LAMPROPHIS FULIGINOSUS BOIE, 1827, THE BROWN HOUSESNAKE.

By: Volker Nägele, Schmieweg 2, 7904 Erbach 2, West Germany.

Contents: Introduction - Subspecies - Description of the animals - My snakes - The terrarium - Food - Breeding - References.

INTRODUCTION

When I visited a terrariumkeeper in August 1980, I admired for the first time the Brown housesnake, *Lamprophis (Boaedon) fuliginosus*. I was surprised by the bright colours of this species and it became my wish to keep these snakes.
One female was ready to lay eggs, and I asked for a couple of young if the breeding was successful. Thus I became the owner of two females and one male in December 1980.

SUBSPECIES

FitzSimons (1962) recognised two subspecies of the Brown housesnake: *Boaedon fuliginosus fuliginosus* and *Boaedon fuliginosus mentalis*.
In *Boaedon fuliginosus mentalis* the post-inframaxillars are separated and only two supralabials touch the eye.
In *Boaedon fuliginosus fuliginosus* the post-inframaxillars are in contact with each other; usually there are three supralabials touching the eye. See the table for the scalation data of my snakes.
Broadly (1983) synonymised *Boaedon* with *Lamprophis* and abolished the subspecies *mentalis*.
At present the correct name is *Lamprophis fuligi-*

nosus Boie, 1827.
Branch (1984) recognises three subspecies of *Lamprophis fuliginosus*: *mentalis*, *arabicus*, and *bedriagae*. However, he doubts the validity of their status.
This snake lives, according to Isemonger (1982) throughout South Africa, Central, West, and East Africa, north to Sudan and Eritrea.

DESCRIPTION OF THE ANIMALS

The basic colour of the snakes is light red-brown above, the belly looks like grey nacre. This ventral colour creeps onto the headscales. The head is flattened. The relatively large eyes have a vertical slit-shaped pupil. A cream-coloured stripe runs from the snout along both sides of the head becoming broader on the neck. In juveniles the cream-coloured stripe is bordered on both sides by dark brown, which fades as the animal grows. According to FitzSimons (1962) the scalation data are: 25-35 dorsal scale rows, 185-243 ventrals (males no more than 230; females at least 210), 41-76 subcaudals (females no more than 59).

MY SNAKES

My snakes measured 21, 21½ and 22 cm, and weighed 4, 3, and 4½ g (male, female, female respectively). I placed them in separate terraria (10x10x8 cm, lxwxh). In the sides and the lid I made airholes (5x7 cm) on which I fastened fine gauze using a soldering-iron. The bottom was covered with folded newspaper. In each terrarium was also a water container (3 cm high and 5 cm diameter) and a flowerpot made of peat. The height of these flowerpots was reduced to one cm so that the snakes had contact all round with the hidingplace. Young snakes prefer small hiding places avoiding large ones.

Newspaper on the bottom has turned out to be useful for raising young snakes, as one can easily change it and printing-ink kills germs. Also the humidity in the terrarium is high.

THE TERRARIUM

The plastic terraria were placed on top of a larger terrarium which provided a temperature in the small terraria of 28-30°C during the day. At night the temperature falls to roomtemperature (during the winter between 15 and 18°C.
A 25 Watt bulb was used to provide light. For the first three months they were given eight hours light a day. This was slowly adjusted to sixteen hours to approximate the summer.
In the morning the terraria were sprayed to imitate morning-dew. Two hours after this, the lighting automatically switches on drying the newspapers fast. This method of maintenance helped the snakes slough without problems and they ate and grew well.
In May 1981 I had to place them in a larger terrarium (60x35x40 cm, lxwxh) as they had grown very fast. This terrarium was covered with gauze. A 40

Table 1. Scalation of my *Lamprophis fuliginosus*.

	male	female 1	female 2
Dorsal scale rows	27	29	27
Ventrals	203	211	213
Subcaudals	63	52	50
One anal scale	yes	yes	yes
Snout-vent : tail length	4.30 : 1	6.35 : 1	5.68 : 1

Watt bulb with a reflector was placed just above the gauze as a heating source. This heated the bottom to 32° C. The air temperature was between room temperature and 20-25°C at day. A 25 Watt fluorescent lamp (white) was used for lighting. The terrarium was placed in the light.
One half of the bottom was covered with clean peat and the other half with small pebbles (2-3 mm). The clefts of a rockery, made of sandstone, were used as hiding places. These hiding places were on both the peat and the pebbles. It was not clear if they preferred a particular bottom soil.
There were three plants in the terrarium, an *Aloe*, a *Hedera*, and a *Chlorophytum*. The terrarium was sprayed with water irregularly, two or three times a week.
A failure in the heating lowered the temperature for a few days to 12°C. The snakes did not catch a cold and were not troubled by it.

FOOD

The juvenile snakes were fed weekly with a nest mouse. The bigger the snakes grew, the bigger were the feeding mice given to them. After eight months they were fed every two or three weeks to prevent fattening.
The first year (1980-1981) they sloughed every four weeks, a total of eleven times. In the second year they sloughed seven times and in the third year six times.

BREEDING

On 31 December 1981 the male (57 cm, 53 g) first showed breeding behaviour. I thought that the snakes were not old enough (13 months) for breeding, so I separated the male for about two months. Female 1 on 31 December 1981 was 85 cm long and



Fig. 1. *Lamprophis fuliginosus*. Foto: V. Nägele.

weighed 83 g. When I put the male back with the females at the end of February, I saw no mating. To my great surprise I noticed, at the end of March 1982 that female 1 was becoming fatter and I could feel seven eggs. Female 2 had at the same time strongly swollen ovaria.
Female 1 ate her last mouse on 18 March 1982. On 12 April 1982 she sloughed and after this she started egglaying. In my opinion there was no ideal place in the terrarium, so I put her in a plastic terrarium (35x20x18 cm, lxwxh) with moist peat (10 cm), a hidingplace (bark) and a plastic water container. A ground heater kept the temperature at 27°C. There were no disadvantageous effects caused by the removal. During previous breedings with *Elaphe guttata guttata*, *Elaphe obsoleta rossalleni* and *Elaphe obsoleta spiloides* I had treated the snakes in the same way and everything went well.

After about one hour the snakes stopped investigating their new terrarium and remained quiet while laying the eggs. They crawled half under the bark on the peat.
On 27 April 1982 between 10.00 and 12.00 hours the seventeen months old female 1 laid seven eggs. The eggs were removed and put in an incubator (according to Nietzke, modified by Budde, 1981). As subsoil I used shell-sand. The temperature was between 24 and 28°C. The relative humidity was about 94%.
The first young snake opened its egg on 7 July. On 7 July two other young opened their eggs. On 8 July at 18.00 hours all seven young had left their eggs. The incubation period of the parents was 77 days; my young hatched in 71 days, probably because the temperature was higher.
The juveniles looked exactly like their parents. They sloughed for the first time on 16 and 17 July. Immediately after the sloughing, five of them took nestmice. The other two had to be force-fed. The young have now been given away. The five who ate independantly gave no problems. One of the other two was force-fed for three months and then died, probably heart failure. The other was force-fed for one year, but did not grow. It also could not co-ordinate its movements very well.
Female 2 did not lay eggs. The swelling of the ovaria disappeared in April 1982.
In November I put the three snakes in a new terrarium of 120x50x40 cm (lxwxh). The soil was two cm deep (litter and earth from a mole-hill). Half was covered with moss. There was also some pieces of wood and two Aloe. It was lighted by a 40 Watt fluorescent lamp (cold-white) and heated with a 75 Watt reflector lamp (45 cm above the ground), connected to a dimmer. The dimmer helped ensure that the temperature of the floor was 32°C.
In mid-December 1982 there was an attempted mating between the male and female 1. She was not in-

terested. Their behaviour was the same as in other Colubrid snakes. On 4 January there was a mating. I do not know how long it lasted. Both females had strongly swollen ovaria. Also this year the male was only interested in female 1. When I removed female 1 the male searched for her, but found female 2. He tongued her and crawled on her back. After moving five cm along her he stopped and went off searching. At the end of March matingactivities ceased.
From the beginning of April you could clearly see that female 1 was fatter and eggs could be felt. On 17 April she sloughed and two days later she took a mouse. I gave her no more mice after this one, because I was afraid of harming her pregnancy. On 27 April she started looking for a place to lay her eggs. I put the snake in another terrarium as the previous year. On 2 May 1983 she laid 10 eggs, of which two were unfertilized. The fertilized eggs were treated the same as the previous year. One unhealthy looking egg was opened after 30 days, there was a completely developed embryo inside. After an average of 73 days at an average temperature of 25°C the first young opened its egg on 12 July and the last one on 16 July 1983. They were kept in the same way as the young of 1982. One week after laying her eggs female 1 ate a mouse. She ate without problems and returned to her usual weight.
In mid-June I felt another 8 eggs in her and these were laid on 6 July (I had not seen any copulations). I suspect that this fertilization was with sperm from the copulation of 4 January 1983. These eggs were treated as above and after 71-75 days 8 young hatched.
I gave female 2 to a friend who has 2 males of the same species. I hope that these snakes reproduce easily, as they are very beautiful, easy to keep and require little room.

REFERENCES

Branch, W.R., 1984. The House snakes of southern Africa (Genus *Lamprophis*). Litt. Serp., Vol. 4 (3/4): 106-120 / Dutch Ed.: 112-126.

Broadley, Donald G., 1983. FitzSimons' Snakes of Southern Africa. Delta Books, Johannisburg. Pp. 1-376.

FitzSimons, V.F.M., 1962. Snakes of Southern Africa. Purnell & Sons Ltd., Cape Town/Johannisburg. Pp. 1-423, pl. I-LXXIV.