

Proposal: Part A): Inclusion of the following taxa of the Family Geoemydidae in Appendix II: *Cyclemys* spp., *Geoemyda japonica*, *G. spengleri*, *Hardella thurjii*, *Mauremys japonica*, *M. nigricans*, *Melanochelys trijuga*, *Morenia petersi*, *Sacalia bealei*, *S. quadriocellata*, and *Vijayachelys silvatica*

Part B): Zero quota on wild specimens for commercial purposes for the following taxa already listed in Appendix II: *Batagur borneoensis*, *B. trivittata*, *Cuora aurocapitata*, *C. flavomarginata*, *C. galbinifrons*, *C. mccordi*, *C. mouhotii*, *C. pani*, *C. trifasciata*, *C. yunnanensis*, *C. zhoui*, *Heosemys annandalii*, *H. depressa*, *Mauremys annamensis*, and *Orlitia borneensis*

Proponent: China and the United States of America

Part A): Inclusion of the following taxa of the Family Geoemydidae in Appendix II: *Cyclemys* spp., *Geoemyda japonica*, *G. spengleri*, *Hardella thurjii*, *Mauremys japonica*, *M. nigricans*, *Melanochelys trijuga*, *Morenia petersi*, *Sacalia bealei*, *S. quadriocellata*, and *Vijayachelys silvatica*.

Summary: The proposal concerns Geoemydidae in Asia. The first part proposes to list 15 (or 17, depending on the species content of *Cyclemys*) species in Appendix II: four are currently in Appendix III (China) and the remainder are at present not listed in the CITES Appendices. The four Appendix III species now proposed for transfer to II are: *Geoemyda spengleri*, *Mauremys nigricans*, *Sacalia bealei*, and *S. quadriocellata*. The proposal would have the effect of listing essentially all valid Asian species of Geoemydidae in CITES except for two farmed species (*Mauremys reevesii* and *M. sinensis*).

About half the species proposed for addition in Appendix II are globally threatened according to the current IUCN Red List: six are classified as Endangered and two as Vulnerable. Of the remainder, three were assessed as Lower Risk/near threatened and the others were not evaluated. Recently the IUCN Tortoise and Freshwater Turtle Specialist Group has reviewed current listings and proposed some changes. Almost no quantitative information from assessment or monitoring studies of wild geoemydid populations is available. For most Asian turtle species in trade, population trends are inferred from the volume of trade and/or the relative availability of specimens in food and pet markets. It is widely held that exploited populations of Asian turtle species, including Geoemydidae, are in decline and field collectors typically report that more effort is required now to find a turtle than in the past.

Demand in eastern Asia, particularly in China, for turtles for food and medicinal use and for the live animal trade is very heavy, and there is a very large volume of international trade, some of it illegal. Use of turtles has a long tradition in eastern Asia and recent increase in demand has intensified collection pressure and is believed to have depleted or extirpated populations of most turtle species in the region. Turtles are vulnerable to overexploitation because of life history characteristics, including high longevity, late maturity and limited annual reproductive output. Collection and trade tend to shift in turn from one species to another as supply declines below commercial viability, or trade becomes better controlled. Species are nominally protected by law in many range countries but it is clear that high levels of illegal trade exist, with substantial cross-border movement between Southeast Asian countries and southern China. Few data on levels of international trade, even where species have been listed in Appendix III, are available. Legal trade in Appendix-III listed species as reported to CITES has been mainly at low level. Loss or degradation of habitat, caused by sand or gold mining, dam construction, drainage and pollution also affects many species. Local subsistence use is high in several areas.

Asian species in the family Geoemydidae are broadly similar in appearance and the ways they are used in international trade: as food, medicine, to supply farming and ranching operations and for pets. Because of these similarities, combined with their shared biological vulnerabilities, the proposal suggests these species warrant inclusion in CITES at a higher taxon level under Paragraph B of Annex 2 a to *Resolution Conf. 9.24 (Rev. CoP15)*.

Cyclemys atripons A poorly-known species with a relatively small range in adjoining parts of southwest Cambodia and southeast Thailand. Recently reported fairly common in Cambodia probably because it is not in much demand for food (unpalatable) or medicine, and is rarely traded. Red List status not assessed by IUCN.

Cyclemys dentata An inadequately known species quite widely distributed in Southeast Asia from southern peninsular Malaysia to the Philippines. Formerly regarded as locally common although reportedly heavily exploited for the food trade. Assessed in 2000 by IUCN as Lower Risk/near threatened. This, however, was before 2008 work on genetic diversity within the genus which led to recognition of three new species within the range of '*C. dentata*' *sensu lato*. Systematics and species taxonomy within the complex remain imperfectly resolved, and it is not always possible to determine which species is being referred to in pre-2008 literature.

Cyclemys enigmatica A poorly-known species occurring in Malaysia (West, Sabah, Sarawak) and Indonesia (Sumatra, Java, Kalimantan), probably also Brunei. Red List status not assessed by IUCN. See remarks under *C. dentata*.

Cyclemys fusca A poorly-known species centred in Myanmar, possibly extending to adjoining northeast India and Bangladesh. Red List status not assessed by IUCN. See remarks under *C. dentata*.

Cyclemys gemeli A poorly-known species occurring in Bangladesh, extreme northeast India and possibly Nepal. Red List status not assessed by IUCN. See remarks under *C. dentata*.

Cyclemys oldhamii Widespread in mainland Southeast Asia, from Myanmar to Viet Nam, possibly extending to southern China. Not well known. This was recently the turtle most commonly encountered in two areas in Cambodia, probably because it is not in much demand for food (unpalatable) or medicine, and is apparently rarely traded. Red List status not assessed by IUCN.

Cyclemys pulchristriata A poorly-known species with a relatively small range in adjoining parts of eastern Cambodia and Viet Nam. Recently said to be still fairly common in Cambodia, probably because it is not in much demand for food (unpalatable) or medicine, and is apparently rarely traded. Red List status not assessed by IUCN.

Cyclemys shanensis This species appears in the CITES standard taxonomy for chelonians but is no longer recognised, with populations divided among three new species, none of which is in the CITES standard list.

Geoemyda japonica Endemic to Japan. Subject to a separate proposal (CoP16 Prop. 34) for inclusion in Appendix II (with a zero annual export quota with primarily commercial purposes for wild-caught specimens). See separate analysis for details.

Geoemyda spengleri Occurs in southern China, northern Viet Nam, and recently reported in adjacent Lao PDR. Formerly said to be abundant in China but now reportedly rarely seen in the wild, except in very remote places, and in steep decline; also said to be the only turtle still present in many areas where all others had become extremely rare or had been extirpated. Relatively abundant in parts of northern Viet Nam, although large numbers are exported to markets in south China for live animal trade; excess collection appears to have caused decline in some populations. In the period 2004-2009, transactions reported to CITES indicate 1204/24 live specimens were imported/exported, mainly from China and Thailand. Assessed by IUCN as Endangered in 2000.

Hardella thurjii Present in the lower and middle reaches of the main river systems of the Indian subcontinent: Indus, Ganges, and Brahmaputra. Formerly not uncommon in Bangladesh and parts of India, but apparently rare in Nepal, status in Pakistan not known. Appears to have declined greatly in India and parts of

Bangladesh, probably because of the long-standing heavy exploitation for food, attributed to its large size and palatability. Also affected by drainage and water pollution. Assessed by IUCN as Vulnerable in 2000.

Mauremys japonica Endemic to Japan; widespread, known from Honshu, Shikoku, Kyushu and several smaller islands. Although often found at high density, many populations are thought to be depleted or in decline, mainly because of land-use changes, also affected by collection for pets and competition with the introduced *Trachemys*. Assessed by IUCN in 2000 as Lower Risk/near threatened.

Mauremys nigricans Present in southern China, and may extend into northern Viet Nam. Appears to have declined sharply over the last few decades, and has not been located in the wild for several years. Because it is rare and attractive it is much in demand and expensive in the pet trade. Unlike many other Asian turtles, this species is not widely consumed, nor used for medicine, because of its strong musk odour. Assessed by IUCN as Endangered in 2000.

Melanochelys trijuga Widespread over the Indian subcontinent, Sri Lanka and Myanmar, and just extends into the northwest margin of Thailand. Exists in good numbers in many parts of India, where it is often the most frequently encountered turtle, particularly after first rains; low population density in some parts of India is probably a result of exploitation and water pollution. Also frequent in parts of Sri Lanka, particularly protected areas. Not in immediate danger in India, Nepal or Sri Lanka although widely collected for food and sometimes affected by habitat loss or modification. Little recent information available on populations in Bangladesh or Myanmar. Assessed by IUCN as Lower Risk/near threatened in 2000.

Morenia petersi Confined to sites with the Ganges-Brahmaputra systems in India, Bangladesh and possibly Nepal (where marginal and not recently confirmed). No substantive population data available. Two decades ago said to be common in parts of Bangladesh where other large turtles had become rare because of exploitation, but also said to be uncommon. Widely used for food, said to be heavily used in parts of Bangladesh, and has appeared in food markets in south China. Has never been widely available in the pet trade. Assessed by IUCN as Vulnerable in 2000.

Sacalia bealei Has a restricted range at lower elevations in southeast China. A decade ago said to be uncommon and declining, but little detailed and current information on population or trade levels appears to be available. Assessed by IUCN as Endangered in 2000.

Sacalia quadriocellata Formerly distributed over much of northern Viet Nam, parts of the eastern margins of Lao PDR, southern mainland China (and Hainan Island). A decade ago the species was said to exist in small to moderate numbers in northern Lao PDR and northern Viet Nam, where it was not under great threat, but it was reportedly severely threatened in China. No detailed and current information on population or trade levels appears to be available. In Lao PDR, turtles were caught for consumption or sale to Vietnamese traders. Assessed by IUCN as Endangered in 2000.

Vijayachelys silvatica Endemic to southwest India, with a restricted range in moist forests in the southern Western Ghat hills, mainly in Kerala. Rediscovered in the 1980s having not been seen since first described in 1912. Previously assigned to *Heosemys* (and formerly *Geoemyda*) but now seen as an isolated basal lineage within the family and placed in its own monotypic genus *Vijayachelys*. Generally appears rare and infrequently encountered, although highly cryptic and seasonal in appearance. Most individuals among local indigenous communities interviewed considered the species not uncommon and not declining. Forest fire was reported a threat and turtles are widely caught for local consumption. A few specimens have appeared in the European pet trade. Assessed by IUCN as Endangered in 2000.

Analysis: Information on population trends and trade volume in these species of Asian Geoemydidae is not comprehensive and for some included taxa little or no species-specific information is available. The following brief observations can be made regarding whether the species may meet the criteria for inclusion in Appendix II set out in Annex 2 a of *Resolution Conf. 9.24 (Rev. CoP15)*, that is whether regulation in trade in the species is necessary to prevent it becoming eligible for inclusion in Appendix I in the near future, or to ensure that harvest for trade is not reducing the population to a level at which its survival might be threatened by continued harvest or other influences.

Cyclemys species are poorly-known and taxonomically confused. One widespread form (*Cyclemys dentata sensu lato*) is reportedly heavily exploited for the food trade; others are reportedly not in demand for food or medicine and are rarely traded. There is insufficient information to determine whether *Cyclemys dentata* s.l.) meets the criteria for inclusion in Appendix II in Annex 2 a to *Resolution Conf. 9.24 (Rev. CoP15)*. Where it to do so, the others might well meet the look-alike criteria set out in Annex 2 b of the Resolution.

Geoemyda japonica is endemic to Japan and subject to a separate proposal (CoP16 Prop. 34) for inclusion in Appendix II (with a zero annual export quota with primarily commercial purposes for wild-caught specimens). It is not clear that the species meets the criteria for inclusion in Appendix II. See separate analysis for discussion.

Geoemyda spengleri has a relatively restricted distribution in southern China and northern Indochina. Populations are said to have declined greatly in China as a result of overexploitation and the species is reported to be harvested in Viet Nam for export to China, leading to further population declines. The species would appear to meet the criteria for inclusion in Appendix II.

Hardella thurjii occurs widely in the Indian subcontinent where it is reported to have declined greatly, apparently largely as a result of local exploitation for food. The species has appeared in international trade, but there is no information on current trade levels. It is not clear whether the species meets the criteria for inclusion in Appendix II.

Mauremys japonica is widespread in Japan and apparently locally common. There is some domestic use. The species is available in small numbers (as captive-bred animals) abroad but there is no evidence of any significant international trade, or any indication that harvest for international trade has an impact on wild populations. The species would not appear to meet the criteria for inclusion in Appendix II.

Mauremys nigricans is endemic to China where it has not been found in the wild by scientists for several years. China has reported no export since including the species in Appendix III in 2005. The absence of recorded international trade in recent years indicates that the species is unlikely to meet the criteria for inclusion in Appendix II. It probably meets the criteria for inclusion in Appendix I.

Melanochelys trijuga is widespread in South Asia and adjacent Southeast Asia. It is harvested for local consumption and has in the past been noted as exported from Myanmar. There is no information on current international trade or on the impact of harvest for trade on wild populations. It is not clear whether the species meets the criteria for inclusion in Appendix II.

Morenia petersi has a relatively restricted range in north-east India, Bangladesh and possibly Nepal. Information on its status is sparse and conflicting. The species is apparently harvested for local consumption and there are reports of its presence in large amounts in food markets in Hong Kong in the mid-1990s. There is little information on its current availability in markets outside range States. There is insufficient information to determine whether the species meets the criteria for inclusion in Appendix II.

Sacalia bealei is endemic to China and does not appear to feature to any significant extent in international trade. Any extensive use of the species is likely to be

domestic. The absence of recorded international trade in recent years indicates that the species is unlikely to meet the criteria for inclusion in Appendix II. It may conceivably meet the criteria for inclusion in Appendix I.

Sacalia quadriocellata has a reasonably restricted distribution, is reportedly harvested for international trade and is regarded as severely threatened in one range State. It may meet the criteria for inclusion in Appendix II.

Vijayachelys silvatica is a localised species in southwest India that does not appear to be heavily affected by harvest for export. The great majority of use of the species is evidently domestic. It is unlikely that it meets the criteria for inclusion in Appendix II.

In summary: *Geoemyda spengleri* and *Cyclemys dentata sensu lato* appear likely to meet the criteria for inclusion in Appendix II set out in Annex 2 a to Resolution Conf. 9.24 (Rev. CoP15); *Sacalia quadriocellata* may meet the criteria; the other *Cyclemys* spp., *Geoemyda japonica*, *Mauremys japonica*, *M. nigricans*, *Sacalia bealei* and *Vijayachelys silvatica* appear not to meet the criteria (although *Mauremys nigricans*, *Sacalia bealei* and conceivably *Geoemyda japonica* may meet the criteria for inclusion in Appendix I). There is insufficient information to determine whether *Hardella thurji*, *Melanochelys trijuga* or *Morenia petersi* do or do not meet the criteria.

The various species above resemble each other to greater or lesser degrees. It is conceivable that, were some species to be included in Appendix II on the basis of the criteria in Annex 2 a to Resolution Conf. 9.24 (Rev. CoP15), inclusion of others would facilitate implementation and they would therefore be considered to meet the criteria in Annex 2 b to the Resolution. It is not clear that this applies in all cases. In particular, neither of the two *Mauremys* species appears to meet criteria for inclusion under Annex 2 a (for different reasons in each case), both occur in countries that are not major exporters of the other species, and both resemble other *Mauremys* species in Europe and western Asia, not in the Appendices, more than they resemble the other species considered here.

(B): Zero quota on wild specimens for commercial purposes for the following taxa already listed in Appendix II: *Batagur borneoensis*, *B. trivittata*, *Cuora aurocapitata*, *C. flavomarginata*, *C. galbinifrons*, *C. mccordi*, *C. mouhotii*, *C. pani*, *C. trifasciata*, *C. yunnanensis*, *C. zhoui*, *Heosemys annandalii*, *H. depressa*, *Mauremys annamensis*, and *Orlitia borneensis*.

Summary: A zero quota for wild-caught specimens is proposed for fifteen geoemydid species currently listed in Appendix II. Almost all are categorised by IUCN as Critically Endangered. Most have restricted ranges in China and Southeast Asia, some extremely so, and the range of one remains unknown. They are widely used for food and are heavily collected and traded for this purpose; some, particularly the rare or attractively marked *Cuora*, are subject to intense demand for the pet trade and command a very high price. Legal trade in listed species as reported to CITES has been mainly at low to moderate level.

Batagur borneoensis Formerly assigned to *Callagur*. A large riverine species, widespread from extreme south Thailand to Borneo, most populations are thought to be in decline because of excess exploitation for meat and eggs; also affected by habitat changes. Assessed by IUCN as Critically Endangered in 2000.

Batagur trivittata Formerly assigned to *Kachuga*. Endemic to Myanmar. Thought possibly extinct a decade ago until individuals were found in a temple pond in 2002, and two small wild populations were found in the Dokkhtawady and the Upper Chindwin during 2002-2004 surveys. Current status not known in detail. Acutely threatened by fishing, gold-mining and dam construction. Assessed by IUCN as Endangered in 2000.

Cuora aurocapitata A restricted range species, endemic to China, and known from three river systems in southern Anhui. Described from market turtles in 1988 and found in the wild by scientists in 2004. Collection for pet trade began to deplete populations from the 1990s onward. Wild population now estimated at 50-100, probably fewer than are held in captivity. Threatened by fishing, pollution and habitat loss to hydroelectric projects as well as excess collection. Assessed by IUCN as Critically Endangered in 2000.

Cuora flavomarginata Present in China and Japan (Ryukyus). A decade ago, the mainland China population was considered highly endangered; the Taiwanese population had declined because of agricultural expansion but was then thought to be stable or recovering. In Japan (Ryukyus) populations are small and somewhat threatened but relatively well protected. Assessed by IUCN as Endangered in 2000.

Cuora galbinifrons Occurs in southern China (Gunagxi, Hainan) and neighbouring parts of Viet Nam and Lao PDR. The subject of a separate proposal (CoP16 Prop. 33) for transfer to Appendix I. See separate analysis for details.

Cuora mccordi Endemic to China. Described in 1988 on the basis of animals from a market in western Guangxi and only located in the wild in 2005; the known range extends over only 50 sq kms. Much in demand by collectors. Formerly said to be common, turtles began to be collected for trade in the 1980s and one of the last known to have been collected sold for USD 20 000 in 2008. Surveys found one animal in the known range in 2009 and none in 2010. Assessed by IUCN as Critically Endangered in 2000.

Cuora mouhotii Present in China and Southeast Asia west to Assam (India). Little information on population status available. Believed to be widely consumed and in much trade. Assessed by IUCN as Endangered in 2000.

Cuora pani Endemic to China where restricted to small streams in the Qin Ling mountain range in Shaanxi, central China. Few specimens with exact locality data are known; the species appears to exist as fragmented small populations. Exploited by the pet trade and affected by habitat loss. Some 250 animals are known in captivity where breeding has been quite successful. Assessed by IUCN as Critically Endangered in 2000.

Cuora trifasciata Extends from southern China to adjacent parts of Viet Nam, Lao PDR and possibly Myanmar. Has long been in demand for live animals and medicinal use but subject to rising demand and excess collection over recent decades. Also in demand to stock farming operations. Recent high prices (reportedly up to USD 20 000) thought to be driven by its supposed efficacy in combating cancer. Assessed by IUCN as Critically Endangered in 2000.

Cuora yunnanensis Endemic to China. The first specimens known were obtained in the vicinity of Kunming (Yunnan) but, despite intensive searches, the species was virtually unknown until live individuals were found in Kunming market in 2004. The wild range was only located in 2008. There is said to be exceptionally high demand from collectors. Breeding has occurred among turtles recently found. Assessed by IUCN as Critically Endangered in 2010.

Cuora zhoui Originally described from turtles in a market in southern Guangxi (China), the natural range remains unknown and only collectors have ever seen it in the wild. The species may occur in China or in northern Viet Nam, or conceivably both. No specimens are known to have entered trade in recent years. About half the 200 specimens that went to live animal collections survive; some breeding has occurred. Assessed by IUCN as Critically Endangered in 2000.

Heosemys annandalii Widely distributed in Southeast Asia. Formerly in the genus *Hieremys*. Threatened by collection for trade in Cambodia, Lao PDR and Viet Nam, probably threatened in Thailand, the population in Malaysia is marginal and very small. Habitat loss is a contributing factor throughout the range. Among the most immediately threatened turtles in Viet Nam because of its relatively large size and association with lowland wetlands in populated areas. Assessed by IUCN as Endangered in 2000.

Heosemys depressa Endemic to western Myanmar where restricted to the Arakan hills (Rakhine). Not seen by scientists in the wild for more than a century; turtles of this species began to appear in food markets in Myanmar and China during the 1990s, and the species was rediscovered in the wild in 2007 within a protected area established for elephants. Used locally for food and traded to China. Some breeding has occurred in captive groups in Myanmar, Europe and USA. Assessed by IUCN as Critically Endangered in 2000.

Mauremys annamensis Endemic to Viet Nam. The subject of a separate proposal (CoP16 Prop. 35) for transfer to Appendix I. See separate analysis for details.

Orlitia borneensis Ranges from peninsular Malaysia to Sumatra and Borneo. Traded in vast numbers and all sizes in East Asian food markets. Threatened in peninsular Malaysia, and highly so in Indonesia whence exported in large quantities despite official protection. Assessed by IUCN as Endangered in 2000.

For some species there has been little reported wild trade. Some are protected from harvest and trade in some range States, with some having adopted zero export quotas. It is not clear whether a zero quota is intended to cover ranched specimens, trade in which essentially involves individual taken from the wild. Some trade in some of the species is reported as of ranched specimens; there are not known to be commercial ranching operations for these species in range States.

Analysis: The stated original intention of the proponents was to transfer these existing Appendix II species to Appendix I, but this was modified following consultation with range States, although two separate proposals for transfer of *Cuora galbinifrons* (Prop. 33) and *Mauremys annamensis* (Prop. 35) to Appendix I have been submitted.

There are no guidelines for assessing a proposal to annotate an Appendix-II listing with a zero export quota of wild specimens for commercial purposes. However, such a listing is close to an Appendix-I listing in its effect. It seems reasonable therefore to assess these proposals against the criteria for inclusion in Appendix I set out in Annex I to *Resolution Conf. 9.24 (Rev. CoP15)*. The following brief observations may be helpful regarding which species may or may not meet these criteria. Some of these species have not been recorded in (legal) international trade recently; all may be expected to be in demand in international trade.

Batagur borneoensis is relatively widespread. There is no information on population levels, nor survey data on population trends. It may meet the criteria for inclusion in Appendix I on the basis of inferred population decline.

Batagur trivittata was until recently thought extinct. Known populations are apparently very small and highly vulnerable. The species would appear to meet the criteria for inclusion in Appendix I.

Cuora aurocapitata is believed to have an extremely small wild population and to have undergone major population decline in the past few decades. It appears to meet the criteria for inclusion in Appendix I.

Cuora flavomarginata appears to have relatively stable populations in two parts of its range (Taiwan POC) and Ryukyu Islands (Japan) and may not meet the criteria for inclusion in Appendix I.

Cuora galbinifrons As discussed in the analysis for proposal CoP16 Prop. 33, this species may meet the criteria for inclusion in Appendix I.

Cuora mccordi is known from a small area of China where it appears to have undergone a very marked population decline in the past few decades and now appears extremely rare. It appears to meet the criteria for inclusion in Appendix I on the basis of a marked decline and a small population with high vulnerability.

Cuora mouhoti is a widespread species for which no information is available on population levels, nor survey data on population trends, nor information on numbers harvested and in trade. There is insufficient information to determine whether the species meets the criteria for inclusion in Appendix I.

Cuora pani occurs in central China where populations are assumed to be small and fragmented. There is no survey data on population trends. There is insufficient information to determine whether the species meets the criteria for inclusion in Appendix I, although it may conceivably do so by virtue of a small population and high vulnerability.

Cuora trifasciata has (or had) a reasonably wide distribution but has undoubtedly been subject to intense collection pressure because of its high value. It is likely to meet the criteria for inclusion in Appendix I on the basis of inferred population decline.

Cuora yunnanensis if the species still persists in the wild, it is highly likely that it would meet the criteria for inclusion in Appendix I on the basis of a small wild population, restricted range and high vulnerability.

Cuora zhoui is an enigmatic species whose wild range (presumed China or Viet Nam, or both) remains unknown to science. No specimens are known to have entered commerce recently. If it still exists in the wild it seems highly likely to meet the criteria for inclusion in Appendix I on the basis of a small wild population, restricted range and high vulnerability.

Heosemys annandalii is relatively widespread. There is no information on population levels, nor survey data on population trends. It may meet the criteria for inclusion in Appendix I on the basis of inferred population decline.

Heosemys depressa is currently known from a single protected area in Myanmar and may meet the criteria for inclusion in Appendix I by virtue of a restricted range and high vulnerability.

Mauremys annamensis. As discussed in the analysis for proposal CoP16 Prop. 35, this species may meet the criteria for inclusion in Appendix I.

Orlitia borneensis is relatively widespread. There is no information on population levels, nor survey data on population trends. It may meet the criteria for inclusion in Appendix I on the basis of inferred population decline.

An Appendix-II listing with a zero quota for wild specimens that allowed export of ranched or captive-bred specimens may create implementation and enforcement problems in that wild-collected specimens could be reported as ranched or captive-bred.

(A): Inclusion of the following taxa of the Family Geoemydidae in Appendix II: *Cyclemys* spp., *Geoemyda japonica*, *G. spengleri*, *Hardella thurjii*, *Mauremys japonica*, *M. nigricans*, *Melanochelys trijuga*, *Morenia petersi*, *Sacalia bealei*, *S. quadriocellata*, and *Vijayachelys silvatica*.

Supporting Statement	Other information
<p><i>Cyclemys atripons</i> Western Black-bridged Leaf Turtle.</p> <p>IUCN Global Category: Not assessed (IUCN, 2012). (Draft Data Deficient*).</p> <p>* See table footnote re “draft” categorisations</p>	<p>Southwest Cambodia, southeast Thailand (Fritz et al., 2008).</p> <p><i>In Cambodia present in the Cardamom Mountains in the southwest where the range extends over some 15 000 sq kms (Emmett, 2009). Occurs in swamps, streams, rivers (and sometimes in village ponds) from 1400 m down to sea level. Fairly common, not in demand for food (poor taste) or medicine, almost never in trade (Emmett, 2009).</i></p>

Supporting Statement	Other information
<p>Range: Cambodia, Thailand.</p> <p><i>Cyclemys dentata</i> Asian Leaf Turtle.</p> <p>IUCN Global Category: Lower Risk/near threatened ver 2.3 (ATTWG, 2000a; this assessment refers to “the species complex” of Asian Leaf Turtles and appears to include the other <i>Cyclemys</i> species listed here and recognised as full species after 2000. Needs updating).</p> <p>(Draft Data Deficient*, referring to <i>C. dentata</i> in a more restricted sense than ATTWG, 2000a).</p> <p>Range: Brunei (unconfirmed), Indonesia, Malaysia, Philippines.</p> <p>Around 15 000 turtles imported to the USA between 1999-2010 (from U.S. Fish and Wildlife Service’s LEMIS Database).</p>	<p><i>Brunei, Indonesia (Sumatra, Java, Kalimantan), Malaysia (southern peninsular Malaysia, Sarawak, probably Sabah), Philippines (Palawan Islands and Sulu Archipelago, introduced to Leyte and some other islands), Singapore (unconfirmed) (Fidenci and Castillo 2008; Fritz et al., 2008).</i></p> <p><i>Widespread and locally reasonably common species, but occurs in substantial numbers in the food trade (ATTWG, 2000a; this assessment refers to “the species complex” of Asian Leaf Turtles and appears to include the other Cyclemys species listed here and recognised as full species after 2000). Fairly common in the Palawan group in the Philippines (Diesmos et al., 2008).</i></p> <p><i>A tabulation of U.S. Fish And Wildlife Service’s LEMIS data (imports to USA) for the period 1999-2010 in the Proposal gives an indication of trade levels in some of the species being considered for Appendix II listing. The geoemydid by far most traded was <i>C. dentata</i>, with more than 14 000 imported during this period. This name will probably refer to <i>C. dentata</i> sensu lato and so include individuals from populations since recognised assigned to different species in the genus.</i></p> <p><i>In Palawan (Philippines) traders report that this species is among those regularly and illegally exported to pet markets in Asia and Europe. In 2004, 44 kg of <i>C. dentata</i> was discovered on a bus by police in Viet Nam, who suspected it came from Laos (TRAFFIC, 2012). An unknown quantity of <i>C. dentata</i> was seized in Singapore in 2006, along with 2520 <i>Cuora amboinensis</i> packed into 72 crates on a ship that had arrived from Sumatra (TRAFFIC, 2012). In 2010, 1000 freshwater turtles including an unknown number of <i>C. dentata</i> were seized from smugglers attempting to take them from Hong Kong to mainland China (TRAFFIC, 2012).</i></p>
	<p><i>Cyclemys enigmatica</i></p> <p><i>IUCN Global Category: Not currently listed (IUCN, 2012). (Draft Data Deficient*).</i></p> <p><i>Range: Brunei (unconfirmed), Indonesia (Sumatra, Java, Kalimantan), Malaysia (West, Sabah, Sarawak), (Fritz et al., 2008).</i></p>
	<p><i>Cyclemys fusca</i></p> <p><i>IUCN Global Category: Not currently listed (IUCN, 2012). (Draft Data Deficient*).</i></p> <p><i>Range: Myanmar (Fritz et al., 2008); in adjoining Bangladesh and northeast India (unconfirmed).</i></p>

Supporting Statement	Other information
	<p>Cyclemys gemeli</p> <p><i>IUCN Global Category: Not currently listed (IUCN, 2012). (Draft Data Deficient*).</i></p> <p><i>Range: Bangladesh, Nepal (unconfirmed), India (extreme northeast) (Praschag et al., 2009).</i></p>
<p><i>Cyclemys oldhamii</i> Southeast Asian Leaf Turtle.</p> <p>IUCN Global Category: Not currently listed (IUCN, 2012). (Draft Data Deficient*).</p> <p>Range: Brunei, Cambodia, China, Indonesia, Malaysia, Myanmar, Thailand.</p>	<p><i>Range according to Fritz et al. (2008) includes Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam, southern China (unconfirmed) but not Brunei.</i></p> <p><i>In Cambodia present in Prey Long (central Cambodian swamp forests) and Virachey National Park and the most frequently encountered turtle species in both sites. Probably stable because not in demand for food (unpalatable) or medicine and almost never in trade (Emmett, 2009).</i></p>
<p><i>Cyclemys pulchristriata</i> Eastern Black-bridged Leaf Turtle.</p> <p>IUCN Global Category: Not currently listed (IUCN, 2012). (Draft Data Deficient*).</p> <p>Range: Cambodia, Viet Nam.</p>	<p><i>Central and south Viet Nam, eastern most Cambodia (Fritz et al., 2008).</i></p> <p><i>In Cambodia only recorded east of the Mekong River in the Mondulhiri region, where apparently still fairly common, probably because not in demand for food (unpalatable) or medicine and almost never in trade (Emmett, 2009).</i></p> <p><i>Between 1994-1999, 3144 C. pulchristriata and C. tcheponensis (= Cyclemys oldhamii) were exported legally from Viet Nam (Hendrie, 2000). The former remains a valid species but the latter is currently regarded as a synonym of Cyclemys dentata (van Dijk et al., 2011) Cyclemys dentata (at the time identified as C. tcheponensis) appeared in 66% of seizures on northern land routes in Viet Nam, making it the 4th most traded turtle (Hendrie, 2000). A shipment of reptiles was seized in Viet Nam apparently en route to China, containing 18 C. pulchristriata (TRAFFIC, 2012).</i></p>
<p><i>Cyclemys shanensis</i> (no longer recognised by Fritz <i>et al.</i>, 2008).</p> <p>IUCN Global Category: Not currently listed (IUCN, 2012).</p> <p>Range: Indonesia, Lao PDR, Myanmar, Thailand, Viet Nam.</p>	<p><i>The proposal follows Fritz and Havas (2007), the standard CITES nomenclature reference for turtles, in recognising five species of Cyclemys. Fritz et al. (2008) described three new species of Cyclemys and reassigned all populations of Cyclemys shanensis (no longer recognised) among the new taxa, resulting in seven species currently recognised. The three new taxa are listed below in this column. This later treatment is adopted in van Dijk et al. (2011), representing the then current position of the IUCN Tortoise and Freshwater Turtle Specialist Group.</i></p>
<p><i>Geoemyda japonica</i> Ryukyu Black-breasted Leaf Turtle.</p> <p>IUCN Global Category: Endangered (ATTWG, 2000b, in IUCN, 2012; needs updating).</p> <p>Range: Japan.</p>	<p><i>Also the subject of a single-species proposal (Prop 34) for Appendix II listing from Japan. See separate analysis.</i></p> <p><i>Restricted to moist forest on three islands in the Okinawa group (Ryukyu Archipelago). Observations suggest the range and population have declined since the 1980s. Reduction in forest area over several decades now limits the potential maximum range of Geoemyda japonica to under 30 000 ha on Okinawa Island, 1000 ha on Kume Island,</i></p>

Supporting Statement	Other information
<p>Around 750 <i>Geoemyda</i> spp. imported to the USA between 1999-2010 (from U.S. Fish and Wildlife Service's LEMIS Database), which may include <i>Geoemyda japonica</i>.</p>	<p>and 500 ha on Tokashiki Island (CoP16 Prop. 34). The total range of 31 500 ha converts to 315 km².</p> <p>There are no scientifically reasonable estimates for population size of <i>G. japonica</i> on any of the islands inhabited by this turtle. However, the number of individual turtles, whose occurrence had been confirmed by direct counting on all three islands was reported as 343 in total. The area surveyed in this work obviously represents only a part of the whole habitat on each island, actual population size should be much greater (CoP16 Prop. 34).</p> <p>Observations on captive individuals suggest that it takes at least three years for newly hatched individuals to attain sexual maturity. Based on some observations of individuals kept in an outdoor open cage on Okinawa Island, an adult female lays one (or sometimes more) clutch, each consisting of one egg or two eggs (or rarely three) (CoP16 Prop. 34).</p> <p>Loss, modification and fragmentation of forest habitat appear to be the major threats. The species is nominally completely protected in Japan since being declared a National Natural Monument in 1975. Continuing illegal collection from the wild is an additional threat to wild populations. There is high demand from turtle-keepers in North America and Europe.</p> <p>Listed as Vulnerable in the 1991 and 1999 Japanese Red Lists; believed to be declining on Okinawa, with two small isolated subpopulations on Kume, and no status data for Tokashiki; at some risk from hybridization (Asian Turtle Trade Working Group, 2000b, in IUCN, 2012).</p> <p>Populations on Kume and Tokashika are reportedly small and particularly at risk because of habitat loss (Yasukawa and Ota, 2008).</p> <p>The relatively high price demanded for individuals of this species in shops and online outlets in China (and Hong Kong SAR), and the ready availability throughout the year, raises particular concern over the impact on wild populations. The species is a restricted-range endemic highly susceptible to excess exploitation (Kanari and Xu, 2012). A maximum sale price equivalent to USD5159 was recorded in Hong Kong during a 2011-2012 survey (Kanari and Xu, 2012). A contributor to a turtle forum discussion in 2006, stated that nobody was then breeding the species in Hong Kong but it was simply a convenient midway point for smuggling wild caught <i>G. japonica</i> with the claim that they were captive-bred animals.</p>
<p><i>Geoemyda spengleri</i> Black-breasted Hill Turtle.</p>	<p>Recently reported from Lao PDR (Stuart et al., 2011).</p> <p>Considered threatened by levels of trade and scarcity (ATTWG, 2000c, in IUCN, 2012).</p>

Supporting Statement	Other information
<p>IUCN Global Category: Endangered (ATTWG, 2000c, in IUCN, 2012; needs updating).</p> <p>Range: China, Viet Nam.</p> <p>1204/24 live turtles were imported/exported in trade reported to CITES in 2004-2009, mainly exported from China and Thailand.</p> <p>Appendix III (China).</p> <p>Around 3500 turtles imported to the USA between 1999-2010 (from U.S. Fish and Wildlife Service's LEMIS Database).</p>	<p><i>Said to be abundant in China in the mid 20th century, but reportedly now rarely seen in the wild, except in very remote places, and in drastic decline (Lau and Shi Haitao, 2000). Recently (Gong et al., 2009) said to be the only turtle species still present in many places in China where all others had become extremely rare or extirpated. Relatively abundant in parts of northern Viet Nam. Large numbers are exported via Hong Kong for the pet trade, and large numbers are sold in markets in south China; excess collection appears to have caused decline in some populations. Also much collected in Viet Nam for domestic pets (Yasukawa and Ota, 2010).</i></p> <p><i>According to the CITES trade database, 1167 live individuals were reported by importers in trade between 2004-2010. Of these, 801 were declared as wild caught and were exported from China to Germany and the Czech Republic. Between 1994-1999, 12 of this species were legally exported from Viet Nam according to CITES records (Hendrie, 2000); at that time trade in Viet Nam appeared to be mainly for the domestic market. A review of literature by Rhodin (2003) found this species has been recorded in turtle markets in China and Taiwan, and commented that previously there were high levels of trade in this species, but now it is scarce in markets.</i></p> <p><i>A tabulation of data from the U.S Fish and Wildlife Service's LEMIS Database (imports to USA) for the period 1999-2010 in the Proposal gives an indication of trade levels in some of the species being considered for Appendix II listing. This species had the second highest imports in the period, around 3500 animals.</i></p>
<p><i>Hardella thurjii</i> Crowned River Turtle.</p> <p>IUCN Global Category: Vulnerable A1cd+2cd ver 2.3 (ATTWG, 2000d, in IUCN, 2012; needs updating). (Draft Endangered*).</p> <p>Range: Bangladesh, India, Nepal, Pakistan.</p> <p>In Bangladesh <i>Hardella thurjii</i> are used as a source of protein for low-income non-Muslims and tribal peoples.</p>	<p><i>Present in the middle and lower reaches of the main river systems in the northern Indian subcontinent (Indus, Ganges, and Brahmaputra); a report from northwest Myanmar needs verification (Das and Bhupathy, 2009a).</i></p> <p><i>In the late 20th century, described as rare in Nepal and common or fairly common in Bangladesh; appears to have declined greatly in India, probably because of the long-standing heavy exploitation for food, attributed to its large size and palatability. Also impacted by drainage and water pollution (Das and Bhupathy, 2009a).</i></p> <p><i>Hatchlings of the subspecies in Bangladesh have been exported for the commercial pet trade (Rashid and Khan, 2000). The species has been recorded in food trade in China (Lau and Shi Haitao, 2000) and in the medicinal trade in Taiwan (Chen et al., 2000).</i></p>
<p><i>Mauremys japonica</i> Japanese Pond Turtle</p> <p>IUCN Global Category: Lower Risk/near threatened ver 2.3 (ATTWG, 2000e, in IUCN, 2012; needs updating).</p> <p>Range: Japan.</p>	<p><i>Endemic to Japan; widespread, known from Honshu, Shikoku, Kyushu and several smaller islands. Often found at high density, especially in central and western Honshu, but many populations are thought to be depleted or in decline, mainly because of land use changes, also affected by collection for pets and competition with the introduced Trachemys (Yasukawa et al., 2010).</i></p> <p><i>A small number of animals are in the pet trade (Rhodin, 2003). Eight individuals were seen for sale in one day Chatuchak Market, Bangkok, 2006 (Shepherd and Nijman,</i></p>

Supporting Statement	Other information
<p>Less than 500 <i>Mauremys japonica</i> imported to the USA between 1999-2010 (from U.S. Fish and Wildlife Service's LEMIS Database).</p>	<p>2008). Internet searches reveal hatchlings are available for USD30 in the USA and Eur59 in Europe (Jenkins, 2012).</p>
<p><i>Mauremys nigricans</i> Red-necked Pond Turtle.</p> <p>IUCN Global Category: Endangered A1d+2d ver 2.3 (ATTWG, 2000f, in IUCN, 2012; needs updating). (Draft Critically Endangered*).</p> <p>Range: China.</p> <p>Wild populations of <i>Mauremys nigricans</i> appear to have crashed over the last few decades, and biologists in southern China have not located wild animals for several years.</p> <p>Appendix III (China).</p>	<p>Occurs in Viet Nam (unconfirmed) (TCC, 2011).</p> <p>Wild populations appear to have crashed over the last few decades, and biologists in southern China have not located wild animals for several years. Because it is rare and attractive it is much in demand and expensive in the pet trade. Unlike many other Asian turtles, this species is not widely consumed, nor used for medicine, undoubtedly because of its strong musk odour (TCC, 2011).</p> <p>No trade reported to CITES since listing in Appendix III in 2005.</p>
<p><i>Melanochelys trijuga</i> Indian Black Turtle.</p> <p>IUCN Global Category: Lower Risk/near threatened ver 2.3 (ATTWG, 2000g, in IUCN, 2012; needs updating).</p> <p>Range: Bangladesh, India, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, UK (Chagos).</p>	<p>Populations in the Maldives and Chagos are probably introduced; may occur or have occurred in the Indus (Pakistan) (Das and Bhupathy, 2009b).</p> <p>Present in South Asia, including the Indian subcontinent, Myanmar, and extends marginally to northwest Thailand. Exists in good numbers in many parts of India and Sri Lanka, and often the most frequently encountered turtle, particularly after first rains. Low population density in some suitable areas in India probably a result of exploitation and water pollution. May be threatened in some areas of northeast India because of regular collection (Pawar and Choudhury in prep in Choudhury et al., 2000). Not in immediate danger in India, Nepal or Sri Lanka although widely collected for food and sometimes affected by other factors. Little recent information available on populations in Bangladesh or Myanmar (Das and Bhupathy, 2009b).</p> <p>More than a decade ago, considered Endangered in Bangladesh, presumed to be Vulnerable or Endangered in Myanmar, common in India and Nepal, no data available for Sri Lanka; overall the species was considered fairly secure (ATTWG, 2000g, in IUCN, 2012).</p> <p>Live individuals and plastrons are exported from Myanmar to China (Bhupathy et al., 2000). Some individuals are exported from Myanmar to Thailand (van Dijk and Palasuwan, 2000).</p>
<p><i>Morenia petersi</i> Indian Eyed Turtle.</p> <p>IUCN Global Category: Vulnerable A1cd+2d ver 2.3 (ATTWG, 2000h, in IUCN, 2012; needs updating).</p>	<p>Confined to sites within the Ganges-Brahmaputra system. One recent report (Aryal, et al., 2010) questions its continued existence in Nepal.</p> <p>Reportedly common a decade ago in parts of Bangladesh, but also reported rare in parts; affected by drainage and water pollution, also widely consumed, and traded to</p>

Supporting Statement	Other information
<p>Range: Bangladesh, India, Nepal.</p> <p>In Bangladesh turtles <i>Morenia petersi</i> are used as a source of protein for low-income non-Muslims and tribal peoples.</p> <p>Less than 300 <i>Morenia petersi</i> imported to the USA between 1999-2010 (from U.S. Fish and Wildlife Service's LEMIS Database).</p>	<p>food markets in south China (rarely in the pet trade) (Das and Sengupta, 2010).</p> <p>Considered Vulnerable in Bangladesh, where it is the most commonly traded species; also LR/nt or VU in India. In East Asian food markets, supply reached peaks of 30 tons per day between April 1996 and May 1997, but disappeared from markets by 1998 (ATTWG, 2000h, in IUCN, 2012).</p>
<p><i>Sacalia bealei</i> Beal's Eyed Turtle.</p> <p>IUCN Global Category: Endangered A1d+2d ver 2.3 (ATTWG, 2000i, in IUCN, 2012; needs updating). (Draft Critically Endangered*).</p> <p>Range: China.</p> <p>Appendix III (China).</p> <p>Two specimens reported as imported in 2010.</p> <p>A few <i>Sacalia bealei</i> imported to the USA between 1999-2010 (from U.S. Fish and Wildlife Service's LEMIS Database) with around 1000 <i>Sacalia</i> spp. reported which may include this species.</p>	<p>Former range in China probably restricted to the lower elevations inland from the southeast coastal area, including Hong Kong (Shi et al., 2008).</p> <p>Reportedly uncommon and declining in its restricted range (ATTWG, 2000i, in IUCN, 2012).</p> <p>Two captive-bred <i>Sacalia bealei</i> were exported from the USA to Argentina in 2008 and then two captive-bred <i>Sacalia bealei</i> were exported from Argentina to the USA in 2010. The species was formerly common in trade, but is now rarely seen (Rhodin, 2003).</p>
<p><i>Sacalia quadriocellata</i> Four-eyed Turtle.</p> <p>IUCN Global Category: Endangered A1d+2d ver 2.3 (ATTWG, 2000j, in IUCN, 2012; needs updating).</p> <p>Range: China, Viet Nam.</p> <p>Appendix III (China).</p> <p>522 reported in trade 2006-2009.</p>	<p>Formerly distributed over much of northern Viet Nam, parts of the eastern margins of Lao PDR, and mainland China (including parts of the Pearl River basin, Guangxi) and Hainan Island (Shi et al., 2008).</p> <p>Occurs in ponds and streams in wooded hill areas; genetically diverse and may comprise more than one species; wild populations in China are decreasing rapidly because of hunting and habitat loss (He et al., 2010).</p> <p>Modest to small populations in northern Lao PDR and northern Viet Nam, where it is not under great threat, but Endangered in China, the main distribution area (ATTWG, 2000j, in IUCN, 2012). The main threats to this species in China are over-collection for food trade, and habitat destruction and degradation due to deforestation, the construction of small hydroelectric plants, water pollution and liming of streams (Lau and Shi Haitao, 2000). In Viet Nam, the main threats are collection and habitat loss (Hendrie, 2000).</p> <p>Inhabitants of two villages in Phou Louey National Biodiversity Conservation Area, Houaphanh Province, Lao PDR, reported (respectively) catching about 20 per year, or 1-2 per year, and considered the species to be at the same abundance as formerly, or</p>

Supporting Statement	Other information
	<p><i>much rarer. Turtles were caught for consumption or, recently, sale to Vietnamese traders (Stuart, 1998).</i></p> <p><i>Of the 522 specimens in trade reported to CITES after listing in Appendix III in 2005, 500 exported from Myanmar were declared as ranched and imported by Viet Nam. A decade ago, the species was primarily collected in Viet Nam for the domestic pet trade (Hendrie, 2000). According to Hendrie (2000), CITES recorded 630 of this species to be legally exported from Viet Nam between 1994-1999. A review of the literature by Rhodin (2003) noted that this species had been recorded in markets in northern and southern China, and that there was some captive breeding for commercial sale on farms in China.</i></p>
<p><i>Vijayachelys silvatica</i> Cochin Forest Cane Turtle.</p> <p>IUCN Global Category: Endangered B1+2c ver 2.3 (ATTWG, 2000k, in IUCN, 2012; needs updating).</p> <p>Range: India.</p>	<p><i>Previously assigned to the genera Geoemyda and Heosemys but placed in its own monotypic genus Vijayachelys by Praschag et al. (2006) after phyletic analysis showed its distinct and isolated basal position within the Geoemydidae.</i></p> <p><i>Generally rare and infrequently encountered, although highly cryptic and seasonal in appearance. Most individuals among local indigenous communities interviewed considered the species not uncommon and not declining, although it was less frequently seen than Indotestudo travancorica. Forest fire was reported a threat and turtles are widely caught for consumption (Kanagavel and Raghavan, 2012).</i></p> <p><i>A few specimens have appeared in the European pet trade since the late 20th century (Praschag et al., 2006).</i></p>

(B): Zero quota on wild specimens for commercial purposes for the following taxa already listed in Appendix II: *Batagur borneoensis*, *B. trivittata*, *Cuora aurocapitata*, *C. flavomarginata*, *C. galbinifrons*, *C. mccordi*, *C. mouhotii*, *C. pani*, *C. trifasciata*, *C. yunnanensis*, *C. zhoui*, *Heosemys annandalii*, *H. depressa*, *Mauremys annamensis*, and *Orlitia borneensis*.

Supporting Statement	Other information
<p><i>Batagur borneoensis</i> Painted Terrapin.</p> <p>IUCN Global Category: Critically Endangered A1bcd ver 2.3 (ATTWG, 2000l, in IUCN, 2012; needs updating).</p> <p>Range: Brunei, Indonesia (Sumatra, Kalimantan), Malaysia, Thailand (extreme south).</p>	<p><i>Formerly Callagur borneoensis, now included in the expanded genus Batagur (Praschag et al., 2007); the existing CITES listing retains the previous nomenclature (Fritz and Havas, 2007).</i></p> <p><i>The status of the species in Brunei Darussalam is uncertain; the species has not been reported there in the past century (AC22 Doc. 10.2 Annex 4).</i></p> <p><i>Very widespread but most populations are thought to be in decline because of excess exploitation for meat and eggs; also affected by habitat changes (Horne et al., 2012;</i></p>

8625/16 611 live turtles were reported as imported/exported in CITES trade data 1996-2011, mainly exported from Myanmar and Malaysia.

TCC, 2011).

Estimated wild populations in Peninsular Malaysia are believed to amount to a few thousand mature individuals at most. Once common, few large populations remain and most rivers have less than 50 nesting females, while only three rivers in Peninsular Malaysia are thought to have more than 100 (AC22 Doc. 10.2 Annex 4).

Batagur borneoensis are reported to be almost extinct in Thailand, with only one population of scattered animals left in Klong La-Ngu in Satun Province (AC22 Doc. 10.2 Annex 4).

In Peninsular Malaysia and Sarawak two clutches of 10-20 eggs were laid per year. Captive females in Thailand produced a clutch size of 5-15 eggs (AC22 Doc. 10.2 Annex 4).

The species is now absent from several rivers on the east coast of Malaysia where locals reported the species nested in the 1980's. Data gathered between 1990-1997 indicates that egg production is declining in the Setiu, Linggi and Paka rivers (Sharma and Tisen, 2000).

On the east coast of Peninsular Malaysia the largest known breeding populations are on the Setiu-Chalo and Paka river systems in Terengganu. A sampling programme carried out in the Setiu River between 2003 and 2005 provided an estimate of about 200 individuals. This compares with an earlier estimate of 600 - 700 individuals. Between 1985 and 1990, the population at Paka- Kerteh is believed to have declined from 160 to 108 individuals. Overall the population in Terengganu was estimated at 405 individuals in 1995, compared with earlier estimates of 585 in 1990 and 178 in 1985 (AC22 Doc. 10.2 Annex 4).

Prior to the late 1990s, when consumption in East Asia increased dramatically, the primary threat appears to have been overexploitation of eggs for local human consumption. International trade is in live specimens for meat in East Asia (adults) and the global pet trade (juveniles) (AC22 Doc. 10.2 Annex 4).

Listed in Appendix II in 1997.

The CITES Trade database indicates that around 7000 wild-caught turtles, and around 1000 captive-bred and ranched, were traded in the period 2001-2010, mainly from Indonesia and Malaysia. There have been almost no wild-caught animals traded after 2004.

Selected for review of significant trade (RST) at Animals Committee (AC) 20 (2004). Indonesia reported a zero quota and was excluded from RST. Biology, status and trade were reviewed at AC22. No exports were recorded from Brunei Darussalam; Malaysia reported having set zero quotas for 2005 and 2006; and in Thailand the species is fully

	<p>protected from exploitation. Authorized trade levels from these three Parties were thus all considered Least Concern, and these Parties were therefore removed from the RST at AC22 (2006), which concluded the RST of Batagur (Callagur) borneoensis. Since 2006 there has been a zero quota for all specimens for Peninsular Malaysia.</p> <p>The species is not known to breed well in captivity on a commercial scale, requiring large breeding ponds and displaying aggressive behaviour. It may be that those declared as captive-bred are actually ranched wild hatchlings (AC22 Doc. 10.2 Annex 4).</p> <p>Activities such as sand mining, beach-front development, the construction of dams, sea walls and jetties and the removal of sand and vegetation are threatening the survival of the species as nesting sites are destroyed or become out of reach for the terrapins (AC22 Doc. 10.2 Annex 4).</p>
<p>Batagur trivittata Burmese Roofed Turtle.</p> <p>IUCN Global Category: Endangered A1c ver 2.3 (ATTWG, 2000m, in IUCN, 2012; needs updating). (Draft Critically Endangered*).</p> <p>Range: Myanmar.</p>	<p>Until recently regarded as possibly extinct (ATTWG, 2000m, in IUCN, 2012), individuals were found in a temple pond in 2002 and two small wild populations found in 2002-2004 surveys, in the Dokkhtawady and the Upper Chindwin (TCC, 2011). Acutely threatened by fishing, gold-mining and dam construction (Horne et al., 2012; TCC, 2011).</p> <p>Formerly Kachuga trivittata, now included in the expanded genus Batagur (Praschag et al., 2007); the existing CITES listing retains the previous nomenclature (Fritz and Havas, 2007).</p> <p>Listed in Appendix II in 2003.</p> <p>The only reported trade has been of scientific specimen from a captive bred animal.</p>
<p>Cuora aurocapitata Yellow-headed Box Turtle.</p> <p>IUCN Global Category: Critically Endangered A1d+2d ver 2.3 (ATTWG, 2000n, in IUCN, 2012; needs updating).</p> <p>Range: China (south Anhui Province).</p> <p>The wild population of <i>Cuora aurocapitata</i> is between 50-150 individuals.</p> <p>102/13 live turtles were reported as imported/exported in CITES trade data 2002-2010, mainly (re-)exported from Indonesia and China (Hong Kong).</p>	<p>Restricted to three river systems in southern Anhui. Described from market turtles in 1988 and found in the wild by scientists in 2004. Collection for trade began to deplete populations from the 1990s onward. Wild population now estimated at 50-100, probably fewer than are held in captivity. Threatened by fishing, pollution and habitat loss to hydroelectric projects as well as excess collection. (TCC, 2011).</p> <p>Listed in Appendix II in 2000.</p>
<p>Cuora flavomarginata Yellow-margined Box Turtle.</p> <p>IUCN Global Category: Endangered A1cd+2cd ver 2.3 (ATTWG, 2000o, in IUCN, 2012;</p>	<p>Also present in Taiwan, POC (ATTWG, 2000o). The few specimens found in Hong Kong are almost certainly released animals and it is uncertain whether a breeding</p>

needs updating).
(Draft Critically Endangered*).

Range: China, Japan (Ryukyus).

1393/1296 live turtles were reported as imported/exported in CITES trade data 2000-2011, mainly re/exported from China.

population exists (Lau and Shi Haitao, 2000).

The mainland China population is highly endangered; the Taiwanese population has declined in recent decades because of agricultural expansion but the remnants may be stable or recovering slightly. In Japan (Ryukyus) populations are small and somewhat threatened but relatively well protected (ATTWG, 2000o, in IUCN, 2012).

The population in Japan is known only from Ishigaki and Iriomote islands in the Yaeyama Island chain (Ryukyu Islands). A survey on Iriomote Island between 1982-1983 found the population density to be 0-128 individuals per ha. The species is widely distributed on Iriomote Island with a range size of 250 km². However, due to deforestation and development activities, the range has decreased to less than 30 km² (AC18 Doc. 7.1 Annex 2).

In captivity the species has exhibited longevity of 19 years. Sexual maturity in the wild has been estimated at 13 years for males and 14 years for females, with a variable clutch size of 1-4 eggs, and an annual number of clutches also varying between 1 and 4 (AC18 Doc. 7.1 Annex 2).

The main threats to this species are habitat loss and degradation in its East Asian range, collection for local consumption for its perceived medicinal benefits, and collection for the international pet trade (AC18 Doc. 7.1 Annex 2).

*Captive breeding has been undertaken for a number of years in the USA and in Europe, although it is unclear if the level of breeding is sufficient to meet the demand in the western pet market. Commercial captive breeding facilities in China are reportedly supplying an increasing number of hatchlings to the domestic pet market in China. The potential of these facilities to produce specimens for the food market is unknown. A turtle trader in Hong Kong estimated in 2001 60% of *C. flavomarginata* hatchlings in trade in China are harvested from the wild from Anhui, Hubei and Hunan provinces, where the species was reported to "remain common" (AC18 Doc. 7.1 Annex 2).*

*Surveys undertaken at one market in Shanghai during 2001 indicated that several hundred live specimens of *C. flavomarginata* were available (AC18 Doc. 7.1 Annex 2). A survey of 12 market sites in Hong Kong during 1998-1999 found that of the 84 chelonian species encountered, *C. flavomarginata* was one of the top ten species traded in terms of volume, though it is unclear how many were from the wild. Since this species is not thought native to Hong Kong and captive breeding for this species is not known locally, the specimens have likely been imported (AC18 Doc. 7.1 Annex 2).*

*The USA imported a total of 5035 live *C. flavomarginata* specimens from 1992-1999, primarily from China and Hong Kong (AC18 Doc. 7.1 Annex 2).*

	<p>Listed in Appendix II in 2000. Since then around 200 wild (including “O”, “U” and “I”) live turtles have been reported in trade as well as around 1200 live captive or F.</p> <p>The species was selected for review of significant trade (RST) at AC17 (2001). Reviewed at AC18 (2002) and placed in Category 2 for China and Category 3 for Japan. At AC19 (2003) China reported that it had suspended commercial export of this species since June 2000; consequently China was placed in Category 3 and was removed from the RST. This concluded the RST of <i>Cuora flavomarginata</i>.</p>
<p><i>Cuora galbinifrons</i> Indochinese Box Turtle.</p> <p>IUCN Global Category: Critically Endangered A1d+2d ver 2.3 (ATTWG, 2000p, in IUCN, 2012; needs updating).</p> <p>Range: China, Lao PDR, Viet Nam.</p> <p><i>Cuora galbinifrons</i> was found in over 80% of shipments coming out of Viet Nam and represented the third most encountered species in those shipments.</p> <p>2504/558 live turtles were reported as imported/exported in CITES trade data 1999-2010, mainly (re-)exported from Laos and China (Hong Kong).</p> <p>Around 3,000 imported to the USA between 1999-2010 (from U.S. Fish and Wildlife Service’s LEMIS Database). This species had the third highest imports in the period. .</p>	<p>In China, largely restricted to Hainan Island and southern margins of Guangxi, and present in adjacent parts of Laos and Viet Nam. Collected for food use in China.</p> <p>Possibly present in Cambodia (AC18 Doc. 7.1 Annex 2).</p> <p>Molecular phylogenetics suggests <i>bourreti</i> and <i>picturata</i>, both typically treated as forms of <i>galbinifrons</i>, and both from Viet Nam (possibly also adjacent Cambodia and Lao PDR), would be appropriately elevated to full species status (Stuart and Parham, 2004). This is adopted in van Dijk et al. (2011) but not in the CITES standard (Fritz and Havas, 2007).</p> <p><i>Cuora galbinifrons</i> does not reach sexual maturity until 10-15 years old, and breeding records from captive animals suggest they produce one clutch a year of 1-3 eggs (CoP16 Prop. 33).</p> <p><i>Cuora galbinifrons</i> has suffered dramatic population declines due to harvesting for the international pet trade and the Asian food trade. It was listed as Critically Endangered on the IUCN Red List of Threatened Species in 2000 due to an estimated 80% or greater decline in the past three generations, which was also projected to continue. Although this assessment needs updating, the Conservation of Asian Tortoises and Freshwater Turtles Workshop held in 2011 recommends that <i>C. galbinifrons</i> retains this status (CoP16 Prop. 16).</p> <p>Populations have reportedly (TCC, 2011) been much depleted by collection. <i>Cuora picturata</i> had only been known from market specimens but has recently been located in the wild, on the Langbian Plateau, Viet Nam (Ly et al., 2011). Numbers in food markets in Viet Nam and China have fallen recently, possibly indicating depletion of wild populations (TCC, 2011).</p> <p>Anecdotal evidence suggests this species is uncommon and rarely encountered. Field surveys in Lao PDR 1993-1999 had an encounter rate of one <i>C. galbinifrons</i> per day when working with a trained turtle hunting dog in prime turtle habitat, estimating a density of less than one <i>C. galbinifrons</i> per km². It is reported that <i>C. galbinifrons</i> is collected intensively throughout its range, and hunters report that this once common species is now increasingly difficult to find. The majority of research for <i>C. galbinifrons</i> comes from Viet Nam, for instance hunters have claimed</p>

that where they used to be able to collect 20 individuals a day in the 1990s, by 2006 they could only find a few animals a week. (CoP16 Prop. 33).

Primary threat is from heavy harvesting, throughout its range. A population decline is indicated by a decrease in the availability of this species at food markets coinciding with a doubling of price in some regions. A smaller number of animals are thought to be exported to supply the pet trade in the western world as well as hobbyists in Japan, Hong Kong, Thailand and elsewhere within Indochina (AC18 Doc. 7.1 Annex 2).

It is still being collected and trapped in Hainan; reportedly even within protected areas (AC18 Doc. 7.1 Annex 2). It is believed that the majority of *C. galbinifrons* observed regularly in Chinese markets originated in other southeast Asian countries (AC18 Doc. 7.1 Annex 2).

Listed in Appendix II in 2000. Since then around 650/500 wild (Including O, U, I) have been reported as imports/ exports. In addition 1500 ranched and 200 captive or F.

The species was present in nearly every reported market survey that looked at turtle trade in China and Hong Kong since recording began in 1993. All these animals appeared wild caught and most were offered in the food markets. During the period of 2000-2003 in Hong Kong markets alone over 15 000 *C. galbinifrons* were recorded. During this same period 905 animals are recorded as exported worldwide, indicating a high volume of illegal and unrecorded trade. Recent records shows a continued high volume of trade, with 1826 animals observed in food markets and 1944 animals in pet markets recorded in Guangzhou markets, China, for 2008-2011 (CoP16 Prop. 33).

There is a demand from commercial turtle farms for wild-caught turtles for founder stock, which is driving the collection of wild individuals through increased trade prices (CoP16 Prop. 33).

This species was reportedly the fifth most traded chelonian species in Hong Kong during May 1998 to May 1999, and that it is likely nearly all of the animals in trade are wild-collected (AC18 Doc. 7.1 Annex 2).

It is reported that European importers inform of mounting difficulties in obtaining specimens, though the species is still commonly sold in the European and USA pet market (AC18 Doc. 7.1 Annex 2).

This species has a history of high mortality in captivity and there are, to date, very few captive propagation programmes. A few private hobbyists are breeding the species in captivity, but there does not appear to be any commercial breeding. (AC18 Doc. 7.1 Annex 2).

	<i>The species was selected for review of significant trade (RST) at AC17 (2001) (see separate analysis for details).</i>
<p><i>Cuora mccordi</i> McCord's Box Turtle.</p> <p>IUCN Global Category: Critically Endangered A1d+2d ver 2.3 (ATTWG, 2000q, in IUCN, 2012; needs updating).</p> <p>Range: China.</p> <p><i>Cuora mccordi</i> may be extinct in the wild. Field surveys turned up one specimen in 2009 and none in 2010.</p> <p>73/89 live turtles were reported as imported/exported in CITES trade data 2004-2011, (re-)exported from Germany.</p>	<p><i>Described in 1988 on the basis of animals from a market in western Guangxi and only located in the wild in 2005; the known range extends over only 50 sq kms. Formerly said to be common, turtles began to be collected for trade in the 1980s and one of the last known to have been collected sold for USD20 000 in 2008. Surveys found one animal in 2009 and none in 2010. (TCC, 2011). Some 150 of the 350 animals known to have entered trade are believed alive, most in collections in the West, and many have bred.</i></p> <p><i>Listed in Appendix II in 2000. Since then around 10 wild (or U) live reported in trade with 60-80 Captive or F live in trade.</i></p>
<p><i>Cuora mouhotii</i> Keeled Box Turtle.</p> <p>IUCN Global Category: Endangered A1d+2d ver 2.3 (ATTWG, 2000r, in IUCN, 2012; needs updating) (draft Critically Endangered*).</p> <p>Range: China, India (Assam), Lao PDR, Myanmar, Thailand (unconfirmed).</p> <p>2/3 live turtles were reported as imported/exported in CITES trade data 2009-2010, (re)exported from China (Hong Kong).</p> <p>Around 2200 imported to the USA between 1999-2010 (from U.S. Fish and Wildlife Service's LEMIS Database).</p>	<p><i>Also present in Viet Nam.</i></p> <p><i>Listed in Appendix II in 2003. Since then five specimens have been reported in the CITES trade database.</i></p>
<p><i>Cuora pani</i> Pan's Box Turtle.</p> <p>IUCN Global Category: Critically Endangered A1d+2d ver 2.3 (ATTWG, 2000s, in IUCN, 2012; needs updating).</p> <p>Range: China.</p> <p>87/56 live turtles were reported as imported/exported in CITES trade data 2001-2010, mainly (re-)exported from Germany and Switzerland.</p>	<p><i>Inhabits small streams in the Qin Ling mountain range of central China. Few specimens with exact locality data are known; the species appears to exist as fragmented small populations. Exploited by the pet trade and affected by habitat loss. Some 250 animals are known in captivity where breeding has been quite successful. (TCC, 2011).</i></p> <p><i>Listed in Appendix II in 2000. 30 wild in trade in 2001. Around 55 captive and F live in trade.</i></p>
<p><i>Cuora trifasciata</i> Chinese Three-striped Box Turtle.</p> <p>IUCN Global Category: Critically Endangered A1d+2d ver 2.3 (ATTWG, 2000t, in IUCN, 2012; needs updating).</p>	<p><i>Formerly widely distributed in southern China, and extending into adjacent countries. Has long been in demand for live animals and medicinal use but subject to rising demand and excess collection over recent decades. Also in demand to stock farming operations. Recent high prices (reportedly up to USD20 000) thought to be driven by its supposed efficacy in combating cancer. (TCC, 2011).</i></p>

<p>Range: China, Lao PDR, Myanmar (unconfirmed), Viet Nam.</p> <p><i>Cuora trifaciata</i> have disappeared from the Chinese Provinces/SAR of Fujian, Hong Kong, Guangdong, Hainan, and Guangxi.</p> <p>645/196 live turtles were reported as imported/exported in CITES trade data 2000-2011.</p> <p>Around 750 imported to the USA between 1999-2010 (from U.S. Fish and Wildlife Service's LEMIS Database).</p> <p>In the eighties the species sold for \$50-100 USD but by 1999/2000 the price had gone to \$1500/kg because it was thought to cure cancer which has now brought this species to the brink of extinction.</p>	<p><i>Listed in Appendix II in 2000. Less than 20 live specimens reported as Wild (W, O U or I) with almost 600 traded as captive or F as well as 20 ranched.</i></p>
<p><i>Cuora yunnanensis</i> Yunnan Box Turtle.</p> <p>IUCN Global Category: Critically Endangered B2ab(ii,iii,v); D ver 3.1 (van Dijk, P.P., Blanck, T. & Lau, M. 2010, in IUCN, 2012).</p> <p>Range: China (Yunnan).</p>	<p><i>Any remaining population(s) is assumed to be extremely small and localized. Only three animals have been confirmed since 1946, all since 2004, despite at least 15 years of searches for this species, and monitoring of the intensive turtle trade in China. The first specimens were obtained in the vicinity of Kunming, but perhaps had been transported there for sale. Three individuals found since 2004 in Kunming market are in captivity. Remaining individuals would be under exceptional threat from collection, as the species potentially commands a very high price in the (illegal) pet trade; possibly about USD50 000 for the first animal to emerge from China into the international pet trade (van Dijk et al., 2010, in IUCN, 2012).</i></p> <p><i>The species has bred in captivity and the wild habitat was finally located in 2008 (TCC, 2011).</i></p> <p><i>Listed in Appendix II in 2000. Since then no trade has been reported in the CITES trade database.</i></p>
<p><i>Cuora zhoui</i> Zhou's Box Turtle.</p> <p>IUCN Global Category: Critically Endangered A1d+2d ver 2.3 (ATTWG, 2000u, in IUCN, 2012; needs updating).</p> <p>Range: China (unconfirmed), Viet Nam (unconfirmed).</p> <p>Less than 100 known individuals of <i>Cuora zhoui</i>.</p> <p>33/7 live turtles were reported as imported/exported in CITES trade data 2000-2007, re/exported from China.</p>	<p><i>Originally described from turtles in a market in southern Guangxi, the natural range remains unknown and only collectors have ever seen it in the wild. No specimens are known to have entered trade in recent years. About half the 200 specimens that went to live animal collections survive; some breeding has occurred (TCC, 2011).</i></p> <p><i>Listed in Appendix II in 2000. Since then around 30 live turtles recorded in the CITES trade database (W, O, C, F).</i></p>

<p><i>Heosemys annandalii</i> Yellow-headed Temple Turtle.</p> <p>IUCN Global Category: Endangered A1cd+2d ver 2.3 (ATTWG, 2000v, in IUCN, 2012; needs updating).</p> <p>Range: Cambodia, Lao PDR, Malaysia, Thailand, Viet Nam.</p> <p>33 976/70 394 live turtles were reported as imported/exported in CITES trade data 2003-2011, (re-)exported from Laos PDR and Viet Nam.</p>	<p><i>Until recently assigned to Hieremys.</i></p> <p><i>Threatened because of trade exploitation in Cambodia, Lao and Viet Nam, probably threatened in Thailand, the population in Malaysia is marginal and very small. Habitat loss is a contributing factor throughout the range (ATTWG, 2000v, in IUCN, 2012).</i></p> <p><i>Probably one of the most immediately threatened turtles in Viet Nam; relatively large size and association with lowland wetlands makes the species susceptible to heavy collection pressure and habitat loss. Reported in trade en route to China (Stuart, 2004).</i></p> <p><i>Listed in Appendix II in 2003.</i></p> <p><i>The CITES Trade database shows large numbers of this species in trade in the period until 2010; most of the 13 228 transactions involving live wild-caught turtles are exports from Lao PDR or Malaysia before 2006. From 2006 onwards all trade has been in ranched (57 000 live, re-exported from Lao PDR and Myanmar) or captive-bred specimen (< 200 live, mainly from Malaysia).</i></p> <p><i>Malaysia has had a zero quota since 2007 initially for Wild caught, then live from Peninsular Malaysia then all from Peninsular Malaysia.</i></p> <p><i>Heosemys annandalii (along with H. grandis and H. Spinosa) was selected at AC23 (2008) for review of significant trade (RST), excluding the populations of Malaysia (which confirmed a zero export quota). Following correspondence from the Secretariat in May 2008, responses were received from Indonesia, Myanmar, the Philippines and Thailand, documenting their respective trade regulation or species protection measures in force and these Parties were thus removed from the Review. No responses were received from Brunei Darussalam, Cambodia, Lao PDR and Viet Nam, and these Parties were retained in the RST.</i></p>
<p><i>Heosemys depressa</i> Arakan Forest Turtle.</p> <p>IUCN Global Category: Critically Endangered A2cd, B1+2c ver 2.3 (ATTWG, 2000w, in IUCN, 2012; needs updating).</p> <p>Range: Myanmar (Arakan).</p> <p>15/3 live turtles were reported as imported/exported in trade reported to CITES in 2003-2010, (re-)exported from China (Hong Kong).</p>	<p><i>Recent discovery of a few specimens in markets in Myanmar and across the border in China confirm the rarity and threatened status of this rarely-seen species (ATTWG, 2000w, in IUCN, 2012).</i></p> <p><i>Not seen by scientists in the wild for more than a century; began to appear in Chinese food markets in the 1990s, and relocated in the wild in 2007 in a protected area for elephants. Threatened by habitat loss and collection. Some breeding has occurred in captive groups in Myanmar, Europe and USA. (TCC, 2011).</i></p> <p><i>Listed in Appendix II in 2003. Less than 20 live turtles have been reported in the CITES trade database.</i></p>

Mauremys annamensis

Annam Pond Turtle.

IUCN Global Category: Critically Endangered A1d+2d ver 2.3 (ATTWG, 2000x, in IUCN, 2012; needs updating).

Range: Viet Nam.

Mauremys annamensis has disappeared from the coastal lowland wetlands and rivers of some provinces of central Viet Nam. This species is considered one of the *Top 25 Endangered Freshwater Turtles at Extremely High Risk of Extinction*. It is threatened by severe loss of lowland habitat by degradation and fragmentation due to land conversion to agricultural land and urban development. Peak wildlife trade to largely Asian markets of this species in the 80's and early 90's greatly diminished populations making this species rare in the wild. It is still sought after for international trade but also for local consumption and traditional medicines in Viet Nam.

110/121 live turtles were reported as imported/exported in CITES trade data 2003-2009, (re-)exported from Germany and China.

Less than 500 *Mauremys annamensis* imported to the USA between 1999-2010 (from U.S. Fish and Wildlife Service's LEMIS Database).

Recruitment for M. annamensis is slow – animals take about seven years to mature, females are thought to produce one or two clutches of 5-8 eggs per year, and there is high egg and juvenile mortality rates (CoP16 Prop. 35).

However it is known from only three provinces in Viet Nam, and within these it is restricted to small lowland lakes, ponds and wetland areas close to large rivers (CoP16 Prop. 35). The combined area of Quang Nam, Da Nang and Gia Lai provinces is approximately 27 000 km². Suitable habitat within this range would be considerably smaller.

Endemic to rivers and coastal wetlands in central Viet Nam. Almost all habitats reportedly converted to rice cultivation or urban use; also in demand nationally for medicinal use and traded to China for the same purpose. Numbers in trade declined during the late 20th century, apparently because of declining populations. Recently (2006) documented in native habitat for the first time since 1939. Reproduces well in captivity (TCC, 2011).

M. annamensis is classified as Critically Endangered on the IUCN Red List of Threatened Species, based on a population decline of 80% or more within the past three generations, and a similar projected decline in the future. Although this assessment needs to be updated, the Conservation of Asian Tortoises and Freshwater Turtles Workshop held in 2011 recommended that this species retains its Critically Endangered status for the same thresholds (CoP16 Prop. 35).

Wild collection for Asian (and particularly Chinese) markets is suggested to pose a greater threat to M. annamensis than export for the Western pet trade, and the Asian trade network for this species is largely illegal (Raffel and Meier, 2012). According to ATP (2008), intensive collection of M. annamensis to meet the rising demand for turtles in China since the late 1980s has significantly reduced remaining populations, with fewer animals observed in the trade in each passing year

During April and May 2006, comprehensive interview-based surveys were conducted in Quang Nam Province, focusing on M. annamensis. During the survey, 397 locals were interviewed, of whom 93 were able to provide information on M. annamensis. In particular, the two districts of Dien Ban and Duy Xuyen provided reliable information on the species, including information from a boy who was keeping a specimen of M. annamensis which he claimed to have caught in a small lake known locally as Ha Tre Lake. In November 2006 the MAP team returned to investigate Ha Tre Lake. During this visit non-lethal aquatic trapping was conducted which resulted in the capture of a single sub adult M. annamensis, the first ever confirmed wild capture of the species since 1939. As a result of the findings, the MAP established a project presence at the site starting in September 2007, with a full time monitoring team located in Dien Phong Commune. By February 2008, a total of 339 additional interviews were conducted in Duy Xuyen, Dien Ban, Que Son, Thang Binh and Dai Loc districts. In total, five M. annamensis were once observed

	<p><i>in the hands of a single trader in Vinh Dien town of Dien Ban district. Interviews with traders indicate that the species is becoming increasingly rarer. This is further supported by the fact all five animals observed in trade were sub-adults or juveniles; the largest specimen was 280 g and still not mature and the smallest was only 85 g. In addition to interviews, a total of 110 days of trapping were carried out at three sites in Duy Xuyen and Dien Ban districts. Trapping resulted in no additional field records for M. annamensis (Nguyen et al., 2008).</i></p> <p><i>Listed in Appendix II in 2003. Around 80 wild caught live turtles reported in trade (including O).</i></p> <p><i>Reported seizures involving M. annamensis provide evidence of illegal activities involving this species, although it is unclear whether any/all of these shipments were destined for international markets. In 1998, Vietnamese authorities reported having seized an estimated 700 (800 kg) of turtles and tortoises of 13 species, of which a small number were M. annamensis, from a public bus destined for Hanoi. The trader claimed that the animals were raised on farms in southern Viet Nam, but information provided to the authorities suggested that they were collected from the wild. The cargo was for possible onward shipment to the Chinese market (TRAFFIC, 2012). A 2007 genetic study looked at eight individuals confiscated in northern Viet Nam and assumed the animals: (i) to be wild, owing to the lack of known turtle farms breeding M. annamensis at that time, and (ii) destined for China presumably due in part to the location of the seizure (Fong et al., 2007).</i></p>
<p><i>Orlitia borneensis</i> Malaysian Giant Turtle.</p> <p>IUCN Global Category: Endangered A1d+2d ver 2.3 (ATTWG, 2000y, in IUCN, 2012; needs updating). (Draft Critically Endangered*).</p> <p>Range: Indonesia (Sumatra, Kalimantan), Malaysia.</p> <p>39 951/15 340 live turtles were reported as imported/exported in CITES trade data 2003-2010, (re-) exported from Malaysia and Indonesia.</p> <p>Around 600 <i>Orlitia borneensis</i> imported to the USA between 1999-2010 (from U.S. Fish and Wildlife Service's LEMIS Database).</p>	<p><i>Considered vulnerable in peninsular Malaysia, and endangered in Indonesia whence exported in large quantities despite official protection. Traded in East Asian food markets in huge numbers of animals of all sizes (ATTWG, 2000y, in IUCN, 2012).</i></p> <p><i>The Lao PDR and Viet Nam are not range States of the species but wild-caught specimens are exported from these States (AC24 Summ.Rec).</i></p> <p><i>Listed in Appendix II in 2003.</i></p> <p><i>The CITES Trade database shows large numbers of this species in trade in the period 2001-2010: 39 949/15 267 live animals imported/exported (plus 50 kg of carapace and 100 captive-bred turtles). Most wild turtles were from Malaysia (with additional trade originating from Lao PDR, not a range state, and Indonesia), all before 2006. Almost no trade has been reported since 2006 and this mostly illegal re-exports from non-range states.</i></p> <p><i>Malaysia has had a zero quota since 2007 initially for wild caught, then live from Peninsular Malaysia then all from Peninsular Malaysia.</i></p> <p><i>Orlitia borneensis was evaluated for inclusion in review of significant trade (RST) at</i></p>

AC 23 but not retained in Review; however, the AC requested the Secretariat to seek clarification from Lao PDR and Viet Nam regarding their reported trade in this species. No responses were received and the species was retained at AC24 (2009), where the AC recommended that the Secretariat inform the SC accordingly to take appropriate action. The available session reports from SC58 do not indicate that this case was discussed.

*"Draft" IUCN Red List assessments, as shown in Table 1 of the proposal Supporting Statement are by the Tortoise and Freshwater Turtle Specialist Group (the official authority for tortoises and freshwater turtles for the IUCN Red List); although some categorisations have been published (Van Dijk et al., 2011) they are subject to revision and not yet incorporated in the IUCN Red List itself (IUCN, 2012). The draft categories are only shown in the Table above if they differ from those in IUCN (2012) or if the species was not currently listed for IUCN (2012).

Reviewers: C. Shepherd.

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