

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



Nineteenth meeting of the Animals Committee
Geneva (Switzerland), 18-21 August 2003

Conservation and trade in freshwater tortoises and turtles
[Resolution Conf. 11.9 (Rev. CoP12) and Decision 12.43]

ADDRESSING RECOMMENDATIONS FROM THE KUNMING WORKSHOP

1. This document has been prepared by the United States of America.
2. Paragraph h) under URGES in Resolution Conf. 11.9 (Rev. CoP12) on Conservation of and trade in tortoises and freshwater turtles reads as follows:

all Parties, especially in the Asian region, to collaborate on all aspects of conservation and management of, trade in, and implementation of the Convention for, tortoises and freshwater turtles, taking into consideration the recommendations formulated at a technical workshop on conservation of and trade in tortoises and freshwater turtles held in Kunming, China, 25-28 March 2002;
3. While the participants in the Kunming workshop generally agreed that "all the remaining non-CITES listed species of Asian turtles should be listed under the Appendices of CITES", they recognized that it was not feasible to prepare listing proposals for all taxa concerned by the deadline for proposal submission. Therefore, they specifically recommended that 12 taxa be proposed for listing in Appendix II at CoP12. The recommendations made at the Kunming workshop were accepted by the Animals Committee at its 18th meeting (San José, April 2002), and endorsed by the Parties at CoP12 when they accepted the report of the Chairman of the Animals Committee. Proposals for 11 of these taxa (covering 22 species) were submitted at CoP12, and all were adopted by consensus.
4. Further recognizing that it may not be feasible to list all remaining non-CITES Asian turtle taxa at CoP13, it is important for CITES Parties and the Animals Committee to focus on those taxa that are the highest priority for listing. The United States of America requested the Chelonian Research Foundation (CRF) to prepare the attached document, which assesses the conservation status and trade threats to Asian freshwater tortoise and turtle species and provides recommendations on CITES listing priorities. This document is an updated and revised version of a CRF paper presented at the Kunming workshop. Recommendations from that paper formed the basis for the consensus recommendation formulated at the Kunming workshop on listing priorities for Asian freshwater tortoises and turtles for CoP12.
5. The United States believes that this document will be a useful tool to guide Animals Committee discussions and requests that it be referred to the Animals Committee working group on freshwater turtles and tortoises for further consideration.

**Conservation and Trade of Asian Freshwater Turtles and Tortoises:
Updated Review of Status and Threats
with Recommendations for CITES Listings**

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In this document, Chelonian Research Foundation (CRF): (1) reviews the conservation status and trade threats to 88 species of freshwater turtles and tortoises in Asia using IUCN 2002 Red List status criteria (IUCN, 2002) and CITES listing status, including additions to the Appendices approved at the 12th meeting of the Conference of the Parties to CITES (CoP 12) in Santiago, Chile in November 2002; and (2) provides updated and revised recommendations for all Asian freshwater turtles and tortoise species regarding the possible need for additional CITES listing (or listing changes) for those species that are threatened by trade. This document is an updated and revised version of a paper presented at the CITES Technical Workshop on Conservation of and Trade in Freshwater Turtles and Tortoises, held in Kunming, China in March 2002 (“Kunming CITES Workshop”) (Rhodin, 2002). Recommendations from that paper formed the basis for the Kunming CITES Workshop’s consensus recommendation on listing priorities for Asian freshwater turtles and tortoises for CoP 12. The recommendations were adopted at the 18th meeting of the Animals Committee, and culminated in the listing of 22 species of Asian freshwater turtles in Appendix II at CoP 12. All CRF recommendations made in the current document are intended as guidance to the CITES Animals Committee and the CITES Parties in preparation for the 13th meeting of the Conference of the Parties (CoP 13) in Bangkok, Thailand in October, 2004.

Much of the information presented here derives from the published Proceedings of the 1999 Cambodia Workshop on Asian Turtle Trade (van Dijk, Stuart, and Rhodin, 2000, and separate publications therein), including the IUCN 2000 Red List status categories proposed by the IUCN/SSC Tortoise and Freshwater Turtle Specialist Group and Asian Turtle Trade Working Group (IUCN/SSC TFTSG and ATTWG, 2000; Hilton-Taylor, 2000).

As a result of the listing proposals adopted at CoP 12, 48 of 88 species (55%) of Asian freshwater turtles and tortoises are now listed in the CITES Appendices. All 8 species (100%) of tortoises are listed, therefore only half (40 of 80) of all Asian freshwater turtles are currently listed. Of the 40 species of Asian freshwater turtles not currently listed by CITES, available information indicates that an additional 24 species (60%) should be considered for listing based on degree of endangerment and documented trade, and that 16 species (40%) probably do not need listing at present based on degree of endangerment and documented trade (however, see paragraph below on similarity of appearance). In addition, several already-listed taxa appear to warrant a change in status under CITES, and further recommendations are made regarding species that should be considered for uplisting, downlisting, or no change. A summarized breakdown of these CRF recommendations to CITES is presented in Tables 1-3, as based on the status of Asian chelonians documented in Appendix 1. Recognizing that it may not be feasible to consider listing an additional 24 species of Asian freshwater turtles at CoP 13, CRF has presented a prioritized list of the top 7 taxa (species and genera) that need urgent action to prevent further detrimental effects of unregulated trade (Table 4). These 7 taxa represent the minimum effort that should be expended for species proposals at CoP 13.

The Cambodia Workshop on Asian Turtle Trade (van Dijk et al., 2000) made a strong recommendation that all species of Asian freshwater turtles be placed under CITES trade regulations, either in CITES Appendix I if specifically warranted, or Appendix II for all other species. The Kunming CITES Workshop also agreed that “all the remaining non-CITES listed species of Asian turtles should be listed under the Appendices to CITES.” Fully 100% of all worldwide (and Asian) marine turtles and tortoises are already listed by CITES. However, only 50% of Asian freshwater turtles are listed by CITES, despite 75% being threatened, and about 62% threatened by trade. Since many Asian freshwater turtles resemble one another, at least to the inexperienced eye, there remains a significant loophole through which exporters and importers often circumvent national and international law to continue trading many CITES-listed species. Listing all Asian turtles on CITES would close this loophole. Such a proposal warrants further consideration and discussion.

Certainly, if all Asian turtles are listed by CITES, provisions would need to be made within CITES regulations for how best to preserve and encourage the large and legitimate food and medicinal trade in farm-raised turtles (especially for *Pelodiscus sinensis*, *Chinemys reevesii*, and *Ocadia sinensis*), as well as legal transport of animals for true scientific and conservation-oriented purposes, including facilitating captive conservation breeding and relocation efforts for the most endangered species.

The CITES Animals Committee should consider these CRF recommendations carefully in order to facilitate and support future considerations for formal listing proposals developed separately by the Parties.

Table 1. This table lists the 48 species of Asian non-marine native turtles and tortoises already listed by CITES, with IUCN Red List status categories, CITES Appendix listings, and CRF proposals for CITES listing reviews.

Family	Taxon	IUCN red List	CITES Status	CITES Proposal Appendix
Bataguridae	<i>Batagur baska</i>	CR	I	No change
	<i>Callagur borneoensis</i>	CR	II	Uplist to I or zero wild quota
	<i>Cuora amboinensis</i>	VU	II	No change
	<i>Cuora aurocapitata</i>	CR	II	Uplist to I or zero wild quota
	<i>Cuora flavomarginata</i>	EN	II	No change
	<i>Cuora galbinifrons</i>	CR	II	Uplist to I or zero wild quota
	<i>Cuora mccordi</i>	CR	II	Uplist to I or zero wild quota
	<i>Cuora pani quota</i>	CR	II	Uplist to I or zero wild
	<i>Cuora trifasciata</i>	CR	II	Uplist to I or zero wild quota
	<i>Cuora yunnanensis</i>	CR	II	Uplist to I if rediscovered
	<i>Cuora zhoui</i>	CR	II	Uplist to I or zero wild quota
	<i>Geoclemys hamiltonii</i>	VU	I	Downlist to II
	<i>Heosemys depressa</i>	CR	li	Uplist to I or zero wild quota
	<i>Heosemys grandis</i>	VU	II	No change
	<i>Heosemys leytensis</i>	CR	II	Uplist to I or zero wild quota
	<i>Heosemys spinosa</i>	EN	II	No change
	<i>Hieremys annandalii</i>	EN	II	No change
	<i>Kachuga dhongoka</i>	EN	II	No change
	<i>Kachuga kachugaq</i>	CR	II	Uplist to I or zero wild quota
	<i>Kkachuga smithii</i>	LR:nt	II	No change
	<i>Kachuga sylhetensis</i>	EN	II	No change
	<i>Kachuga tecta</i>	LR:lc	I	Downlist to II
	<i>Kachuga tentoria</i>	LR:lc	II	No change
	<i>Kachuga trivittata</i>	EN	II	No change
	<i>Leucocephalon yuwonoi</i>	CR	II	Uplist to I or zero wild quota

Family	Taxon	IUCN red List	CITES Status	CITES Proposal Appendix
	<i>Mauremys annamensis</i>	CR	II	Uplist to I or zero wild quota
	<i>Mauremys mutica</i>	EN	II	No change
	<i>Melanochelys tricarinata</i>	VU	I	Downlist to II
	<i>Morenia ocellata</i>	VU	I	No change
	<i>Orlitia borneensis</i>	EN	II	No change
	<i>Pyxidea mouhotii</i>	EN	II	No change
	<i>Siebenrockiella crassicollis</i>	VU	II	No change
Platysternidae	<i>Platysternon megacephalum</i>	EN	II	No change
Testudinidae	<i>Geochelone elegans</i>	LR:lc	II	No change
	<i>Geochelone platynota</i>	CR	II	Uplist to I or zero wild quota
	<i>Indotestudo elongata</i>	EN	II	Uplist to I or zero wild quota
	<i>Indotestudo forstenii</i>	EN	II	Uplist to I to zero wild quota
	<i>Indotestudo travancorica</i>	VU	II	Uplist to I to zero wild quota
	<i>Manouria emys</i>	EN	II	Uplist to I to zero wild quota
	<i>Manouria impressa</i>	VU	II	No change
	<i>Testudo horsfieldii</i>	VU	II	No change
Trionychidae	<i>Aspideretes gangeticus</i>	VU	II	No change
	<i>Aspideretes nigricans</i>	CR	I	No change
	<i>Chitra chitra</i>	CR	II	Uplist to I to zero wild quota
	<i>Chitra indica</i>	EN	II	No change
	<i>Lissemys punctata</i>	LR:lc	II	No change
	<i>Pelochelys bibroni</i>	VU	II	No change
	<i>Pelochelys cantorii</i>	EN	II	No change

Table 2. The following list of 24 of 40 Asian species not yet listed by CITES need potential review and probable CITES listing due to significant levels of endangerment and documented trade. They are listed with IUCN Red List status categories, CITES Appendix listings, and CRF proposals for CITES listing reviews.

Family	Taxon	IUCN Red List Status	CITES Proposal
Bataguridae	<i>Chinemys megaloccephala</i>	EN	List on Appendix II
	<i>Chinemys nigricans</i>	EN	List on Appendix II
	<i>Chinemys reevesii</i>	EN	List on Appendix II but facilitate permitting for commercial turtle farms
	<i>Cyclemys dentata</i>	LR:nt	List on Appendix II
	<i>Geoemyda spengleri</i>	EN	List on Appendix II
	<i>Hardella thurjii</i>	VU	List on Appendix II
	<i>Malayemys subtrijuga</i>	VU	List on Appendix II
	<i>Morenia petersi</i>	VU	List on Appendix II
	<i>Notochelys platynota</i>	VU	List on Appendix II
	<i>Ocadia sinensis</i>	EN	List on Appendix II but facilitate permitting for commercial turtle farms
	<i>Sacalia bealei</i>	EN	List on Appendix II
	<i>Sacalia quadriocellata</i>	EN	List on Appendix II
Carettochelyidae	<i>Carettochelys insculpta</i>	VU	List on Appendix II
Chelidae	<i>Chelodina mccordi</i>	CR	List on Appendix I or on II with zero wild quota
	<i>Chelodina parkeri</i>	VU	List on Appendix II
	<i>Chelodina siebenrocki</i>	LR:nt	List on Appendix II
Trionychidae	<i>Amyda cartilaginea</i>	VU	List on Appendix II
	<i>Aspideretes hurum</i>	VU	List on Appendix II
	<i>Aspideretes leithii</i>	VU	List on Appendix II
	<i>Lissemys scutata</i>	DD	List on Appendix II
	<i>Nilssonina formosa</i>	EN	List on Appendix II
	<i>Palea steindachneri</i>	EN	List on Appendix II
	<i>Pelodiscus sinensis</i>	VU	List on Appendix II but facilitate permitting for commercial turtle farms
	<i>Rafetus swinhoei</i>	CR	List on Appendix I or on II with zero wild quota

Table 3. The following list of 16 of 40 Asian species not listed by CITES do not yet appear to need review or CITES listing, but need to be monitored for potential future review, especially the Endangered and Vulnerable species. However, consideration for listing these species should probably be made for look-alike reasons and to complete the listing of all Asian freshwater turtles.

Family	Taxon	IUCN Red List Status
Bataguridae	<i>Geoemyda japonica</i>	EN
	<i>Geoemyda silvatica</i>	EN
	<i>Mauremys iversoni</i>	DD
	<i>Mauremys japonica</i>	LR:nt
	<i>Mauremys pritchardi</i>	DD
	<i>Melanochelys trijuga</i>	LR:nt
	<i>Ocadia glyphistoma</i>	DD
	<i>Ocadia philippeni</i>	DD
	<i>Sacalia pseudocellata</i>	DD
Chelidae	<i>Chelodina novaeguineae</i>	LR:lc
	<i>Chelodina pritchardi</i>	EN
	<i>Chelodina reimanni</i>	LR:nt
	<i>Elseya branderhorsti</i>	VU
	<i>Elseya novaeguineae</i>	LR:lc
	<i>Emydura subglobosa</i>	LR:lc
Trionychidae	<i>Dogania subplana</i>	LR:lc

Table 4. Based on the updated and revised data presented in this report and in consideration of their degree of endangerment and levels of documented trade, the following is a prioritized list of the top 7 species (or genera) that should probably be considered for preparation of formal proposals for listing on at least CITES Appendix II.

1. Family Carettochelyidae: *Carettochelys insculpta*
2. Family Chelidae: *Chelodina* spp. (*C. mccordi*, *C. parkeri*, *C. siebenrocki*, and others by look-alike reasons)
3. Family Bataguridae: *Chinemys* spp. (*C. reevesii*, *C. megaloccephala*, *C. nigricans*)
4. Family Bataguridae: *Morenia petersi*
5. Family Bataguridae: *Cyclemys* spp. (*C. dentata*, *C. atripons*, *C. oldhamii*, and others)
6. Family Trionychidae: *Amyda cartilaginea*
7. Family Bataguridae: *Malayemys subtrijuga*

STATUS OF NATIVE ASIAN CHELONIANS

Methodology

The following accounts cover all species of native Asian non-marine chelonians (88 species). All species accounts summarize: (1) distribution by country, (2) taxonomic issues such as recognized subspecies and/or other synonymized taxa, (3) present listing on the IUCN 2002 Red List, (4) current listing on CITES Appendices, (5) brief supporting statements on status, threats, and trade, and (6) proposals by Chelonian Research Foundation regarding possible need for CITES listing changes.

For the IUCN listings, the biological criteria used for status determinations are included in parentheses (see IUCN Species Survival Commission, 1994). Further data from recent publications and reports are also included in the species accounts to provide detailed and updated information on levels of trade and degree of endangerment.

For the purposes of this document the geographic region of Asia is considered to include: Bangladesh, Bhutan (no turtles yet recorded), Brunei, Cambodia, China, Hong Kong, India, Indonesia, Japan, Korea, Laos, Malaysia, Maldives, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Singapore, Sri Lanka, Taiwan, Thailand, and Vietnam. Specifically excluded are: Afghanistan, Australia, Iran, Iraq, Israel, Jordan, Kazakhstan, Kyrgyzstan, Lebanon, Mongolia, Oman, Russia, Saudi Arabia, Syria, Tajikistan, Turkey, Turkmenistan, Uzbekistan, and other Middle East and former Soviet Union nations.

IUCN Red List categories in descending order of survival risk are as follows: EX = Extinct; EW = Extinct in the wild; CR = Critically Endangered; EN = Endangered; VU = Vulnerable; LR:nt = Lower Risk, near threatened; LR:lc = Lower Risk, least concern; DD = Data Deficient.

Family Bataguridae

***Batagur baska* (Gray, 1831) (River terrapin)**

Distribution: Bangladesh, Cambodia, India, Indonesia, Malaysia, Myanmar?, Singapore?, Thailand?, Vietnam?

Taxonomy: Two poorly defined subspecies: *B. b. baska* (Common river terrapin) and *B. b. ranongensis* (Nutaphand, 1979) (Ranong river terrapin).

IUCN 2002 Red List: Critically Endangered (A1cd).

CITES: Appendix I.

Status, Threats, and Trade: Considered Endangered in peninsular Malaysia and Indonesia; Critically Endangered in Bangladesh and India, populations very small; Extinct in the wild in Thailand (considered Critically Endangered in OEPP, 1997); no recent data and presumed Extinct in Myanmar, Vietnam, and Singapore; small and isolated population recently rediscovered in Cambodia where it is considered Critically Endangered (Platt et al., in press). Illegally exported from Indonesia and traded in substantial numbers in China despite CITES Appendix I listing. Overall situation at least as serious as that of *Callagur borneoensis*. Recorded in turtle markets of Guangzhou, southern China (Artnr and Hofer, 2001).

CITES Proposal: No change.

***Callagur borneoensis* (Schlegel and Müller, 1844) (Painted terrapin)**

Distribution: Brunei, Indonesia, Malaysia, Thailand?

Taxonomy: No subspecies.

IUCN 2002 Red List: Critically Endangered (A1bcd).

CITES: Appendix II.

Status, Threats, and Trade: Listed as Critically Endangered in Thailand (OEPP, 1997). Populations severely depleted in peninsular Malaysia (Sharma and Tisen, 2000). Traded in large numbers without export papers

from Sumatra (Shepherd, 2000) though Indonesia had an official annual export quota of only 450 animals in 1999 (Samedi and Iskandar, 2000), which dropped to 180 in 2000 (CITES, 2001). Recorded in turtle markets of Guangzhou, southern China (Lau and Shi, 2000; Artner and Hofer, 2001).

CITES Proposal: Consider uplisting to Appendix I or establishing a zero quota for exports from the wild, due to heavy trade from Indonesia and severely depleted populations in Malaysia.

***Chinemys megalocephala* (Fang, 1934)**
(Big-headed pond turtle)

Distribution: China.

Taxonomy: No subspecies. Previously synonymized with *C. reevesii*; argued to be a distinct taxon by Guo et al. (1997).

IUCN 2002 Red List: Endangered (A1d+2d).

CITES: Not listed.

Status, Threats, and Trade: Seriously threatened by domestic consumption trade with recent market collapse (R. Kan, *pers. comm.*). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997).

CITES Proposal: Consider listing on Appendix II.

***Chinemys nigricans* (Gray, 1834)**
(Red-necked pond turtle)

Distribution: China.

Taxonomy: No subspecies. Includes *C. kwangtungensis* (Pope, 1934) in synonymy.

IUCN 2002 Red List: Endangered (A1d+2d).

CITES: Not listed.

Status, Threats, and Trade: Restricted-range species, generally disappeared from food markets several years ago, presumed commercially extinct though occasional animals still appear (R. Kan, M. Lau, *pers. comm.*, P.P. van Dijk, *pers. obs.*). Recorded in turtle markets of Guangzhou, southern China (Artner and Hofer, 2001).

CITES Proposal: Consider listing on Appendix II.

***Chinemys reevesii* (Gray, 1831b)**
(Reeves' turtle)

Distribution: China, Hong Kong, Japan, Korea, Taiwan.

Taxonomy: No subspecies. Previously included *C. megalocephala* in synonymy.

IUCN 2002 Red List: Endangered (A1cd).

CITES: Not listed.

Status, Threats, and Trade: Previously the commonest Chinese turtle species in trade, now nearly completely disappeared from Chinese and Hong Kong markets (Lau and Shi, 2000; Lau et al., 2000), not found during field surveys in China. Increasingly threatened small populations exist in parts of Taiwan (Lue et al., 1999) and Japan. Still relatively common in trade in Taiwan (Chen et al., 2000). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Artner and Hofer, 2001), Shanghai, northern China (WCS and China CITES, 2000), and Hong Kong (Lau et al., 2000). Captive breeding for commercial sale occurs on Chinese turtle farms (Shi and Parham, 2001).

CITES Proposal: Consider listing on Appendix II but with facilitation of permitting for food trade in commercial breeding stocks from turtle farms.

***Cuora amboinensis* (Daudin, 1802)**
(Southeast Asian box turtle)

Distribution: Bangladesh, Brunei, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam.

Taxonomy: Four subspecies: *C. a. amboinensis* (East Indian box turtle), *C. a. couro* (Schweigger, 1812) (West Indonesian box turtle), *C. a. kamaroma* (Rummler and Fritz, 1991) (Southeast Asian box turtle), and *C. a. lineata* (McCord and Philippen, 1998) (Striped Asian box turtle).

IUCN 2002 Red List: Vulnerable (A1d+2d).

CITES: Appendix II.

Status, Threats, and Trade: Endangered in Bangladesh, Cambodia, Laos, Vietnam; Vulnerable in Indonesia, India, Malaysia, Thailand (not listed by OEPP, 1997); Data Deficient in Myanmar and Philippines; presumed stable in Singapore (small population). Indonesia had an export quota of 90,000 live animals in 1999 (Samedi and Iskandar, 2000), which was decreased to 6,000 in 2000 (CITES, 2001). However, a huge trade to China (tons of live animals per week) has recently occurred from exporters in Sumatra, Indonesia (Shepherd, 2000), but this trade may now have closed as a result of export limitations (K. Tepelden, *pers. comm.* to R. Hudson). Traded heavily across border from Myanmar to China with local depletion of populations (McCord and Philippen, 1998). Traded illegally for export from Thailand (van Dijk and Palasuwan, 2000). Moderate degree of international trade occurs from Vietnam (Hendrie, 2000). Exported in huge numbers from Malaysia (Sharma and Tisen, 2000). Heavy trade recorded in markets in Hainan, China (de Bruin and Artner, 1999) and Taiwan (Chen et al., 2000). Traded heavily by middlemen in Ujung Pandang, Sulawesi, Indonesia (A. Rhodin, *pers. obs.*). Recorded in huge numbers in turtle markets of Guangzhou, southern China (Lau and Shi, 2000; Artner and Hofer, 2001) and Hong Kong (Lau et al., 2000).

CITES Proposal: No change.

***Cuora aurocapitata* (Luo and Zong, 1988)**
(Yellow-headed box turtle)

Distribution: China.

Taxonomy: No subspecies.

IUCN 2002 Red List: Critically Endangered (A1d+2d).

CITES: Appendix II.

Status, Threats, and Trade: Known only from the type locality, now considered commercially extinct; species has very high value in trade. Targeted for the international pet trade via Hong Kong dealers (Lau and Shi, 2000).

CITES Proposal: Consider uplisting to Appendix I or establishing a zero quota for exports from the wild.

***Cuora flavomarginata* (Gray, 1863a)**
(Yellow-margined box turtle)

Distribution: China, Japan, Taiwan.

Taxonomy: Three subspecies: *C. f. flavomarginata* (Common yellow-margined box turtle), *C. f. evelynae* (Ernst and Lovich, 1990) (Ryukyu yellow-margined box turtle), and *C. f. sinensis* (Hsu, 1930) (Chinese yellow-margined box turtle). Recently removed from the genus *Cuora* to the genus *Cistoclemmys* by Yasukawa et al. (2001).

IUCN 2002 Red List: Endangered (A1cd+2cd).

CITES: Appendix II.

Status, Threats, and Trade: Taiwan population (*C. f. flavomarginata*) Vulnerable (A1c), has declined in recent decades due to expansion of agricultural lands, remnants now stable or slightly recovering (T. Chen, *pers. comm.*); mainland China population (*C. f. sinensis*) probably Critically Endangered. In China and Taiwan combined, the species was considered Endangered (Zhao, 1998, in China Red Data Book). Japanese Ryukyu populations (*C. f. evelynae*) are small but relatively well protected and rated as Vulnerable in the 1999 Japanese Red List (Matsui and Ota, 1999; Ota, in press). Recorded in turtle markets of Taiwan (Chen et al., 2000), Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Artner and Hofer, 2001), Shanghai, northern China (WCS and China CITES, 2000), and Hong Kong (Lau et al., 2000).

CITES Proposal: No change.

***Cuora galbinifrons* (Bourret, 1939)
(Indochinese box turtle)**

Distribution: Cambodia?, China, Laos, Vietnam.

Taxonomy: Four subspecies: *C. g. galbinifrons* (Common Indochinese box turtle), *C. g. bourreti* (Obst and Reimann, 1994), *C. g. picturata* (Lehr, Fritz, and Obst, 1998), and *C. g. serrata* (Iverson and McCord, 1992b) (Serrated Indochinese box turtle) (this last subspecies is a possible hybrid from turtle farms). Includes *C. hainanensis* (Li, 1958) in synonymy. Recently removed from the genus *Cuora* to the genus *Cistoclemmys* by Yasukawa et al. (2001).

IUCN 2002 Red List: Critically Endangered (A1d+2d).

CITES: Appendix II.

Status, Threats, and Trade: Critically Endangered in Laos, Vietnam; Endangered in China (Hainan). Heavy trade from Vietnam to China (Hendrie, 2000). The questionable subspecies *C. g. serrata* was not found near its purported type locality in Hainan (de Bruin and Artner, 1999). Occurs frequently in international trade from Laos (Stuart and Timmins, 2000). High degree of illegal international trade occurs from Vietnam (Hendrie, 2000). Targeted for the international pet trade via Hong Kong dealers (Lau and Shi, 2000). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000; Artner and Hofer, 2001) and Hong Kong (Lau et al., 2000). Captive breeding for commercial sale occurs on Chinese turtle farms (Shi and Parham, 2001).

CITES Proposal: Consider uplisting to Appendix I or establishing a zero quota for exports from the wild.

***Cuora mccordi* (Ernst, 1988b)
(McCord's box turtle)**

Distribution: China.

Taxonomy: No subspecies.

IUCN 2002 Red List: Critically Endangered (A1d+2d).

CITES: Appendix II.

Status, Threats, and Trade: Known only from the type locality in Guangxi. Considered commercially extinct; species has very high value in trade. Targeted for the international pet trade via Hong Kong dealers (Lau and Shi, 2000).

CITES Proposal: Consider uplisting to Appendix I or establishing a zero quota for exports from the wild.

***Cuora pani* (Song, 1984)
(Pan's box turtle)**

Distribution: China.

Taxonomy: No subspecies. Includes *C. chriskarannarum* (Ernst and McCord, 1987) in synonymy.

IUCN 2002 Red List: Critically Endangered (A1d+2d).

CITES: Appendix II.

Status, Threats, and Trade: Known only from a few localities in Shaanxi and Yunnan. Considered commercially extinct; species has very high value in trade. Targeted for the international pet trade via Hong Kong dealers (Lau and Shi, 2000).

CITES Proposal: Consider uplisting to Appendix I or establishing a zero quota for exports from the wild.

***Cuora trifasciata* (Bell, 1825)
(Chinese three-striped box turtle)**

Distribution: China, Hong Kong, Laos, Vietnam.

Taxonomy: No subspecies.

IUCN 2002 Red List: Critically Endangered (A1d+2d).

CITES: Appendix II.

Status, Threats, and Trade: Species is the most expensive Asian turtle in markets and extremely valuable in trade, subject to exceptionally high exploitation pressures which may lead it to become Extinct in the wild within a few years. Known as the Golden coin turtle and used heavily in Traditional Chinese Medicine as a recently promoted alleged cure for cancer (Lau et al., 2000), individual animals now retail for over \$1000 per kg (Lau and Shi, 2000; Lau et al., 2000.) whereas prices were only about \$80 per kg in Hong Kong in the late 1970s (A. Rhodin, *pers. obs.*). Knowledge of its value has reached remote areas, including Laos, where exploitation pressures are high (Timmins and Khounbolin, 1999; Stuart and Timmins, 2000). Traded clandestinely for high value in Hainan, China (de Bruin and Artner, 1999). Captive breeding for commercial sale occurs on Chinese turtle farms (Lau and Shi, 2000; Shi and Parham, 2001). Recorded in turtle markets of Shanghai, northern China (WCS and China CITES, 2000), Guangzhou, southern China (Lau and Shi, 2000; Artner and Hofer, 2001), and Hong Kong (Lau et al., 2000).

CITES Proposal: Consider uplisting to Appendix I or establishing a zero quota for exports from the wild, due to extraordinary market pressures and high values which will lead rapidly to Extinction unless checked.

***Cuora yunnanensis* (Boulenger, 1906)
(Yunnan box turtle)**

Distribution: China.

Taxonomy: No subspecies.

IUCN 2002 Red List: Extinct.

CITES: Appendix II.

Status, Threats, and Trade: Not recorded since its description despite intensive specific searches and the massive general market trade (recent market records almost certainly derive from misidentification). One of two known sites of past occurrence has disappeared under expanding urbanization of Kunming.

CITES Proposal: Consider uplisting to Appendix I if the species is rediscovered.

***Cuora zhoui* (Zhao, 1990)
(Zhou's box turtle)**

Distribution: China.

Taxonomy: No subspecies. Includes *C. pallidicephala* (McCord and Iverson, 1991) in synonymy.

IUCN 2002 Red List: Critically Endangered (A1d+2d).

CITES: Appendix II.

Status, Threats, and Trade: Known only from a few localities in Guangxi and Yunnan. Considered commercially extinct; species has very high value in trade. Targeted for the international pet trade via Hong Kong dealers (Lau and Shi, 2000).

CITES Proposal: Consider uplisting to Appendix I or establishing a zero quota for exports from the wild.

***Cyclemys dentata* (Gray, 1831b)**
(Asian leaf turtle)

Distribution: Bangladesh, Brunei, Cambodia, China?, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Singapore, Thailand, Vietnam.

Taxonomy: Until recently, the various forms of this taxon were thought to represent just a single species, but are now recognized as representing a species complex of up to 5 full species: *C. atripons* (Iverson and McCord, 1997a) (Black-bridged leaf turtle B Cambodia, Thailand), *C. dentata* (Asian leaf turtle B Brunei, Indonesia, Malaysia, Philippines, Singapore, Thailand), *C. oldhamii* (Gray, 1863) (Oldham=s leaf turtle B India, Indonesia, Laos, Malaysia, Myanmar, Thailand), *C. pulchristriata* (Fritz, Gaulke, and Lehr, 1997) (Streak-shelled leaf turtle B Vietnam), and *C. tchaponensis* (Bourret, 1939) (Indochinese leaf turtle B Laos, Thailand, Vietnam). Of these described taxa, *C. atripons* and *C. pulchristriata* appear to be synonymous. Also includes *C. tiannanensis* (Kou, 1989) in synonymy.

IUCN 2002 Red List: Lower Risk, near threatened.

CITES: Not listed.

Status, Threats, and Trade: Widespread and locally reasonably common species, but occurs in substantial numbers in the food trade. The conservation status of the individual members of the species complex has not been assessed because the taxonomy and distribution remain unclear. It is likely that some taxa will be Vulnerable. High degree of illegal international trade occurs from Vietnam (Hendrie, 2000). Traded widely in Myanmar, including export to China (Platt et al, 2000). Traded illegally for export from Thailand (van Dijk and Palasuwan, 2000). Exported in large numbers from Sumatra, Indonesia (Shepherd, 2000). Moderate trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000; Artner and Hofer, 2001) and Shanghai, northern China (WCS and China CITES, 2000).

CITES Proposal: Consider listing entire species complex (as the genus *Cyclemys* spp.) on Appendix II.

***Geoclemys hamiltonii* (Gray, 1831b)**
(Spotted pond turtle)

Distribution: Bangladesh, India, Nepal?, Pakistan.

Taxonomy: No subspecies.

IUCN 2002 Red List: Vulnerable (A1d+2d).

CITES: Appendix I.

Status, Threats, and Trade: Endangered in Bangladesh; Vulnerable in India; Data Deficient in Nepal and Pakistan. Traded in some numbers in international food and pet trade. Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000).

CITES Proposal: Consider downlisting to Appendix II.

***Geoemyda japonica* (Fan, 1931)**
(Ryukyu black-breasted leaf turtle)

Distribution: Japan.

Taxonomy: Previously considered a subspecies of *G. spengleri*.

IUCN 2002 Red List: Endangered (A1ce, B1+2c).

CITES: Not listed.

Status, Threats, and Trade: Endemic to no more than three islands of the central Ryukyus, Japan. Continued to be listed as Vulnerable in the 1991 and 1999 Japanese Red Lists (Ota, in press). Populations were judged to be badly declining on Okinawajima, with two small isolated populations on Kumejima, and no status data for Tokashikijima (Yasukawa and Ota, in press). Hybridization threat (A1e) added based on Matsui and Ota (1999). No known international trade.

CITES Proposal: No change.

***Geoemyda silvatica* (Henderson, 1912)
(Cochin cane forest turtle)**

Distribution: India.

Taxonomy: Previously in genus *Heosemys*.

IUCN 2002 Red List: Endangered (B1+2c).

CITES: Not listed.

Status, Threats, and Trade: Known from only a handful of localities with very limited distribution in Cochin. The CAMP/BCPP evaluations considered the species only Vulnerable in India. No known trade except local subsistence.

CITES Proposal: No change.

***Geoemyda spengleri* (Gmelin, 1789)
(Black-breasted leaf turtle)**

Distribution: China, Vietnam.

Taxonomy: Previously included two subspecies but *G. s. japonica* now considered a full species.

IUCN 2002 Red List: Endangered (A1cd+2cd).

CITES: Not listed.

Status, Threats, and Trade: Previously high levels of trade, now scarce in markets. Recorded in turtle markets of Shanghai, northern China (WCS and China CITES, 2000), Guangzhou, southern China (Lau and Shi, 2000; Artner and Hofer, 2001), and Taiwan (Chen et al., 2000).

CITES Proposal: Consider listing on Appendix II.

***Hardella thurjii* (Gray, 1831b)
(Crowned river turtle)**

Distribution: Bangladesh, India, Nepal, Pakistan.

Taxonomy: Two described subspecies: *H. t. thurjii* (Ganges crowned river turtle B Bangladesh, India, Nepal) and *H. t. indi* (Gray, 1870c) (Indus crowned river turtle B Pakistan).

IUCN 2002 Red List: Vulnerable (A1cd, A2cd).

CITES: Not listed.

Status, Threats, and Trade: The CAMP/BCPP evaluations considered the species Vulnerable in India. Endangered in Bangladesh Red Data Book. Data Deficient in Pakistan. Exported from Bangladesh as hatchlings for the international pet trade (Rashid and Khan, 2000). Recorded in food trade to southern China (Lau and Shi, 2000) and medicinal trade to Taiwan (Chen et al., 2000).

CITES Proposal: Consider listing on Appendix II.

***Heosemys depressa* (Anderson, 1875)
(Arakan forest turtle)**

Distribution: Myanmar.

Taxonomy: Previously in genus *Geoemyda*.

IUCN 2002 Red List: Critically Endangered (A2cd, B1+2c).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Recent rediscovery of a few specimens in markets in Myanmar and traded across the border to China confirm the rarity and endangered status of this rarely-seen species (Iverson and McCord, 1997b; Platt et al., 2000; Platt et al., in press). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998).

CITES Proposal: Consider listing on Appendix I or establishing a zero quota for exports from the wild.

***Heosemys grandis* (Gray, 1860a)
(Giant Asian pond turtle)**

Distribution: Cambodia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Taxonomy: No subspecies.

IUCN 2002 Red List: Vulnerable (A1d+2cd).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Vulnerable (A1d+2d) in Cambodia, Laos, and Vietnam; Vulnerable (A2cd) in Malaysia; Data Deficient for Myanmar and Thailand (currently not listed - OEPP, 1997) but probably at least Vulnerable (A1d). Moderate degree of illegal international trade occurs from Vietnam (Hendrie, 2000). Exported in huge numbers from Malaysia (Sharma and Tisen, 2000). Moderate trade in Thailand (van Dijk and Palasuwan, 2000). Heavy trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000; Artner and Hofer, 2001) and Taiwan (Chen et al., 2000).

CITES Proposal: No change.

***Heosemys leytensis* (Taylor, 1920)
(Philippine pond turtle)**

Distribution: Philippines.

Taxonomy: No subspecies.

IUCN 2002 Red List: Critically Endangered (A2d, B1+2c).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Previously known from only 3 specimens reported in 1921 allegedly collected in Leyte, and a single animal found in 1988 in northern Palawan. Recently 20 animals have been found in a single private collection in captivity on Palawan (A.C. Diesmos, *pers. comm.*). The mythical reputation of this species will make any live animals extremely valuable in the pet trade and this recent discovery may stimulate trade. No data are available on extent of occurrence, but presumed either extremely rare or restricted to one or very few small localities. No known trade.

CITES Proposal: Consider listing on Appendix I or establishing a zero quota for exports from the wild.

***Heosemys spinosa* (Gray, 1831b)**
(Spiny turtle)

Distribution: Brunei, Indonesia, Malaysia, Myanmar?, Philippines, Singapore, Thailand.

Taxonomy: No subspecies.

IUCN 2002 Red List: Endangered (A1bcd).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Detailed monitoring of trade and status is urgently required; known trade volumes of the species have declined by about 50% in Indonesia recently despite high demand in the food trade (C. Shepherd, *pers. comm.*) and the species is considered Critically Endangered in Indonesia (D. Iskandar, *pers. comm.*). In Thailand, the species is Vulnerable (OEPP, 1997) to Endangered and restricted to small, isolated populations. Populations in Brunei, Myanmar, Singapore, and Philippines are considered to be small and low density, while only those of Singapore and Brunei may be moderately secure. Information for Malaysia is scarce, but Vulnerable was suggested for Borneo and Peninsular Malaysia (I. Das, D. Sharma, *pers. comm.*). Given the numbers in trade, the lack of confirmed extensive populations occurring inside adequately protected areas, the known low reproductive output, and the wide-ranging status assessments summarized here, the species is categorized as Endangered. Exported in large numbers from Sumatra, Indonesia (Shepherd, 2000). Moderate trade in Thailand destined for the export pet trade (van Dijk and Palasuwan, 2000). Recorded in turtle markets of Guangzhou, southern China (Lau and Shi, 2000; Artner and Hofer, 2001).

CITES Proposal: No change.

***Hieremys annandalii* (Boulenger, 1903)**
(Yellow-headed temple turtle)

Distribution: Cambodia, Malaysia, Myanmar?, Thailand, Vietnam.

Taxonomy: No subspecies.

IUCN 2002 Red List: Endangered (A1cd+2d).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Endangered due to trade exploitation in Cambodia, Laos, and Vietnam; present status in Thailand poorly known, likely Vulnerable or Endangered (though not listed in 1997 OEPP Red List); population in Malaysia is marginal and very small. Habitat loss remains a contributing factor throughout its range. Traded illegally for export from Thailand (van Dijk and Palasuwan, 2000). Moderate trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Lau and Shi, 2000; Artner and Hofer, 2001) and Taiwan (Chen et al., 2000).

CITES Proposal: No change.

***Kachuga dhongoka* (Gray, 1835)**
(Three-striped roofed turtle)

Distribution: Bangladesh, India, Nepal?

Taxonomy: No subspecies.

IUCN 2002 Red List: Endangered (A1cd+2cd).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Endangered in India due to disappearance from much of former range, though a number of stable populations are known; formerly Vulnerable in the CAMP/BCPP evaluations. Critically Endangered in Bangladesh. Previous widespread use in India, now depleted.

CITES Proposal: No change.

***Kachuga kachuga* (Gray, 1831)
(Red-crowned roofed turtle)**

Distribution: Bangladesh, India, Nepal.

Taxonomy: No subspecies.

IUCN 2002 Red List: Critically Endangered (A1cd).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Critically Endangered due to continuing disappearance over much of its range, previously listed as Vulnerable in the CAMP/BCPP evaluations. International trade unlikely, but populations severely depleted. Shells traded as curio masks from Nepal (Mitchell and Rhodin, 1996).

CITES Proposal: No change.

***Kachuga smithii* (Gray, 1863e)
(Brown roofed turtle)**

Distribution: Bangladesh, India, Nepal, Pakistan.

Taxonomy: Two subspecies: *K. s. smithii* (Brown roofed turtle) and *K. s. pallidipes* (Moll, 1987) (Pale-footed roofed turtle).

IUCN 2002 Red List: Lower Risk, near threatened.

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: The CAMP/BCPP evaluations considered the species Lower Risk, least concern in India. Local trade occurs in India and some international pet trade. Exported in moderate numbers from Bangladesh (Rashid and Khan, 2000). Shells traded as curio masks from Nepal (Mitchell and Rhodin, 1996).

CITES Proposal: No change.

***Kachuga sylhetensis* (Jerdon, 1870)
(Assam roofed turtle)**

Distribution: Bangladesh, India

Taxonomy: No subspecies.

IUCN 2002 Red List: Endangered (B1+2c).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Extremely rare species known from only a few animals; apparently occurs scarcely in scattered localities. Forest stream habitat impacted by conversion to tea plantations. The CAMP/BCPP evaluations considered the species Critically Endangered in India, but the available data are insufficient to justify Critically Endangered across the range. No known trade.

CITES Proposal: No change.

***Kachuga tecta* (Gray, 1831b)
(Indian roofed turtle)**

Distribution: Bangladesh, India, Nepal, Pakistan.

Taxonomy: No subspecies.

IUCN 2002 Red List: Lower Risk, least concern.

CITES: Appendix I.

Status, Threats, and Trade: The CAMP/BCPP evaluations considered the species Lower Risk, near threatened in India. Still widespread and relatively common in India. Exported in large numbers from Bangladesh (Rashid and Khan, 2000). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000), Hong Kong (Lau et al., 2000), and Taiwan (Chen et al., 2000).

CITES Proposal: Consider downlisting to Appendix II.

***Kachuga tentoria* (Gray, 1834a)
(Indian tent turtle)**

Distribution: Bangladesh, India.

Taxonomy: Three subspecies: *K. t. tentoria* (Indian tent turtle), *K. t. circumdata* (Mertens, 1969) (Pink-ringed tent turtle), and *K. t. flaviventer* (Günther, 1864) (Yellow-bellied tent turtle).

IUCN 2002 Red List: Lower Risk, least concern.

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: The CAMP/BCPP evaluations considered the species Lower Risk, near threatened in India. Relatively common, no significant trade.

CITES Proposal: No change.

***Kachuga trivittata* (Duméril and Bibron, 1835)
(Burmese roofed turtle)**

Distribution: Myanmar.

Taxonomy: No subspecies.

IUCN 2002 Red List: Endangered (A1c).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Possibly Critically Endangered or Extinct, considering that no animals have been reliably recorded since 1935 despite mass trade of riverine turtles from Myanmar to China.

CITES Proposal: No change.

***Leucocephalon yuwonoi* (McCord, Iverson, and Boeadi, 1995)
(Sulawesi forest turtle)**

Distribution: Indonesia.

Taxonomy: No subspecies. Previously in genera *Geoemyda* and *Heosemys*; recently elevated to a monotypic genus by McCord et al. (2000).

IUCN 2002 Red List: Critically Endangered (A1cd+2cd, C1).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Very limited distribution on Sulawesi (Platt et al., 2001a). Trade in the species in Chinese markets, discovered among shipments in the early 1990s, peaked at an estimated annual level of 2000B3000 animals in 1998 and collapsed to 100 animals in 1999 (R. Kan, B. Chan, *pers. comm.*), now nearly commercially extinct (Lau and Shi, 2000). Recorded in turtle markets of Guangzhou and Shenzhen,

southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000). Targeted for the international pet trade via Hong Kong dealers (Lau and Shi, 2000).

CITES Proposal: Consider listing on Appendix I or establishing a zero quota for exports from the wild.

***Malayemys subtrijuga* (Schlegel and Müller, 1844)
(Malayan snail-eating turtle)**

Distribution: Cambodia, Indonesia, Laos, Malaysia, Thailand, Vietnam.

Taxonomy: No subspecies.

IUCN 2002 Red List: Vulnerable (A1d+2d).

CITES: Not listed.

Status, Threats, and Trade: Considered Vulnerable in Cambodia, Laos, Vietnam; populations in Indonesia and Malaysia small and restricted; status in Thailand not uncommon, not listed in OEPP 1997 Red List, but there suffers from habitat impacts. Traded illegally for export from Thailand (van Dijk and Palasuwan, 2000). Previously common in trade to Taiwan for Traditional Chinese Medicine (Chang, 1997), now only recorded occasionally (Chen et al., 2000). Traded heavily from Cambodia and Vietnam to China (Hendrie, 2000). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000; Artner and Hofer, 2001).

CITES Proposal: Consider listing on Appendix II.

***Mauremys annamensis* (Siebenrock, 1903a)
(Annam leaf turtle)**

Distribution: Vietnam.

Taxonomy: Previously in genus *Annamemys*.

IUCN 2002 Red List: Critically Endangered (A1d+2d).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Extremely scarce and Critically Endangered in Vietnam. Some trade still occurs in Vietnam despite severely depleted populations, with occasional seizures of animals from illegal trade destined for China (Hendrie, 2000). Trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Lau and Shi, 2000; Artner and Hofer, 2001).

CITES Proposal: Consider listing on Appendix I or establishing a zero quota for exports from the wild.

***Mauremys iversoni* (Pritchard and McCord, 1991)
(Fujian pond turtle)**

Distribution: China.

Taxonomy: No subspecies. Possible hybrid from Chinese turtle farms (Shi and Parham, 2001).

IUCN 2002 Red List: Data Deficient.

CITES: Not listed.

Status, Threats, and Trade: No field or trade data available.

CITES Proposal: No change.

***Mauremys japonica* (Temminck and Schlegel, 1835)
(Japanese pond turtle)**

Distribution: Japan.

Taxonomy: No subspecies.

IUCN 2002 Red List: Lower Risk, near threatened.

CITES: Not listed.

Status, Threats, and Trade: Many populations have become depleted though others remain robust; threats include habitat conversion, land development, waterway engineering, collection as pets, and possibly competition from introduced *Trachemys scripta*; one habitat area is protected, no other conservation measures are in effect (Y. Yasukawa, T. Yabe, H. Ota, *pers. comm.*; Yasukawa and Ota, in press). No known trade, small numbers of animals in the pet trade.

CITES Proposal: No change.

***Mauremys mutica* (Cantor, 1842)
(Yellow pond turtle)**

Distribution: China, Japan, Taiwan, Vietnam.

Taxonomy: Two subspecies: *M. m. mutica* (Yellow pond turtle) and *M. m. kami* (Yasukawa, Ota, and Iverson, 1996) (Ryukyu pond turtle).

IUCN 2002 Red List: Endangered (A1cd+2cd).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Endangered in Vietnam and China; corresponding decline observed recently in market supply (B. Chan, R. Kan, M. Lau, *pers. comm.*); Vulnerable (A1c) in Taiwan (T. Chen, *pers. comm.*); Vulnerable in the southern Ryukyus, Japan (Yasukawa et al., in press). Captive breeding for commercial sale occurs on Chinese turtle farms (Shi and Parham, 2001). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000; Artner and Hofer, 2001), Shanghai, northern China (WCS and China CITES, 2000), Hong Kong (Lau et al., 2000), and Taiwan (Chen et al., 2000).

CITES Proposal: No change.

***Mauremys pritchardi* (McCord, 1998)
(Pritchard's pond turtle)**

Distribution: China, Myanmar?

Taxonomy: No subspecies. Possible hybrid from Chinese turtle farms (Artner et al., 1998; Aoki, in Fritz and Obst, 1999).

IUCN 2002 Red List: Data Deficient.

CITES: Not listed.

Status, Threats, and Trade: No field or trade data available.

CITES Proposal: No change.

***Melanochelys tricarinata* (Blyth, 1856)
(Tricarinate hill turtle)**

Distribution: Bangladesh, India, Nepal.

Taxonomy: No subspecies.

IUCN 2002 Red List: Vulnerable (B1+2c).

CITES: Appendix I.

Status, Threats, and Trade: Endangered in Bangladesh and Nepal, but only Lower Risk, least concern (CAMP/BCPP) to currently Vulnerable in India, its main range state. Shells traded as curio masks from Nepal (Mitchell and Rhodin, 1996).

CITES Proposal: Consider downlisting to Appendix II.

***Melanochelys trijuga* (Schweigger, 1812)**
(Indian black turtle)

Distribution: Bangladesh, India, Maldives, Myanmar, Nepal, Sri Lanka, Thailand?

Taxonomy: Six subspecies: *M. t. trijuga* (Indian black turtle), *M. t. coronata* (Anderson, 1878) (Cochin black turtle), *M. t. edeniana* (Theobald, 1876) (Burmese black turtle), *M. t. indopeninsularis* (Annandale, 1913) (Bengal black turtle), *M. t. parkeri* (Deraniyagala, 1939) (Parker=s black turtle), and *M. t. thermalis* (Lesson, 1830) (Sri Lanka black turtle). Includes *M. t. wiroti* (Reimann *in* Nutaphand, 1979) in synonymy.

IUCN 2002 Red List: Lower Risk, near threatened.

CITES: Not listed.

Status, Threats, and Trade: Endangered in Bangladesh (*M. t. indopeninsularis*). Population in Myanmar (*M. t. edeniana*) Data Deficient but presumed Vulnerable or Endangered, trade recorded from Myanmar to China. Common in India and Nepal, where local trade occurs. The CAMP/BCPP evaluations considered the subspecies *M. t. trijuga* as Lower Risk, least concern, *M. t. coronata* as Vulnerable, Indian population of *M. t. indopeninsularis* as Lower Risk, near threatened, and Indian population of *M. t. thermalis* as Endangered. No data are available for Sri Lanka, and overall the species is considered fairly secure. Moderate trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Shells traded as curio masks from Nepal (Mitchell and Rhodin, 1996). Recorded in turtle markets of Guangzhou, southern China (Artner and Hofer, 2001).

CITES Proposal: No change.

***Morenia ocellata* (Duméril and Bibron, 1835)**
(Burmese eyed turtle)

Distribution: Myanmar.

Taxonomy: No subspecies.

IUCN 2002 Red List: Vulnerable (A1d+2d).

CITES: Appendix I.

Status, Threats, and Trade: Species probably already Endangered as a result of trade utilization. Chinese food market turnover was 10 tons per day during peak season in 1996B97, but then disappeared from markets in 1998 (B. Chan, R. Kan, *pers. comm.*). Significant trade has occurred across the border from Myanmar to China (Kuchling, 1995). Traded widely in Myanmar, including export to China (Platt et al., 2000). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Lau and Shi, 2000; Artner and Hofer, 2001) and Taiwan (Chen et al., 2000).

CITES Proposal: No change.

***Morenia petersi* (Anderson, 1879)**
(Indian eyed turtle)

Distribution: Bangladesh, India.

Taxonomy: No subspecies.

IUCN 2002 Red List: Vulnerable (A1cd+2cd).

CITES: Not listed.

Status, Threats, and Trade: Vulnerable in Bangladesh, where it is the most commonly traded species; also Lower Risk, near threatened or Vulnerable in India. Traded in huge numbers in Bangladesh (Rashid and Khan, 2000). In Chinese food markets, supply reached peaks of 30 tons per day in 1996B97, but disappeared from markets by 1998 (B. Chan, R. Kan, *pers. comm.*). Trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Lau and Shi, 2000).

CITES Proposal: Consider listing on Appendix II.

***Notochelys platynota* (Gray, 1834a)
(Malayan flat-shelled turtle)**

Distribution: Brunei, Indonesia, Malaysia, Myanmar?, Singapore, Thailand.

Taxonomy: No subspecies.

IUCN 2002 Red List: Vulnerable (A1cd+2cd).

CITES: Not listed.

Status, Threats, and Trade: In Indonesia, declined from extremely common in late 1980s to reasonably common at present. In Malaysia, trade volume has increased while habitat has decreased. In Thailand considered at least Vulnerable (OEPP, 1997). Traded in Chinese food markets in 1999 at levels of 2B3 tons per day (B. Chan, R. Kan, *pers. comm.*), after proportionally very high mortality during transport. Moderate trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Exported in moderate numbers from Sumatra, Indonesia (Shepherd, 2000) and Malaysia (Sharma and Tisen, 2000). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Lau and Shi, 2000; Artner and Hofer, 2001) and Hong Kong (Lau et al., 2000).

CITES Proposal: Consider listing on Appendix II.

***Ocadia glyphistoma* (McCord and Iverson, 1994)
(Notch-mouthed stripe-necked turtle)**

Distribution: China.

Taxonomy: No subspecies. Possible hybrid from Chinese turtle farms.

IUCN 2002 Red List: Data Deficient.

CITES: Not listed.

Status, Threats, and Trade: No field or trade data available.

CITES Proposal: No change.

***Ocadia philippeni* (McCord and Iverson, 1992)
(Philippen's stripe-necked turtle)**

Distribution: China.

Taxonomy: No subspecies. Possible hybrid from Chinese turtle farms.

IUCN 2002 Red List: Data Deficient.

CITES: Not listed.

Status, Threats, and Trade: No field or trade data available. The species was not found at its purported type locality in Hainan (de Bruin and Artner, 1999).

CITES Proposal: No change.

***Ocadia sinensis* (Gray, 1834a)
(Chinese stripe-necked turtle)**

Distribution: China, Taiwan, Vietnam.

Taxonomy: No subspecies.

IUCN 2002 Red List: Endangered (A1cd).

CITES: Not listed.

Status, Threats, and Trade: Endangered in mainland China (greatest part of range); modest population in Vietnam is Vulnerable; population on Taiwan (which possibly represents a separate taxon) is Lower Risk, least concern and is farmed for food markets and pet trade in substantial numbers (T. Chen, *pers. comm.*; Chen et al., 2000). Trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Captive breeding for commercial sale also occurs on Chinese turtle farms (Shi and Parham, 2001). Recorded in turtle markets of Shanghai, northern China (WCS and China CITES, 2000), Guangzhou, southern China (Lau and Shi, 2000; Artner and Hofer, 2001), and Hong Kong (Lau et al., 2000).

CITES Proposal: Consider listing on Appendix II but with facilitation of permitting for food trade in commercial breeding stocks from turtle farms.

***Orlitia borneensis* (Gray, 1873c)
(Malaysian giant turtle)**

Distribution: Indonesia, Malaysia.

Taxonomy: No subspecies.

IUCN 2002 Red List: Endangered (A1cd+2cd).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Vulnerable (A2cd) in peninsular Malaysia, status in Sarawak unknown; Endangered in Indonesia and exported in large quantities despite official protection. Huge trade to China (tons per month) from exporters in Sumatra, Indonesia (Shepherd, 2000). Exported in huge numbers from Malaysia (Sharma and Tisen, 2000). Traded in Chinese food markets in huge numbers of animals of all sizes (B. Chan, R. Kan, M. Lau, *pers. comm.*). Heavy trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Lau and Shi, 2000; Artner and Hofer, 2001) and Shanghai, northern China (WCS and China CITES, 2000).

CITES Proposal: No change.

***Pyxidea mouhotii* (Gray, 1862)
(Keel box turtle)**

Distribution: China, India, Laos, Myanmar, Vietnam.

Taxonomy: Two subspecies: *P. m. mouhotii* (Common keeled box turtle) and *P. m. obsti* (Fritz, Andreas, and Lehr, 1998) (Obst=s keeled box turtle).

IUCN 2002 Red List: Endangered (A1d+2d).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Endangered in each of its range states, though only considered Lower Risk, near threatened in the CAMP/BCPP evaluations in India. Moderate degree of illegal international trade occurs from Vietnam (Hendrie, 2000). Traded occasionally in Myanmar, including export to China (Platt et al., 2000). Trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Lau and Shi, 2000; Artner and Hofer,

2001), Hong Kong (Lau et al., 2000), and Taiwan (Chen et al., 2000). Captive breeding for commercial sale occurs on Chinese turtle farms (Shi and Parham, 2001).

CITES Proposal: No change.

***Sacalia bealei* (Gray, 1831b)
(Beal's eyed turtle)**

Distribution: China, Hong Kong.

Taxonomy: No subspecies. Some authors include *S. quadriocellata* in the synonymy of this species.

IUCN 2002 Red List: Endangered (A1d+2d).

CITES: Not listed.

Status, Threats, and Trade: Uncommon and declining in its restricted range; formerly common in trade, now rare.

CITES Proposal: Consider listing on Appendix II.

***Sacalia pseudocellata* (Iverson and McCord, 1992a)
(Chinese false-eyed turtle)**

Distribution: China.

Taxonomy: No subspecies. Possible hybrid from Chinese turtle farms.

IUCN 2002 Red List: Data Deficient.

CITES: Not listed.

Status, Threats, and Trade: No field or trade data available. The species was not found at its purported type locality in Hainan (de Bruin and Artner, 1999).

CITES Proposal: No change.

***Sacalia quadriocellata* (Siebenrock, 1903a)
(Four-eyed turtle)**

Distribution: China, Laos, Vietnam.

Taxonomy: No subspecies. Some authors include this species in the synonymy of *S. bealei*.

IUCN 2002 Red List: Endangered (A1d+2d).

CITES: Not listed.

Status, Threats, and Trade: Endangered in China; modest to small populations in Laos and Vietnam considered Vulnerable. Recorded in food trade in China. Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Lau and Shi, 2000; Artner and Hofer, 2001) and Shanghai, northern China (WCS and China CITES, 2000). Captive breeding for commercial sale occurs on Chinese turtle farms (Shi and Parham, 2001).

CITES Proposal: Consider listing on Appendix II.

***Siebenrockiella crassicollis* (Gray, 1831b)
(Black marsh turtle)**

Distribution: Cambodia, Indonesia, Malaysia, Myanmar, Singapore, Thailand, Vietnam.

Taxonomy: No subspecies.

IUCN 2002 Red List: Vulnerable (A1cd+2cd).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Endangered in Cambodia and Vietnam mainly due to direct exploitation, Vulnerable in Indonesia, Malaysia, and Thailand due to both exploitation and habitat conversion and loss (though not listed in 1997 OEPP Red List for Thailand). Official records of 135,000 animals exported from Malaysia in the first 10 months of 1999 (D. Sharma, *pers. comm.*). Exported in large numbers from Sumatra, Indonesia (Shepherd, 2000). Traded illegally for export from Thailand (van Dijk and Palasuwan, 2000). Exported in huge numbers from Malaysia (Sharma and Tisen, 2000). Heavy trade recorded in markets in Hainan, China (de Bruin and Artner, 1999) and Taiwan (Chen et al., 2000). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Lau and Shi, 2000; Artner and Hofer, 2001).

CITES Proposal: No change.

Family Carettochelyidae

***Carettochelys insculpta* (Ramsay, 1886) (Pig-nosed turtle)**

Distribution: Australia, Indonesia, Papua New Guinea.

Taxonomy: Two subspecies: *C. i. insculpta* (New Guinean pig-nosed turtle); *C. i. canni* (Australian pig-nosed turtle) (Wells, 2002). Only living survivor of an ancient and previously widespread family of extinct turtles. Morphologically unique as the only extant freshwater turtle with marine-type flippers.

IUCN 2002 Red List: Vulnerable (A1bd).

CITES: Not listed.

Status, Threats, and Trade: Hatchlings exported illegally in huge numbers (hundreds of thousands to millions annually) for the international pet trade from southern Irian Jaya (Propinsi Papua) in Indonesia where a whole village-based egg harvesting and hatchling ranching industry exploiting the species has developed (Maturbongs, 2000; Samedi and Iskandar, 2000; TRAFFIC Oceania and TRAFFIC Southeast Asia, 2002; J. Compton, TRAFFIC, *pers. comm.*); sold extensively in pet shops all over Asia, notably Malaysia and Hong Kong (A. Rhodin, CRF, and others, *pers. obs.*), commonly confiscated in the USA when imported illegally for the pet trade (B. Weissgold, USFWS, *pers. comm.*); heavily exploited and locally consumed (eggs and adults) in Papua New Guinea (Georges and Rose, 1993; Rhodin and Genorupa, 2000); endangered by habitat loss and degradation in Australia (Georges and Rose, 1993) as well as planned development (A. Georges, *pers. comm.*). Not yet a major component in the Asian adult live animal food trade, but trading routes established for hatchlings into the international pet trade easily convertible as food market sources elsewhere collapse due to overharvesting.

CITES Proposal: Consider listing on Appendix II.

Family Chelidae

***Chelodina mccordi* (Rhodin, 1994b) (Roti snake-necked turtle)**

Distribution: Indonesia.

Taxonomy: No subspecies.

IUCN 2002 Red List: Critically Endangered (A1d, B1+2e).

CITES: Not listed.

Status, Threats, and Trade: Restricted to only 3 separate small populations on a single small island (Roti, Indonesia); total area of occupancy less than 70 km² (Rhodin, 1996). Collected exclusively for the international pet trade, where it commands high prices due to its status as a distinct, restricted-range endemic; now considered commercially extinct by Indonesia traders (Samedi and Iskandar, 2000; Rhodin

and Genorupa, 2000). A few specimens occasionally still seen in the pet trade (C. Shepherd, TRAFFIC, pers. comm.). Could easily become Extinct in the wild; captive breeding offers some survival potential.

CITES Proposal: Consider listing on Appendix I or on Appendix II and establishing a zero quota for exports from the wild.

***Chelodina novaeguineae* (Boulenger, 1888a)**
(New Guinea snake-necked turtle)

Distribution: Australia, Indonesia, Papua New Guinea.

Taxonomy: No subspecies. Australian populations are considered taxonomically distinct (McCord and Thomson, in press).

IUCN 2002 Red List: Lower Risk, least concern.

CITES: Not listed.

Status, Threats, and Trade: Local consumption occurs to a minor degree in Papua New Guinea, and some animals enter the international pet trade (Rhodin and Genorupa, 2000).

CITES Proposal: Consider listing on Appendix II with *Chelodina* spp. for look-alike reasons.

***Chelodina parkeri* (Rhodin and Mittermeier, 1976)**
(Parker's snake-necked turtle)

Distribution: Indonesia, Papua New Guinea.

Taxonomy: No subspecies.

IUCN 2002 Red List: Vulnerable (D2).

CITES: Not listed.

Status, Threats, and Trade: International pet trade in this attractive species has led to illegal trade from Papua New Guinea to Indonesian export centers and western pet markets (Rhodin and Genorupa, 2000). Some legal trade occurs from Irian Jaya in Indonesia (Samedi and Iskandar, 2000). Adults in the pet trade retail for about \$750 each on the internet in the USA (Salzberg, 2001).

CITES Proposal: Consider listing on Appendix II.

***Chelodina pritchardi* (Rhodin, 1994a)**
(Pritchard's snake-necked turtle)

Distribution: Papua New Guinea.

Taxonomy: No subspecies.

IUCN 2002 Red List: Endangered (B1+2e).

CITES: Not listed.

Status, Threats, and Trade: The species is the only endemic turtle in Papua New Guinea and restricted to a small range close to an urban center. It is illegally exported to the international pet market where it commands high prices due to its status as a distinct, restricted-range endemic (Rhodin and Genorupa, 2000).

CITES Proposal: Consider listing on Appendix II.

***Chelodina reimanni* (Philippen and Grossman, 1990)**
(Reimann's snake-necked turtle)

Distribution: Indonesia, Papua New Guinea?

Taxonomy: No subspecies.

IUCN 2002 Red List: Lower Risk, near threatened.

CITES: Not listed.

Status, Threats, and Trade: The international pet trade has placed some pressure on this restricted-range species, with limited legal trade occurring from Irian Jaya in Indonesia (Samedi and Iskandar, 2000).

CITES Proposal: Consider listing on Appendix II with *Chelodina* spp. for look-alike reasons.

***Chelodina siebenrocki* (Werner, 1901b)**
(Siebenrock's snake-necked turtle)

Distribution: Indonesia, Papua New Guinea.

Taxonomy: No subspecies. May be synonymous with Australian *C. rugosa* (Ogilby, 1890) (Rhodin and Mittermeier, 1976).

IUCN 2002 Red List: Lower Risk, near threatened.

CITES: Not listed.

Status, Threats, and Trade: The international pet trade has placed some pressure on this restricted-range species, especially in Indonesia (Samedi and Iskandar, 2000); there is also some local consumption in Papua New Guinea, where it does not appear to be seriously threatened at this time (Rhodin and Genorupa, 2000). More recently, large numbers of hatchlings of this species have begun entering the international pet trade in conjunction with the massive trade in hatchling *Carettochelys insculpta* coming out of Irian Jaya (Propinsi Papua) in Indonesia (A. Rhodin, CRF, and others, *pers. obs.*).

CITES Proposal: Consider listing on Appendix II.

***Elseya branderhorstii* (Ouwens, 1914)**
(White-bellied snapping turtle)

Distribution: Indonesia, Papua New Guinea.

Taxonomy: No subspecies. Previously synonymized with *E. novaeguineae*. Populations in Papua New Guinea are taxonomically distinct (Rhodin and Genorupa, 2000).

IUCN 2002 Red List: Vulnerable (B1+2e).

CITES: Not listed.

Status, Threats, and Trade: Relatively restricted range in southern New Guinea; traded for local consumption and the international pet trade (Samedi and Iskandar, 2000; Rhodin and Genorupa, 2000).

CITES Proposal: No change.

***Elseya novaeguineae* (Meyer, 1874)**
(New Guinea snapping turtle)

Distribution: Indonesia, Papua New Guinea.

Taxonomy: No subspecies. Previously included *E. branderhorstii* in synonymy. Includes *E. schultzei* (Vogt, 1911) in synonymy. Some populations are taxonomically distinct (Rhodin and Genorupa, 2000).

IUCN 2002 Red List: Lower Risk, least concern.

CITES: Not listed.

Status, Threats, and Trade: Abundant species in northern New Guinea, heavily exploited in Papua New Guinea for local consumption and local trade, with shells being utilized for the international curio trade; not presently at risk, but a few shipments of illegal animals appearing in the Chinese food trade suggest possible future threat (Rhodin and Genorupa, 2000). Some legal trade occurs from Irian Jaya in Indonesia (Samedi and Iskandar, 2000).

CITES Proposal: No change.

***Emydura subglobosa* (Krefft, 1876)
(Red-bellied short-necked turtle)**

Distribution: Australia, Indonesia, Papua New Guinea.

Taxonomy: No subspecies. Includes *E. albertisii* (Boulenger, 1888) in synonymy.

IUCN 2002 Red List: Lower Risk, least concern.

CITES: Not listed.

Status, Threats, and Trade: Abundant species in southern New Guinea, exploited in Papua New Guinea for local consumption and local trade (Rhodin and Genorupa, 2000), with some trade emanating from Indonesia for international pet markets (Samedi and Iskandar, 2000), but most of the current pet trade demand appears to be satisfied by captive breeding in Europe. Population in Australia very restricted and isolated.

CITES Proposal: No change.

Family Platysternidae

***Platysternon megacephalum* (Gray, 1831c)
(Big-headed turtle)**

Distribution: China, Hong Kong, Laos, Myanmar, Thailand, Vietnam.

Taxonomy: Five subspecies: *P. m. megacephalum* (Chinese big-headed turtle), *P. m. peguense* (Gray, 1870c) (Burmese big-headed turtle), *P. m. shiui* (Ernst and McCord, 1987) (Vietnamese big-headed turtle), *P. m. tristernalis* (Schleich and Gruber, 1984) (Yunnan big-headed turtle), and *P. m. vogeli* (Wermuth, 1969) (Thailand big-headed turtle). Only living species of an ancient family of extinct turtles.

IUCN 2002 Red List: Endangered (A1d+2d).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Endangered due to specific trade demand in Laos and Vietnam; either Vulnerable or Endangered in China (main range state); small populations in Thailand are Vulnerable (OEPP, 1997); situation in Myanmar is Data Deficient. Occurs frequently in international trade from Laos (Stuart and Timmins, 2000). Moderate degree of illegal international trade occurs from Vietnam (Hendrie, 2000). Recorded in food trade in China (Lau and Shi, 2000) and food and pet trade in Hong Kong (Lau et al., 2000). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Lau and Shi, 2000; Artner and Hofer, 2001), Shanghai, northern China (WCS and China CITES, 2000), and Hong Kong (Lau et al., 2000). Captive breeding for commercial sale occurs on Chinese turtle farms (Shi and Parham, 2001).

CITES Proposal: No change.

Family Testudinidae

***Indotestudo forstenii* (Schlegel and Müller, 1844)
(Sulawesi tortoise)**

Distribution: Indonesia.

Taxonomy: No subspecies. Previously included *I. travancorica* in synonymy, but recently separated (Pritchard, 2000).

IUCN 2002 Red List: Endangered (A1cd+2cd).

CITES: Appendix II.

Status, Threats, and Trade: Extremely limited distribution in Sulawesi (Platt et al., 2001a). Animals occur in substantial numbers in both the food and pet trade. Total exports reported by all Parties to CITES Secretariat from 1985 to 1998 was 5,263 live animals (Compton, 2000). Indonesia had an export quota of 450 live animals in 2000 (CITES, 2001).

CITES Proposal: Consider uplisting to Appendix I or establishing a zero quota for exports from the wild.

***Indotestudo travancorica* (Boulenger, 1907)
(Travancore tortoise)**

Distribution: India.

Taxonomy: No subspecies. Previously synonymized with *I. forstenii*, but recently resurrected as a full species (Pritchard, 2000).

IUCN 2002 Red List: Vulnerable (A1cd).

CITES: Appendix II.

Status, Threats, and Trade: Assessed as Lower Risk, near threatened in the CAMP/BCPP workshops and as Vulnerable by the Indian delegates at the Cambodia Workshop.

CITES Proposal: Consider uplisting to Appendix I or establishing a zero quota for exports from the wild, primarily due to similarity in appearance to *I. elongata* and *I. forstenii*.

***Manouria emys* (Schlegel and Müller, 1844)
(Asian brown tortoise)**

Distribution: Bangladesh, Cambodia?, China?, India, Indonesia, Malaysia, Myanmar, Thailand.

Taxonomy: Two subspecies: *M. e. emys* (Asian brown tortoise) and *M. e. phayrei* (Blyth, 1853) (Burmese black tortoise).

IUCN 2002 Red List: Endangered (A1cd+2cd).

CITES: Appendix II.

Status, Threats, and Trade: Populations of the southern subspecies *M. e. emys* were considered Endangered in Indonesia and Vulnerable in Thailand (OEPP, 1997) and peninsular Malaysia, and Data Deficient for Sarawak and Sabah; populations of the northern subspecies *M. e. phayrei* were considered Critically Endangered in Bangladesh and Endangered in India (after an earlier CAMP/BCPP assessment as Vulnerable), Myanmar, and Thailand. Total exports reported by all Parties to CITES Secretariat from 1985 to 1998 was 8,109 live animals (Compton, 2000). Indonesia and Malaysia had export quotas of 450 and 200 live animals, respectively, in 2000 (CITES, 2001). Exported in moderate numbers from Sumatra, Indonesia (Shepherd, 2000). Trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000) and Taiwan (Chen et al., 2000).

CITES Proposal: Consider uplisting to Appendix I or establishing a zero quota for exports from the wild.

***Manouria impressa* (Günther, 1882)
(Impressed tortoise)**

Distribution: Cambodia?, China, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Taxonomy: No subspecies.

IUCN 2002 Red List: Vulnerable (A1acd, B1+2acd).

CITES: Appendix II.

Status, Threats, and Trade: Listed as Endangered in Thailand (OEPP, 1997); considered Vulnerable in Laos and Vietnam. Total exports reported by all Parties to CITES Secretariat from 1985 to 1998 was 1,881 live animals (Compton, 2000). Occurs in illegal international trade from Laos (Stuart and Timmins, 2000) and Vietnam (Hendrie, 2000). Trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000; Artner and Hofer, 2001), Shanghai, northern China (WCS and China CITES, 2000), and Taiwan (Chen et al., 2000).

CITES Proposal: No change.

***Testudo horsfieldii* (Gray, 1844)
(Central Asian tortoise)**

Distribution: Afghanistan, China, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkmenistan, Uzbekistan.

Taxonomy: Three subspecies: *T. h. horsfieldii* (Central Asian tortoise), *T. h. kazachstanica* (Chkhikvadze, 1988) (Kazakhstan tortoise), and *T. h. rustamovi* (Chkhikvadze, Amiranashvili, and Ataev, 1990) (Kopet-Dag tortoise).

IUCN 2002 Red List: Vulnerable (A2d).

CITES: Appendix II.

Status, Threats, and Trade: The species is considered Endangered in China, where the species has declined (Shi Haitao, *pers. comm.*). In the early 1960s, the average density was more than 4000 per km² and the distribution area was 300 km². In the early 1980s, the average density was only 60 per km²; the distribution area was 270 km²; in the early 1990s, the average density was only 6 per km²; the practical distribution area was 180 km². Severe declines of density in Kazakhstan have also been recorded (high-density sites declining from 15,000B20,000 per km² in 1956 to 1070B1510 per km² in 1988) (Shi Haitao, *pers. comm.*). Kazakhstan and Uzbekistan had export quotas of 39,000 and 35,000 live animals, respectively, in 2000 (CITES, 2001). Huge trade occurs in pet trade animals primarily from Kazakhstan to Europe (Luijff, 1997).

CITES Proposal: No change.

Family Trionychidae

***Amyda cartilaginea* (Boddaert, 1770)
(Asiatic softshell turtle)**

Distribution: Brunei, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Singapore, Thailand, Vietnam.

Taxonomy: No subspecies. Previously in the genus *Trionyx*. Includes *T. nakornsrihammarajensis* (Nutaphand, 1979) in synonymy.

IUCN 2002 Red List: Vulnerable (A1cd+2cd).

CITES: Not listed.

Status, Threats, and Trade: Relative security of wide distribution and occurrence in some protected areas offset by specific demand for the species in the food trade, currently traded at levels of tons per day. Not listed in Thailand 1997 OEPP Red List. Traded widely in India (Choudhury et al., 2000) and Myanmar (Platt et al., 2000). Moderate trade in Thailand, including illegal export (van Dijk and Palasuwan, 2000). Exported in large numbers from Sumatra, Indonesia (Shepherd, 2000) and Malaysia (Sharma and Tisen, 2000).

Heavy trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Recorded in turtle markets of Guangzhou, southern China (Lau and Shi, 2000; Artner and Hofer, 2001).

CITES Proposal: Consider listing on Appendix II.

***Aspideretes gangeticus* (Cuvier, 1825)**
(Indian softshell turtle)

Distribution: Bangladesh, India, Nepal, Pakistan.

Taxonomy: No subspecies. Previously in the genus *Trionyx*.

IUCN 2002 Red List: Vulnerable (A1d+2d).

CITES: Appendix II.

Status, Threats, and Trade: Endangered in Bangladesh and Vulnerable in India, its main range state; previously traded in Chinese markets at volumes of 30B40 tons per week. Exported in huge numbers from Bangladesh with very high volumes 10B20 years ago, now greatly reduced (Rashid and Khan, 2000). Traded widely in India, including illegal export (Choudhury et al., 2000). Shells traded as curio masks from Nepal (Mitchell and Rhodin, 1996). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000).

CITES Proposal: No change.

***Aspideretes hurum* (Gray, 1831a)**
(Indian peacock softshell turtle)

Distribution: Bangladesh, India.

Taxonomy: No subspecies. Previously in the genus *Trionyx*.

IUCN 2002 Red List: Vulnerable (A1cd+2d).

CITES: Not listed.

Status, Threats, and Trade: Endangered in Bangladesh and Lower Risk, near threatened to Vulnerable in India, its main range state; previously traded in Chinese markets at volumes of 60B80 tons per week. Exported in huge numbers from Bangladesh (Rashid and Khan, 2000). Traded widely in India, including illegal export (Choudhury et al., 2000). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000).

CITES Proposal: Consider listing on Appendix II.

***Aspideretes leithii* (Gray, 1872c)**
(Leith's softshell turtle)

Distribution: India.

Taxonomy: No subspecies. Previously in the genus *Trionyx*.

IUCN 2002 Red List: Vulnerable (A1c).

CITES: Not listed.

Status, Threats, and Trade: Distribution range reduced in India due to river alteration and other habitat impacts. Traded widely in India (Choudhury et al., 2000). Possible food trade to China.

CITES Proposal: Consider listing on Appendix II due to similar appearance to *A. gangeticus* and *A. hurum*.

***Aspideretes nigricans* (Anderson, 1875)**
(Black softshell turtle; Bostami turtle)

Distribution: Bangladesh.

Taxonomy: No subspecies. Previously in the genus *Trionyx*.

IUCN 2002 Red List: Extinct in the Wild.

CITES: Appendix I.

Status, Threats, and Trade: Restricted to a single artificial temple pond at Chittagong. Recent field work suggests that natural populations may remain extant. No known trade.

CITES Proposal: No change.

***Chitra chitra* (Nutaphand, 1986)
(Southeast Asian narrow-headed softshell turtle)**

Distribution: Indonesia, Malaysia?, Myanmar, Thailand.

Taxonomy: No subspecies.

IUCN 2002 Red List: Critically Endangered (A1cd+2d).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Populations in Thailand depleted and in severe decline (van Dijk and Palasuwan, 2000). Recent discovery of occurrence in Java offset by intensive exploitation of that population for food and pet trade. In addition, Javan population may not be taxonomically identical to Thai species. Listed in 1997 OEPP Red List for Thailand as Critically Endangered. Moderate trade in Thailand, including illegal export for the pet trade, mainly to Japan (van Dijk and Palasuwan, 2000). Recorded in turtle markets of Guangzhou, southern China (Artnr and Hofer, 2001).

CITES Proposal: Consider listing on Appendix I or establishing a zero quota for exports from the wild.

***Chitra indica* (Gray, 1831a)
(Indian narrow-headed softshell turtle)**

Distribution: Bangladesh, India, Myanmar, Pakistan.

Taxonomy: No subspecies.

IUCN 2002 Red List: Endangered (A1cd+2cd).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Critically Endangered in Bangladesh, uncommon (between Endangered and Vulnerable) in India; disappeared from Indian domestic trade in 1986B87. Previously exported in moderate numbers from Bangladesh, but now depleted (Rashid and Khan, 2000). Traded widely in India, including suspected illegal export (Choudhury et al., 2000).

CITES Proposal: No change.

***Dogania subplana* (Geoffroy Saint-Hilaire, 1809a)
(Malayan softshell turtle)**

Distribution: Brunei, Indonesia, Malaysia, Myanmar, Singapore, Thailand.

Taxonomy: No subspecies.

IUCN 2002 Red List: Lower Risk, least concern.

CITES: Not listed.

Status, Threats, and Trade: Locally common in Indonesia, Malaysia, and Thailand; habitat preference coincides with some major protected areas. Exported in some numbers from Indonesia and Malaysia, but this is the least favored softshell species in the food trade. Exported in large numbers from Sumatra, Indonesia (Shepherd, 2000). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Artner and Hofer, 2001).

CITES Proposal: No change.

***Lissemys punctata* (Bonnaterre, 1789)
(Indian flapshell turtle)**

Distribution: Bangladesh, India, Myanmar, Nepal, Pakistan, Sri Lanka.

Taxonomy: Two subspecies: *L. p. punctata* (Indian flapshell turtle) and *L. p. andersoni* (Webb, 1980) (Indo-Gangetic flapshell turtle). Previously also included *L. scutata* as a subspecies.

IUCN 2002 Red List: Lower Risk, least concern.

CITES: Appendix II.

Status, Threats, and Trade: The CAMP/BCPP evaluations considered the species Lower Risk, near threatened in India. The species has been proposed for captive breeding for food in villages in India, and is considered the most common turtle in the country (Whitaker, 1997). Traded widely in India as the most commonly occurring species in the trade; illegal export also occurs (Choudhury et al., 2000). Exported in huge numbers from Bangladesh (Rashid and Khan, 2000). Shells traded as curio masks from Nepal (Mitchell and Rhodin, 1996). Recorded in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000).

CITES Proposal: No change.

***Lissemys scutata* (Peters, 1868)
(Burmese flapshell turtle)**

Distribution: Myanmar, Thailand?

Taxonomy: No subspecies. Previously a subspecies of *L. punctata*.

IUCN 2002 Red List: Data Deficient.

CITES: Not listed.

Status, Threats, and Trade: Probably Vulnerable, but data on population status are completely lacking. Traded widely in Myanmar, including export to China (Platt et al, 2000). Traded in substantial numbers in Chinese food markets. Recorded in turtle markets of Guangzhou, southern China (Artner and Hofer, 2001).

CITES Proposal: Consider listing on Appendix II.

***Nilssonina formosa* (Gray, 1869a)
(Burmese peacock softshell turtle)**

Distribution: Myanmar.

Taxonomy: No subspecies. Previously in the genus *Trionyx*.

IUCN 2002 Red List: Endangered (A1cd+2d, B1+2ce).

CITES: Not listed.

Status, Threats, and Trade: Occurs in some numbers in the Chinese food trade; uncommon to rare in the wild. Traded moderately in Myanmar, including export to China (Platt et al, 2000). Recorded in turtle markets of Guangzhou, southern China (Lau and Shi, 2000; Artner and Hofer, 2001).

CITES Proposal: Consider listing on Appendix II.

***Palea steindachneri* (Siebenrock, 1906b)
(Wattle-necked softshell turtle)**

Distribution: China, Vietnam, [Introduced in Mauritius, U.S.A. (Hawaii)].

Taxonomy: No subspecies. Previously in the genus *Trionyx*.

IUCN 2002 Red List: Endangered (A1cd+2cd).

CITES: Not listed.

Status, Threats, and Trade: Endangered in both natural range states; highly valuable in food trade. Security of introduced populations critical for survival of species. Captive breeding for commercial sale occurs on Chinese turtle farms (Shi and Parham, 2001). Recorded in turtle markets of Guangzhou, southern China (Lau and Shi, 2000; Artner and Hofer, 2001).

CITES Proposal: Consider listing on Appendix II.

***Pelochelys bibroni* (Owen, 1853)
(New Guinea giant softshell turtle)**

Distribution: Indonesia, Papua New Guinea.

Taxonomy: No subspecies. Previously included *P. cantorii* in synonymy; evaluated by Rhodin et al. (1993), redescribed and restricted by Webb (1995).

IUCN 2002 Red List: Vulnerable (A1cd+2cd).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Restricted to southern lowlands of Irian Jaya and Papua New Guinea. Local food trade for meat and eggs occurs in Papua New Guinea (Rhodin and Genorupa, 2000). No known international trade.

CITES Proposal: No change.

***Pelochelys cantorii* (Gray, 1864)
(Asian giant softshell turtle)**

Distribution: Bangladesh, Cambodia, China, India, Indonesia, Laos?, Malaysia, Myanmar, Papua New Guinea, Philippines, Thailand, Vietnam.

Taxonomy: No subspecies. Previously a synonym of *P. bibroni*. Includes *P. cumingii* (Gray, 1864) in synonymy.

IUCN 2002 Red List: Endangered (A1cd+2cd).

CITES: Appendix II (listed in 2002).

Status, Threats, and Trade: Critically Endangered in Cambodia, China, Laos, Vietnam, and Critically Endangered or Endangered (OEPP, 1997) in Thailand due to direct exploitation and habitat loss. The CAMP/BCPP evaluations considered the species Lower Risk, near threatened in India. In Bangladesh found in all markets in coastal areas during market surveys. Vulnerable (A1cd+2cd) in peninsular Malaysia; Vulnerable in Papua New Guinea but may represent a separate taxon; Data Deficient in Indonesia, presumed Vulnerable or Endangered and traded at low but steady levels; situation in Philippines is Data Deficient but presumed Endangered or Critically Endangered. Conservation assessment complicated by the conviction that the current taxonomic designation hides a complex of several different species. Traded in moderate numbers in Bangladesh (Rashid and Khan, 2000). Traded moderately in India, including suspected illegal export (Choudhury et al., 2000). Exported in moderate numbers from Sumatra, Indonesia

(Shepherd, 2000) and Malaysia (Sharma and Tisen, 2000). Shells traded as curio masks from Papua New Guinea (Rhodin et al., 1993; Rhodin and Genorupa, 2000).

CITES Proposal: No change.

***Pelodiscus sinensis* (Wiegmann, 1835)
(Chinese softshell turtle)**

Distribution: China, Japan, Hong Kong, Korea, Taiwan, Vietnam, [Introduced in Thailand, U.S.A. (Hawaii)].

Taxonomy: No subspecies. Previously in the genus *Trionyx*.

IUCN 2002 Red List: Vulnerable (A1d+2d).

CITES: Not listed.

Status, Threats, and Trade: While this species is commercially farmed in vast numbers (several millions per year) for the food trade, the wild populations continue to be exploited for food and possibly farm founder stock, resulting in a decline in abundance throughout its wide range. The IUCN category status assessment was made with respect to natural populations only. The taxonomic and genetic diversity of the taxon (several component species have been described or resurrected in recent years, but none are currently accepted) have been confused and compromised by the mixing of animals of different origin in farms, and the escape of farmed animals into wild populations. Exported in huge numbers from turtle farms in Malaysia (Sharma and Tisen, 2000) and Thailand (van Dijk and Palasuwan, 2000). Captive breeding for commercial sale also occurs on Chinese turtle farms (Lau and Shi, 2000; Shi and Parham, 2001). Heavy trade recorded in markets in Hainan, China (de Bruin and Artner, 1999). Recorded in huge quantities in turtle markets of Guangzhou and Shenzhen, southern China (McCord, 1997; Salzberg, 1998; Lau and Shi, 2000; Artner and Hofer, 2001) and Hong Kong (Lau et al., 2000).

CITES Proposal: Consider listing on Appendix II but with facilitation of permitting for food trade in commercial breeding stocks from turtle farms.

***Rafetus swinhoei* (Gray, 1873f)
(Shanghai softshell turtle)**

Distribution: China, Vietnam.

Taxonomy: No subspecies. Previously in the genus *Trionyx*. The Vietnam population may represent a separate species (Ha Dinh Duc, *pers. comm.*; Hendrie, 2000).

IUCN 2002 Red List: Critically Endangered (A1cd+2cd).

CITES: Not listed.

Status, Threats, and Trade: Only confirmed areas of occurrence seriously impacted by pollution; animals intensively exploited for food trade and would be for pet trade if captured alive. Some illegal trade occurs in Vietnam (Hendrie, 2000). The Vietnam population is severely depleted, occurring primarily in an artificial lake (Hoan Kiem) in urban Hanoi (Pritchard, 2001).

CITES Proposal: Consider listing on Appendix I or on Appendix II and establishing a zero quota for exports from the wild.

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