

## **The Roti island Snake-necked turtle (*Chelodina mccordi*). Current ex situ status and future in Europe.**

### **Introduction**

According to "The Asian Turtle Crisis Bulletin" (March 2005), 21 specimens were caught on Roti island in 2004 as reported by Bonggi of the Indonesian Turtle Conservation Group. A follow-up survey was carried out by Bonggi and Chris Shepherd in February and March of this year, in order to look at the current levels of hunting, collecting and trade for the species. It turned out, that the species remains under continued intense pressure from hunting mainly to meet the demand of the international pet markets where the animals are sometimes sold for as much as \$1500 each.

Efforts to conserve the last remaining wild populations of this species are supported by the Turtle Conservation Fund (TCF) and the Chelonian Research Foundation (CRF), in collaboration with TRAFFIC SEA, the Indonesian Animal Rescue Centre Network and the Forestry Department Indonesia.

### **Historical data**

This situation as sketched above supports the "critically endangered"-status the species has obtained since this year, as well as its CITES II-listing.

Over the last few decades, the species has been intensively hunted for the pet trade and also exported to Europe in large numbers. For a number of years it has been not very clear whether this concerned *C. novaeguineae* or *C. mccordi*.

Morphological differences are very minor, making confusion well possible. Between 1978 and 1997 the Rotterdam Zoo had 3.3 specimens of what we then thought to be *C. novaeguineae*. Between 1987 and 1992 from this group 113 hatchlings were born, of which 52 died shortly after birth, within a period ranging from one day to several months. The remaining 61 juveniles were transferred to 17 different private locations and one zoo. It is thought that almost all of these animals have died, except two specimens at one private location.

By the end of 1997 the decision was made to remove the remaining 3.2 adult "*C. novaeguineae*" in favour of our larger group of *Chelodina longicollis*.

In 2003, based on new information regarding morphological appearances of both species, we at the zoo discovered that we had removed *C. mccordi* from our collection instead of the much less threatened *C. novaeguineae*.

When two German private breeders offered us 2 adult females and our colleagues of Randers Rainforest (Denmark) 3 adult captive born males *C. mccordi*, the decision was quickly made to accept these animals.

Of the 3.2 adult specimens that were moved to 3 different private keepers in 1997, only one adult female is still alive at present. This female currently produces several dozens of eggs annually, of which 6 have hatched in 2004 and 5 in 2005 (for further information see: ESF *Chelodina*-studbook progress).

The newly formed group of captive born adults at Rotterdam Zoo produced the first eggs in early 2004. In 2004 two hatched in October, and so far in 2005 8 were born.

### **European Studbook Foundation (ESF) *Chelodina*-studbook progress**

The ESF studbook for the species was launched in 1991 under the old name *Chelodina novaeguineae*. Rotterdam Zoo immediately submitted the adult and captive born animals. The first few years a large number of hatchlings died, but gradually more and more survived and were transferred to privates. Reproduction remained limited to Rotterdam Zoo for many years and was taken over by private ESF participant Marco Hoveling at Rotterdam.

At this location large numbers of eggs were laid since 2002 by one Rotterdam Zoo born female, and the wild caught female on loan from Rotterdam Zoo.

At present a very limited number of wild caught animals are present within the studbook; the only known specimen is the Rotterdam Zoo female at location Hoveling.

From 2003 until now the eggs from Hoveling are transferred and incubated by Zwartepoorte in his private collection and from 2003 until now 40 specimens were born there. Of these, 12 were transferred to 3 EAZA institutions (Chester Zoo, London Zoo and Amersfoort Zoo), and 4 went to a private ESF participant.

In December 2004 the studbook population was 69 (12.16.41) specimens at 16 locations; 4 in the Netherlands, 5 in Germany, 2 in Austria, 2 in the UK, 1 in Italy, 1 in South Africa and 1 in the USA. At 4 locations the species is reproducing; in 2004 24 births are reported at 5 locations.

Due to excellent management of this studbook a more or less stable captive population exists at present. The number of founder animals however is very low.

Cooperation between EAZA institutions and the private sector represented by ESF can and must play a vital role regarding the future of the ex situ population of the species.

The transfer of 12 privately born specimens to 3 EAZA institutions must be seen as an important step in a process of cooperation.

In the USA a second captive population is managed by TSA studbookkeeper Paul van der Schouw. The exact population in the US as published in the TSA US Species Survival Plan is 24.41.68 kept privately, and 3.7.9 in public institutions.

Although the intentions are expressed for a better cooperation between the European (ESF) and the American (TSA-US) studbooks so far no improvement has been made.

### **Conclusions & future**

A more active role regarding global coordination is envisaged for TSA-Europe and TSA-US. A disappointing factor is the fact that no with certainty wild caught animals are represented in the two breeding programmes/studbooks, so the quality of the genetic management is vital for a healthy studbook population.

Over the last few years good husbandry and rearing protocols were developed for hatchlings.

The fact that the species is very productive - clutches up to 20 eggs have been reported - and the fact that two well managed studbooks are present in both Europe and the US are probably the key factors for survival in captivity.

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Henk Zwartepoorte,

Chair TSA-Europe,

Chair European Studbook Foundation (ESF).