CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

Inclusion of *Leucocephalon yuwonoi* in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), by fulfilling the criteria A and B (i) according to Article II, paragraph 2 (a) of the Convention, as specified in Resolution Conf. 9.24.

B. Proponent

The People's Republic of China and the Federal Republic of Germany (on behalf of the Member States of the European Community).

Executive Summary

- An Appendix II listing is proposed for the Sulawesi Forest Turtle (*Leucocephalon yuwonoi*); the species meets the criteria in Res. Conf. 9.24, as outlined below. This listing is expected to result in a reduction in international trade in the species to levels that are within sustainable limits, as it is expected to lead to scrutiny of trade levels and the status and biological data used to determine acceptable trade levels through non-detriment findings, quotas and other mechanisms. In addition, it provides importing countries with a mechanism to monitor and evaluate trade levels and the significance of their involvement. Listing will also result in jurisdiction over management of the species being shifted to the CITES MA in Indonesia.

- All known occurrences of *L. yuwonoi* are restricted to the western portion of the Minahasa peninsula of Sulawesi, Indonesia. The only available habitat information consists of a record of two animals observed in shallow pools in a small river draining an area of secondary forest. This suggests that the species is not dependent on pristine watercourses and that suitable habitat is likely to remain available. No information is available on growth rate or age at maturity. Mature females produce one or two very large eggs per clutch; it is not known whether females produce more than one clutch per year.

- *Leucocephalon yuwonoi* (as *Heosemys yuwonoi*) was listed in the 2000 IUCN Red List as **Critically Endangered** A1cd + 2cd, C1 (known or inferred population reduction of at least 80% over the past three generations due to a decline in the area of occupancy, extent of occurrence and/or quality of habitat and actual or potential levels of trade, a similar projected future decline over the same time period, population estimated to number less than 250 mature individuals and an estimated continuing decline of at least 25% within one generation).

- The numbers of animals observed in international trade rapidly increased from initial specimens in the early 1990's to 2000-3000 animals traded in food markets in southern China in 1998, and collapsed to about 100 animals traded in 1999. The species has not been observed in food markets in China during 2000 and 2001. The impacts from trade on *L. yuwonoi* populations are not documented in detail, but the trends in quantities traded indicate a rapid increase in numbers collected as trade demand and transport arrangements developed, followed by an even more rapid decline. Since the demand has not disappeared, it is logical to conclude that the supply has diminished. Such a rapid 'boom-and-bust' cycle is unlikely to be caused by habitat alterations on the species' populations, and the logical conclusion is that the decline of the species has been caused by over-collecting.

- This species meets the criteria listed in Res. Conf. 9.24, Annex 2a, A, namely that "it is known, inferred or projected that unless trade in the species is subject to strict regulation, it will meet at least one of the criteria listed in Annex 1 in the near future". The species also meets criterion in Annex 2a, B (i), namely that "it is known, inferred or projected that the harvesting of specimens from the wild for international

trade has, or may have, a detrimental impact on the species by exceeding, over an extended period, the level that can be continued in perpetuity".

- The **Indonesian** Management Authority announced the willingness of the country to act as a co-proponent. **China** approved the proposal and asked to act as a co-proponent as well. – All participants of the "Technical workshop on conservation of and trade in freshwater turtles and tortoises", held at Kunming, P.R. China, on 25-28 March 2002, including representatives from range and non-range countries, supported this proposal.

C. Supporting statement

1. Taxonomy

1.1 Class: Reptilia

1.2 Order: Testudines (Chelonia)

1.3 Family: Bataguridae (Geoemydidae)

1.4 Genus and species: *Leucocephalon yuwonoi* (McCord, Iverson & Boeadi, 1995)

1.5 Scientific synonyms: *Geoemyda yuwonoi* McCord, Iverson & Boeadi, 1995
Heosemys yuwonoi ((McCord, Iverson & Boeadi, 1995)

The species was described as *Geoemyda yuwonoi* by McCord, Iverson & Boeadi in 1995 and included as such in Obst's 1996 commentary on the reprint of Wermuth & Mertens (1961). The species was subsequently placed in *Heosemys* by Fritz & Obst (1996) until the monotypic genus *Leucocephalon* was created for it by McCord, Iverson, Spinks & Shaffer (2001).

1.6 Common names:

English:	Sulawesi Forest Turtle
French:	Géoémyde de Célèbes
Spanish:	
Bahasa Indonesia:	Kura-Kura Sulawesi
German:	Sulawesi Erdschildkröte

1.7 Code numbers:

2. Biological parameters

Leucocephalon yuwonoi is a medium-sized freshwater turtle species which reaches a shell length of nearly 27 cm. The shell is proportionally low, and bears three keels which are recognisable at all ages. The front and back carapace (dorsal shell) margins are distinctly serrate. Like most turtles it possesses five large vertebral scutes in the carapace midline. The plastron is solidly attached to the carapace by a relatively short bridge. The front and back of the plastron are clearly notched. The head is large and triangular when seen from above, the neck proportionally slender, the limbs are fairly large and powerful.

The carapace is orange-brown with some darker cloudy blotches, which may become so extensive that the carapace may be black with some brown clouds. Plastron, bridge and underside of marginals are yellowish to pale brown, with a more or less washed-out pattern of cloudy brown spots, blotches and streaks radiating from the scute areolus; large black stains may also be present. The head is uniform grey-brown in young animals; with growth and age the head develops contrasting dark brown and creamy white colouration. The limbs and areas of soft skin are dark grey, the claws and some of the large fore-arm scales also become yellow in old animals.

Males become somewhat longer but are proportionally narrower than females (whose maximum shell length has been reported as just over 22 cm). Males also have a proportionally bigger head and larger tail base, and seem to develop more extensive cream colouration.

See McCord *et al*., (1995) and Fritz & Obst (1996, 1999) for extensive descriptions of the species. [NOTE: the illustrations provided by Iskandar (2000: pages 119-120) represent *Callagur borneoensis* and *Heosemys grandis*.]

No information is available on growth rate or age at maturity. Mature females produce one or two very large eggs per clutch (Fritz & Obst, 1999; Iskandar, 2000); it is not known whether females produce more than one clutch per year.

2.1 Distribution

Countries of Origin: Indonesia

All known occurrences of *L. yuwonoi* are restricted to the western portion of the Minahasa peninsula of Sulawesi, Indonesia.

2.2 Habitat availability

The only available habitat information consists of a record of two animals observed in shallow pools in a small river draining an area of secondary forest (Platt *et al*., 2001). This suggests that the species is not dependent on pristine watercourses and that suitable habitat is likely to remain available.

2.3 Population status

Samedi & Iskandar (2000) rated the conservation status of *L. yuwonoi* as Rare and Endangered.

Anecdotal information suggests that the species is (or was) moderately abundant in appropriate habitat: Platt *et al*. (2001) found two individuals during a single evening's search of 1 km of a small river in October 1998. Villagers reported that about 30 turtles had recently been collected from this small river, and a single collector had taken about 100 individuals from this small river during the preceding 2 years (Platt *et al*., 2001).

2.4 Population trends

No information is available on population trends in the area of occurrence.

The numbers of animals observed in international trade rapidly increased from initial specimens in the early 1990's to 2000-3000 animals in 1998, and collapsed to about 100 animals traded in 1999 (Kan & Chan, in IUCN TFTSG & ATTWG, 2000), after which the species disappeared from the trade.

2.5 Geographic trends

No geographic trends in biological features or population status have been reported.

2.6 Role of the species in its ecosystem

Beyond indications that the species leads a semi-aquatic to aquatic lifestyle in forest streams and feeds on fruits, leaves and other vegetable matter (McCord *et al*., 1995; Iskandar, 2000; Platt *et al*., 2001), no information is available on the role of *L. yuwonoi* in the ecosystem.

2.7 Threats

The species is understood to be primarily threatened by collection of adults for domestic consumption and the international food trade, and collection of juveniles and adults for the international pet trade.

The occurrence of substantial numbers of animals in rivers draining secondary forest indicates that modest levels of habitat alteration are not a significant threat. However, extensive deforestation and associated soil erosion and alteration of water quality and seasonal stream flow patterns would surely pose a threat.

Leucocephalon yuwonoi (as *Heosemys yuwonoi*) was listed in the 2000 IUCN Red List (Hilton-Taylor, 2000) as Critically Endangered A1cd + 2cd, C1 (Known or inferred population reduction of at least 80% over the past three generations due to a decline in the area of occupancy, extent of occurrence and/or quality of habitat and actual or potential levels of trade, a similar projected future decline over the same time period, population estimated to number less than 250 mature individuals and an estimated continuing decline of at least 25% within one generation [IUCN, 1994]).

3. Utilization and trade

3.1 National utilization

Little information is available on local or national utilisation. Platt *et al* (2001) note that the species is collected for the food and pet trade, and that animals are sold to restaurants in Palu, Sulawesi, for local consumption.

3.2 Legal international trade

The first animals of *L. yuwonoi* known to be traded were four animals shipped from Malaysia to Miami and onwards to Japan in 1986 (Aoki, in Fritz & Obst 1999). Statistics of turtles exported by the pet trade compiled by the CITES MA of Indonesia for 1998 to 2001 do not list any *L. yuwonoi* specimens (Samedi *et al*., 2002: page 5) Records of the United States Fish and Wildlife Service for 1996-1999 do not list imports of *Geoemyda* / *Heosemys* / *Leucocephalon yuwonoi* during these four years. There are, however, records of imports of remarkably expensive *'Heosemys* species' from Indonesia and China, in 1996, '97 and '98; the Indonesian shipments and part of the shipments from China (including Hong Kong) are likely to pertain to *L. yuwonoi*.

The first imports of animals into Europe appears to be a pair that was imported by a German reptile trader in 1993; modest numbers of animals have subsequently been imported by the European pet trade (Fritz & Obst, 1999). A review by the German Scientific Authority of 13 available offer lists (dating from 1990 to 2002) from German reptile wholesalers yielded a single offer of *L. yuwonoi* at DEM 295.00 per animal in 1996.

The numbers of animals observed in international trade rapidly increased from initial specimens in the early 1990's to 2000-3000 animals traded in food markets in southern China in 1998, and collapsed to about 100 animals traded in 1999 (McCord in Salzberg, 1998; Kan & Chan, in IUCN TFTSG & ATTWG, 2000). The species has not been observed in food markets in China during 2000 and 2001 (Artner & Hofer, 2001; Ades, 2002; van Dijk, in litt. to BfN).

3.3 Illegal trade

The species is not at present afforded specific legal protection in Indonesia and thus by default all trade in the species is legal unless contravening regulations in the country of import.

3.4 Actual or potential trade impacts

The impacts from trade on *L. yuwonoi* populations are not documented in detail, but the trends in quantities traded indicate a rapid increase in numbers collected as trade demand and transport arrangements developed, followed by an even more rapid decline. Since the demand has not disappeared, it is logical to conclude that the supply has diminished. Such a rapid 'boom-and-bust' cycle is unlikely to be caused by habitat alterations on the species' populations, and the logical conclusion is that the decline of the species has been caused by over-collecting.

Inclusion of *Leucocephalon yuwonoi* in CITES Appendix II is expected to result in a reduction in international trade in the species to levels that are within sustainable limits, as it is expected to lead to scrutiny of trade levels and the status and biological data used to determine acceptable trade levels through non-detriment findings, quotas and other mechanisms. In addition, it provides importing countries with a mechanism to monitor and evaluate trade levels and the significance of their involvement.

Including *Leucocephalon yuwonoi* in CITES Appendix II will result in jurisdiction over management of the species being shifted from the Fisheries Department of Indonesia to the Directorate General of Forest Protection and Nature Conservation of the Ministry of Forestry (the CITES MA).

3.5 Captive breeding for commercial purposes

Maintaining *Leucocephalon yuwonoi* alive in captivity for extended periods of time (months) has been highly challenging (CBSG, 2001) and no captive breeding has yet been reported. Most imports for the pet trade concerned animals acquired in East Asian food markets, which arrived in Europe and America in severely weakened condition. Very small numbers of juveniles were imported into Europe during 2001, directly from Indonesia, and these animals were and have remained in good health (van Dijk, in litt. to German CITES Scientific Authority, January 2002).

4. Conservation and Management

4.1 Legal status

4.1.1 National

The species is currently not protected by domestic Indonesian legislation, but is considered a candidate for national protection by inclusion under Law No.5/1990 concerning the Conservation of Biological Natural Resources and their Ecosystems, and Law No. 5/1985 concerning Fisheries (Suwelo, 2001; Samedi, pers. comm Aug 2001). Until the species is included in domestic species protection, it is considered a fishery resource under Act No. 9/1985 concerning Fisheries. Under this act, permits for exploitation and trade of specific quantities of unspecified freshwater turtles are issued by the local district (regency) government through its Fisheries Services (Samedi *et al*., 2002).

4.1.2 International

The species is currently not directly protected by any international legislation.

Under Notice of Strengthening the Trade Management on Turtles and Tortoises, issued on June, 17, 2001, the People's Republic of China suspended all commercial imports of all turtles from Indonesia, including *Leucocephalon yuwonoi*.

4.2 Species management

4.2.1 Population monitoring

No population monitoring is known to be have been carried out or to be in progress.

4.2.2 Habitat conservation

Leucocephalon yuwonoi is not known to inhabit any protected areas. The species could conceivably inhabit the Panua and Buol Toli-toli protected areas and Gunung Sojol and Buol Toli-toli extension proposed protected areas (MacKinnon, 1997); surveys are needed to clarify its occurrence in these areas.

4.2.3 Management measures

The best available information indicates that no management measures have taken place or are in preparation for the species in its natural range.

In recent years, hobbyist efforts to maintain and perhaps breed the species in captivity have developed from isolated attempts towards co-ordinated programs, involving information exchange and, in future, management of genetics. A Taxon Management Group (TMG) is being established for the species following the Ft. Worth workshop in January 2001 and runs under the auspices of the Turtle Survival Alliance, a joint working group of the IUCN / SSC Tortoise & Freshwater Turtle and Conservation Breeding Specialist Groups. In January 2001, 4 animals were held within the Asian Turtle Consortium in the USA (CBSG, 2001). Another 12 animals were registered with the OOS Foundation, but no formal studbook is listed (OOS, 2000; CBSG, 2001).

4.3 Control measures

4.3.1 International trade

Animals in international trade are subject to the usual national regulations pertaining to customs regulation and quarantine in Indonesia, and may be subject to similar measures when entering the importing country.

4.3.2 Domestic measures

The species is currently not subject to domestic control measures such as quotas, size limits or restrictions on the origin of exploited animals.

5. Information on Similar Species

The species is currently not subject to domestic control measures such as quotas, size limits or restrictions on the origin of exploited animals.

6. Other Comments

Both the Management and Scientific Authorities of **Indonesia** had been contacted in March 2002. The Indonesian Management Authority announced the willingness of the country to act as a co-proponent (see copy attached). **China** approved the proposal and asked to act as a co-proponent (see attachment).

All participants of the "Technical workshop on conservation of and trade in freshwater turtles and tortoises", held at Kunming, P.R. China, on 25-28 March 2002, including representatives from range and non-range countries, supported this proposal.

7. Additional Remarks

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8. References

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MINISTRY OF FORESTRY OF THE REPUBLIC OF INDONESIA
DIRECTORATE GENERAL OF FOREST PROTECTION AND NATURE CONSERVATION
Manggala Wanabakti Building, Block VII, 7th Floor.
Jl. Jenderal Gatot Subroto, Jakarta 10270 – Telp/ Fax. 021-5720227, 5734818
e-mail : cites@dephut.cbn.net.id

Jakarta 1 May 2002

TELEFAX
No. 503/IV/Kkh+5/2002

To : Ms Elizabeth Munzert
German Federal Ministry for the Environment.
Fax : 49 228 8491200
From : CITES Management Authority Indonesia
Fax : 62 21 5720227
Subject : Consultation letter on Asian Freshwater Turtles

Dear Sir,

This is responding your consultation concerning listing proposal of Asian Freshwater Turtles. The CITES Management Authority Indonesia herewith would like to inform you as follows:

1. The population of fresh water turtles and tortoise are in general declining due to a number of factors such as over collecting to meet the demand of turtle trade. Many of the species are not covered by sufficient protection, nationally and internationally. However, little is known concerning the population status of the species, and trade data is not well-documented. The records of trade made by authorities may not reflect the actual exports as many exports can be directly undertaken by using permits only from the local district government. It is also known that trans-border transaction is also in existence without permit.

2. Based on the consultation and recommendation from CITES Scientific Authority of Indonesia and The Ministry of Marine Affairs and Fisheries, and also from the discussion in the Workshop on the Conservation and Trade in Freshwater turtle and Tortoises, held in Kunming, China 25-28 March 2002 the CITES Management Authority Indonesia strongly supports the proposal of Germany to list *Heosemys spinosa, Heosemys yuwonoi, Orlitia borneensis,* into Appendix II and Indonesia is willing to be the co-proponents.

Thank you for your kind assistance.

Sincerely yours,

YAYA MULYANA
Acting Director of Biodiversity Conservation

Cc:
1. Minister of Forestry of Republic of Indonesia
2. Secretary General of the Ministry of Forestry
3. Director General of Aquaculture, Ministry of Marine Affairs and Fisheries
4. Director General of Forest Protection and Nature Conservation

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The Endangered Species Import and Export Management Office of the People's Republic of China

From: Meng Xianlin Vice Director General
The Endangered Species Import and Export Management Office of the People's Republic of China (CITES Management Authority of China)
Fax: +86 10 84256388

To: Dr. Emonds, Mr. Heiko Huapt
Scientific Authority of Germany
Fax: +49 1888 3055 3225, 49 228 8491 119

Cc: Dr. Kurt Johnson
Chief, Division of Scientific Authority, Fish and Wildlife Service,
United States Department of the Interior
CITES Secretariat

Pages:

Subject: Co-sponsor the Draft Proposals on Asian Freshwater Turtle

Dear Dr. Emond and Mr. Heiko Haupt,

Its my pleasure to formally inform you that, having got the final approval from concerning national authorities on the freshwater turtle issues, China would like to co-sponsor all draft proposals on freshwater turtles prepared by Germany, including Heosemys spp., Leucocephalon yuwonoi, Mauremys annamensis, and Orlitia borneensis.

If US and Germany decide to package all the 11 proposals on freshwater turtles, China will also co-sponsor that package.

I wish the above information helpful.

Best wishes,

Sincerely yours,

Meng Xianlin
2002/6/3

Fernschreibstelle BMU 03.06.2002 13. Juni 02

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	NT3		10235

P.S. Is it necessary for me to formally write to the Secretariat on our decision? Or you can just attach this letter when submitting the proposals? Please tell me which way is preferred.

Add: State Forestry Administration, 18 Hepingli Dongjie, Beijing, 100714, P. R. China
Tel: +86-10-84239011 Fax: +86-10-84256388
E-mail: cnma@public.fhnet.cn.net web: http://www.cites.gov.cn