

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

Amendments to Appendices I and II of CITES

Thirteenth Meeting of the Conference of the Parties
Bangkok (Thailand), 2 – 14 October 2004

A. PROPOSAL

Inclusion of *Chelodina mccordi* in Appendix II in accordance with Article II 2(a) of the Convention, and to satisfy Criterion B) i) in Annex 2a of Resolution Conf. 9.24.

B. PROPONENTS

Indonesia and the United States of America in accordance with the consensus recommendations of the CITES-sponsored Technical Workshop on Conservation of and Trade in Freshwater Turtles and Tortoises in Asia, held in Kunming, China in March 2002, and the Animals Committee Working Group on Tortoises and Freshwater Turtles.

C. SUPPORTING STATEMENT

1.1 Taxonomy

- 1.1 Class: Reptilia
- 1.2 Order: Testudines (Chelonia)
- 1.3 Family: Chelidae
- 1.4 Species: *Chelodina mccordi* Rhodin, 1994
- 1.5 Scientific synonyms: None. The species was previously considered an isolated population of *Chelodina novaeguineae* Boulenger, 1888 (see Wermuth and Mertens, 1961 [1996], de Rooij 1915, Rhodin, 1994).
- 1.6 Common names: English: Roti snake-necked turtle
French:
Spanish:
Bahasa Indonesia: Kura-kura Rote
- 1.7 Code Numbers:

2. Biological Parameters

2.1 Distribution: Indonesia

Chelodina mccordi occurs only on the island of Roti, off the southwestern tip of Timor. Within the small island of Roti (about 1200 square km), it is restricted to an area of about 70 sq. km of mesic habitat in the central highland plateau. (Rhodin 1996).

2.2 Habitat availability

Chelodina mccordi inhabits permanent and semi-permanent shallow eutrophic lakes and swamps, on the inland highland plateau areas between 100 and 150 m elevation, and frequently disperses into adjacent rice paddies and irrigation ditches. The species apparently does not occur in ephemeral streams draining the central highlands. (Rhodin 1996).

There are no indications that habitat loss or degradation represents significant threats to the species. Considering its restricted range and taking into account the xeric nature of much of the island of Roti, habitat availability appears to be stable but constrained by local climatic and topographical factors (Rhodin 1996, Iskandar 2000).

2.3 Population status

The species is known only from two or three separate populations within the 70 sq. km area of occupancy (Rhodin, in IUCN/SSC TFTSG & ATWGW, 2000, in litt. to U.S. Fish and Wildlife Service). No information has ever been collected on population density or numbers of individuals, either before or after the main collection period 1994-1999. The species is now considered critically endangered to nearly extinct in the wild (Iskandar, 2000, Samedi and Iskandar 2000, IUCN/SSC TFTSG and ATWGW 2000).

2.4 Population trends

The species was collected so intensively that it went from description to near-extinction in 5 years. By 2000, it was considered commercially extinct by Indonesian traders who could no longer acquire animals (Samedi and Iskandar 2000, Rhodin and Genorupa 2000, Iskandar in IUCN/SSC TFTSG and ATWGW 2000).

2.5 Geographic trends

There appear to be no geographic trends in exploitation within the small area of occupancy of the species.

2.6 Role of the species in its ecosystem

No information is available on the role of the species in the ecosystem.

2.7 Threats

The sole threat to the species' survival has been from intensive harvest for the global pet trade, which appears to have brought the species from original natural density to near-extinction in a decade (Rhodin 1996, Samedi and Iskandar 2000).

The human population density on Roti is modest and is occupied with agricultural subsistence farming. There was no industry or significant development of land by 1995 (Rhodin 1996).

The species was listed as Vulnerable under criteria D2 in the *1996 IUCN Red List of Threatened Species*; it was upgraded to Critically Endangered under criteria A1d, B1+2e in the *2000 IUCN Red List of Threatened Species*. The VU D2 criterion reflects an area of occupancy typically less than 100 sq. km. The CR A1d criterion indicates an observed, estimated, inferred or suspected population reduction of at least 80% over the last three generations. The B1+2e criterion indicates a species of limited extent of occurrence or area of occupancy with few and/or fragmented populations and continuing decline of the number of mature animals.

3. Utilization and Trade

3.1 National utilization

The species was not used locally or nationally until it was collected for the pet trade since the 1980s (Rhodin 1996, Rhodin in IUCN/SSC TFTSG & ATTWG 2000). It is now considered commercially extinct, yet exploitation continues and occasional specimens still appear in pet traders' holdings in Jakarta and elsewhere (TRAFFIC Southeast Asia, *in litt.* to Chelonian Research Foundation).

3.2 Legal international trade

Indonesia set a harvest quota of 450 specimens for 1998 and 1999, 150 specimens for 2000, and 135 specimens for 2001. Actual declared exports amounted to 76, 63, 44, and 20 animals, respectively. (Samedi *et al.* 2002). In 1986, about 15-20 adult wild-caught animals were offered for sale by a reptile trader in the Netherlands at a retail price of NLG 400 (about USD 175) per animal (Interrep 1986). By the late 1990s, retail price for the species in western pet trade had risen to USD 2000 per animal (Rhodin and Genorupa, 2000).

3.3 Illegal trade

Given the uncertain legal protection status of the species, all trade is best considered legal.

3.4 Actual or potential trade impacts

As detailed in sections 2.4 and 2.7, above, collection of animals for the international pet trade has brought the species to the brink of extinction in less than a decade since its description. Inclusion of *Chelodina mccordi* in CITES Appendix II will restrain attempts at undeclared international trade, provide data to allow monitoring of global trade in the species, and will transfer jurisdiction over management of the species from the Fisheries Department to the Directorate General of Forest Protection and Nature Conservation of the Ministry of Forestry (Indonesian CITES Management Authority). The species likely meets the biological criteria for inclusion in Appendix I of CITES.

3.5 Captive breeding or artificial propagation for commercial purposes (outside country of origin)

There are indications of one or more commercial breeders based in Bali, Indonesia, producing small numbers of captive-born juveniles for sale into the international pet trade. However, this is not confirmed. Captive breeding of the species by private hobbyists in Europe and the United States is aimed primarily at maintaining the species in captivity long-term, with possible options for re-introduction if and when appropriate. See 4.2.3 below.

4. Conservation and Management

4.1 Legal status

4.1.1 National

The protection status of the species under Indonesian legislation is not clear. *Chelodina mccordi* is not specifically listed as a protected species. However, it was previously included as an isolated population of *Chelodina novaeguineae* (de Rooij, 1915, Wermiuth and Mertens 1961 [1996], Rhodin, 1994). This species has been given national protection status under Government Regulation Act No. 7 and 8 of 1999, which is in application of Law No.5/1990 concerning the Conservation of Biological Natural Resources and their Ecosystems and incorporates Decrees 327/1978 and 716/1980 of the Ministry of Agriculture (Noerdjito and Maryanto, 2001). Thus, the population was protected before its taxonomic recognition. It can be argued that this protection should have been extended to *C. mccordi* when it was taxonomically distinguished from *C. novaeguineae*.

Species that are neither listed under national protection status nor in CITES appendices are managed as a fishery resource, according to Act no. 12 of 1985. Management of a fishery

resource is delegated to the Fishery Service, which is under the local (district) government. The Fisheries Department manages the species through establishing capture and export permits, in some cases without consideration of the quotas set by DGNPC. Expertise in conservation is limited at the local level, leading to instances of over-exploitation. (Samedi and Iskandar, 2000).

4.1.2 International

Chelodina mccordi is not specifically covered by bilateral or inter-governmental legislation.

4.2 Species management

4.2.1 Population monitoring

Preliminary population monitoring activities are currently underway. Field research on the species, including population assessment, has been called for by the Turtle Conservation Fund (2002), and preliminary monitoring work on the species has been funded and is currently being initiated (Turtle Conservation Fund, in litt.).

4.2.2 Habitat conservation

The habitat areas where the species occurs are not protected under Protected Areas legislation.

4.2.3 Management measures

The Turtle Conservation Fund (TCF), an alliance of conservation organizations, lists *Chelodina mccordi* as one of the urgent focus species for conservation action. The TCF notes the establishment of assurance colonies in captivity *ex-situ*, and the need for a species recovery plan incorporating range country capacity building, conservation biology research, field surveys and protected areas evaluations (Turtle Conservation Fund 2002).

In the years after the description of *Chelodina mccordi* in 1994, it was realized that nearly all animals held in captivity in Europe and America as *C. novaeguineae* were actually *C. mccordi*. Thus collectively, a substantial founder population existed in captivity. Specimens of this species have been bred for nearly 20 years, even to second generation in captivity (Freytag 1984, Grossmann 1988, Hoveling 2000, Fontijne 2002, Roempp 2002). In 2000, 17 specimens at 6 locations were included in the European studbook for the species (CBSG 2001a: 207). By 2003, 43 specimens were included (Fontijne 2003). Some 550 specimens were recorded in captivity in 2001 in Europe and the USA combined (Captive Holdings WG, in CBSG 2001b: 128).

Captive reproduction is not consistent even within established breeding groups, and raising hatchlings is very demanding. Juveniles are highly susceptible to *Pseudomonas* infections and require acidic water and small live food (Hoveling 2000; Fontijne 2001, 2002). Careful coordination of captive breeding of animals from a fairly limited and partly related founder population and extensive sharing of captive maintenance data has occurred since 1991.

This is coordinated by the Netherlands-based European studbook for the species (Fontijne 2001). The Turtle Survival Alliance includes an active Taxon Management Group, which manages a substantial portion of the total American captive population.

4.3 Control measures

4.3.1 International trade

Once exported from Indonesia, *Chelodina mccordi* specimens are subject to national regulations pertaining to species trade, customs, and quarantine measures when entering the importing country. In most countries, regulations require compliance with the International Air Transport Association (IATA) regulations concerning the shipping of live animals, as a condition for acceptance or transit passage through airports (IATA Live Animals Regulations, Chapters 1 and 2). In addition, most airlines require shipping of live turtles to comply with the IATA regulations (IATA Live Animals Regulations, Appendix A).

4.3.2 Domestic measures

There appear to be no control measures in place other than those pertaining to general wildlife exploitation and trade regulation.

5. Information on Similar Species

At first glance, *Chelodina mccordi* is similar to all other species of *Chelodina*, but on close examination its relatively broad plastron and relatively narrow head distinguish it fairly easily from the 'Macrochelodina' group of *Chelodina*, viz. *C. expansa*, *C. rugosa*, *C. siebenrocki*, *C. parkeri*, *C. oblonga* and allies, which are characterized by narrow plastra and broad, flattened heads. *Chelodina mccordi* differs from *C. pritchardi* by possessing a relatively narrow first and wide second marginal scute (reverse proportions in *C. pritchardi*), proportionally wider head and narrower plastron. It differs from *C. novaeguineae* by having a wider carapace, a shallower and less robust head, and the neck skin tubercles of *C. novaeguineae* are more prominent and firmer. *Chelodina longicollis* is characterized by a narrow head, a wide first marginal, and the neck skin is more coarsely tubercular. *Chelodina reimanni* has a proportionally much shorter neck and much larger head. *Chelodina steindachneri* has a very low carapace with nearly circular outline and the first two marginal pairs nearly equal in size (Rhodin 1994, Cann 1998).

6. Other Comments

Inclusion of *Chelodina mccordi* in CITES Appendix II has been advocated by the following groups: The Asian Turtle Trade Working Group (2000), based on the findings of the Workshop on Conservation and trade of Freshwater Turtles and Tortoises in Asia, held in Phnom Penh, Cambodia, 1-4 December 1999, recommended inclusion of all Asian tortoise and freshwater turtle species in Appendix II, including *Chelodina mccordi*.

The participants in the Working Group on Conservation Management and CITES Implementation at the CITES Technical Workshop on Conservation of and trade in Freshwater Turtles and Tortoises, held at Kunming, P.R. China, 25-28 March 2002, generally agreed that all remaining non-CITES listed species of Asian turtles should be listed under the Appendices of CITES (CITES AC18 Inf. 12, page 14).

In its presentation at the Kunming workshop, Indonesia specifically listed *Chelodina mccordi* as a species to be discussed for listing in the CITES Appendices (Samedi *et al.* 2002).

Chelonian Research Foundation, in an Annex to document AC19 Doc 15.1 prepared by the United States of America (USA 2003) and based on the results of the Kunming workshop, proposed inclusion of *Chelodina mccordi* in Appendix I or II as a priority.

7. Additional Remarks

None.

8. References

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