



Foto 1: *Crotalus durissus vegrandis*, volwassen man, adult male.
Foto A. Weima.



Foto 2: *Crotalus durissus vegrandis*, in copula. Foto A. Weima.

***CROTALUS DURISSUS VEGRANDIS* IN CAPTIVITY**

By: André Weima, Dr. v.d. Veldestraat 34, 7902 KD Hoogeveen, The Netherlands.

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CHARACTERISTICS

Crotalus durissus vegrandis looks very much like other members of the *Durissus*-group, except that it is smaller. According to Klauber the maximum length is 68.4 cm, but my male is almost 1 meter long (at an age of three years). *Crotalus durissus vegrandis* has an oval shaped head clearly distinct from the body. The body is robust and triangular in diameter. The keeled scales surround the body in 25-29 rows. The basic colour varies between olive-green and yellow-brown. The body is covered with light speckles, in which the typical pattern of *Durissus* is vaguely recognizable. The tail is ash-grey with a faint band pattern. Between individuals there appear different colour forms. There are animals with a sallow beige colour and animals with a strongly contrasting dark brown-white colour pattern.

The venom of *Crotalus durissus vegrandis* contains strong haemorrhagic- and neurotoxic elements. It also affects the kidneys. At any one time an average of 7 mg venom is injected (minimal 5 mg and maximal 20 mg) (Lancini & Kornacker, 1989). Great caution is recommended when keeping this snake. Last year a French snake keeper was bitten in his hand by an animal of about 40 cm while feeding. As well as a critical condition during the first weeks after the bite, he still suffered kidney problems after half a year. In the wild there are hardly any cases known of people getting bitten. The reason for this is probably the fact that the animal has become very rare and is not aggressive. When approached or disturbed the animal will only try to make his presence known by rattling.

DISTRIBUTION AND HABITAT

Crotalus durissus vegrandis is found in the north-east of Venezuela and has isolated populations in the savannahs of southern Anzoátequi and Monagas (Maturin savane) and in the Guyana highlands of the extreme south-east of the state of Bolívar (Campbell & Lamar, 1989).

This species prefers dry to very dry, open savannahs, but also is found in the border areas of the rainforest. The distribution area of *Crotalus durissus vegrandis* knows two rain periods; the short period from December to February and the long period from April to August.

Along with *Crotalus durissus vegrandis* there can be found another rattlesnake in Venezuela, namely *Crotalus durissus cumanensis*. This subspecies however, grows much larger. Young of this subspecies that I reared grew in one year from about 20 cm to almost one meter!

CARE

My parental animals were born on 15 August 1988 and from the moment that I have had them in my possession, they have been housed separately. This may not be necessary, but because the animals - especially when they were young - were difficult to feed, I kept them separate. However, when both animals were acclimatised, they both readily accepted a mouse every tenth day.

Crotalus durissus vegrandis prefers a steady high temperature of between 25 and 30°C. Also at night the temperature does not have to drop much. The animals do not like to be sprayed with water. The sloughing period is rather long. In the last week before the sloughing I spray the terrarium now and then with luke-warm water, but never direct onto the animals!

Crotalus durissus vegrandis is a docile rattlesnake which prefers to lay rolled up under a hiding place the whole day. When disturbed this snake will not quickly show defensive behaviour. When it is touched, it rolls up tightly (see the picture of the adult female). Only when it is roughly disturbed will it use its rattle. During the evening it crawls around the terrarium in search for food or to drink water. However, it seems that the animals are laying imperturbable, one has to use always long instruments when working in the terrarium. Sometimes the animals are disturbed by movements and show a lightning bite reflex. Working with bare hands in the terrarium of rattlesnakes is ofcourse always unwarranted, as these animals can feel the warmth radiating. Perhaps this seems a superfluous warning, but there are still people who do this.

COPULATION AND PREGNANCY

In the beginning of autumn 1990 the terrarium of the male was sprayed with luke-warm water every evening, to imitate the rain period of his land of origin. After a few days the animal started to crawl restlessly around his terrarium. After one week I placed the female with him. The male tongued the female intensively, but she was not very pleased with his approaches. After a few days I removed the female. In the following weeks I again sprayed the terrarium of the male regularly in the evening and again he was restless, seeking a female. After a month I placed the female with the male again. On 10 October 1990 I found the animals in copula. This copulation lasted at least until 0:30 hours. The next day I removed the female from the male. The weeks hereafter the male still crawled restless through the terrarium. This whole period he refused to accept food. After a few weeks I placed the female again with the male. She was not willing to copulate now and was removed after one day.

During pregnancy the female showed a considerable larger appetite, however, she only digested small mice (jumpers). Larger prey animals were vomited after a few days. Twice I have injected the (dead) prey animal with a AD 3 vitamin solution. During the whole pregnancy she lay on the warmest spot in the terrarium where the temperature was between 25 and 30°C. In the second half of the pregnancy it was clearly visible that she had gained in girth; at first only in the middle of the body; later up to the cloaca.

Up to a month before giving birth the animal regularly ate a mouse. In the last week before giving birth the female was not coiled up with her head resting on her body as she usually did, but stretched out, especially the back half of the body. On 5 July 1991 I found the female - around 12:00 hours - giving birth. With waving movements she was pressing the young out at intervals of about a half hour. In all ten healthy young were born. Some of them had to be helped to free themselves from their egg membrane, which perhaps dried rather quickly thanks to the temperature in the terrarium.



Foto 3: *Crotalus durissus vegrandis*, volwassen vrouw, adult female.
Foto A. Weima.

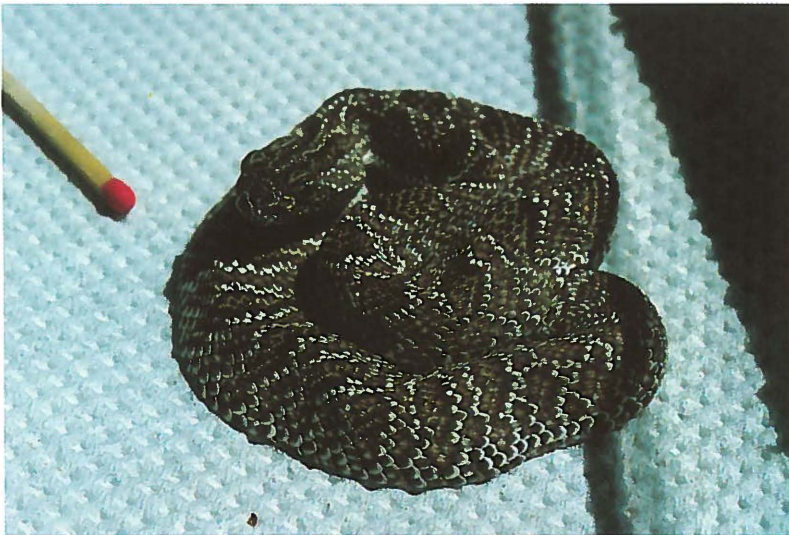


Foto 4: *Crotalus durissus vegrandis*, jong, enkele dagen oud, young,
several days old. Foto A. Weima.

REARING THE YOUNG

The babies had an average weight of 14 g. Regarding their markings, the newborn *Crotalus durissus vegrandis* look very much like their parents. The body however, is much slimmer and the head - in proportion - large. All the young were taken out of the terrarium after birth, and housed in separate trays. One half of these trays were placed on a 20 Watt heating plate. Through this the snakes were able to warm themselves. In the other half I placed a small water dish. As there was no heating under the water dishes the air in the trays stayed relatively dry. To help them with their first sloughing they were laid on a moist substrate, with a little piece of bark or stone on it, along which they could rub loose their skin. The skin of these young animals is very tough and you have to ensure no skin remains left on the head as the eyes can receive permanent injury.

In the week after all the animals had sloughed, I offered them a mouse (pinkie) in the evening. Some specimens snapped at it immediately, while others did not eat for a few weeks. The young that had difficulty to eat were not forced to accept food. Every few days - in the evenings (when it was dark) - I put a little mouse in the terrarium and checked it the following day.

DISCUSSION

I have noticed that the venom of young *Crotalus durissus vegrandis* kills a mouse much quicker than that of the adult animals. I have also established this for *Crotalus durissus cumanensis*. Maybe this is to enable faster digestion of the prey and by that a faster growth is made possible. It is not known to me whether the composition of the venom of the young animals is different than that of the adult snakes.

Crotalus durissus vegrandis is in the wild very rare. It seems to me that it is of great importance to keep alive a number of good breeding-groups, to save this species from extinction. However, it is a very venomous species for which there is no specific serum. At Laboratorios Behreus in Caracas, Venezuela a monovalent *Crotalus durissus*-serum is made. It is unknown to me if this is active against a bite by *Crotalus durissus vegrandis*.

FUTURE

In the meantime all the young animals have gone to other serious snake keepers. I have been able to buy a second, not related female specimen with which the male has copulated in the meantime. Also the female that gave birth to the young in 1991 has copulated again in October. About the course of this I will inform in a following article.

REFERENCES

- Campbell, J.A., Lamar W.W. 1989. The Venomous Reptiles of Latin America. Pp. 339-346
- Lancini, R.A., Kornacker, P.M. 1989. Die Schlangen von Venezuela. Pp. 290-313.