

## SHORT NOTES ON THE CAPTIVE CARE AND REPRODUCTIVE BIOLOGY OF *ELAPHE FLAVIRUFA* (COPE, 1867)

By: Klaus-Dieter Schulz, Tannenweg 25, 5102 Würselen, Germany.

\* \* \*

The Central American ratsnake *Elaphe flavirufa* is not commonly kept in the terrarium unlike other species of the genus *Elaphe*. The captive care of *Elaphe flavirufa* is relatively straightforward and combined with its natty beauty, make it an almost ideal terrarium subject.

Four subspecies of *Elaphe flavirufa* are known:

- *Elaphe flavirufa flavirufa* (Cope, 1867)
- *Elaphe flavirufa pardalina* (Peters, 1868)
- *Elaphe flavirufa matudai* Smith, 1941
- *Elaphe flavirufa phaescens* Dowling, 1952

The distribution of the species extends from Northern Mexico (Tamaulipas) south to Nicaragua (Corn Island), with a vertical distribution from sea level up to about 500 m.

It is often difficult to tell the subspecies apart without knowing the precise location at which they were caught. A comprehensive report on this subject will be published by Schulz in *Litteratura Serpentina*, Vol. 13 (1).

The natural food of this semi-arboreal and nocturnal snake consists of rodents and birds. Reports about the captive care of *Elaphe flavirufa pardalina* have already been published by Mertens & Rosenberg (1943), Mertens (1950) and Nietzke (1978). Tremper (1981) provides similar information for *Elaphe flavirufa flavirufa*.

*Elaphe flavirufa pardalina* has been successfully kept and bred in Germany for many years (Münzenmaier, pers. comm.).

At this moment the author keeps three subspecies in the terrarium (*Elaphe flavirufa flavirufa*, *Elaphe flavirufa pardalina* and *Elaphe flavirufa phaescens*). The terraria incorporate several branches for climbing, a flowerpot for hiding and a water bowl. The terraria are kept at a temperature between 25-29°C, and the environment is dry although occasional spraying with warm water takes place. All subspecies are mainly nocturnal, seldom can one see the animals outside their hiding places during the day. *Elaphe flavirufa flavirufa* and *Elaphe flavirufa pardalina* are observed equally on the ground and in the branches. *Elaphe flavirufa phaescens*, however, is mainly terrestrial. The behaviour of all three subspecies is usually very calm although when they are disturbed roughly, they will turn quickly and bite forcefully.

The food is accepted at all times of the day. Mice and small rats are eaten dead or alive. Living prey are caught by a quick bite and then constricted with several coils of the body. In my collection breeding results have so far only been achieved with *Elaphe flavirufa pardalina*. The pair of *Elaphe flavirufa flavirufa* are as yet immature and I only maintain one specimen of *Elaphe flavirufa phaescens*.

The snakes are always kept in groups of one male and two females. Copulation has as yet not been observed. Hibernation, such as is applied to north-american snakes, is not needed

for this mainly tropical species. It is possible to lower the temperature to 20°C for two months, but it is not necessary to stimulate the animals to reproduce.

On 25 June 1990 one female laid five large eggs, they were almost as big as small chickens eggs. The eggs were incubated in damp vermiculite in an incubator. The temperature was between 27 and 29°C. On 1 and 2 September 1990, five juveniles hatched. The average length of the young snakes was 45 cm. After the first slough all hatchlings independently accepted nestmice, and their rearing posed no problems. The incubation period in this case lasted 69-70 days.

Other keepers report an incubation period between 70 and 94 days (Entzeroth and Münzenmaier, pers. comm.). Tremper (1981) writes about the reproduction of *Elaphe flavirufa flavirufa*. At the first breeding attempt the snakes copulated in June and laid seven eggs in July. The eggs were incubated in vermiculite at temperatures around 29°C. After 69-70 days four young were hatched with an average length of 50 cm. The second breeding followed one year later; this time in early September eight eggs were laid. These were incubated successfully using similar techniques.

## REFERENCES

- Cope, E.D., 1867. Fifth contribution to the herpetology of Tropical America. Proc. Acad. Nat. Sci. Philadelphia, 18: 317-323.
- Dowling, H.G., 1952. A taxonomic study of the ratsnakes, genus *Elaphe* Fitzinger. II. The subspecies of *Elaphe flavirufa* (Cope). Occ. Pap. Mus. Zool. Univ. Michigan (540): 1-14.
- Mertens, R., 1950. Nachruf auf eine mexicanische Nachtnatter, *Elaphe flavirufa*. Dtsch. Aquar. und Terrarien-Zeitschr., 3 (5): 75-76.
- Mertens, R. & Rosenberg, H., 1943. *Elaphe flavirufa* (Cope), die mexikanische Nachtnatter. Wochenschr. Aquar. und Terrarien Kunde, 40: 60-62.
- Nietzke, G., 1978. Die Terrarientiere 2 - Krokodile, Echsen, Schlangen. Verlag Eugen Ulmer, Stuttgart, pp. 1-322.
- Peters, W., 1868. Ueber einige neue oder weniger bekannte Amphibien. Monatsber. Akad. Wiss. Berlin. pp. 449-453, 640-642.
- Tremper, R.L., 1981. A note on the breeding of the neotropical Ratsnake, *Elaphe flavirufa flavirufa*, at the Fresno Zoo. International Zoo Yearbook, 21: 95-96.

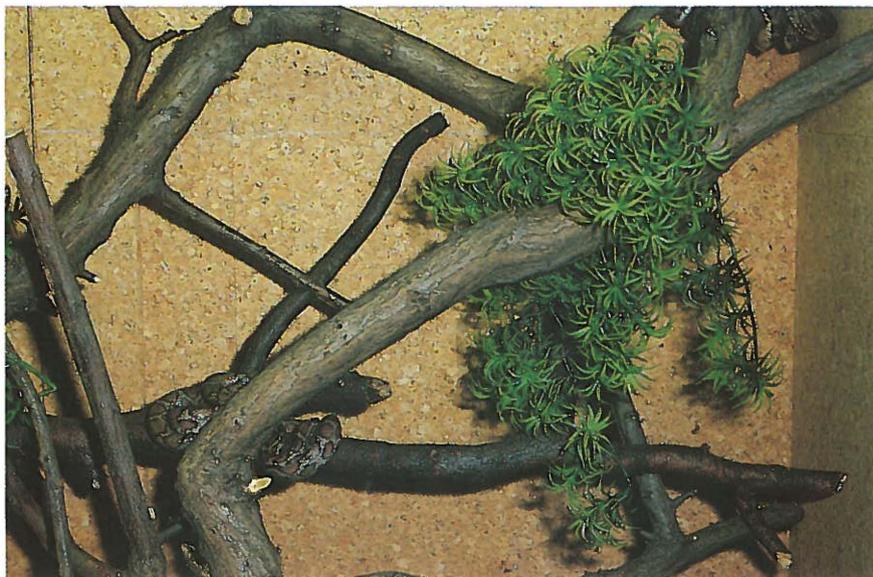


Foto 1: Terrarium for *Elaphe flavirufa pardalina*.  
Foto K.-D Schulz.



Foto 2: *Elaphe flavirufa pardalina*, één maand oud, one month old.  
Foto L. Obelgöner.