Inclusion of Sulawesi Forest Turtle *Leucocephalon yuwonoi* in Appendix II. Proponent: China and Germany (on behalf of the Member States of the European Community).

Summary: Sulawesi Forest Turtle *Leucocephalon yuwonoi* is a medium-sized, herbivorous, freshwater turtle whose known range is restricted to the western portion of the Minhasa peninsula of Sulawesi, Indonesia. Females produce one or two very large eggs per clutch; the number of clutches per year is unknown. Anecdotal information suggests that the species is or was moderately abundant in appropriate habitat. Although it can survive in moderately altered habitat, extensive deforestation and associated soil erosion are thought to pose a threat. The species was first recorded in international trade in 1986 and 2 000-3 000 individuals were seen in food markets in China annually during the early 1990s. In 1998 only 100 individuals were seen and the species has not been observed in these markets since. Modest numbers have been imported into Europe and North America for the pet trade. The species is not protected in Indonesia where it is collected for the food and pet trade. *L. yuwonoi* is classified as Critically Endangered by IUCN. The proponents seek inclusion of the Sulawesi Forest Turtle in Appendix II in accordance with Article II, Resolution Conf. 9.24, Annex 2a criteria A and Bi) on the grounds that if international trade is not strictly regulated the species will meet the criteria for inclusion in Appendix I in the near future and that harvesting of specimens from the wild will exceed, over an extended period, the level that can be continued in perpetuity.

Analysis Following Resolution Conf. 9.24, although population data are lacking, the species, which has a restricted range, is believed to be declining in numbers. From the observed pattern of international trade, such trade is strongly suspected to have played a significant part in this decline and it is thought likely that any continuing trade will be unsustainable. The species is still in international trade (though currently recorded in very small numbers), so that it appears to meet the criteria for inclusion in Appendix II. The species may currently meet the criteria for inclusion in Appendix I.

Supporting Statement (SS)

Additional information

Taxonomy

Synonyms: Geoemyda yuwonoi, Heosemys yuwonoi.

The standard reference for the names of turtles adopted by the Conference of the Parties (Wermuth and Mertens, 1996) uses the name Geoemyda yuwonoi. For the purposes of this Analysis the genus will be referred to as Leucocephalon.

Range

Indonesia: Sulawesi.

IUCN Global Category

CR A1cd +2cd

Biological and trade criteria for inclusion in Appendix II

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

The species may already meet the biological criteria for inclusion in Appendix I.

Observed patterns of trade indicate that international trade has played, and presumably continues to play, an important part in any decline.

Samedi and Iskandar (2000) consider the conservation status of H. yuwonoi to be 'rare' or 'endangered'.

B) Harvesting for international trade has, or may have, detrimental impact on population (i) exceeds sustainable yield; (ii) reduces population to potentially threatened level

The species' low reproductive rate (one or two eggs per clutch) makes it vulnerable to over-exploitation.

Harvesting of adults for domestic consumption and the international food trade, and collection of juveniles and adults for the international pet trade, are cited as primary threats to the species.

No actual data are available on population trends but it is

Lovich et al. (2000) note that L. yuwonoi was first described in 1995 from specimens appearing in food markets in east Asia; they add that the species does not thrive in captivity, and believe it may become extinct within a few years of its discovery.

A market survey of 32 reptile shops in the Kantoh and Kansai areas of Japan, conducted by TRAFFIC East Asia - Japan in March 2002 reported the occurrence of

Supporting Statement (SS)

inferred that the population is in decline as despite the ongoing demand for this species, the numbers in trade have decreased dramatically in recent years.

Anecdotal information suggests that the species is (or was) moderately abundant in appropriate habitat. Two individuals were found during a single evening's search of 1 km of a small river in October 1998 and villagers reported that about 30 turtles had recently been collected from this small river. A single collector had taken about 100 individuals from the river during the preceding two years.

The numbers of animals observed in international trade rapidly increased from initial specimens in the early 1990s to 2 000 to 3 000 observed for trade in food markets in China in 1998. Only 100 animals were observed in trade in 1999, after which the species was not observed in these markets again. Official Indonesian statistics do not report any export of this species for the pet trade from 1998-2001. However, imports by the USA of expensive 'Heosemys species' from Indonesia and China were reported, in 1996, 1997 and 1998; the Indonesian shipments and part of the shipments from China (including Hong Kong SAR) are likely to pertain to *L. yuwonoi*.

Additional information

two L. yuwonoi in two shops (Kameoka, in prep.).

Other information

Threats

Extensive deforestation and associated soil erosion and alteration of water quality and seasonal flow patterns are considered threats.

Conservation, management and legislation

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

The presence of the Sulawesi Forest Turtle in protected areas has not been confirmed, however, it may occur in Panua and Buol Toli-toli and the proposed extensions to Gunung Sojol and Buol Toli-toli protected areas.

Currently unprotected in Indonesia, the species is considered a candidate for inclusion in legislation concerning conservation of biological natural resources and their ecosystems.

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

Similar species

Records of 'Heosemys species' from Indonesia and China may pertain to L. yuwonoi.

Captive Breeding

This species is difficult to maintain and has not been bred in captivity. In January 2001, four animals were held within the Asian Turtle Consortium in the USA and 12 were registered with the European Studbook Foundation.

Other comments

The Governments of Indonesia and China expressed their willingness to act as co-proponents of this proposal.

All participants of the Technical Workshop on Trade in

Supporting Statement (SS)	Additional information
Freshwater Turtles and Tortoises in Asia, Kunming, China, 25-28 March 2002, including representatives from range and non-range countries, supported this proposal.	

Reviewers: TRAFFIC East Asia, TRAFFIC East Asia - Japan, TRAFFIC Southeast Asia

References:

- Jeffrey, E., Lovich, J.E., Mittermeier, R.A., Pritchard, P.C.H., Rhodin, A.G.J. and Whitfield Gibbons, J., 2002. Powdermill Conference: Trouble for the World's Turtles. *Turtle and Tortoise Newsletter* 1:16-17. Chelonian Research Foundation. http://www.chelonian.org/ttn/archives/ttn1/pp16-17.shtml.
- Kameoka, S., in prep. Market Survey of Turtles and Tortoises in Japan. TRAFFIC East Asia Japan. *in litt* to TRAFFIC East Asia. *in litt* to TRAFFIC International, Cambridge, UK.
- Samedi and Iskandar, D.T., 2000. Freshwater turtle and tortoise conservation and utilization in Indonesia. In: van Dijk, P.P., Stuart, B.L. and Rhodin, A.G.J. (Eds.), *Asian Turtle Trade: Proceedings of a Workshop on Conservation and Trade of Freshwater Turtles and Tortoises in Asia. Chelonian Research Monographs* 2: 106-111.
- van Dijk, P.P., Iskandar, D.T., Palasuwan, T., Rhodin, A.G.J., Samedi, Sharma, D.S.K., Shepperd, C.R., Tisen, O.B. and. Genorupa, V.R., 2002. Turtle trade in southeast Asia: regional summary (Indonesia, Malaysia, Papua New Guinea and Thailand). In: van Dijk, P.P., Stuart, B.L. and Rhodin, A.G.J. (Eds.), Asian Turtle Trade:

 Proceedings of a Workshop on Conservation and Trade of Freshwater Turtles and Tortoises in Asia.

 Chelonian Research Monographs 2: 137-144.
- Wermuth, H. and Mertens, R., 1996. Schildkröte, Krokodile, Brückenechsen. Gustav Fischer Verlag, Jena.