

SOME OBSERVATIONS ON THE CAPTIVE BREEDING OF THE LEOPARD RATSNAKE

(*ELAPHE SITULA*)

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peninsula to the Caucasian area. In Italy it is found in the Southern peninsula (Puglia, Basilicata, Calabria and Sicily). In many parts of its range, the Leopard rat-snake occurs in two different forms. The spotted form is the most widespread and it seems to be more frequent in the eastern area of its range, while the striped form is present in the western area, in Italy it is found in a restricted zone of Puglia only.

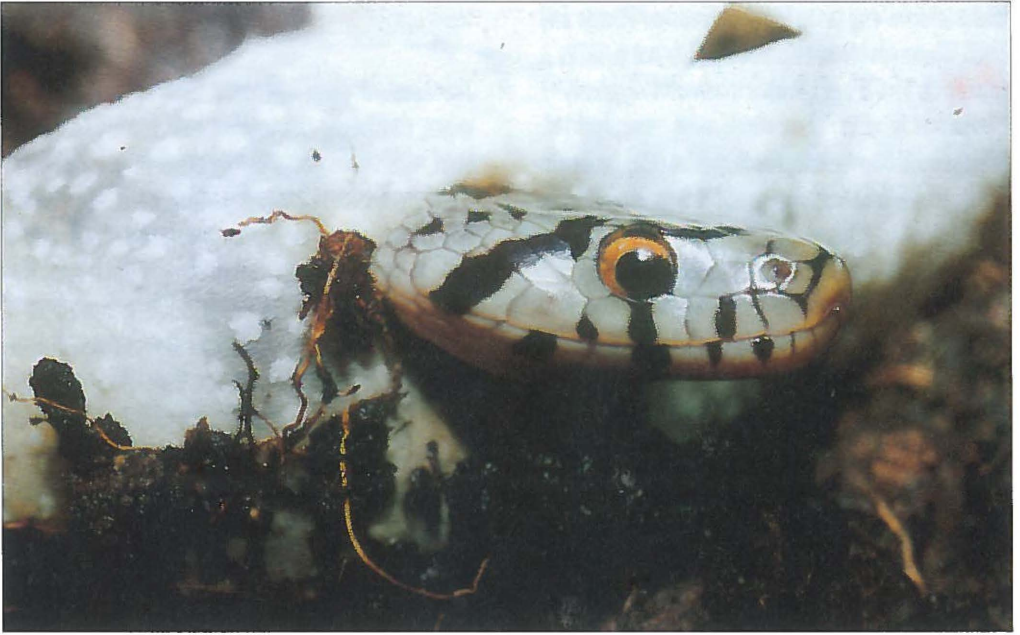
INTRODUCTION

The Leopard Ratsnake (*Elaphe situla*) is considered the most beautiful snake that occurs in Europe. It is a polymorphic species, which is found from the Balkanic

Its preferred environment, is mainly represented by Mediterranean scrub and stony brushwoods.

It is a small snake, which is able to reach a length of about 100 centimetres (39.4 inches). The Leopard Rat-





snake is agile and often bites. It feeds on lizards and small mammals. It is oviparous and is not prolific, it can lay up to 6-8 eggs, with a mean of 4 eggs only.

Together with the Aesculapian Ratsnake (*Elaphe longissima*), it was a sacred snake and it was venerated in Greece (Asclepius) and in Rome (Aesculapius) as the god of medicine and bearer of health and beauty.

TWO DIFFERENT BLOOD-LINES

Two different unrelated pairs of Leopard Snake were studied, the first one was from Italy and it was kept for six years, the second one was from Greece and it was kept for one year only. After research both have been released in their natural environment, where they

were caught, together with their four year old young.

The Leopard ratsnakes were kept in medium glass cages, newspaper was used as a substrate and a small bowl with water and a hiding place (a piece of cork) were always available. All the cages were well ventilated, with low humidity and were equipped with a neon light. During the summer, the diurnal temperature was 28-30°C (82.4-86°F), while it was 20-22°C (68-71.6°F) at night, artificial heat was never used. Males and females of both pairs were always kept separately. The only time they were together was shortly after hibernation, this happened from October to March, with a mean temperature between 4-10°C (39.2-50°F). Their different origin was respected, so there was no mixing between Italian and Greek genotype.

Year	Date of Mating	Gestation (days)	Date of Laying	No. eggs	Incubation (days)	Date of Birth	No. young
1994	?	?	2 June	3	65	6 August	2
1995	?	?	13 May	3	-	-	-
1996	14 April	57	10 June	5	65	14 August	2
1997	?	?	29 June	3	-	-	-
1998	3 March	86	28 May	2	71	7 August	2
1999	30 March	56	25 May	6	63	27 July	3

Table 1. Breeding data of Italian Leopard Ratsnake (*Elaphe situla*)

Year	Date of Mating	Gestation (days)	Date of Laying	No. eggs	Incubation (days)	Date of Birth	No. young
1995	?	?	2 June	3	65	6 August	2

Table 2. Breeding data of Greek Leopard Ratsnake (*Elaphe situla*)





BREEDING

The Leopard ratsnakes bred shortly after hibernation, they were put together and they bred after only one or two days. The males bit the females around the head during copulation. Mating generally had a duration of about 4 hours and was repeated two or three times within seven days. Not all matings were observed. With regards the breeding data of the Italian pair, it was evident that some matings were not fertile, or they never happened. Gestation was variable, with a duration of between 56 and 86 days. Eggs were always few, never more than 6, with a mean of about 3.6 per clutch. They were about 4x2x2 centimetres (1.57x0.78x0.78 inch-

es) and they were incubated in an artificial incubator ('au bain marie'), with a temperature of 28-30°C (82.4-86°F) and humidity of 80-90%. Not all eggs hatched, some were sterile and they went bad after a few days from laying. Incubation was 63-71 days. The hatchlings were 26-32 centimetres (10.2-12.6 inches). They sloughed after 5-8 days and they immediately fed on small lizards (*Podarcis muralis*, *Podarcis sicula*) and pinkies. For the first two years the young were kept warm and they fed regularly during the winter. From the third year they hibernated, then they were released in their natural environment during their fourth or fifth year.

Corrections: Mark Wootten

