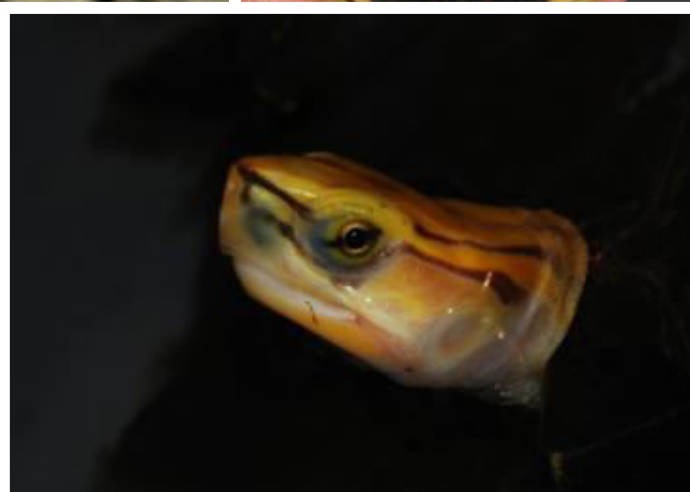
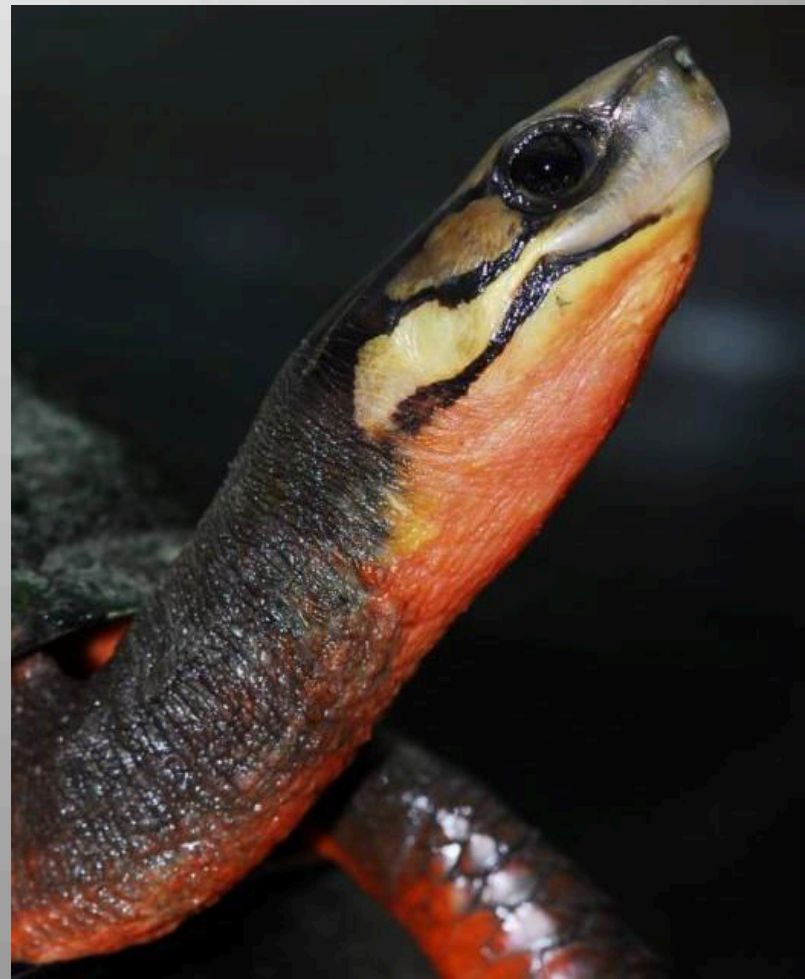
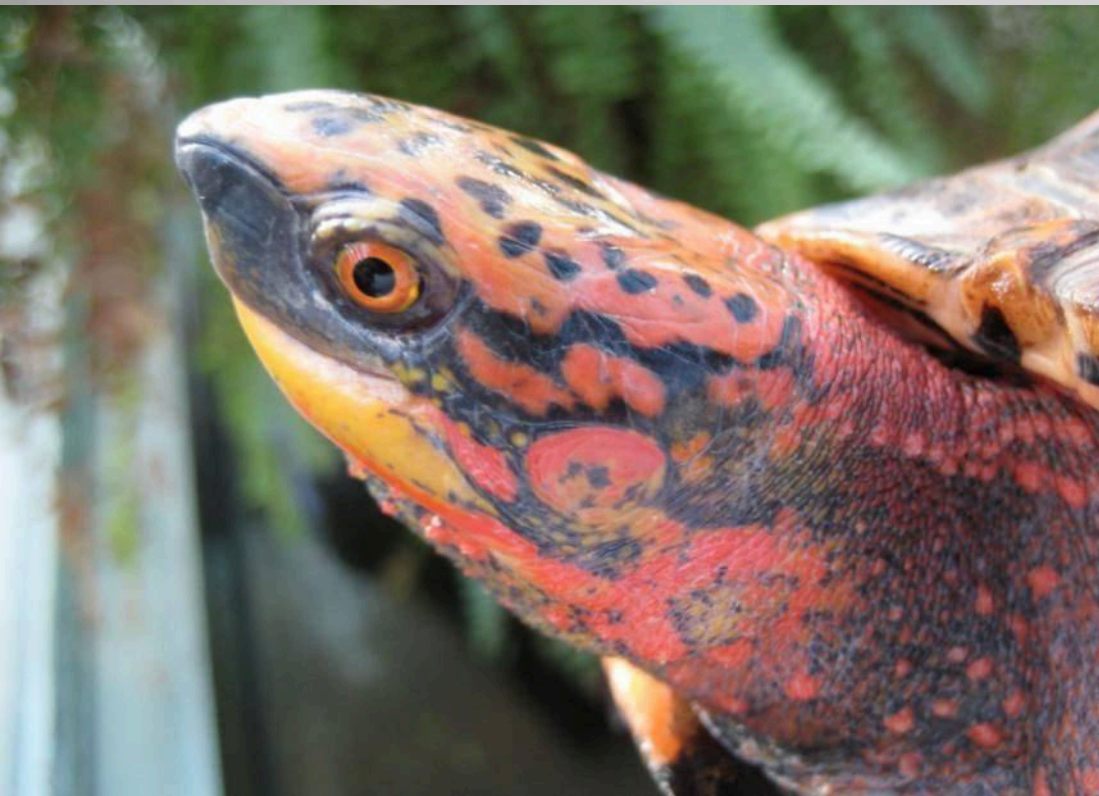


**HET GENUS
CUORA**

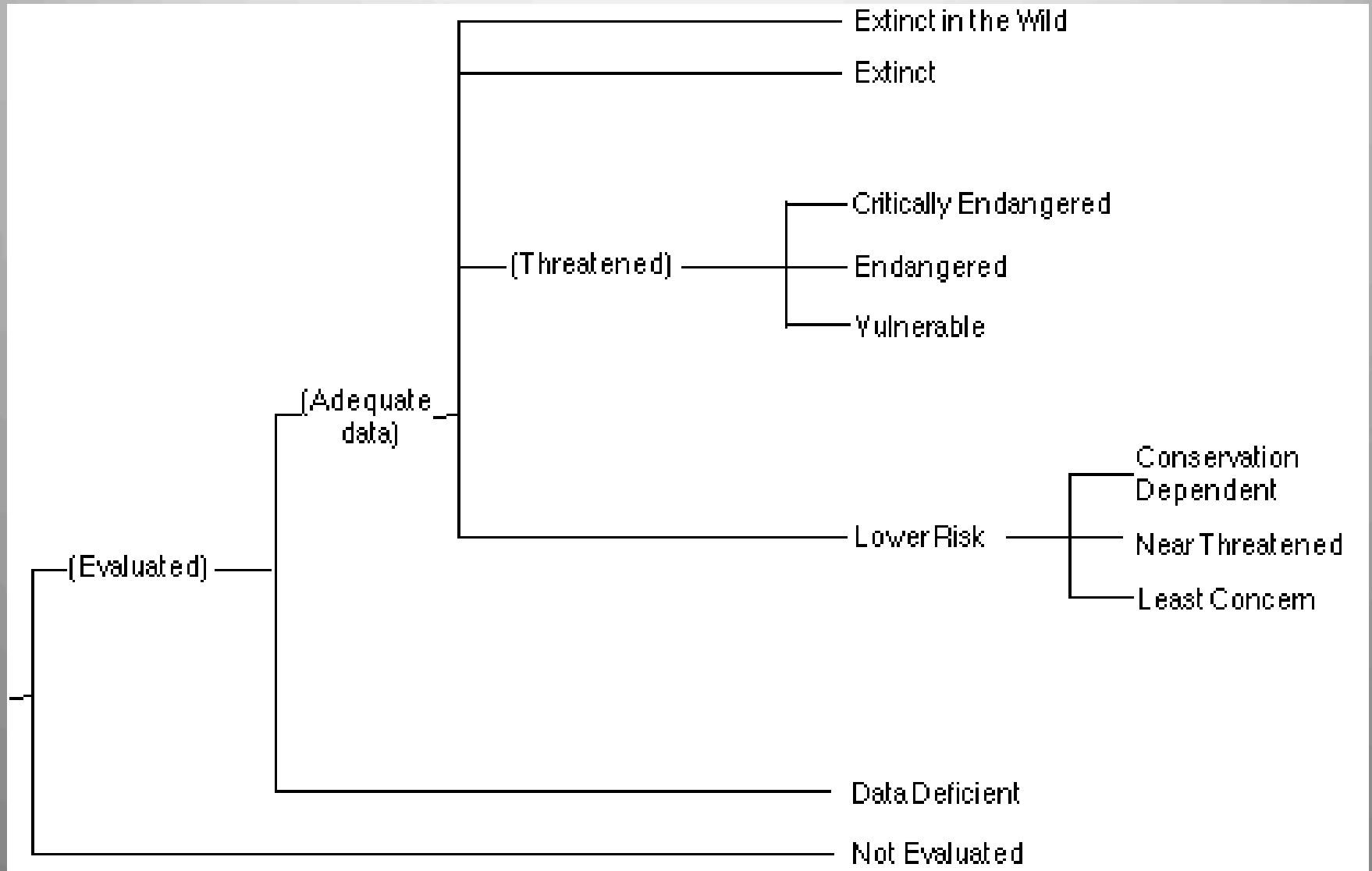


Content

- Status in the wild
- Studbooks (ESF)
- Zoos
- Conclusion

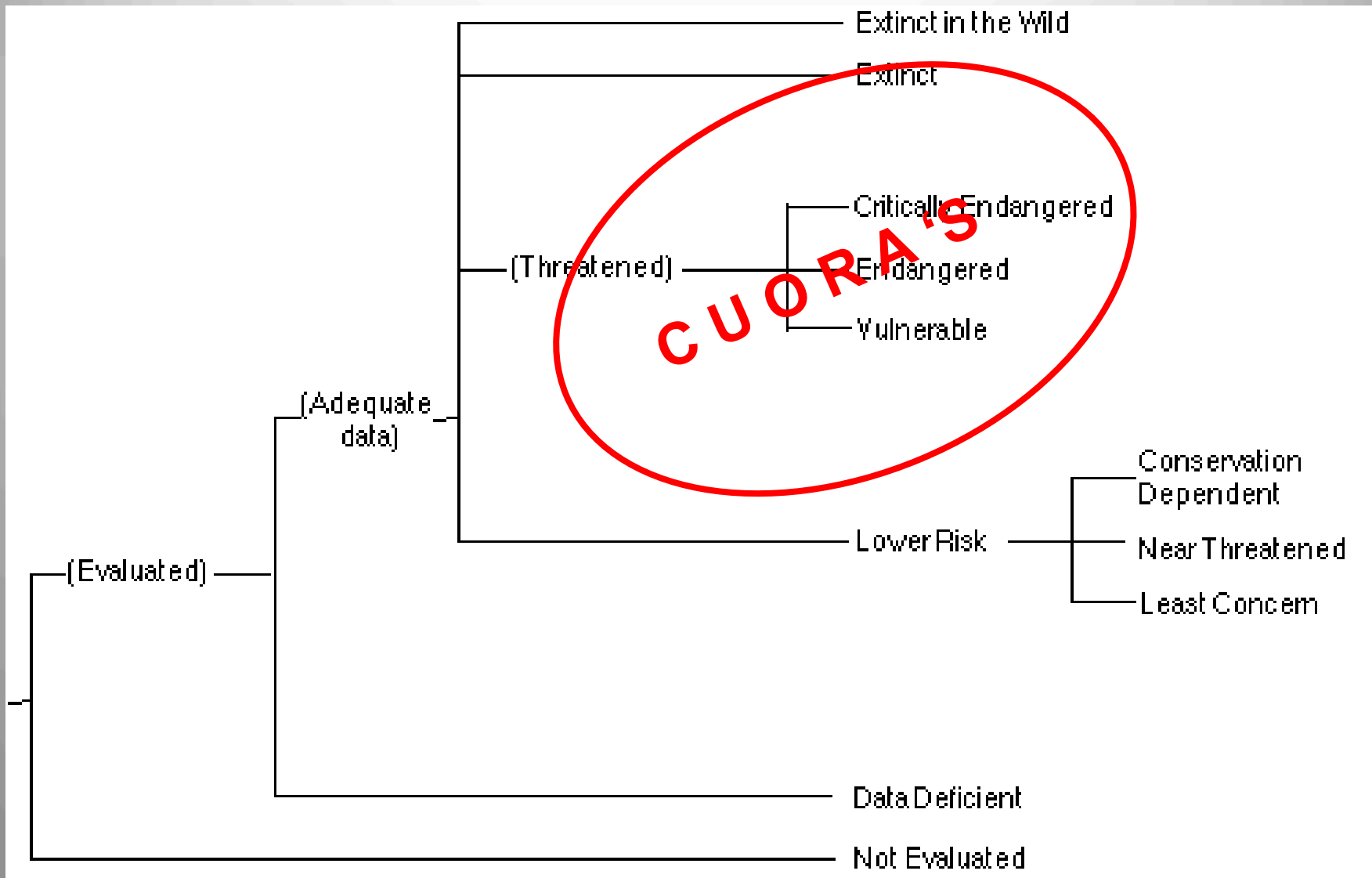


IUCN Status



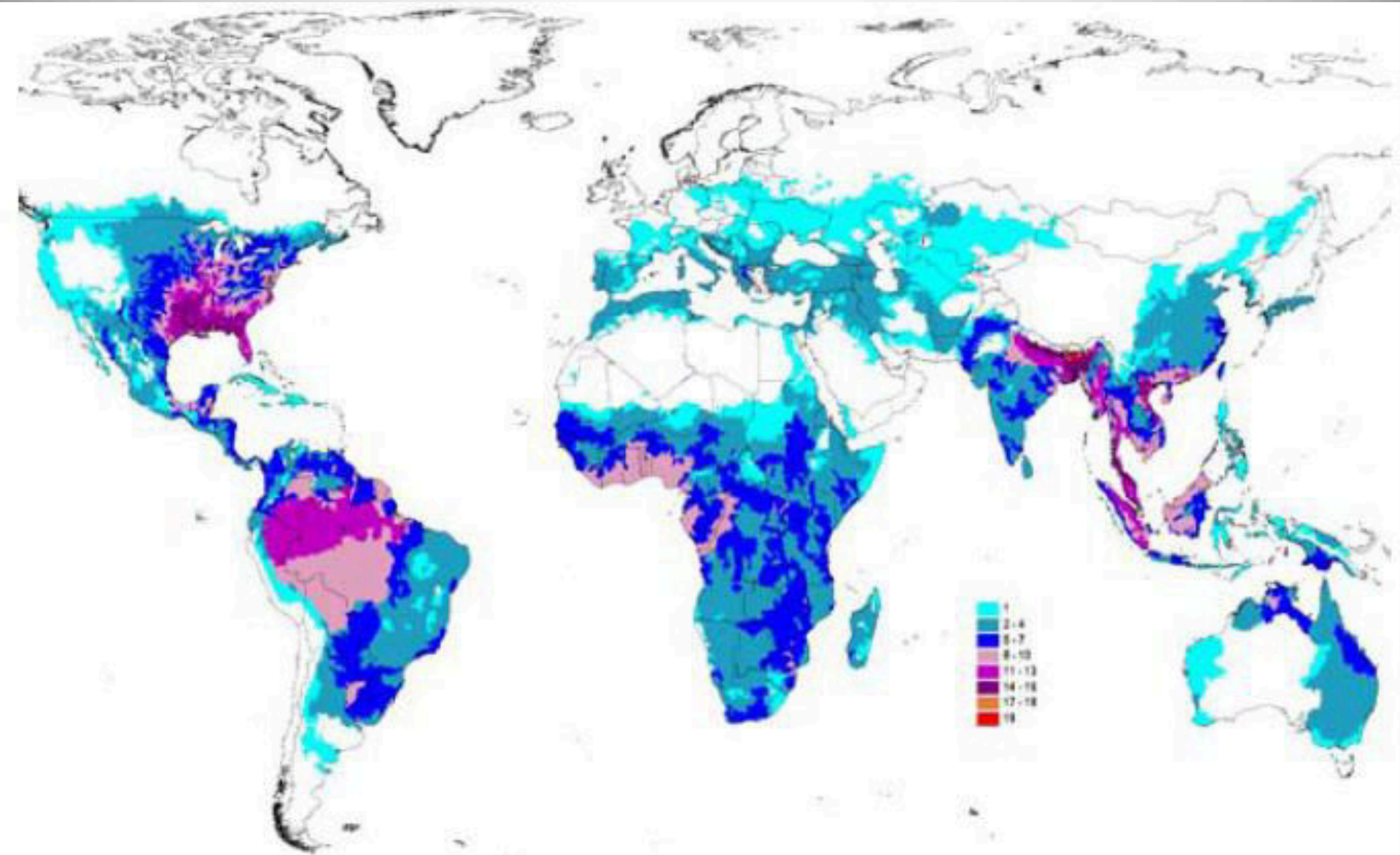
Status in the wild

Soort	IUCN Status	CITES Appendix
<i>C. amboinensis</i>	Vulnerable	II
<i>C. aurocapitata</i>	Critically endangered	II
<i>C. bourreti</i>	Not evaluated (critically endangered)	II
<i>C. cyclornata/cyclornata</i>	Critically endangered	II
<i>C. flavomarginata</i>	Endangered	II
<i>C. galbinifrons</i>	Critically endangered	II
<i>C. mccordi</i>	Critically endangered	II
<i>C. mouhotii</i>	Endangered	II
<i>C. pani</i>	Critically endangered	II
<i>C. picturata</i>	Not evaluated (critically endangered)	II
<i>C. yunnanensis</i>	Critically endangered	II
<i>C. zhoui</i>	Critically endangered	II

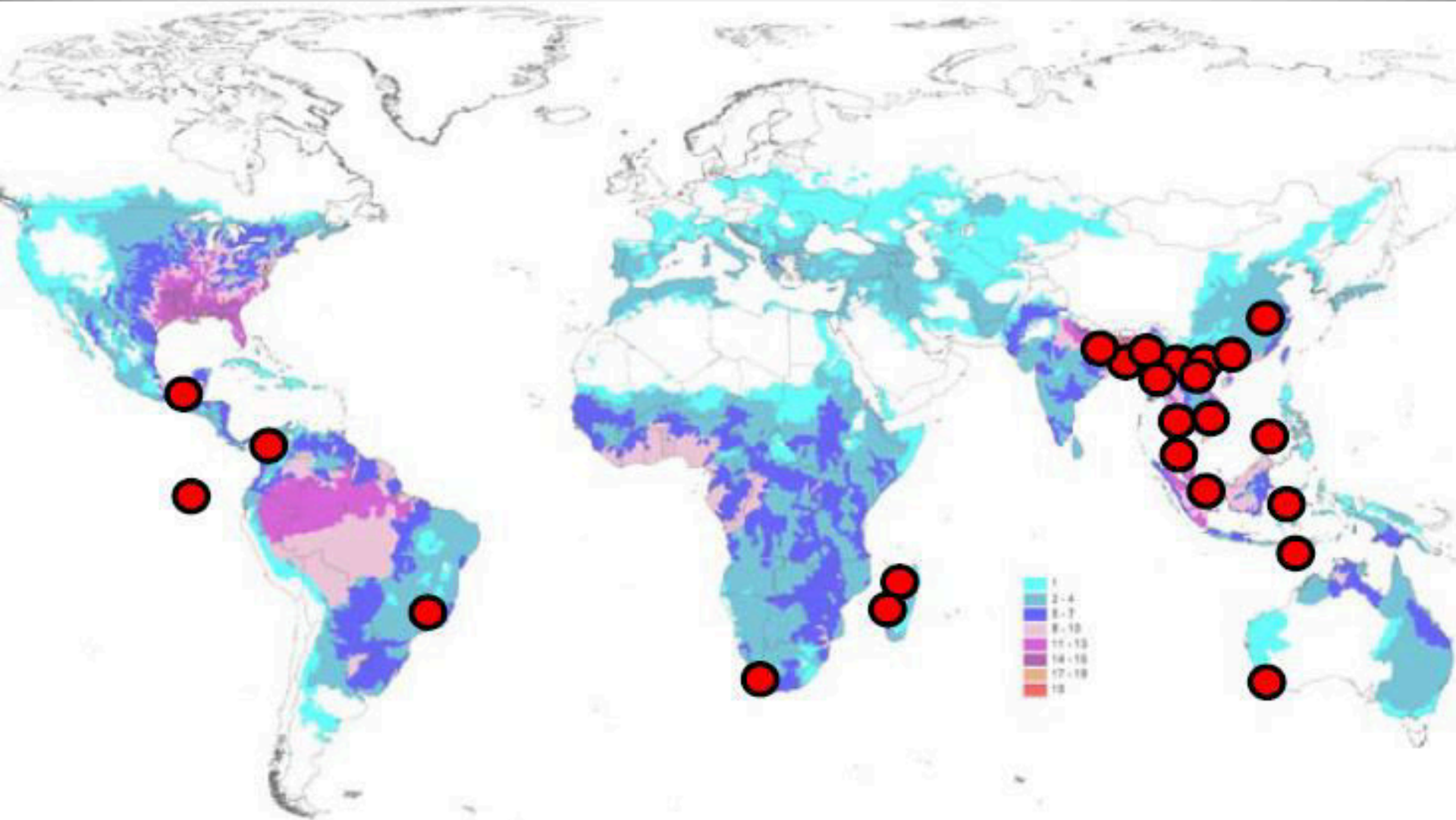


CRITICALLY ENDANGERED (CR) – There is an extremely high risk that the taxon will be extinct in the wild in the near future.

Species richness



Top 25 most endangered turtles



Top 25 of the most threatened turtles (extremely high risk to become extinct)

1. Abdington Island tortoise (*Chelonoidis abingdonii*)
2. Yangtze giant softshell tortoise (*Rafetus swinhoei*)
3. Yunnan Box Turtle (*Cuora yunnanensis*)
4. Northern River terrapin (*Batagur baska*)
5. Burmese roof turtle (*Batagur trivittata*)
6. Zhou's box turtle (*Cuora zhoui*)
7. McCord's box turtle (*Cuora mccordi*)
8. Yellow-headed box turtle (*Cuora aurocapitata*)
9. Golden coin turtle (*Cuora trifasciata*)
10. Ploughshare tortoise (*Astrochelys yniphora*)
11. Burmese star tortoise (*Geochelone platynota*)
12. Roti Island snake-necked turtle (*Chelodina mccordi*)
13. Asian narrow-headed softshell turtle (*Chitra chitra*)
14. Vietnamese pond turtle (*Mauremys annamensis*)
15. Central American river turtle (*Dermatemys mawii*)
16. Madagascar big-headed turtle (*Erymnochelys madagascariensis*)
17. Red-crowned roofed turtle (*Batagur kachuga*)
18. Southern River terrapin (*Batagur affinis*)
19. Sulawesi forest turtle (*Leucocephalon yuwonoi*)
20. Western swamp tortoise (*Pseudemydura umbrina*)
21. Hoge's side-necked turtle (*Mesoclemmys hogei*)
22. Geometric tortoise (*Psammobates geometricus*)
23. Philippine forest tortoise (*Siebenrockiella leytensis*)
24. Magdalena River turtle (*Podocnemis lewyana*)
25. Painted terrapin (*Batagur borneoensis*)

Top 40

Extremely high chance to become extinct

Cuora pani

Cuora picturata

Cuora bourreti

Cuora galbinifrons



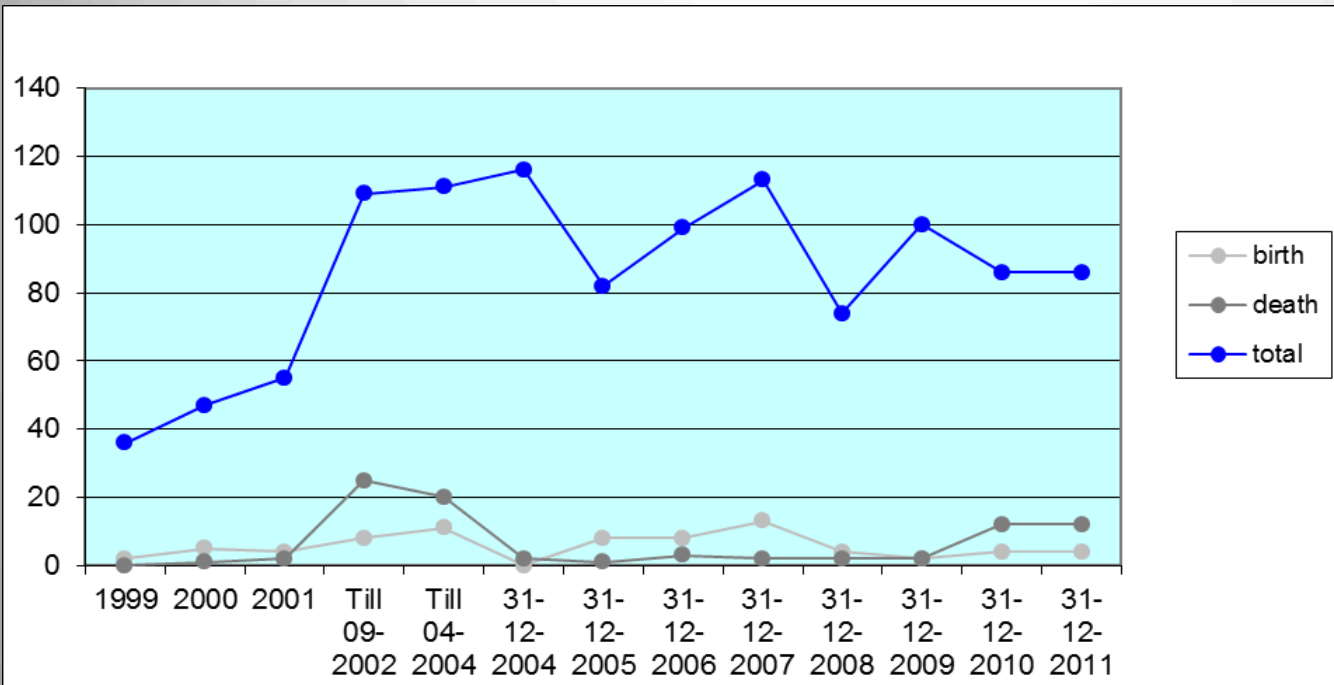
Cuora amboinensis

ESF population: 19.27.40

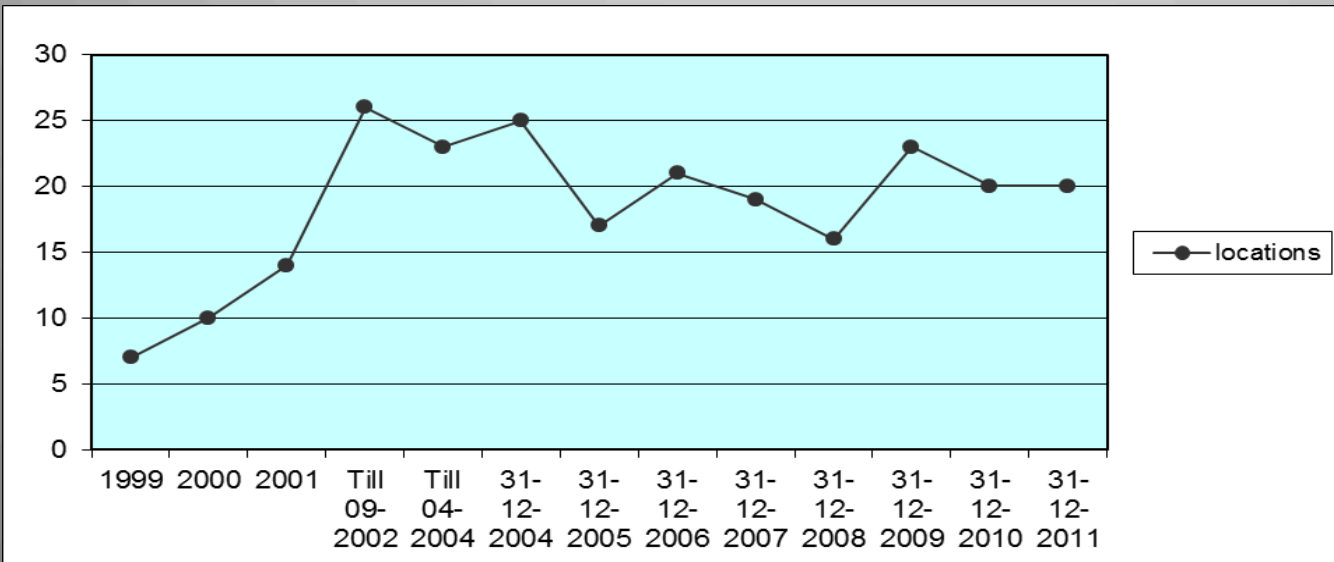
Locations: 20

- Most represented Cuora
- Sub species
- Not very popular





Studbook population



Studbook locations



Cuora aurocapitata

ESF population: 3.10.48

Locations: ?

- Discovered in the wild for the first time in 2004.
- Estimated numbers in the wild at present 50-150.
- More in captivity.
- Captive reproduction fairly good.





Cuora bourreti

ESF population: 5.15.14

Locations: 7

Extra:

- In Europe bred by four privates and two zoos.



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5 September 2012 Last updated at 14:08 GMT

Vietnamese box turtles bred successfully at Bristol Zoo

Rare Vietnamese box turtle shown off by keepers at Bristol zoo

Critically endangered Vietnamese box turtles have been bred successfully for the first time in a British zoo.

A baby Vietnamese box turtle, which is one of the world's rarest turtles, was born at Bristol Zoo in July and is now roughly the size of a matchbox.

Reptile curator, Tim Skelton, said it was a 40-year "career highlight" as the species was very difficult to breed.

The youngster, called Vernon, is being kept in a climate-controlled room and hand fed chopped worms by keepers.

He currently weighs 26g and measures around 5cm (2in) long.

'Boggy tank'

"Not a lot is known about this species so we can learn an awful lot from this baby to improve our chances of breeding more in future," said Mr Skelton.

"These are secretive animals so we are keeping it in a warm, humid and quiet room with a constant temperature, in a boggy tank to replicate its natural habitat where it can burrow among the soil and leaves."

Related Stories

- Gorilla statue sale raises £427k
- Creature Comforts inspired by zoo
- Selized turtles given home at zoo

Vietnamese Flowerback Box Turtle

Cuora flavomarginata

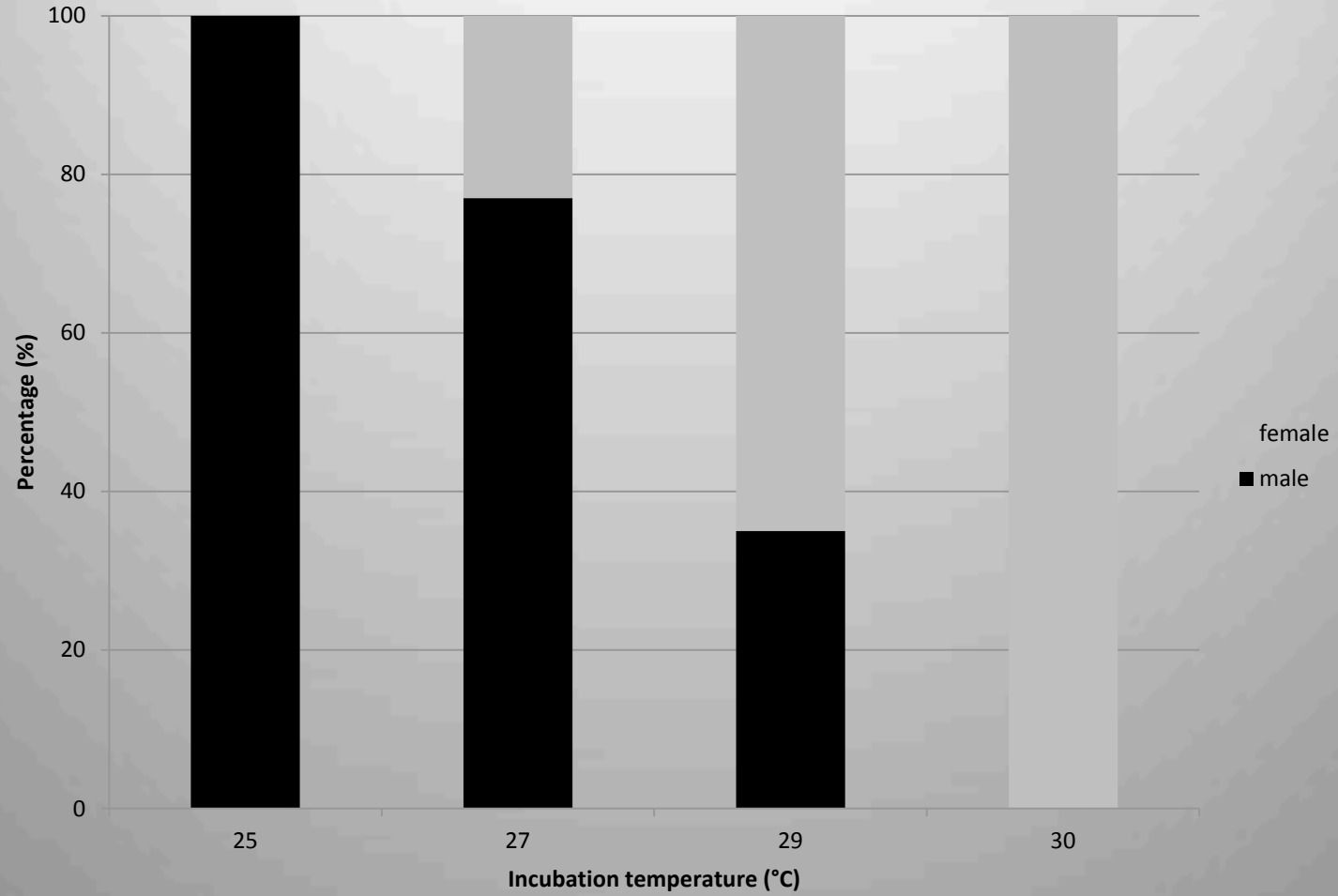
ESF population: 179



- Hardly any deaths (tough species)
- Relatively good to breed
- Telemetric research executed in Taiwan
- TSD assessed (R. Farrel USA)
- Yahoo group



TSD *C.flavomarginata*



ESF is requested to participate in the Management committee for the Cuora Conservation Breeding Loan Program

Cuora Conservation Breeding Loan Program

Indochinese box turtle (*Cuora galbinifrons*) Bourret's box turtle (*Cuora bourreti*), Lesser Indochinese box turtle (*Cuora picturata*)

The Cuora Conservation Breeding Loan Program is a co-ordinated network of captive institutions managing captive populations of Cuora species (*Cuora galbinifrons*, *Cuora bourreti*, *Cuora picturata*) for maintaining genetic viability for conservation and for potential future reintroductions.

Institutions involved in the Program are committed to conservation and this is reflected in the exhibit, research and awareness strategy for the species in captivity.

The Program is to a majority co-ordinated from Vietnam for which these species are endemic, and the focus for technical assistance sourced through the institutions involved in the Program.

This Program is aimed at assisting zoos in fulfilling their conservation potential by providing a link between the *ex situ* work of the zoo on Cuora species with conservation work being carried out in the species' natural range.

This Program is for forward-thinking zoos with conservation at the heart of their activities. The following package has been compiled to provide full understanding of the Program and increase the numbers of members.

28th June 2012

The Turtle Conservation Program
Cuc Phuong National Park
Vietnam

Cuora Conservation Breeding Loan Program
Indochinese box turtle (*Cuora galbinifrons*) Bourret's box turtle (*Cuora bourreti*), Lesser
Indochinese box turtle (*Cuora picturata*)

PROGRAM PACKAGE

June 2012

Advice for the establishment of a studbook for *C.galbinifrons* North America

Reptile Discovery Center
Smithsonian Conservation and Biology Institute



Drafting of a manual for the management and reproduction of *C.galbinifrons* in order to judge whether institutions really breed the reported numbers reproduced.

Client: Cites Secretariate

Execution: TRAFFIC South East Asia



TRAFFIC
the wildlife trade monitoring network



Cuora mccordi

ESF population: 6.17.58
(+15?)

Locations: 10

- In 2005 the habitat in the wild was discovered.
- Presumably extinct in the wild.
- 350 animals were in the trade; at present 150 are still alive.
- Reproduction runs fairly prosperous.
- Exchange between Europe and North America.





Cuora mouhotii

ESF population: 20.20.?

Locations: ?

- *C.m.mouhotii* is more common than *C.m.obsti*.
- Fairly good reproduction in the meantime.
- Telemetric research at Cuc Phuong (Vietnam) and Hainan island (China).

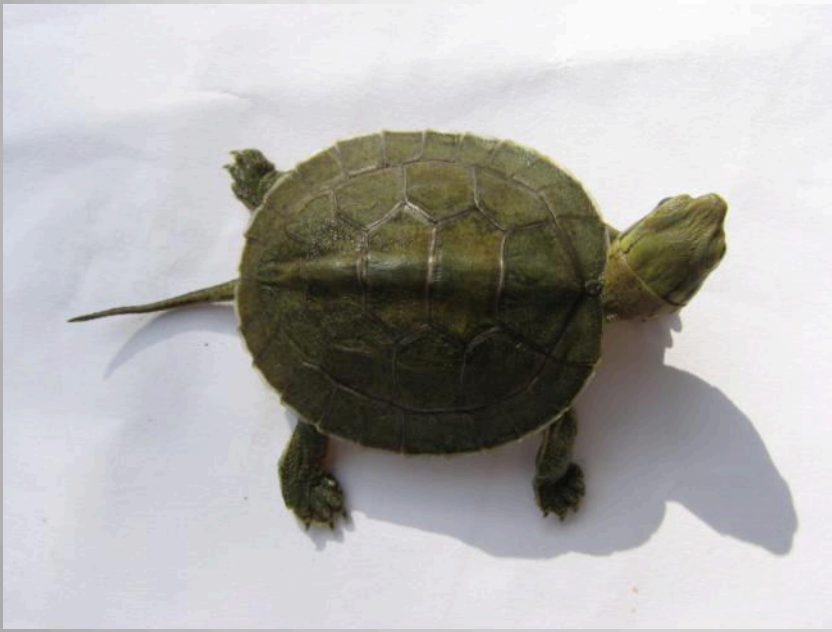


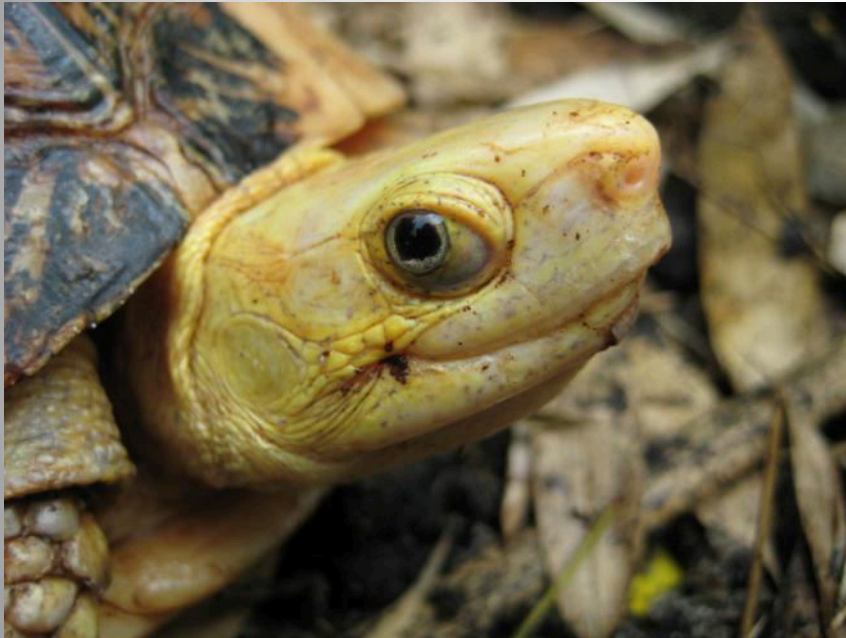
Cuora pani

ESF population: 2.5.0
(Munster) + about 25
elsewhere

Locations: ?

- Small and isolated populations in the wild.
- About 250 animals in captivity.
- Reproduction is improving.





Cuora picturata

ESF population: 11.20.46

Locations: 15

- For the first time found in the wild in 2010 (Langbian Plateau)! At 3 locations the species is found (one is protected)
- Reproduction remains problematic, very limited numbers with the exception of one location.



Cuora trifasciata & *Cuora cyclornata*

ESF population: 71.124.131

Locations: 56

- Rather broad distribution, but so popular and pricy that all efforts are done to find the last specimen in the wild.
- Different forms (clades) are present and there is a high number of hybrids.
- High demand from China for European animals.
- Only one *C.cyclornata* male in Europa (none in America!)



CLADE A



CLADE B

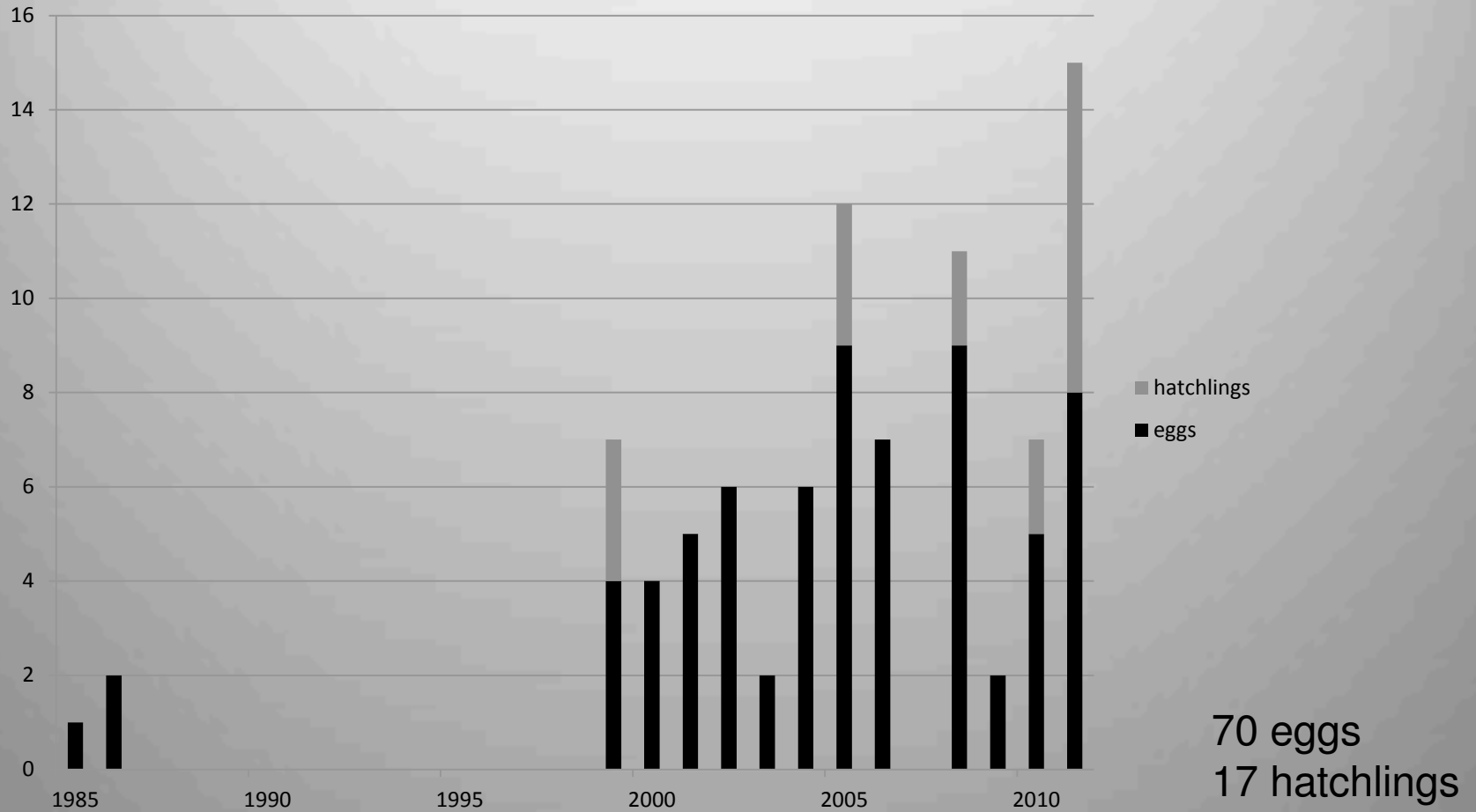


Cuora cyclornata* and *C. trifasciata





Cuora trifasciata reproduction date Rotterdam Zoo



Cuora yunnanensis

ESF population: none

- 12 museum specimens of >100 years ago > extinct
- Found in the trade in 2004.
- 2006 first successful reproduction in captivity.
- 2008 re-discovered in the wild
- Kunming University project (assurance colony)
- October 2010: first hatchling!





Cuora zhoui

ESF population: 5.5.48

Locations: 4

- USA: 3.10.6 (3)
- China: 7.20.0 (8)
- Japan: unknown but presumably <10
- So far not found in the wild (perhaps in 2013)



Ex situ population in Europa within EAZA

Soort	Population	Locations
<i>C. amboinensis</i>	31.37.45	29
<i>C. aurocapitata</i>	-	-
<i>C. bourreti</i>	2.2.1	1
<i>C. flavomarginata</i>	7.3.10	3
<i>C. galbinifrons</i>	9.14.12	6
<i>C. mccordi</i>	1.7.0	2
<i>C. mouhotii</i>	2.1.2	3
<i>C. pani</i>	-	-
<i>C. picturata</i>	-	-
<i>C. trifasciata</i>	9.15.27	8
<i>C. yunnanensis</i>	-	-
<i>C. zhoui</i> *	1.8.0	3

*Status of male *C.zhoui* in Chester zoo is uncertain

Breeding results in the Munster Zoo

Species	2004	2005	2006	2007	2008	2009	2010	2011	Totaal
<i>C.mccordi</i>	3	5	3	6	8	6	10	11	52
<i>C.aurocapitata</i>	1		7	8	8	5	12	7	48
<i>C.flavomarginata</i>			2	2	1	1			6
<i>C.galbinifrons</i>		1					3		4
<i>C.bourreti</i>					1	1	1		3
<i>C.picturata</i>							2	1	3
<i>C.trifasciata</i>		2	8	2	4		9		25
<i>C.cyclornata</i>					1	3	5	1	10
<i>C.zhoui</i>	9	4	8	1	1	7	3	3	36

Conclusion:

- Reproduction is reported with all species.
- Breeding results increase.
- Very rare to extremely rare and therefore adequate protection is needed (including the assuring of healthy/durable ex situ and in situ populations).
- CITES regulations have pros and cons.
- Chinese buy European Cuora's.

Acknowledgements:

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