

Studbook Breeding Programme

Shinisaurus crocodilurus

(Chinese crocodile lizard)



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Shinisaurus crocodilurus

Photo by G.Stelzner/M.Zollweg

Annual Report 2014

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Introduction

The studbook for *Shinisaurus crocodilurus* is not really a new one.

Several years ago Harry Wölfel (Germany) started collecting data about captive *Shinisaurus* and he has been the official studbook keeper from the start.

In a 2009 board meeting the ESF board discussed some of the studbooks that (for outsiders at least) appeared to be in a ‘sleeping’ state. One of these studbooks obviously was this one, a situation that is far from ideal as the species is extremely threatened in the wild and might rely heavily on captive breeding in the near future.

A first change with effective of January 1, 2010 was set into practice. Siebren Kuperus and myself formed a team to make the *Shinisaurus* studbook a more successful one.

Potential members had been approached and round about 25 participants could be won to participate in the studbook incl. private keepers and zoos.

Especially in situ research activities determined the activities of the Studbook in the past three years. After a lot of paperwork I received the permission to visit the Chinese habitats 5 times and was able to form a network of “experts” rel. to *Shinisaurus* within the studbook- ”cosmos” and external resources such as the Biological Faculty of Guilin Normal University / China or the Daguishan Nature Reserve / China.

However, problems with the studbook software still remains and some data of participants got lost and hence the activities within the studbook unfortunately remain on a relatively low level.

Based on heavy job-related workload Siebren Kuperus was not able to carry out the active function of a studbook keeper for *Shinisaurus* any longer.

With effect from January 1st 2015 we will switch roles. I step in as studbook keeper and Siebren will be the co-studbook keeper. Siebren will assist and will grant ”a helping hand” if it is necessary.

I hope to leave the logistical problems behind us and keep everybody updated as much as possible since, this is a must to keep people involved and show

outsiders what an organised group of private keepers and zoos together is capable of.

It is worth to do so and absolutely necessary to protect *Shinisaurus* from extinction.

Wild status

The situation of *Shinisaurus* still remains critical.

Efforts had been made to improve the current situation for *Shinisaurus* in China in some habitats, however, for other habitats in China new studies (2014, WU, Guangxi Normal University, by personal communication) acknowledge the over - all risk for extinction in China.

Already Huang et al. (2008) estimated the wild population of *Shinisaurus crocodilurus* in China to be 950 individuals approximately. This total number is spread over a relatively large area, and apart from the Guangxi and Guangdong provinces in China the species is also found in the north of Vietnam in the Quang Ninh province (Quyet & Ziegler 2003). New studies (von Schingen, 2014) attest that the situation for *Shinisaurus* in Vietnam is comparable to China and the population is under heavy pressure due to poaching and habitat destruction.

The species is currently listed as “endangered” in the IUCN Red List.

Captive population

This species is currently listed in CITES appendix II. In practical sense this means that the now regulated trade means no longer allows wild animals to be imported for commercial trade, and rightfully so. As with many species this effectively means that the current captive population is all there is to maintain a viable ex situ population.

A survey amongst keepers known from contacts of Siebren Kuperus and myself revealed round about 25 participants registering a total of 40 to 50 animals (as at Dec.2011).

However, some effort must be made to reactivate and motivate the former participants to continue their participation.

Re- re-started only relatively recently I received more and more response. Some of the established participants do not keep *Shinisaurus* any longer, however, some potential new keepers and breeders have already shown interest to participate incl. private individual and zoos.

Several private individuals as well as zoos have applied for offspring bred within the studbook. The latter especially are a great help to form a solid, long lasting base for the studbook population. E.g. in February 2014 I transferred four cb sub- adult specimens to the zoo of Neunkirchen / Germany. It is planned

to establish a breeding group of *Shinisaurus* and in Nov.2014 a first mating was reported.



What's up?

Photo by G.Stelzner/M.Zollweg

Births

An important factor within a studbook is breeding. It appears breeding is not a big problem anymore, there are however a lot of reports of neonates dying in the first hours or weeks of their life. Siebren Kuperus' and my personal believe was, that these deaths can be related to the method in which juveniles are raised (mostly aquatic and very humid whereas dry areas appear to be extremely important for long time health of the animals). This issue has been addressed within a herpetological book covering the breeding and keeping of *Shinisaurus* and a recommendation was made to change the raising conditions (use of small branches to create adequate resting areas within the breeding tank). The reactions from participants indicate, that the survival rate increased due to the change of the environment.

Overall the total number of neonates could not seriously be published due to the lack of exact numbers, however, due to the information available a stable offspring rate is established.

It is now necessary to ensure that several bloodlines are established and an uncontrolled mix of bloodlines is avoided.

Activities

Over the last years both previous studbook keepers have been active in promoting the studbook and get more people involved. Apart from contact with a lot of zoos and private keepers individual activities worth mentioning are:

In Situ activities:

I have visited 5 times some habitats of *Shinisaurus* in China (Guangxi province). Together with the help of ZGAP (Zoological Society for the Conversation of Species and Populations; www.ZGAP.de) a breeding and research project had been set up. In the last three years a breeding station has been built (40 tanks, pretty close to the habitats, under governmental protection) and some habitats became protected areas (by lease of the respective areas).



Rare pictures of wild *Shinisaurus* habitat, animals could still be found here.

Photos by M. Zollweg



Breeding station within Daguishan Nature Reserve

Photo by M. Zollweg

Activities to come

- Re-activate the approach established participants, motivate potential participants to register their specimens, controlled exchange of specimens.
- In the following year I will attempt to further shape the studbook database. A lot of bloodlines are represented (at least four within my possession and some other keepers), although for most specimens their exact lineage back to founder animals is hard to find. Although no clinical problems have been reported in the captive population of *Shinisaurus* new, unrelated bloodlines would be a great addition to the genepool of the captive population. We keep looking for old WC or known F1 specimens and contemplating the option to obtain F1 offspring from impounded USA/ Asia specimens.
- In Situ activities: I plan to visit the Chinese habitats in 2015 again. Especially some research will be conducted relating to the hibernation of *Shinisaurus* in China. To study the hibernation behaviour of *Shinisaurus* in the wild a tracker and transmitter system has been custom-made and will come into operation.
- First ties had been established with researchers in Vietnam to compare habitat and behaviour activities of *Shinisaurus*.

Literature:

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