REPRODUCTION OF *BOTHROPS SCHLEGELII* (BERTHOLD, 1846) IN CAPTIVITY.

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Contents: Introduction - *Bothrops schlegelii* in the terrarium - Copulation - The offspring - Footnote - Acknowledgment - References.

INTRODUCTION

Only one subspecies is known of this pit viper. The basic colour of *Bothrops schlegelii* is extremely variable: specimens may be of a grass green colour, an olive green colour with yellow and red spots, completely yellow or a more or less red-brown colour. Particularly interesting is the colour of the tongue, which only matches body colour in the yellow variety; in all other varieties the colour of the tongue is always dark. Two small "horns" above each eye give to the snake a particularly aggressive appearance. The length of *Bothrops schlegelii* is up to 80 cm; the males are smaller than the females. The venom is of the haemotoxic and neurotoxic type. The fangs in adult specimens can be up to 2 cm and this snake is considered to be very dangerous. Nevertheless very few bites are known. *Bothrops schlegelii* has a distribution area of southern Mexico, Guatemala, El Salvador, Belize, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela and Ecuador. The habitat of this snake, which spends most of its life in high branches of trees, is tropical rain forest, cacao and banana plantations. In the wild this snake feeds mainly on mice, tree-frogs, birds and small lizards; in the vivarium it prospers on a

diet of mice.

BOTHROPS SCHLEGELII IN THE TERRARIUM

The author obtained the male (a dark red colour) and the female (totally yellow) in November 1979. They were both adult specimens and were obtained from another herpetologist and therefore used to life in captivity. The animals shared a terrarium of 60x60x110 cm (lxwxh) furnished with some robust branches, although these were used only by the female. The male preferred to lay on the ground, which was covered with wood chips, and he often hid under a piece of cork bark. At the top of the terrarium a lightbulb provided a daytime temperature of 27^{0}C in the coolest part of the vivarium during the winter. At night the temperature never dropped below 15^{0}C. In summer the temperature was considerably higher. The terrarium was placed very close to a window, so that the snakes were subjected to the photo-period of the Netherlands. Both animals ate mice regularly every seven to ten days. These were offered in the evening hours when *Bothrops schlegelii* is most active. The male was fed on the ground, the female on the branches. The reaction to the prey was very fast; the mice were struck almost immediately and held in the mouth until dead. If the snake dropped the prey, no further attempts to eat it were made.

COPULATION

At the end of February 1980 the male became restless and ate irregularly. One morning I found him laying near the female on the branches. The author never saw the snakes copulating and it is thought that this occurred during the night or very early in the morning. On 20 March the female refused

food and from this day on did not accept any more food. To offer nourishment the author sprayed her body twice weekly, with water and a multi-vitamin product, which she drank regularly. During this period the male was often near her and was regularly active during the day-time. To avoid disturbing the female I transferred the male to alternative accommodation on 15 April. After seventy days of fasting he accepted a mouse and became less active. During the pregnancy period the female was very quiet, although in the evening she regularly came down to drink. At the end of July she became irritable and it was quite dangerous to work in the terrarium: she struck without any warning and at times showed completely raised fangs prior to striking.

THE OFFSPRING

On 13 August at 15.00 pm the female started to give birth. The young snakes were dropping to the ground, emerging from their egg-sacs and within a few moments they climbed up the branches to join their mother where the temperature was higher. Finally by the evening twelve yellow and nine greenish offspring had been born; one was incompletely developed and so discarded. The young were 10-15 cm long with a weight of about 1-1½ g - very small snakes!! The same day that the youngsters were born the mother ate two mice. All the newborn *Bothrops schlegelii* were moved into another terrarium with a temperature of 25°C. The most urgent problem was that of the relative humidity, because after some hours the humidity was so low (60%) that the skin of the little snakes was shrivelled. The problem was solved by spraying the animals three times a day with a mixture of water and vitamins. The vitamins were added because the youngsters were often drinking sprayed droplets from

Fig. 1. *Bothrops schlegelii*. Foto: L. Pezzano-Jansen.

Fig. 2. *Bothrops schlegelii*. Foto: C.A.P. van Riel.

their body. This proved a very good method of sustaining the snakes during the initial period of their life. The terrarium for the young *Bothrops schlegelii* was kept very clean by giving the terrarium a daily cleaning with soap and water. The young snakes were not disturbed during cleaning because the branches on which they were laying, were moved out of the terrarium without upsetting the snakes. After the first sloughing which happened on the tenth day of their life, the youngsters were separated to allow easier feeding. The problem of feeding was in selecting suitable food. First I looked for lizards, but I was only able to find big lizards and I was also afraid of contaminating the snakes with parasites from lizards. The solution was suggested from another herpetologist: legs of young mice. The baby snakes refused to take mouse legs voluntarily and they were thus force-fed; a few drops of multi-vitamin were sprinkled on each leg. After nearly three months of force-feeding the little snakes were large enough to eat newly born mice (one day old). Each mouse was picked up with a pair of tweezers and the snake was irritated by tapping its head and tail with the head of the mouse. As soon as the snake had bitten (and, more importantly kept the prey in its mouth) it was necessary for the author to remain absolutely immobile as the slightest movement could disturb the snake, causing it to spit out the prey. This method of feeding was time-consuming, but it gave the best results. During this time some of the young went to other snake-keepers and this was a big help. Eventually the snakes started to eat mice (one day old) voluntarily.

FOOTNOTE

Newborn *Bothrops schlegelii* born afterwards and

also from other parents were experimentally fed with small lizards, small *Hyla cinerea* and legs of mice; the best result was obtained by feeding legs of mice

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