

**DISTRIBUTION AND BIOLOGY OF  
*ELAPHE SITULA*  
IN THE CRIMEAN PENINSULA,  
NOTES ON KEEPING IN THE TERRARIUM.**

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#### NATURAL HISTORY

The Leopard snake, *Elaphe situla*, is rightly considered as the most beautiful of European snakes. It can be found in the southern and western Balkans, islands of the Aegean Sea, southern Italy, eastern Sicily, Malta, and the Black Sea area (southeastern seaside) of the Crimea.

Some researchers consider the colour forms of *Elaphe situla situla* (striped form) and *Elaphe situla leopardina* (spotted form) to be separate subspecies. However, as far as the Crimea is concerned, both forms co-exist within the same territory.

My own observations of *Elaphe situla* in nature have been confined to the picturesque volcano of Karadag (1981-1992) in the Sudak region of the Crimea.

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The fauna of the mountainous Crimea is referred to the Mediterranean sub-region of the Palearctic region. According to Alexander Nikolsky (1858-1942), a famous Russian herpetologist who authored *Herpetologia Rossica*, the Crimean peninsula has been inhabited by reptiles from three sides: Balkan peninsula - *Lacerta taurica*, *Gymnodactylus kotschy*, *Elaphe situla*; the Caucasus - *Lacerta saxicola*, *Ophisaurus apodus*; Southern Russia (present Ukraine) - *Eremias arguta*, *Coluber jugularis*. The Crimean herpetofauna is therefore comparable to the characteristics of an 'island,' which is peculiar for the lack of certain species which can be found in mainland Ukraine.

#### OBSERVATIONS IN NATURE

In the Crimea, *Elaphe situla* exclusively inhabits the mountainous areas, i.e. from Sebastopol in the south to Koktebel Settlement (Sudak region) in the east. This species cannot be found on the plains.

According to naturalists, up to five specimens could be found during a day long excursion within the suburbs of Sebastopol or Yalta during the 1950's; since 1980 each encounter with *Elaphe situla* has become an event; at present it is the rarest species of herpetofauna of the Ukraine.

No.	Date	Time	Temp (°C)	♂/♀	L/Lcd	Form	Location
1	270680	-	-	-	-	-	Karadag
2	290481	14:30	+15	♂	830/170	Leopard	Karadag
3	160482	09:00	-	-	-	-	Karadag
4	000782	-	-	♀	Adult	Situla	Livadija
5	090782	23:20	-	-	Adult	-	Karadag
6	270483	10:00	+15	♀	350/68	Leopard	Karadag
7	000883	-	-	♀	Adult	Leopard	Yalta
8	170588	17:55	-	-	Adult	Situla	Sudak district
9	180588	18:00	-	-	Adult	Leopard	Genua Sudak
10	150690	-	-	-	Adult	Situla	Yalta

Table 1: Own observations and of other reliable authors of *Elaphe situla* between 1980-1990. Notes: No. 5 observed swallowing a rodent; No. 7 laid three eggs up to 60 mm long (incubation results negative).

The usual habitats are mountain slopes, including those facing sea shores, forests, remnants of fortresses, uninhabited buildings, sidewalks of mountain roads. Occasionally it can be found near to human dwellings.

The quantitative decrease of this species in the Crimea can be accounted for by:

- human factor: natural habitat lies within recreational zone
- uncontrolled collection for maintenance in the terrarium
- disturbance of the sex structure (ratio) of the population

Analysis of observations revealed that during the summertime *Elaphe situla* behaves as a crepuscular species. In the spring, the snake can usually be seen taking a 'sun-bath' during morning hours or in the afternoon during cool, cloudy weather. It lives a secretive lifestyle, giving preference to higher humidity levels and avoiding arid localities.

#### KEEPING IN THE TERRARIUM

The following conclusions can be made based on my personal 4-year experience of keeping specimens from the Crimea and southern Bulgaria in the terrarium.

1. The process of adaptation to captivity is rather difficult, i.e. the snakes experience stress, may refuse to feed for quite a long time. Therefore, a number of hiding places are necessary, and branches for climbing.
2. The adults feel comfortable in terraria measuring 1000x500x600 mm, with the temperature varying from 24°C to 28°C during the daytime, and 20°C to 22°C during the night. Higher temperatures can cause intestinal problems and the subsequent death of the animals. Humidity held out at about 70% is an important factor. The snakes like bathing and a spacious pool is necessary.
3. Adults eat mice readily. After a long term adaptation to captivity the snakes consume pink and young rats. Young sparrows and lizards which have been offered on many occasions have never been accepted by the adults. In contrast, a young female *Elaphe situla* has readily consumed juvenile lizards (*Lacerta taurica*).
4. Two to three months of hibernation is useful.
5. Regretfully, there has been no opportunity to form groups of these snakes for breeding projects and I would appreciate receiving any sort of information pertinent to breeding this species in captivity, maintenance of young snakes, treatment of diseases, as well as data on the biology of this species in its natural habitat other than in the Crimea.



Foto 1: *Elaphe situla*.  
Foto E. Pozio.

See table 1 of encounters with *Elaphe situla* in the Ukraine between 1980 and 1990, based on my own observations and on those of other reliable authors (however, it cannot be considered to be complete).

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