

EXPERIENCES WITH *RHABDOPHIS SUBMINIATUS SUBMINIATUS*.

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Contents: Introduction - The first specimen - The terrarium - Feeding and growth related to temperature - Eggs - Winter rest - Conclusion - References.

INTRODUCTION

Rhabdophis subminiatus has four subspecies: *Rhabdophis subminiatus subminiatus*, *Rhabdophis subminiatus helleri*, *Rhabdophis subminiatus siamensis*, and *Rhabdophis subminiatus hongkongensis*, and of these *Rhabdophis subminiatus subminiatus* is the one usually imported to Holland. The distribution of this subspecies covers Vietnam, Thailand, Hainan and Burma where it mainly lives in hill country.

It is a slender snake with the neck as wide as the head. The eyes are big with round pupils. The number of ventral scales varies from 138 up to 148, the number of subcaudal scales from 72 up to 96. The head is light green in colour. The neck region for about 5 cm is red in colour. The rest of the back is light- to grey-brown. The ventrals are white to yellow-white.

The snake can flatten its neck and when doing this the red spot is more striking. Also while flattening the neck, the head is lifted, making it appear more threatening. This will frighten off most predators.

This species has to be handled with care, as a bite can inflict symptoms of envenomation (Sleijpen, 1984). It is not quite clear what the effects

of a bite can be. I myself was bitten before I knew of its possibility, quite severe a couple of times without any harmful effects. Sleijpen however, describes a case in which symptoms of envenomation occurred. As it is neither known how the venom works, nor how sensitive the individual is towards venom, it is wise to be very careful with this snake.

Rhabdophis subminiatus subminiatus is a species that is imported frequently, but survives only a short time with most keepers.

In this article I hope my information will change this for the better.

THE FIRST SPECIMEN

The first specimen, a female of 65 cm and 40 g, was purchased at the beginning of December 1983. Its condition was not all that good. Microscopic research showed an infection of flagellates and worms. The snake was treated with Flagyl and Panacur, which had the desired effect. At the same time it showed that there were twenty tape-worms right under the skin. These tape-worms have as normal hosts different species of frogs. When these frogs are eaten, they turn up in the snake and eat themselves right across the intestines to the skin. Apparently the snake is not bothered by these kind of tape-worms, but they were removed. This can be done by means of an operation or with medicine. The last method has the disadvantage that tape-worms after dying start to rot.

With large numbers of tape-worms this can cause a lot of trouble. This made me decide to have them removed with an operation. This is performed by making a small incision in between two scales where the tape-worm is situated (recognized by a lump). Now the tape-worm can be pressed out. As a security matter an injection with Ivomec was given

after the operation (because of the large number of worms this operation was done in three stages). One has to take care with the dose of Ivomec given, as an overdose can easily lead to a state of coma or worse.

THE TERRARIUM

The first specimen lived four months in a terrarium measuring 45x30x15 cm (lwxh). It was heated by a heating-cable of 15 Watt. The temperature varied between 26 and 30°C. The floor was covered with wood-shavings, a piece of cork-bark and drinking-trough completed the arrangement. After this period the snake was housed in a terrarium 140x40x100 cm (lwxh). Covering the whole width was a water-basin with a depth of 15 cm. The rest of the furniture were pieces of wood. The terrarium was locally heated with a spot of 60 Watt. During daytime the temperature was 20 to 24°C where as right under the spot the temperature was over 35°C. At night the temperature varied from 17 to 20°C. In this same terrarium also lived six *Natrix maura*.

FEEDING AND GROWTH RELATED TO TEMPERATURE

The snake was fed on gold-fish and minnows. Both were eaten eagerly. Feeding was done with live and dead fish. It was striking that the fish were not caught from the water-basin. I never saw this animal nor any of the later ones I had, in the water-basin. When the snakes were put into the water they shot out very fast. Even when spraying the terrarium they showed signs of panic! In the beginning the first animal (a female) sometimes took as much as twenty minutes to manoeuvre a fish, that was caught midway in the right position. After about three weeks she did this much faster.

This, together with the dislike of water, makes me suspect that the area in which this snake lives is not related to water that much, and that their main food most probably consisted of amphibians and rarely fish.

The female showed a healthy appetite and in the first four months ate 61 food items. In April 1984 she weighed 60 g. Considering the large number of preys the increase in weight is very small (20 g). This most probably has to do with the high temperature in the first terrarium. With other animals I have noticed that digestion is very fast with high temperatures (within a day one cannot see that food has been taken) but this does not result in a good increase of weight. Now I prefer a cool terrarium (20-24°C) with only a high temperature on one spot. At the same time it seems advisable to decrease the temperature at night. At these temperatures the digestion is slower, but the snake increases more in weight. When I started to keep this female at lower temperatures, she fed less, but three months later weighed 102 g.

Once every fortnight I added through the fish a liquid multi-vitamin preparation (originally meant for birds), complemented with Carnicon (sometimes with Gistocal) to add enough lime. It is my experience that if I do not give this, snakes will have problems shedding.

On average the snake shedded eleven times a year.

EGGS

When I returned home from a weeks holiday in June 1984 the female appeared to have laid ten eggs. She had laid the eggs right under the heating-lamp under which the temperature was 35-39°C. Six of the eggs were hard and of a yellow colour and measured about 17-10 mm, while four eggs were nicely white coloured and measured 23x13 mm. Un-

fortunately they were all completely dried up.

WINTER REST

From 10 October 1984 I stopped feeding the animal, and gradually the number of hours of heat and light were reduced. On 16 November the lights went off completely. Up to 4 January the day time temperature varied between 13 to 19°C and at night between 14 to 16°C.

After two months I increased the number of hours of light and heat. On 17 February the animal again had ten hours of light. In spite of the fact that the animal did not have food for four months, she did not lose more than 10 g in weight.

In 1985 she ate well. She then hibernated the same way as in 1984. In 1986 she too ate well. Since I now thought I could keep this snake well, I purchased another couple at the end of September. After treating the animals against flagellates and worms, and removing some small tape-worms from the male, ten weeks after the purchase I could assume that they were well. The feeding as well as the increase in weight were good. I stopped feeding mid-December, and started to bring down the number of hours of light and heat. After three weeks the temperature was brought down from 20 to 10°C. After another week I brought it down to 5°C. After that I placed them with the other snakes in the shed. Here the temperature varied from 1.5 to 3°C. Unfortunately after three days they died. Most probably because of too low a temperature. Hibernation at a temperature no lower than 10°C, seems better.

CONCLUSION

Summing up one can say that the regulation of tem-

peratures in the terrarium is a main factor for this species. In the first few months it is important that there is a cool spot in the terrarium. When the snake is forced to live all day long at temperatures higher than 25⁰C, the metabolism goes so fast, that although more food is taken the snake will not gain enough weight or even lose weight, as the snake should be gaining extra weight in this period of feeding.

One specimen hibernated well twice at temperatures between 13 and 19⁰C. An attempt to hibernate three specimens at lower temperatures (1.5-3⁰C) completely failed. Most probably it is best to give this species a winter rest at temperatures no lower than 10⁰C.

REFERENCES

Sleijpen, F., 1984. Venomous or not? *Litteratura Serpentina*, Vol. 4 (2): 42-56 / Dutch Ed.: 42-57.

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