

HIBERNATION AND BREEDING OF VIPERA AMMODYTES  
AMMODYTES.

By: J.C. Gulden, Boekweithoeve 1, 6262 NZ  
Vught.

Contents: General - The animals - The hibernation  
- Copulations - The young - References.

GENERAL

The sandviper, *Vipera ammodytes* (Linnaeus, 1758) is a European viper species that is subdivided into 6 subspecies, each with a separate distribution area.

They are rather intractable venomous snakes, which flee, deeply hissing, when they are disturbed. In acute danger they will bite immediately. The venom has a haemotoxic effect and it is said to be the strongest found in the European viper species. In almost all bite cases medical treatment is necessary. In the wild however, it seldom happens that the animals bite, because they make their presence immediately known by their hissing. Sandvipers are virtually trouble-free terrarium animals which easily get used to captivity and also accept dead prey from the tweezers.

THE ANIMALS

The pair that I keep of the subspecies *Vipera ammodytes ammodytes*, consists of a wild-caught female from Yugoslavia of about 4 years old and a captive-bred male of 3 years old.

The animals are kept separately in terraria of 40x40x60 cm that are heated for 11 hours a day with a lamp of 25 Watt. Because it is possible for the sun to shine into the room, the temperature in

the terrarium is strongly dependent on the outside temperature; during the summer between 24<sup>0</sup> and 32<sup>0</sup>C. The highest values are only reached on very sunny days and then only in the afternoon. Both specimens eat well and receive food once every fortnight. The prey is usually bitten and swallowed immediately.

## THE HIBERNATION

In the autumn, about mid-September, the light intensity is diminished by about 1 hour every week, so by late November the lightening and heating is completely eliminated. The day temperature is then

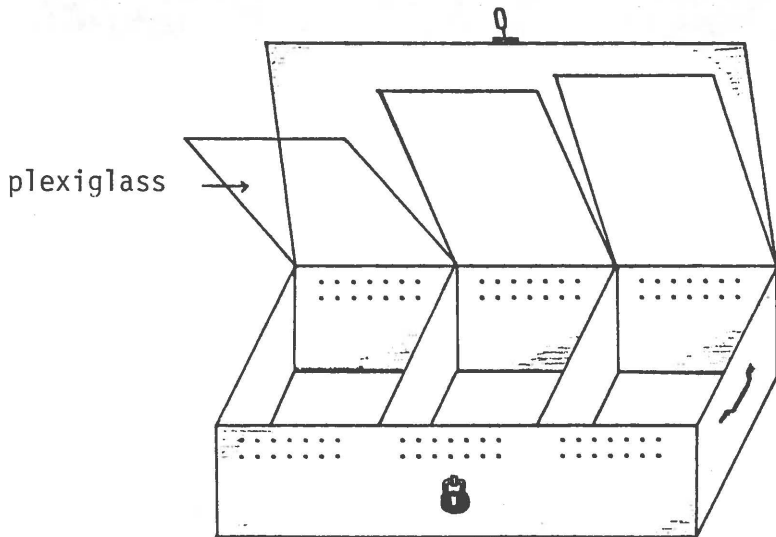


Figure 1. Hibernation box (refrigerator model) made of multiplex and small plexiglass plates. These plates serve to prevent escape of the snakes during the control. The box is filled for one third part with newspaper scraps and wood-chips. Under the plexiglass you can possibly fasten a thermometer.



Foto 1. Overwinteringskist / Hibernation box.  
Foto: Jan Gulden.

about 15°C. During this period I keep offering the animals food. Only in the last 2-3 weeks do I stop this completely to empty the intestinal tract. When the animals no longer leave their hiding places they are taken out of their terraria and are put in a hibernation box. This is put in a cooler place for 1-2 weeks, at about 10-12°C. After this period they are placed in the refrigerator, where the animals stay for 3 months at 6°C. In late February/early March the animals are taken out of the fridge, after which the temperature-change is repeated, but now in reverse order.

## COPULATIONS

When the light length was raised to 4 hours the snakes were put together in a larger terrarium of

50x75x50 cm. The female started almost immediately to eat 'like a wolf' and accepted almost everything I offered her. The male however did not eat at all and showed at first no interest in the female. For that reason it surprised me when I observed copulation on 25 April; this lasted about 1 hour. After this the male repeated his indifference with respect to the female and started to eat again on 9 May. After the copulation the female accepted a mouse on 30 April and then stopped eating. Both animals were then placed in their separate terraria.

On 10 July the female regained her old appetite and accepted in quick succession another 4 prey items.

#### THE YOUNG

On 3 August four young were born in perfect health. Two of them sloughed immediately; the other two one day later. The young snakes, 2 males and 2 females were at birth about 20 cm long and weighed 6-8 g. When there was a disturbance they immediately hid themselves between the coils of their mother.

All young started to eat nestmice independently in the course of one month and grew successfully.

#### REFERENCES

- Arnold, E.N., J.A. Burton & D.W. Overden,  
1978. A field guide to the reptiles and  
amphibians of Britain and Europe. Collins,  
London.
- Biela, H.J., 1983. Die Sandotter. A. Ziemsen  
Verlag.

- Nietzke, G., 1972. Die Terrariöntiere 2,  
Ulmer.
- Steward, J.W., 1971. The snakes of Europe.  
David & Charles, Newton Abbot
- Trutnau, L., 1981. Schlangen im Terrarium II:  
Giftschlangen. Verlag Eugen Ulmer, Stutt-  
gart. Pp 1-200.