

The Asian Turtle Crisis – building the Ark

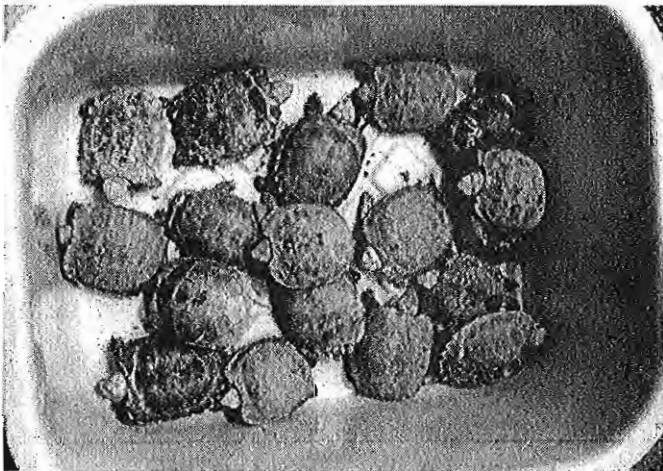
Kevin R. Buley *

Tortoises and freshwater turtles have been around in their current form for over 200 million years; they have witnessed the rise and fall of dinosaurs, have seen the first birds fly, and have observed our own evolution from the most harmless of primates. Now, in the space of less than twenty years (0.0000001% of their total time on earth!) - they are being wiped from the face of the planet.

Man has exploited them for centuries – for their supposed medicinal value, and as a source of protein. However, the 'open door policy' of China's economic reforms, and the liberalisation of foreign trade, has escalated the trade and consumption of turtles and tortoises to an unsustainable, fatal degree.

The following figures give some indication of the current scale of trade in Asian turtles - though the numbers are really beyond rational comprehension

- Estimates in 1998, suggest that more than 12 million turtles are currently being sold in China each year. Almost all these animals are wild caught, and given the low reproductive and growth rate of many species, extirpation from the wild is imminent.

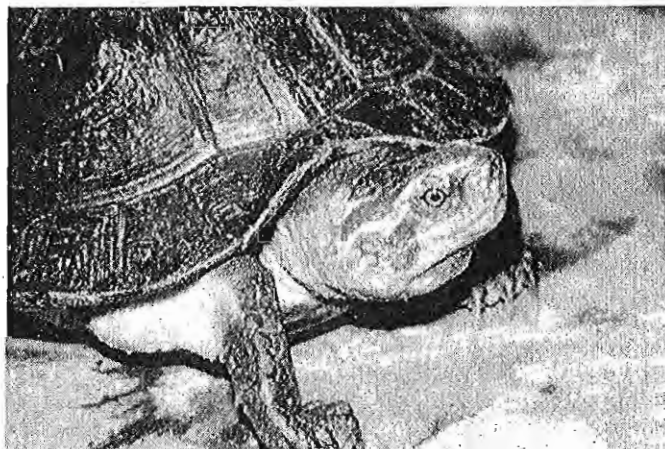


Indostestudo hatchlings. Hatchling Elongate Tortoise, the first to be bred at the TCEP.

- Some Chinese species, e.g. *Cuora mccordi*, *C. yunnanensis* and *C. zhoui* may already be extinct, as they have not been available in the market for several years, despite large amounts of money being offered for specimens.
- Only a very small proportion of turtles now offered in markets are native Chinese species. The import of food chelonians to China has increased more than ten-fold since 1977, from countries including Vietnam, Indonesia, India, New Guinea and, incredibly, the USA (over 7 million turtles of several species are exported each year from the United States). Chinese importers have scouts as far afield as Paraguay in search of new sources of chelonians.

- During an investigation in 1998, up to 2.2 to 29 tonnes of wildlife per day were being exported from Vietnam to China. More than 60% of this volume was turtles. This works out as 1.3 to 17.4 tonnes of turtles per day. (if one turtle weighs, on average, 1kg, this represents a trade of up to 17400 turtles per day from Vietnam alone).

CITES listing of species will unfortunately do little to halt the trade in the immediate future, as many CITES signatory countries, China included, do not have the infrastructure to implement the legislation. Furthermore, shipments of these species will often be unlabelled or mislabelled, making enforcement of legislation that much more difficult. Many species are superficially similar in appearance, making identification almost impossible to all but the carefully trained and experienced.



Hieremys annandale

The Turtle Survival Alliance

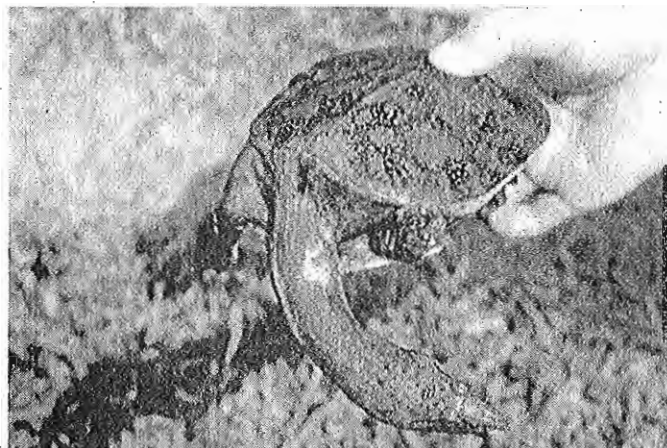
The Turtle Survival Alliance (TSA) was formed in January 2001, in direct response to this appalling crisis. It is an official subgroup of the IUCN Tortoise and Freshwater Turtle Specialist Group.

The TSA currently consists of individuals and organisations from over a dozen countries in Europe, North America, Asia and Australia. These organisations include the zoo community, private breeders and hobbyists, commercial breeders, regional turtle survival centres, university researchers, veterinarians, government and regulatory agencies and biologists from countries within Asia. TSA truly is a unique global effort, and any personal/institutional interests are being set aside, as the common priority for all now is preventing the extinction of turtle species.

Huge progress has been made by the TSA in the last 12-18 months. Conservation initiatives are being launched on several fronts including support for education programs and law enforcement efforts in range countries; field research to

* Durrell Wildlife Conservation Trust, Les Augrès Manor, Trintly, Jersey, JE3 5B, British Channel Islands.

determine original distributions, habitats, ecology and behaviour; the establishment of rescue centres and the provision of specific training to biologists from these centres to help them look after the animals better when they come into their care. The greatest and most important progress however has been the establishment of captive 'Assurance Colonies.'



Chinese Soft-shell Turtle, *Pelodiscus sinensis*, a species traded in huge numbers.

These Assurance Colonies have been established to prevent the total extinction of the most threatened turtle species. It may be too late to prevent their disappearance from the wild, but the Assurance Colonies will ensure that a lucky few representatives of each species will survive and breed in captivity. By doing this, the option will exist in the future to return these animals to the wild.

The scale required for these Assurance Colonies, and the number of species and specimens that will require housing, means that one institution or collection cannot do it on its own. They depend therefore on co-operation between institutions and individuals holding the same species – to form a global turtle 'studbook'.

The TSA has identified 'priority species' that need the immediate help of Assurance Colonies, these include 14 of the 18 Critically Endangered species: *Batagur baska*, *Callagur borneoensis*, *Chelodina mccordi*, *Chitra chitra*, *Cuora aurocapitata*, *Cuora galbinifrons*, *Cuora mccordi*, *Cuora pani*, *Cuora trifasciata*, *Cuora zhoui*, *Geochelone platynota*, *Heosemys depressa*, *Leucocephalon yuwonoi*, *Manouria* (3 species), *Mauremys annamensis*.

Assurance Colonies for other threatened Asian species are also being set-up e.g. for *Heosemys spinosa*, *Cuora amboinensis* and *Siebenrockiella crassicollis*.

Each species is managed by a Taxon Management Group (TMG). The TMG is charged with the responsibility of producing a Taxon Management Plan (TMP). The TMP documents the current status of the species in the wild, its status in captivity, its husbandry and breeding requirements and, most importantly, the initiatives required to save it from extinction.

Each TMG has regional studbooks. For example, the Critically Endangered Vietnamese box turtle *Cuora galbinifrons*, will have a US, a European, and an Australian studbook for the species. The populations will be managed within each regional studbook, largely separately from the other regions (USFWS, EU and CITES regulations mean that free exchange of animals between regions will be an exception rather than the rule, and therefore it makes much more sense to manage captive populations on this regional level).

The growing role of EAZA institutions in TSA-Europe activities should not be understated. The Amphibian and Reptile TMG is already co-ordinating captive populations of Asian turtles through the creation of ESBs for those species held in sufficient numbers. These animals and the ESBs, will eventually be incorporated into TSA-Europe's regional studbook and, as a consequence, into the global initiative of TSA's Assurance Colonies.

Turtle Rescue – January 2002

The number of turtles being held in Assurance Colonies – including those in EAZA institutions – increased significantly in late December 2001, when authorities in Hong Kong made their largest ever seizure of an illegal shipment of turtles. Over 7500 animals of 12 different species were found on a river trade vessel from Macau. They were all taken to the Kadoorie Farm & Botanic Gardens in Hong Kong. Most of the animals were in appalling condition, and despite heroic efforts by Kadoorie staff, over 3000 animals died shortly after arriving at the centre.

Because TSA had already established good diplomatic relations with CITES authorities in Hong Kong and China and with Kadoorie Farm, they were called upon to help rescue the remaining animals. Although TSA is first and foremost a conservation organisation, not a rescue/welfare organisation, it was felt that this was a crisis too important to ignore. With an incredible amount of hard work, effort and determination, and the generous support of countless individuals, companies and organisations, the TSA – still very much in its infancy – responded to this call for help.

Between the last few days of 2001 and the first two weeks of 2002, over 3200 turtles were shipped to Florida in the United States. On the 17th January, a further 1100 animals were flown into Amsterdam in Europe.

The monumental effort, by numerous specialist keepers and veterinarians in Hong Kong, Europe and the USA, moving these rescued animals between continents, appears to have paid off. Turtles once destined for the Chinese food markets are now at their final destinations in zoos, and with private breeders, and have joined TSA captive Assurance Colonies guarding against the total extinction of their species.

The role of South Asian Zoos and Wildlife Networks in the TSA

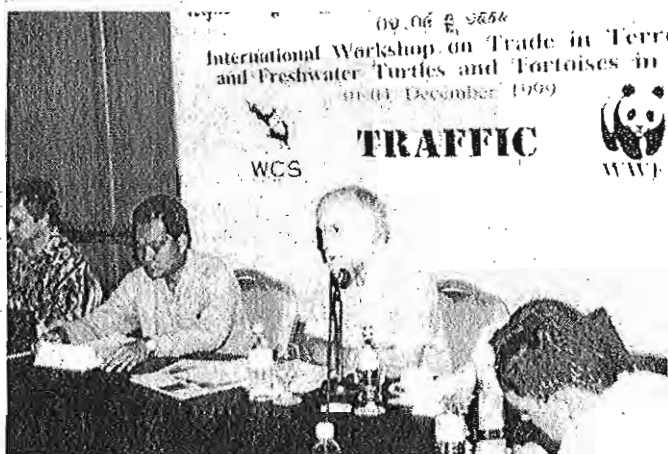
In order for the Turtle Survival Alliance to be a truly effective global organisation against species extinction, there desperately needs to be involvement from zoos and institutions beyond Europe, Australia and the USA.



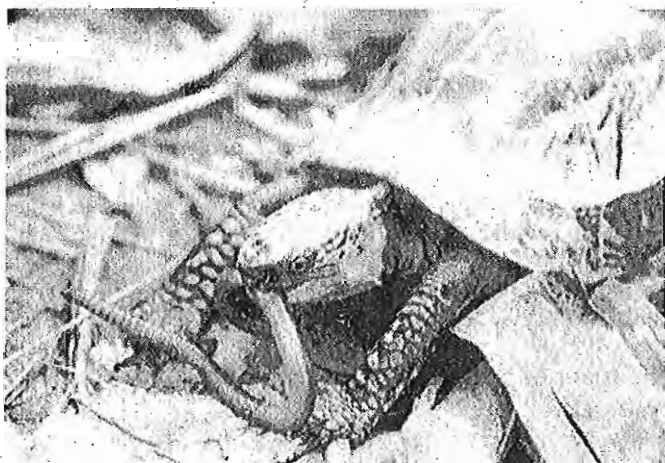
Doug Hendrie, Manager of the TCEP, with Forestry Protection Department officials, at a confiscation of turtles at Ninh Binh in northern Vietnam



Mr Vinh, employed by funds provided by Melbourne Zoo, measuring an Impressed Tortoise, *Manouria impressa*



Chris Banks, Melbourne Zoo, delivering the closing address at the first major regional meeting on the Asian Turtle Crisis, in Phnom Penh in December 1999



Cuora galbanifrons - heavily traded and good numbers now being rehabilitated at the Turtle Conservation & Ecology Project (TCEP) in Cuc Phong, Vietnam.
Photo by Chris Banks

The zoos of South Asia should be seeking to play a lead role in the TSA. The one massive, undeniable advantage is that many of zoos of the region, are in the very middle of the Turtle Crisis, and are potentially far better placed to set up Assurance Populations of their own threatened native species, than European, US or Australian institutions. They are also better placed to initiate and support conservation of remaining wild turtle populations and habitat.

The Asian Turtle Crisis is arguably one of the most desperate conservation crises to face a vertebrate taxon since the extinction of the dinosaurs. For those interested in participating in the TSA, then further details of how your institution can play a vital role in saving species from extinction, can be obtained from:

TSA-Europe Chair Henk Zwartepoorte
(Henkzwartepoorte@hetnet.nl)
or Vice-chairs Kevin Buley
(Kevin.Buley@durrell.org) and Hans-Dieter
Phillippen (02452939336-0001@T-Online.de).