

HEALTH & DISEASES



This column is taken care of by the "Studygroup for Diseases and the Optimum Keeping and Breeding of Terrarium Animals" of the Belgian Society "Terra". If there is a question concerning health or diseases, feel free to contact the president of the Studygroup: Mr. Hugo Claessen, Arthur Sterckstraat 18, B-2600 Berchem, Belgium. He will try to answer your question in this column to the benefit of all members.

PENTASTOMIDA AND OTHER PARASITES, AND THEIR TREATMENT IN *LIASIS PAPUANUS*.

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This article describes the treatment of a specimen of *Liasis papuanus* which, on arrival in the Netherlands, weighed some 2300 grams. This particular specimen was found to be in a very poor state of health, showing evidence of considerable damage which was so pronounced that the first rostral and supralabial scales were completely missing. Furthermore, the snake produced a considerable amount of slime from the mouth which was

accompanied by deep, rapid breathing and continual wheezing sound from the respiratory tract. However, in spite of this, the snake ate readily from its first day in captivity, its first meal consisting of two rats. The snake's mouth was treated daily with the aid of Chloramphenicol antibiotic powder in order to reduce and combat the mouth slime.

An initial investigation of the faeces showed the presence of both nematode and cestode eggs and larvae. Funnily enough, no vermicide preparation seemed to be capable of combatting their presence, and the mucous discharge which initially had a quite normal appearance later became dark red and then black in colour due to the presence of blood. In spite of the snake's severe state of health it ate regularly, and after some five months weighed 5000 grams.

After the 5th month had passed, the mucous discharge was sent for laboratory investigation to Professor P. Zwart at the Utrecht University. Professor Zwart subsequently determined the presence of pentastome eggs in the mucous discharge. Since pentastomida belong to the class of the *Arachnida*, it was decided that they should be combatted with the aid of an insecticide. Subsequently, for a period of one week, a Vapona box was placed in the vivarium for a total of 4 hours per day. This had no effect at all; the mucous discharge still contained a considerable amount of pentastome eggs. During this same period, no pentastome eggs were discovered in the faeces of the snake. Many flagellata were discovered instead, which were treated with the administration of Flagyl in a dosage of 40 mg/kg weight per day. This proved successful, since no further traces of the flagellata were found after treatment.

The treatment of the pentastome eggs was then re-continued, but on the second occasion with the aid of the Vapona box placed in the vivarium for a



Fig. 1. *Liasis papuanus*. Foto: C.A.P. van Riel.

period of five days, 8 hours per day, however, without any results. With regard to the use of the Vapona box, it should be noted that the vivarium was provided with a fine mesh framework in the ceiling. The dimensions of the vivarium were 100x65x170 cm (lwxh). In the weeks which followed, the snake refused to eat, and its weight was reduced to approximately 4350 grams. This slight anorexic condition was probably a result of the vapours from the Vapona box.

Eight months later, there were still relatively large amounts of pentastome eggs in the mucous discharge and faeces of the snake. The snake was then treated with the immediate administration of Ivermectine (Ivomec), the dosage being 0,2 mg/kg weight. This was injected only once and abdominally. After 4 weeks, there were no further traces of pentastome eggs. After a further period of 4 weeks

(now 10 months after arrival), the very thin and smelly faeces of the snake contained large amounts of tape worm. These were possibly killed as a result of the administration of the Ivermectine. However, the extent of the mucous discharge from the mouth of the snake did not decrease, but did take on a normal appearance again, i.e. without traces of blood.

In the 12th month, a biological culture preparation was made of the mucous discharge from the snake's mouth; this showed the presence of *Pseudomonas aeruginosa* (blue pus). The snake, which now weighed some 4850 grams, was treated with Tribriissan and Bisolvon. This did not reduce the production of the mucous discharge from the snake's mouth. During the 16th month, the snake was again treated with Ivermectine, since the faeces of the snake again showed traces of trematode eggs. After ten days, the snake produced thin, smelly faeces again, possibly as a reaction to the administration of Ivermectine. The trematode eggs did not disappear after treatment. The snake is now being treated with the administration of Droncit.

In spite of the fact that the snake is not in a perfect state of health, and even after being so frequently disturbed by these treatments, the snake is still eating well and is very strong. The weight of the snake is now 4900 grams in total.