

THE DIAMOND-BACK RATTLESNAKE, *CROTALUS ADAMANTEUS*  
(BEAUVOIS, 1799) IN THE TERRARIUM.

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### INTRODUCTION

*Crotalus adamanteus* is perhaps one of the most fascinating rattlesnakes. They can attain a length of 200-250 cm, while the poison fangs of an adult snake can be 2.5 cm long. Almost 30% of humans receiving bites attributed to this species have died.

The ground colour can vary from greyish to olive-green. The dorsal markings consist of a dark-brown to blackish, diamond-shaped pattern, edged in cream. The belly is yellowish with black speckles. The head is broad and flat and distinct from the neck. There is a scattered blotching on the head. On each side of the head are two yellowish to white stripes. One of these stripes runs from the eye to the upper lip at the corner of the mouth. The eyes are small and have a vertical pupil. The tail is of medium length, and is banded with pale, irregular rings.

The difference between male and female specimens is rather difficult to discern. *Crotalus adamanteus* is ovoviviparous and gives birth to 7-18 young with an average length of 25 cm.

The habitat preference for this species comprises sandy hills, pine- and oak-forests, under fallen trees and in burrows of turtles or rabbits. They also appear in the neighbourhood of farms and on



Map 1. Distribution  
area of *Crotalus*  
*adamanteus*.

agricultural land. It is suspected that this snake is a good swimmer, because it has been found in the open sea, a few miles from the coast (Conant, 1975).

Its range is from northeastern North-Carolina to southern Florida (the Keys) and from southern Mississippi to the eastern limits of Louisiana (see Map 1).

#### CHARACTER IN THE TERRARIUM

The character of this snake differs strongly from one individual to another. There are specimens that start rattling at the slightest vibration or at the movement of their own shadow and keep this up for several hours without stopping, whilst if one approaches the terrarium, they will strike several times against the glass. Specimens which are born in captivity or are caught when very



Foto 1. *Crotalus adamanteus*. Foto: V. Pezzano.

young, seldom make use of their rattle and will not attack as quickly. For the newcomer to rattlesnake keeping it is advisable to buy young specimens, which are likely to be more placid.

#### MY SNAKES AND THEIR CARE

In 1979 I acquired a young specimen of 90 cm long and a weight of 1.5 kg. This specimen was directly imported from America, together with five other specimens of the same species. One of the other five snakes was longer than 2 m. It was an enormous snake and was very irritable. It had to be kept in a terrarium with black cloth in front of the glass and it made almost constant use of its 13 cm long rattle. The specimen was eventually given to a zoo, where it received excellent housing, namely a terrarium of 5x5x3 m, that was furnished as a swamp. In these surroundings it

felt at home and started eating again. It only accepted black, dead rabbits. The snake's behaviour improved somewhat, but it remained an aggressive snake.

My young specimen almost never rattled, seeming more curious than nervous. The measurements of its terrarium were 120x80x80 cm. The temperature in the terrarium varied during the summer from 26-35 °C by day and was never lower than 22°C at night. During the winter it was 26°C by day and 15°C at night. Within a few weeks it was used to my presence and even dared to come out of its hide during the day.

The administration of medicine, for example Flagyl to overcome problems with flagellates, to aggressive specimens was done with the aid of a bag. Firstly, put the snake in a white, cotton bag and tie the bag. After this you hold the bag against a window, so you can see where the head of the snake is. Now you can press a stick against the head and grasp the snake behind the head. After this you can open the bag again and administer the medicine. For my snake was this method not necessary; I could take it out of the terrarium in the usual way.

Not one of the imported snakes was interested in drinking water. This was strange, because the six snakes came from an area with much water (Everglades, Florida). For that reason I decided to sprinkle the snakes with water, in which vitamins were dissolved. They liked this, because they started to drink the droplets from their body. A disadvantage of this method is that the terrarium becomes very moist. Personally I do not like a moist terrarium, so I started to let the snake drink with the use of a plastic bottle with a rather hard, plastic tube of 40 cm length on it (see figure 1). At the end of the tube there is a small hole through which a small spout of water can pass. When I wanted to give the snake water, I

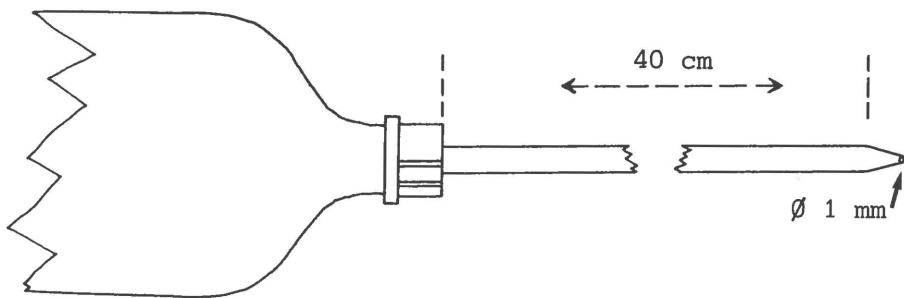


Fig. 1. Plastic bottle with hard tube of 40 cm length.

did this in the following way: I put the end of the tube close to the snout of the reptile and carefully sprinkled water against it. The reptile started to become curious, noticed the water and started to drink. It was then possible to put the tube in its mouth. Later this method was also successfully applied to some other snakes three to four times per week.

After three weeks we started feeding the snakes. *Crotalus adamanteus* is not easy to feed. In general they eat rabbits, squirrels and other rodents. The first prey that was offered was a dead rat. If they would accept this prey, it would spare us a lot of work compared with the offering of rabbits. One of the snakes accepted the rat, but the next morning it became evident that he had regurgitated. Had the prey been too large or had the snake a stomach infection? After two weeks we tried it again, but now with smaller rats, which had laid for two days between dead rabbits to impart the scent of rabbits. The rats were also smeared with urine from the rabbits. Three snakes accepted these rats. The other snakes inspected them some time, but did not eat. My specimen belonged to the latter group. Because of his placid character, I had anticipated he would feed. We now offered live young chicks to the fasting group.

The interest was considerable, but they did not eat them. I did not want my snake to get used to young rabbits, because they were hard to obtain. According to other snake keepers a gerbil could be a possible food item but in those days they were very hard to obtain in Italy. The only possibility was trying it with hamsters and it appeared that he liked these very much. When I later came to Holland with the *Atrax* Exhibition it became obvious that the menu could be varied with gerbils.

## CONCLUSION

Unfortunately I have never had a female specimen of *Crotalus adamanteus*, so I do not have experience with the reproduction of this species. Female specimens are very hard to obtain and may be the reason for this is that in the wild there are less female than male *Crotalus adamanteus*.

There are many Diamond-back rattlesnakes born in captivity, but these results are mostly obtained from the importation of gravid females and very seldom by actually breeding them in captivity. Very often the imported, pregnant females die after they gave birth to their young, because these adult specimens cannot adjust themselves to captivity. On the other hand the young snakes adapt very well and they grow up successfully.

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