# THE HUSBANDRY AND BREEDING OF THE KENYAN SANDBOA ERYX COLUBRINUS LOVERIDGEI (STULL, 1932).

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### INTRODUCTION

The Kenyan sandboa, *Eryx colubrinus loveridgei*, is becoming increasingly popular among snake keepers despite its typically fossorial way of life. It owes its growing popularity not only to its beautiful appearance and size, but also to the fact that it is relatively easy to keep and breed.

## DESCRIPTION

The Kenyan sandboa was first described in 1758 by Linneaus who gave it the latin name Anguis colubrina. Since then the name has been changed twice. First it was changed to Eryx thebaicus (Boulenger, 1893), but later was changed to what it is known as today; Eryx colubrinus loveridgei (Stull, 1932), reviving the original Linnaean name for the species. There are two different ways to distinguish Eryx colubrinus loveridgei from Eryx colubrinus colubrinus (according to Stull, 1932). The first and most reliable way is scalation. The number of dorsal and ventral scales is different in each subspecies:

Eryx colubrinus colubrinus: dorsals: 47-49; ventrals 175-192 (average 184.8).
Eryx colubrinus loveridgei: dorsals: 53-59; ventrals 168-182 (average 173.2).



Foto 1. Eryx colubrinus loveridgei. Foto: John van der Pols.

The other difference between the two is that Eryx colubrinus colubrinus is supposed to have a distinct pattern on its belly that Eryx colubrinus loveridgei lacks.

It must be mentioned that the validity of the subspecies *Eryx colubrinus loveridgei* has been questioned on at least one occasion (Parker, 1949). Another variety of *Eryx colubrinus*, one that is totally uniform in colour, has been recorded and described as *Eryx rufescens* (Ahl, 1933).

The Kenyan sandboa is a characteristically fossorial snake. This is exemplified by the stout and streamlined body, smooth scales which become keeled towards the tail, the wide and flattened rostral plate and the position of the eyes which give this species a good view upwards as well as to the sides.

Determining sex in this species is rather easy: the males have a relatively longer tail than the females and also have a set of clearly visibly spurs which are nearly absent in the females. These spurs are largest in older males. The males are also smaller than the females, so that a large specimen is almost invariably female. Erux colubrinus loveridaei has two colour phases: either a vellow or an orange ground-colour. Both colour phases have the same irregular colour pattern: a series of large dark brown to black blotches on the sides which run along the entire length of the body. The ground colour, which is largely obscured by the blotches, is mainly visible down the centre of the back but is also present between the blotches giving the snake a beautiful marbled look. The belly is white as are to a large extent a number of the lower dorsal rows.

## VIVARIUM

On 8 March 1983, I received three young Kenyan sandboas which had been imported from Leaky in Kenya during the spring of 1981. One of these, a female, has an orange ground-colour and the other two, a male and a female, are of the yellow phase. Upon arrival, the male weighed 40 g, the yellow female 48 g and the orange female 59 g. The snakes are housed in a vivarium which measures 38x61x34 cm (lxwxh). It is sparsly furnished containing only a few pieces of lava- and flagstone. Initially I covered the bottom of the cage with 6 cm of sand, but later switched to wood-shavings as they absorb better and the cage is easier to clean. The only other thing in the cage is a 15 Watt lightbulb positioned a few centimetres above the wood-shavings. During the day, the temperature in the cage rises to 23-30°C (34°C under the bulb)

and falls to 19-26°C at night.

### F00D

Once every few weeks I place a small bowl of water in the vivarium for a few days, though the snakes seldom drink from this. I feed the snakes with new-born and half-grown mice, though their natural diet also includes lizards (Mabuya sp., Hoevers & Johnson, 1982). Relatively small prey is grasped very quickly and pulled under the sand to suffocate. Prey too large for this treatment is simply constricted on the surface. During the day, a Kenyan sandboa will lie just under the surface of the sand with only its head exposed in order to see prey coming.

The are also regularly active during the night.

## MATING AND PREGNANCY

Early in April 1984, I observed the males first attempts at copulation. Copulation poses an interesting problem for a burrowing species such as the Kenvan sandboa. Since the female is usually always buried underneath a layer of sand, the male must somehow dig her out in order to mate with her. The male accomplishes this by digging his head under the (much larger) female, coming up on the other side, and then lifting the female out of the sand with the fore-part of his body. He then throws the first part of his body over the female, making a loop around her. Once in this position, the male will slide the loop down the female's body, moving the position of the loop down his own body at the same time, until their vents are opposite each other and he is able to work her with his spurs. In spite of all this, the male did not seem to be having any success at these first

attempts. The females would only try to bury themselves deeper in the sand. These mating attempts lasted from about noon until the next morning, but I do not think that the male had any success at all during that period because the females just did not seem to want to co-operate. Finally I decided to put the male back into his own cage. Strangely enough, he did not begin to eat until August; and then only irregularly.

Early in June 1985, I put the male in with the females again. He began his copulation attempts within a few days. It seemed that the orange female was more co-operative than the yellow female as on 2 July 1985, I observed an actual copulation with the former. I have not observed any copulations involving the yellow female in spite of the interest the male has shown. It is my opinion that this mating behaviour was induced by a lengthened photo-period and a rise in temperature. The latter can easily be achieved by adding an extra heat-source (Kellough, 1986).

The orange female started to refuse all food on 17 August 1985. The second half of her body had begun to visibly swell. She also sun-bathed more often. At first she lay only in the vicinity of the bulb from the beginning of the day on, but as the state of het pregnancy progressed, she began to lie more directly under the bulb. Maybe it would have been better if I had heated the sand from underneath; it just seems to me more natural for a sandboa to soak up heat while buried in the sand than when lying on the surface.

### OFFSPRING

On 4 December 1985, the orange female gave birth to fourteen young snakes, two of which were stillborn. When I discovered them, at about six o'clock

in the evening, most of the juveniles and their mother (who was behaving restlessly) still lay on the surface of the sand. One hour later they had all burrowed out of sight. The next day, I separated the young from their mother. Of the twelve, six were yellow and six were orange. One yellow and one orange juvenile had died before birth. Their birth-weights varied from 8.1 to 8.9 g. Within two weeks they had all sloughed and had all started to feed on new-born ("pinky") mice. The weight of the orange female after her pregnancy had dropped from about 500 g to 360 g. Eight of the young snakes were sold shortly after they had started to eat. The remaining four I have kept and these are developing well. On 20 October 1986, they weighed 65, 80, 95 and 140 g.

#### REFERENCES

- Ahl, 1933. S. Ber. Ges. Naturf. Freunde Berlin, 1933: 324.
- Boulenger, G.A., 1893. Catalogue of the Snakes in the British Museum (Natural History), Vol. I: 125.
- Hoevers, L.G. & P.M. Johnson, 1982. Notes on a collection of snakes from the middle Juba Region, Somalia. Monit. Zool. Ital., Vol. 16: 173-203.
- Kellough, R.M., 1986. Breeding Eryx colubrinus loveridgei at the Reptile Breeding Foundation. The Herpetoculturist, Vol. 1 (1): 13-15.
- McLain, J.M., 1982. Reproduction in Captive Kenya Sand Boas, *Eryx colubrinus loveridgei* (Stull). 5th Annual Symposium on Captive Propagation and Husbandry. Zool. Cons. Inc., Thurmontm Md.
- Parker, H.W., 1949. The Snakes of Somaliland and

- the Sokotra Islands. Zool. Verh., Leiden, Vol. 6: 1-115.
- Schweizer, H., 1972. Eryx colubrinus loveridgei Stull, 1932, seine Pflege und Nachzucht im Terrarium. Aquaterra, Vol. 9 (5): 52-56.
- Stull, O.G., 1932. Five New Subspecies of the Family *Boidae*. Occ. Pap. Boston Soc. nat. Hist., No. 8: 25-30, pl. 1-2.
- ---, 1935. A Checklist of the Family *Boidae*. Proc. Boston Soc. nat. Hist., No. 40 (8): 387-408.
- Woerkom, A.B. van, 1981. Het voederen van Eryx colubrinus loveridgei. Litt. Serp., Vol. 1 (5): 181-182.