UNEXPECTED BREEDING OF *EPICRATES CENCHRIA CENCHRIA*.

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INTRODUCTION

The details of captive reproduction in *Epicrates cenchria cenchria* have already been reported several times (Andreotti, 1977). On the occasion about to be described some young were born unexpectedly, thus I cannot give exact data which can be used as a guide to the successful breeding of *Epicrates cenchria cenchria*. However, I hope that the information offered here, together with data from literature and personal experiences can help others breed *Epicrates cenchria cenchria*.

GENERAL

The range of *Epicrates cenchria cenchria* extends over the northern part of South America as far as northern Peru. The western side of its range is bordered by the Andes Mountains. It is understood there are geographical varieties of *Epicrates cenchria cenchria* - certainly there are differences in marking, and especially colour, across its range. This can vary from brown to red or orange. *Epicrates cenchria cenchria* is a very shy, mainly terrestrial species, which is perhaps why it is seldom seen in the wild. Ten subspecies of *Epicrates cenchria* have been described. These subspecies all appear on the continent of South America,

except for *Epicrates cenchria barbouri*, that also appears on the isle of Marajo. Chippaux (1986) proposes the erection of *Epicrates cenchria maurus* to specific level as *Epicrates maurus*.
The scalation of *Epicrates cenchria cenchria* is: dorsals 43-51, ventrals 256-271, subcaudals 56-66, supralabials 12-15 and infralabials 14-17.

ORIGIN OF SPECIMENS AND HOUSING IN CAPTIVITY

On 14 October 1982 I obtained three juvenile *Epicrates cenchria cenchria*. They were imported the day before from Tepoe, a little Surinam indian village, situated near to the Brazilian border. The sexes were determined by probing: one male and two females. Sex difference is rather clearly visible in larger specimens by the mostly larger rudimentary spurs of the males. Immediately after arrival the snakes were weighed. Their weights were: 95 g (male), 85 g (female 1) and 70 g (female 2). On 24 January 1987 their weights were respectively 1200, 4900 and 1900 g.
After a quarantine period of four months the snakes were housed in three identical terraria with the measurements: 70x60x50 cm (lxwxh). The terraria were equipped with two removable shelves and two inverted flowerpots. The illumination consisted of a fluorescent lamp of 8 Watt. One lamp of 5 Watt was mounted under the highest shelve to serve as an extra heat source. A small water dish was provided. The temperature in the terraria varied between 21-28^{0}C during the day and 18-23^{0}C during the night. Too high a temperature should be avoided; this can cause regurgitation of food. The food I give to the snakes is comprised of mice, rats, hamsters and small chicks.

Foto 1. *Epicrates cenchria cenchria*. Foto: John van der Pols.

MATING AND BIRTH OF THE YOUNG

On 15 January 1985 I put female 1 and the male together. One day later he made approaches to the female. As with many species of the family *Boidae* he used his spurs in an attempt to stimulate the female (Murphey et al., 1978). Mating was not observed.
At the beginning of March the previously very voracious female refused all food and started to increase in girth. Everything suggested that she was pregnant. But by June 1985 no young had been born. On 2 June 1985 the female started to eat again, and the swelling decreased. In all probability it was a feigned pregnancy.
On 2 January 1986 I put both females with the male. This time there was no apparent sign of any sexual activity, but I found traces of sperm. After one month I put the females back in their

own terraria. From the beginning of April female 2 refused to eat. I did not pay much attention to this, because she had refused food before, although she now started to increase in girth a little. I did not connect this with a possible pregnancy in view of the previous disappointing experience. Furthermore she did not look for warmer places in the terrarium (behaviour often observed in gravid snakes).
To my great surprise I found early on the morning of 18 August 1986 two living and four dead young, and also four infertile eggs. The weights of the living and also of the dead young varied between 23 to 28 g. Two of the dead and one of the living young had swollen eyes, this was probably a result of a clogged ductus nasolacriminalis (inner-eye-corner nasal cavity). The eye of the living young became so swollen, that it was decided to remove the fluid that was found between the spectacles and the cornea with a very thin hypodermic needle. The eyes were also salved twice a day with the eye salve "Corneo", which contains as active components the hormone preparation Prednisolonum and the antibiotics Neomycine and Bacitracinum. Despite signs of a slight improvement, the snake died eight days after the treatment was started.
The second young that was born alive was rather emaciated, because the egg yolk was not assimilated. It was also somewhat lethargic. After the first sloughing food was offered for the first time. Because it was refused I started to force feed once a week. The specimen is still force fed, but there have been no problems, so there is a good chance that the young will start eating independantly in the future.

COMPARISONS WITH THE LITERATURE

Sexual activity of *Epicrates cenchria cenchria* can

be induced by effecting a lower temperature (Brunner, 1978). Often this is brought about automatically when you reduce the day-length during the winter. Coincidentally, this may lead to a lower relative humidity in the air, which can also aid in inducing copulation in *Epicrates cenchria cenchria*.
An important second factor for breeding is to keep the individuals separate or to keep both sexes separate. When you have fulfilled the above mentioned conditions then you may introduce the snakes to each other. I certainly do not wish to claim that it is necessary to adhere to the above method in order to make *Epicrates cenchria cenchria* breed, but I think that the chances of a positive result are increased by this treatment.
A gravid female should always be able to choose from one or more spots in the terrarium where the temperature can rise up to at least 35^{0}C (Andreotti, 1977; Brunner, 1978). Too big a defference in temperature can result in dead young and/or infertile eggs. A permanently too low temperature was in my case the probable reason for the greatest part of the clutch being born dead. Strange however, is that the female showed no preference for spots in the terrarium where the temperature was higher. According to Andreotti (1977) the absence of a warm spot results in restlessness in a gravid female. However, I have never been able to observe this in my female.
Also of interest is the post-partus behaviour of *Epicrates cenchria cenchria*. Groves (1980) mentions a female, that after giving birth, pushed against the membranes containing the young snakes with her snout. As soon as there was a reaction from the young in a particular sac she went to another membrane to repeat the ritual. When she encountered with a dead youngster (this had already been ascertained by the keeper) she ate it. Dr. Zielin (West Germany) told me about a female *Epi-*

crates cenchria cenchria, that after giving birth, took her young one by one in her mouth and freed them from their membranes.

REFERENCES

Abuys, A., 1982. De slangen van Suriname, deel III: De families *Aniliidae* en *Boidae*. Litteratura Serpentium Vol. 2 (3): 112-133.

Amaral, A. do, 1958. Contribuicao ao Conhecimento dos Ofidios Neotrôpicos XXXVII. Sub-espécies de *Epicrates cenchria* (Lineu, 1758). Mem. Inst. Butantan, São Paulo, 26: 227-247.

Andreotti, H.F., 1977. Breeding rainbow boas; Observations of a pair of *Epicrates cenchria*. Bull. N.Y. Herp. Soc. 13: 33-34.

Brunner, J.C., 1978. Captive breeding of Columbian rainbow boas, *Epicrates cenchria crassus*. Bull. Phila. Herp. Soc. 26: 3-12.

Chippaux, Jean-Philippe, 1986. Les Serpents de la Guyane Française. Editions de l'Orstrom. Faune Tropicale XXVII. Institut Français de Recherche Scientifique pour le Developpement et Cooperation, Paris. Pp. 1-165.

Groves, J.D., 1980. Observations and comments on the post-parturient behavior of some tropical boas of the genus *Epicrates*. Brit. Jour. Herp. 6: 89-91.

Huff, T.A., 1977. Captive propagation and husbandry of *Epicrates* at the Reptile Breeding Foundation. Proceeding of the Second Annual Reptile Symposium on Captive Propagation and Husbandry. Pp. 103-112.

Murphy, B.M., D.G. Barker & B.W. Tryon, 1978. Miscellaneous notes on the reproductive biolo-

gy of reptiles. 2. Eleven species of the family *Boidae*, genera *Candoia, Corallus, Epicrates* and *Python*. Jour. Herp., 12 (3): 385-390.

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