		1) 7) 11) 15) 19)
<i>Callagur borneoensis</i> Painted terrapin	Indonesia, Malaysia, Thailand, Brunei? Myanmar?	IUCN: „critically endangered“ (1996)	App. II	nationally protected in Thailand	1) 7)
<i>Chelydra serpentina</i> Common snapping turtle	Columbia, Costa Rica, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, United States	has the largest distribution of any turtle in North America, no data on population size	-	collection may be regulated at the State level in the United States and separately under the Federal Lacey Act	1) 16) 21)
<b><u>Chinemys megaloccephala</u></b> Chinese broad-headed pond turtle	China	Red Data Book China (1998): „endangered, rare“	-	capture permit needed	1) 13)
<i>Chinemys nigricans</i> Red-necked pond turtle	China, Viet Nam?	IUCN: „data deficient“ (1996); Red Data Book China (1998): „endangered, rare“	-	China: catching and killing forbid-den (Red Data Book China 1998)	1)
<b><u>Chinemys reevesi</u></b> Chinese three-keeled pond turtle	China, Japan, North Korea, South Korea	Red Data Book China (1998): „sharply declining numbers“; one of the most abundant species on sale in Hong Kong	-	China: catching and killing forbid-den (Red Data Book China 1998)	1) 13) 16)
<b><u>Cuora amboinensis</u></b> South Asian box turtle	Bangladesh, Cambodia, India, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam, China?	IUCN: „near threatened“ (1996); one of the most abundant species on sale in Hong Kong, declining populations	-	nationally protected in Lao PDR, Cambodia, Bangladesh, Myanmar, Viet Nam and Thailand;	3) 6) 11) 14) 16) 18)
<i>Cuora aurocapitata</i> Golden-headed box turtle	China	IUCN: „data deficient“ (1996); Red Data Book China (1998): „critically endangered, rare“, one of the most expensive species on sale populations rapidly declining	-	nationally protected throughout range (Anhui Province)	2) 4)
<i>Cuora flavomarginata</i> Chinese box turtle	China, Japan (Ryu Kyu Islands)	IUCN: „vulnerable“ (1996); Red Data Book China (1998): „endangered“, populations declining ( <i>Cistoclemmys flavomarginata</i> )	-	China: capture permit needed	1) 2)
<b><u>Cuora galbinifrons</u></b> Indochinese box turtle	Cambodia, China, Viet Nam, Lao PDR?	IUCN: „near threatened“ (1996); Red Data Book China (1998): „endangered“, populations declining ( <i>Cistoclemmys galbinifrons</i> )	-	nationally protected in Viet Nam and Cambodia, China: capture permit needed	1) 3) 7) 17) 18)
<i>Cuora mccordi</i> McCord´s box turtle	China	IUCN: „data deficient“ (1996); Red Data Book China (1998): „data deficient“, rapidly declining populations	-	capture permit needed	2) 4) 12)
<i>Cuora trifasciata</i> Three-striped box turtle	China, Viet Nam, Cambodia? Lao PDR?	IUCN: „endangered“ (1996); Red Data Book China (1998): „critically endangered, very rare“ Red Data Book Viet Nam (1992): „vulnerable“, the most expensive turtle species on sale	-	nationally protected in Viet Nam, China: protected (grade II), capture permit needed	2) 3) 4) 7) 13)

Scientific name	Countries of origin	Population status and trends	CITES	National laws	References
<i>Cuora zhoui</i> Zhou's box turtle	China	IUCN: „data deficient“ (1996); Red Data Book China (1998): „data deficient, sharply declining numbers“	-	capture permit needed	2) 4) 12)
<b><i>Cyclemys dentata</i></b> Asian leaf turtle	Bangladesh, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, Viet Nam, Bhutan?, Cambodia? Lao PDR? Nepal? Singapore?	Red Data Book China (1998): „endangered“ rare in Bangladesh	-	nationally protected in Thailand, Bangladesh and Myanmar; China: capture permit needed	1) 7) 11) 13) 14)
<i>Cyclemys tcheponensis</i> Stripe-necked leaf turtle	Thailand, Viet Nam, Cambodia? Lao PDR?	no data	-	nationally protected in Thailand	1) 3) 7) 17)
<i>Geoclemys hamiltoni</i> Spotted pond turtle	Bangladesh, India, Nepal, Pakistan	IUCN: „near threatened“ (1996); declining populations in Nepal, fairly common in Bangladesh	App. I		1) 9) 11) 16) 17)
<i>Geoemyda depressa</i> Arakan forest turtle	Myanmar	IUCN: „critically endangered“ (1996); extremely rare	-	nationally protected in Myanmar	1) 7) 12)
<b><i>Geoemyda spengleri</i></b> Black-breasted leaf turtle	China, Indonesia, Japan, Malaysia, Viet Nam, Lao PDR?	Red Data Book China (1998): „endangered“	-	China: capture permit needed	3) 7) 12) 13)
<i>Geoemyda yuwonoi</i>	Indonesia (Sulawesi)	IUCN: „data deficient“ (1996)	-	none	1) 12) 20)
<b><i>Hardella thurjii*</i></b> Crowned river turtle	Bangladesh, India, Myanmar, Pakistan	IUCN: „near threatened“ (1996); Nepal: „rare“, fairly common in Bangladesh	-	nationally protected in Bangladesh and Myanmar	11) 13)
<b><i>Heosemys grandis</i></b> Giant Asian pond turtle	Cambodia, Malaysia, Myanmar, Thailand, Viet Nam, Lao PDR?	IUCN: „near threatened“ (1996)	-	nationally protected in Thailand, Cambodia and Myanmar	1) 3) 7) 16) 17)
<i>Heosemys spinosa</i> Spiny turtle	Brunei, Indonesia, Malaysia, Singapore, Thailand, Myanmar?	IUCN: „vulnerable“ (1996)	-	nationally protected in Thailand	7) 12)
<b><i>Hieremys annandalei</i></b> Yellow-headed temple turtle	Lao PDR; Malaysia, Thailand, Viet Nam, Cambodia? Myanmar?	IUCN: „vulnerable“ (1996)	-	nationally protected in Thailand and Viet Nam	1) 3) 7) 18)
<i>Kachuga dhongoka*</i> Three-striped roofed turtle	Bangladesh, India, Nepal	IUCN: „near threatened“ (1996); in India: „vulnerable“ (1997), rare in Nepal and Bangladesh	-	nationally protected in Bangladesh	1) 8) 9) 11)
<i>Kachuga kachuga*</i> Red-crowned roofed turtle	Bangladesh, India, Pakistan	IUCN: „endangered“ (1996); India: population decline more than 80 % in 20 years (1997), Nepal: „rare“; <b>one of the ten most threatened freshwater turtles and tortoise species in Asia</b>	-	nationally protected in India and Bangladesh	1) 8) 9) 15)
<i>Kachuga smithii</i> Brown roofed turtle	Bangladesh, India, Pakistan	decreasing populations in Nepal; rare in Bangladesh; „lower risk – least concern“ in India (1997)	-	nationally protected in Bangladesh	1) 9) 10) 11)
<b><i>Kachuga tecta</i></b> Indian roofed turtle	Bangladesh, India, Nepal, Pakistan	in India: „lower risk – near threatened“ (1997); rare in Nepal, common in Bangladesh	App. I		1) 9) 11) 14) 16)
<i>Kachuga tentoria*</i> Indian tent turtle	Bangladesh, India, Nepal	in India: population decline more than 20 % in 10 years (1997), rare in Nepal	-	nationally protected in Bangladesh	1)
<b><i>Malayemys subtrijuga</i></b> Malayan snail-eating turtle	Cambodia, Indonesia, Malaysia, Thailand, Viet Nam, Lao PDR?	one of the most abundant species on sale in Hong Kong	-	nationally protected in Thailand and Cambodia	1) 3) 7) 14) 16) 17)
<i>Mauremys iversoni</i>	China	IUCN: „data deficient“ (1996); Red Data Book China (1998): „data deficient“, <b>in total 29 specimens are known</b>	-	capture permit needed	1)

Scientific name	Countries of origin	Population status and trends	CITES	National laws	References
<i>Mauremys mutica</i> Yellow pond turtle	China, Japan, Viet Nam, Lao PDR?	Red Data Book China (1998): „endangered“ in 1996 the most common turtle found at markets in Hong Kong	-	nationally protected in China during breeding season	1) 3) 7) 12) 13) 16)
<i>Mauremys pritchardi</i>	China (Yunnan), Myanmar	no data	-	nationally protected in Myanmar	1)
<i>Melanochelys edeniana</i>	Myanmar	widely distributed in Myanmar	-	nationally protected in Myanmar	1) 19)
<i>Melanochelys trijuga</i> ( <i>indopeninsularis</i> )* Indian Black turtle	Bangladesh, India, Myanmar, Nepal, Sri Lanka, Thailand	IUCN: „data deficient“ (1996); rare in Bangladesh	-	nationally protected in Thailand, Bangladesh and Myanmar	1) 11) 14)
<i>Morenia ocellata</i> Burmese eyed turtle	Myanmar	IUCN: „near threatened“ (1996); rare in Bangladesh	App. I		1) 7) 11) 14) 16)
<i>Morenia petersi</i> Indian eyed turtle	Bangladesh, India, Myanmar	IUCN: „near threatened“ (1996); Bangladesh: „common“	-	nationally protected in Bangladesh and Myanmar	1) 11) 14) 16)
<i>Notochelys platynota</i> Malayan flat-shelled turtle	Brunei, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Viet Nam, Cambodia?	IUCN: „data deficient“ (1996)	-	nationally protected in Thailand and Myanmar	1) 3) 7)
<i>Ocadia glyphistoma</i>	China	IUCN: „data deficient“ (1996); Red Data Book China (1998): „Data deficient, in total only <b>10 specimens are known</b> “	-	capture permit needed	1) 12)
<i>Ocadia philippeni</i>	China (Hainan)	IUCN: „data deficient“ (1996); Red Data Book China (1998): „Data deficient, in total only <b>nine specimens are known</b> “	-	capture permit needed	1) 12)
<i>Ocadia sinensis</i> Chinese stripe-necked turtle	China (incl. Taiwan), Lao PDR, Viet Nam	IUCN: „near threatened“ (1996) Red Data Book China (1998): „Endangered“, on sale in Hong Kong	-	China: capture permit needed	3) 7) 12)
<i>Orlitia borneensis</i> Malayan giant turtle	Indonesia, Malaysia, Brunei?	IUCN: „near threatened“ (1996)	-	no data	7) 12)
<i>Pyxidea mouhotii</i> Keel box turtle	Cambodia, China, India, Lao PDR, Myanmar, Thailand, Viet Nam	Red Data Book China (1998): „endangered“, on sale in Hong Kong	-	nationally protected in Thailand, Cambodia and Myanmar	1) 3) 7) 12) 17)
<i>Sacalia bealei</i> Four-eyed turtle	China (incl. Hong Kong and Hainan), Viet Nam, Lao PDR?	IUCN: „vulnerable“ (1996); Red Data Book China (1998): „endangered“	-	China: capture permit needed	1)
<i>Sacalia pseudocellata</i> Chinese eyed turtle	China (Hainan)	IUCN: „data deficient“ (1996); Red Data Book China (1998): „Data deficient, in total <b>three specimens are known</b> “	-	capture permit needed	1) 12)
<i>Sacalia quadriocellata</i> Four-eyed turtle	China, Viet Nam, Lao PDR?	IUCN: „vulnerable“ (1996); Red Data Book China (1998): „endangered“	-	China: capture permit needed	1) 3) 7)
<i>Siebenrockiella crassicollis</i> Black marsh turtle	Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Viet Nam, Brunei?		-	nationally protected in Lao PDR, Myanmar and Thailand	1) 3) 7)
<i>Terrapene coahuila</i> Coahuilan box turtle	Mexico	IUCN: „endangered“ (1996)	App. II		13)
<i>Trachemys scripta elegans</i> Red eared slider	Mexico, United States		-	collection may be regulated at the State level in the United States and separately under the Federal Lacey Act	1) 17)

Scientific name	Countries of origin	Population status and trends	CITES	National laws	References
<b>Testudinidae</b>					
<i>Geochelone platynota</i> Burmese star tortoise	Myanmar	IUCN: „critically endangered“ (1996); <b>one of the ten most threatened freshwater turtle and tortoise species in Asia</b>	App. II	nationally protected in Myanmar	1) 7) 12) 15)
<i>Indotestudo elongata</i> Elongated tortoise	Bangladesh, Cambodia, China, India, Lao PDR, Malaysia, Myanmar, Nepal, Thailand, Viet Nam	IUCN: „vulnerable“ (1996); Red Data Book Viet Nam (1992): „vulnerable“ Red Data Book China (1998): „endangered“ „rare“ in Nepal and Bangladesh	App. II	nationally protected in Myanmar, Bangladesh, Cambodia, Viet Nam and Thailand; China: capture permit needed	1) 3) 7) 9) 11) 12) 13) 14) 16) 17) 18) 19)
<i>Indotestudo forstenii</i> * Travancore tortoise	India, Indonesia	IUCN: „vulnerable“	App. II		7) 12)
<i>Manouria emys</i> Asian brown tortoise	Bangladesh, India, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, Viet Nam?	IUCN: „vulnerable“ (1996); <b>one of the ten most threatened freshwater turtle and tortoise species in Asia</b>	App. II	nationally protected in Thailand, Myanmar and Bangladesh	1) 15) 19)
<i>Manouria impressa</i> * Impressed tortoise	China, Malaysia, Myanmar, Thailand, Viet Nam, Cambodia? Lao PDR?	IUCN: „vulnerable“ (1996); Red Data Book Viet Nam (1992): „vulnerable“; Red Data Book China (1998): „endangered“; <b>one of the ten most threatened freshwater turtle and tortoise species in Asia</b>	App. II	nationally protected in Thailand, Myanmar and Viet Nam; China: protected (Grade II), capture permit needed	1) 3) 13) 14) 15) 16) 18) 19)
<i>Testudo horsfieldii</i> Central Asian tortoise	Afghanistan, Azerbaijan, China, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Russian Federation, Tajikistan, Turkmenistan	IUCN: „vulnerable“ (1996); Red Data Book China (1998): „critically endangered“	App. II	nationally protected in China (Grade I), protected nature reserve established	13)
<b>Trionychidae</b>					
<i>Amyda cartilaginea</i> * Asiatic softshell turtle	Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Viet Nam, Brunei?	IUCN: „vulnerable“ (1996); most common softshell turtle in trade, declining populations	-	nationally protected in Lao PDR and Myanmar	3) 7) 14) 16) 17) 19)
<i>Apalone ferox</i> Florida softshell turtle	United States	overall populations appear stable; some local populations may be in decline.	-	collection may be regulated at the State level in the United States and separately under the Federal Lacey Act	1)
<i>Apalone spinifera</i> Spiny softshell turtle	United States	overall populations appear stable; some local populations may be in decline.	-	collection may be regulated at the State level in the United States and separately under the Federal Lacey Act	1) 16)
<i>Aspideretes gangeticus</i> * Indian softshell turtle	Bangladesh, India, Nepal, Pakistan	Nepal: „common“	App. I		1) 9) 14)
<i>Aspideretes hurum</i> * Peacock softshell turtle	Bangladesh, India, Nepal, Pakistan	Nepal: „common, but declining“	App. I		1) 9) 14) 16)
<i>Chitra indica</i> * Narrow-headed softshell turtle	Bangladesh, India, Lao PDR, Nepal, Pakistan, Thailand, Bhutan? Malaysia? Myanmar?	IUCN: „vulnerable“ (1996); Populations declining; Nepal: „common, but declining“	-	nationally protected in India, Bangladesh and Thailand	1) 5) 9) 19)
<i>Dogania subplana</i> * Malayan softshell turtle	Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, Brunei?	declining populations in Thailand	-	nationally protected in Thailand and Myanmar	1) 6)
<i>Lissemys punctata</i> * Indian flapshell turtle	Bangladesh, India, Myanmar, Nepal, Pakistan, Sri Lanka, Bhutan?	in Nepal and Bangladesh: „common“	App. II	nationally protected in Myanmar and Bangladesh	1) 9) 11) 16)

Scientific name	Countries of origin	Population status and trends	CITES	National laws	References
<i>Nilssonina formosa</i> Burmese peacock softshell turtle	Myanmar, Thailand? China?	IUCN: „vulnerable“ (1996)	-	nationally protected in Myanmar	1)
<i>Palea steindachneri</i> Wattle-necked softshell turtle	Viet Nam, China, introduced in Hawaii and Mauritius	IUCN: „near threatened“ (1996) Red Data Book China (1998): „endangered, very rare“	-	China: protected (Grade II), capture permit needed	1) 2) 3) 7) 13)
<i>Pelochelys cantori</i> * Asian Giant softshell turtle	Bangladesh, India, Indonesia, Malaysia, Myanmar, Philippines, Thailand, Viet Nam, Brunei?, Cambodia? Lao PDR? Singapore?	IUCN: „vulnerable“ (1996); Red Data Book Viet Nam (1992): „vulnerable“ declining populations	-	nationally protected in India, Viet Nam, Bangladesh, Myanmar and Thailand	1) 3) 6) 7) 13) 19)
<i>Pelodiscus sinensis</i> Chinese softshell turtle	China, Indonesia, Japan, Korea, Japan, Philippines, Russian Federation, Singapore, Viet Nam, introduced to Thailand	Red Data Book China (1998): „vulnerable“, declining populations; one of the most abundant species on sale in Hong Kong	-	nationally protected in Thailand, China: capture permit needed	1) 3) 7) 13) 16)
<b>Platysternidae</b>					
<i>Platysternon megacephalum</i> Big-headed turtle	Cambodia, China, Lao PDR, Myanmar, Singapore, Thailand, Viet Nam	IUCN: „data deficient“ (1996) Red Data Book Viet Nam (1992): „rare“ Red Data Book China (1998): „endangered, very rare“	-	nationally protected in Thailand, Myanmar and Cambodia, China: capture permit needed	1) 3) 7) 12)

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