

## REFRIGERATOR HIBERNATION.

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### INTRODUCTION

In the literature, it is often advised to hibernate one's animals in the cellar or outside the house. Personally I find this rather risky, as it is not possible to control temperature. In the cellar, temperature can get too high, causing the animals to remain active and so use up their reserves, and outside the house a severe winter can freeze the animals to death. I put my snakes in the refrigerator to hibernate, and have never lost one animal.

### METHODS

About two weeks before the planned hibernation period, I stop feeding to prevent food remaining in the digestive track and rotting during hibernation. During the two weeks, night heating (with a heating cord in the substrate) is switched off. Normally it would come on if the night temperature dropped under 15°C. If the night temperature falls low enough, the snakes will refuse food during the following day, regardless of how warm it may be then, but this is not necessary for hibernation. After this deliberate preparation period, the snakes are placed in a plastic box, partially filled with sphagnum, mould, leaves or other material that will remain moist, and under which the snakes can take cover. The whole is kept moist by sprinkling water.

No ventilation holes are needed. Finally, the box is placed in the refrigerator, a thermometer being attached to it.

I try to keep the temperature at about 3<sup>0</sup>C. Sometimes it sinks temporarily below zero, so that all condensation drops freeze, but my snakes have not been bothered by this.

Regularly, which is almost daily, I take the box out of the refrigerator for inspection. When touched, the snakes are still able to move. Tongue-flicking is very slow. I keep them in hibernation for one to three months.

After hibernation I put the snakes directly back into the terrarium, or I place the hibernation box in the cage, where they then start to leave the box after about fifteen minutes. After three to seven days they usually start feeding again.

In the above manner I have hibernated *Thamnophis sauritus proximus*, *Thamnophis radix haydeni* and *Storeria dekayi dekayi*.

#### ADVANTAGES OF HIBERNATION

- Hibernation is part of life for many snakes. Therefore it is my opinion that, if you take the decision to hibernate your snakes, you should do so each year.
- A hibernating period lengthens the total life duration of the snakes. The active period would be shorter though, with growth being restricted to the active period.
- If food supplies are a problem during the winter, hibernating is a good solution to this problem.
- The animals get to use their stocked up reserves, which can counter fatty degeneration.
- Hibernating is one method to stimulate procreation.
- In nature, there is an additional advantage. *Thamnophis sirtalis parietalis* for instance is

known to gather in large quantities from some hundreds to ten thousand individuals at hibernation locations, from distances of as far as fifteen kilometers.

In the succeeding spring, males come out first and in masses, females on the other hand individually or in small groups. The result is that as soon as a female leaves the hibernation place, hundreds of males will be occupied by her. Within 30 minutes after coming out, she will already have been mated.

#### REFERENCES

- Crews, David & William R. Garstka, 1982. The Ecological Physiology of a Garter Snake. *Scientific American*, Vol. 247 (5): 136-144.
- Mennes, J., 1979. Koelkastoverwintering, een ideale oplossing? *Terra*, Vol. 15: 46-47.
- Vagvolgyi, Alice & Misni Halpern, 1983. Courtship behavior in Garter Snakes: Effects of artificial hibernation. *Can. J. Zool.*, Vol. 61 (5): 1171-1174.,.
- Riches, Robert J., 1982. Hibernating garter snakes (*Thamnophis spp.*) / Het laten winterslapen van thamnophissen. *Litteratura Serpentina*, Vol. 2 (4): 158-161.