

REPRODUCTION OF *ECHIS PYRAMIDUM* (GEOFFROY SAINT-HILAIRE, 1827) IN CAPTIVITY.

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Contents: Introduction - Description - Behaviour in terrarium - Maintenance - Temperature - Copulation - The young ones - References.

INTRODUCTION

Until recently *Echis* was recognised as consisting of two species: *Echis carinatus* Boulenger, 1896 (with about six subspecies) and *Echis coloratus* Günther, 1878. The *carinatus*-complex has been the subject of several studies since (Roman, 1975; Hughes, 1976; Cherlin, 1983; Joger, 1984) as a result of which some of the subspecies have provisionally been given specific status including *Echis carinatus pyramidum* now known as *Echis pyramidum*.

DESCRIPTION

The basic colour of this side winder varies considerably and depends on the region the snake comes from. The colour can vary from yellowish to dark- and reddish brown. On the back there is a pattern of light coloured equidistant rectangulars. on the side a light undulating line, almost white or yellowish occurs, the higher curves pointing to the rectangulars on the back. Between two points dark spots connect the rectangulars. Dark blotches also occur in the hollows of the undulations next to the belly. The belly is light pinkish with black spots. The head is triangular and rounded,

well distinct from the neck and has a black cross or trident on the upper surface. A dark line runs from the large eye to the corner of the mouth. The body of the snake is covered with strongly keeled scales and is slightly flattened at the sides. The tail is short. In spite of its small dimension, 60-70 cm this snake is one of the most dangerous, having a strong heamotoxic venom, its range is one of the most extended and in its character it is extremely irritable.

BEHAVIOUR IN TERRARIUM

When annoyed it takes up the characteristic double "S" position, strongly rubbing its scales against each other, producing a loud noise; it will not hesitate to strike. In nature it spends the whole time hidden beneath stones or buried in the sand, where it is always ready to attack, only in the evening it becomes active. For maintenance in captivity there are no particular problems though it is important not to keep more than one specimen in a terrarium as, when excited by feeding, they may bite each other. This has normally no mortal effects, but is not very desirable, one of the two will probably stop feeding. It must be said even to repetition that from experience it is known that when one is too confident with this snake there is a greater risk of being bitten.

MAINTENANCE

The preferred prey in the wild is insects, lizards, mice and small birds. In the terrarium *Echis pyramidum* accepts small mice; it is best to feed them in the evening when they are active. If, in the early days of captivity, there are problems one can give them lizards and new-born mice. The

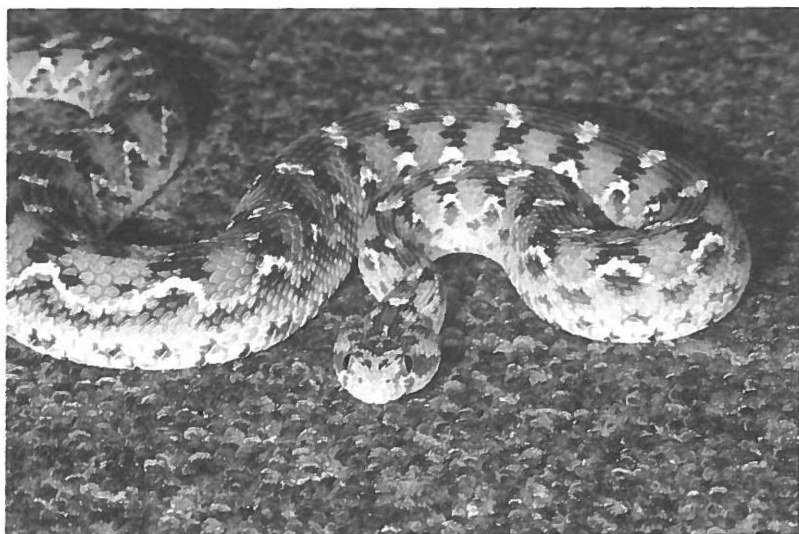


Foto 1. *Echis carinatus*. Foto: V. Pezzano.

latter must be served in a quantity of two or three in a shallow bowl that must be left in the terrarium over night. This species is so voracious that it is best not to feed it more than twice a week.

TEMPERATURE

Because of its wide range this species does not give any real problems. A temperature of 28⁰C at the coldest place of the terrarium combined with 14 hours of light and a temperature of 20⁰C at night is advisable. These values are for the summer time, while the temperature in the winter should be 25⁰C with nine hours of light and 15⁰C at night.

COPULATION

In 1980 we obtained one female and two males. The female, 60 cm long, was housed in a terrarium of about one metre with fine sand and a big high stone with many holes inside. The males, 40 and 50 cm, were kept separated from the female in a similar terrarium. Towards January the longer male started to crawl around more than usual and to eat irregularly and, hoping to witness a traditional combat, he was put with the other male in the terrarium of the female. A few minutes later the two males started to investigate the body of the female with their tongues and shuffling over her whilst making an undulating movement with their body muscles to stimulate the female to copulation. After some moments they seemed to loose interest in the female and moved to the other side of the terrarium. They sat up with about 20 cm of their bodies the ventral parts together, pushing with the head against each other and making a swinging movement, without hurting each other. The intention of all this is to try to turn the other male onto his back. The combat went on for about half an hour and then they were separated by taking out the youngest one. The latter was trying to escape but could not do so because of the limited space in the terrarium. The copulation started a few minutes later and lasted for several days; they were then separated. From now on the female was offered multi-vitaminized food. During the whole period of pregnancy the snake ate normally.

THE YOUNG ONES

After 145 days the female gave birth to 29 little ones (one was incomplete and was taken out) over a period of six hours. Hardly dried from the liquid inside the pellicle, the little ones showed immediately their irritable character by

striking, biting and rubbing the scales producing the familiar noise. The first sloughing happened after 15 days and there were no problems. In the third week they were fed for the first time. The little *Echis carinatus* were 15 cm long then, with four much longer. Feeding was started with new-born mice, only the four longer ones accepting the food. As no lizards of the appropriate dimensions were available, crickets (*Grillus domestica*) were offered instead and fortunately they all accepted this food. Also some attempts at cannibalism were noticed but those were stopped by separating the animals (some were given to other collectors) and all thrived well. Strange behaviour was seen in some of the babies: they started eating the small stones in the terrarium. Presuming that this was caused by a lack of calcium in the animals, some small pieces of cooked egg-shells were put in the terrarium. After long examination with their tongues they all started to eat it. As soon as we proceeded to feed mice powdered with calcium they did not touch the egg-shells any more. Later it was found that the stones, which were eaten by the young *Echis carinatus*, had a high concentration of calcium. In the seventh week all young snakes were feeding on new-born mice.

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