# E XPERIENCES IN KEEPING AND BREEDING ELAPHE HOHENACKERI

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#### DESCRIPTION

Elaphe hohenackeri is not a striking snake, it is relatively small and slender. It is graceful however, with a small, elongated snout and a round head, which is not distinctly set off from the neck. On the anterior part of the body, the scales are smooth, on the posterior part, the scales are slightly keeled.

The average length is between 70 and 80 cm. The females are longer and are also somewhat stockier in comparison to the males.

The overall color is a silvery-grey dorsally, often with a symmetrical black and brown spotted pattern, separated by a, slightly lighter, reddishbrown dorsal line.

Sometimes these markings form saddles, in an indistinct zigzag pattern.

In some animals the spots are fused together into a striped pattern.

On the lateral side there are often black spots. The ventral side is greyish-black, with lighter spots, or sometimes even a tile pattern.

The animals have dark brown-grey or black eyes of average size. Behind each eye, there is a dark stripe, which runs up to the corner of the mouth. There is also a dark stripe, which runs from the eye to the upper lip. The head is dark grey spotted and shows a clear forked pattern, which opens towards the neck. The throat is creamy white, with a black chin.

There is hardly any difference in pattern between the sexes, the females are somewhat browner, whereas the males are darker in color, and their pattern is more distinct.

# DISTRIBUTION

The animals occur in a very vast region, over Trans-Caucasia into Asia Minor. They are often very widely distributed, with a relative low density. This snake is known to occur in: - Armenia, Azerbedzjan, Georgia, Iran, Turkey, Lebanon, Syria and some Southern Russian republics. It is clear that the snake's nature isn't very helpful, when trying to come up with adequate and definite distribution maps, there are huge area's in which the snake doesn't seem to occur, or where they haven't been seen yet, due to their reclusive habits.

#### SUBSPECIES?

Often there are (even in recent literature) two subspecies described. On one hand the nominate species, *Elaphe hohenackeri hohenackeri* in the northeasten part of the distribution range (Caucasus, Northern Turkey). On the other hand *Elaphe hohenackeri taurica*, ranging from the Turkish, Taurus mountains, down southeastwards into Turkey, up to some local sightings in Syria and Lebanon.

The difference between these two subspecies lies solely in the arrangement of the patterns and colour, in which the animals of the "taurica type" have



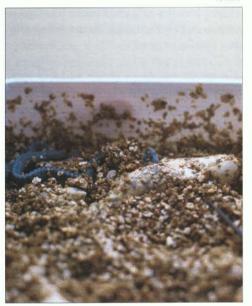
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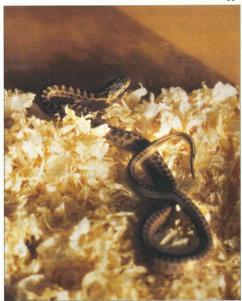




5 eggs



cracking eggs



young snake , a few weeks old



more reddish-brown spots, so in a way they resemble *Elaphe situla*. In his detailed monograph concerning this species, Bischoff, recognizes *Elaphe hohenackeri* as a monotypical species because the "taurica pattern" also occurs within populations of the nominate species.

With this, Bischoff agrees with Werner, who first described *Coluber taurica* but synonimized it, himself, with *Elaphe hohenackeri* a few years after his description. Werner did so because he himself had studied animals with different patterns within one population. Also Nilson & Andren, as well as Schatti & Baron recognize *Elaphe hohenackeri* as a monotipical species.

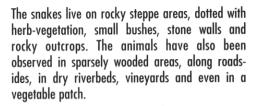
However in his recent extensive publication Schulz does not agree and clearly recognizes two subspecies, after studying thirty five individuals. Without wanting to diminish the value of this publication, it was unfortunate not to quote Werner's insights explicitly on this matter.

The distribution of this species is probably much larger and not as diffuse as assumed until now, we have to use the presumably insufficient knowledge of this species to preserve both "subspecies".

The only thing one can assume is that within this species there is a morphological variation in the spotted pattern, running from west to east and deviations within some populations. These morphological variations are so slight, one probably cannot establish the existence of subspecies upon it.

#### HABITAT

The habitat of *Elaphe hohenackeri* consists mainly of relatively dry hillsides and mountain ranges within its distribution.



*Elaphe hohenackeri* prefers montane regions with altitudes between 900 and 2500 meter, although snakes have been reported at lesser altitudes (180 meter).

*Elaphe hohenackeri* has a very reclusive lifestyle and usually hides between rocks, under flat stones, in rodent burrows or between vegetation. Due to its lifestyle *Elaphe hohenackeri* is scarcely observed and we cannot make any definite dispersion and population-density maps.

Depending on the altitude of its habitat, hibernation ranging from five up to seven months is not uncommon. In captivity the animals also retain their reclusive lifestyle.

The animals can nearly always be found hiding under their "own" stone, only very occasionally can the animals be seen feeding or during misting. Only once I've seen a pregnant female basking early in the morning. If you are not on the lookout for the snakes you might not see them for weeks!

*Elaphe hohenackeri* is a very docile animal, although it does show signs of stress when disturbed or irritated. Only occasionally do they show a defensive reaction, sometimes they will bite or vibrate their tail. Mostly they try to flee when disturbed. Considering the timid character of the snake, one tends to leave it alone as much as possible.

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# **MY ANIMALS**

In October 1995 I came into possession of a full arown pair of Elaphe hohenackeri. Both animals were from the Southern Russian republic of Chechnya, morphologically speaking they belonged to what we call here the nominate form. Unfortunately the male soon died. In April 1996 I was unexpectedly able to aet a half-grown male, from a befriended Swedish snake keeper. The animal was captive bred, born in 1994 and of Swiss origin. It also was a nominate form from Southern Russia. The wild caught female thrived unexpectedly well and only had to be treated for worms once. Both animals are kept separately in all alass terraria measuring 80 x 50 x 50 cm. The decoration is sober, with wood shavinas as a substrate, a few flat stones for shelter or basking, a large waterbowl and a few flowerpots and a treestump for shelter.

At the basking site the temperature is about 30 degrees Celsius, elsewhere it ranges between 20 to 25 degrees. There is occasional and infrequent misting, so the relative humidity is between 50 to 60 %.

The terraria are large and very airy because a large area is covered by wire mesh, they are placed in a room located on the south, so the animals can get a lot of light, even direct sunlight.

Of course with this setup the temperature can rise a bit locally but the advantage here, is that the animals are subjected to the natural daytime and seasonal cycli. Enough room, light and air, combined with as much rest as possible, are in my opinion essential for the wellbeing of *Elaphe hohenackeri*.

The feeding pattern of *Elaphe hohenackeri* shows a few peculiarities and surprises. Immediately after hibernation, approximately at the end of March, the

animals start feeding, they eat a lot (5 to 8 mice) and very often (twice a week). They are fed with fuzzy mice. Small prey is grabbed and swallowed, larger prey items are first constricted.

Feeding only lasts for about three months, in early July the animals stop feeding for the rest of the season. During summer and autumn there is (with a few exeptions) absolutely no interest in the mice offered. The animals are hibernated from the middle of October to the middle of March. I have a cool and moist cellar available for this period. After a few weeks of decreasing the temperature, the animals are put in a small terrarium with a few hiding places and a waterbowl, as a substrate spaahnum is used. In the beginning of March the animals are taken out of their hibernation augrters, the male a week earlier than the female. After a week of acclimation the animals are placed back into their own terraria. I have never had any problems hibernating healthy animals this way.

#### BREEDING

Breeding results of *Elaphe hohenackeri* are rare, there are but a few successful breeding attempts known and information on breeding is limited. The following data results from my breeding success of 1998.

The animals were placed together in the middle of April, at that time both animals had a few weeks of sufficient light, warmth, and had been fed a few times. A few days later mating could be observed for several days, often with a lot of clamour. Signs of gestation showed very quickly, during gestation the female kept feeding in a normal way, until the prenatal shedding. This shedding takes place 10 to 15 days before the eggs are laid. A few days after mating I placed the male in his own quarters.





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young snake, a few weeks old





On the 29th of May the female laid 5 eggs, in a box filled with moist spaghnum. 4 eggs looked well, one was clearly of lesser quality, it turned out to be unfertilized and was disposed off. The other four eggs were incubated, with the classic au-bain-marie method, with boiled out spaghnum as a substrate, this is necessary to lower the pH. The eggs are large and cylindrical in shape, measuring approximately 50 mm. The temperature measured between the eggs was 27,5 degrees day and night. On the 25th of July 4 healthy neonates hatched within one hour, 2 males and 2 females. The day after the eggs were laid, the female ate some mice and two weeks later she shed her skin again.

The incubation time was 57 days, a little more than the average of 52 days mentioned in the literature, a bit more like the average *Elaphe* species. The neonates were quite large and powerful.

The neonates were housed in separate containers. Some days after hatching they all shed without any problems. The neonates refused to eat, which didn't quite upset me due to the fact that they are large and bulky animals. In September I gave a pair to a be-friended Swedish hobbyist. Neither this pair, nor the ones I kept myself ate until they were hibernated.

At the end of September both the neonates were prepared for hibernation, which lasted until February 1999, one week after hibernation the animals started feeding and ate 2 mice every week from then on. The refusal to eat seems normal, considering the fact that the adults also stop feeding in July, to continue feeding again after hibernating. During hibernation the animals showed no signs of weakness, or loss of body weight. This shows that sometimes animals are force-fed unnecessarily.

#### CONTINUED

Early May 1999 the female showed signs of gestation. On the 15th of July 5 healthy neonates were born after an incubation of 54 days. The breeding and incubation process was exactly the same as in 1998, only this time vermiculite was used as an incubation substrate.

The snakes born in 1998 are still doing well but we cannot assume *Elaphe hohenackeri* in an "easy" snake to keep, on the contrary, it is very easily stressed and needs enough room light and air and it needs be disturbed as little as possible. An animal for the more experienced keeper so to say. Elaphe hohenackeri can be kept and bred if everything mentioned above is accounted for but one has to be in possession of healthy animals.

If one has to rely on wild caught animals, *Elaphe hohenackeri* can pose a lot of problems. So never purchase a wild caught animal. Another reason being that some populations are nearly extinct and strict protection is necessary for the survival of this species.

As a result *Elaphe hohenackeri* will remain relatively unknown. Maybe for the survival of the species and the well being of individual animals it might be better this way

Translation: Peter Schilperoord Corrections: Mark Wootten

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### REFERENCES

Baran, I. (1978): *Some rare species of snakes from Turkey*. Annalen Naturhistorisches Museum. Wien, jg. 81, p. 261-265.

Bischoff, W. (1993): Elaphe hohenackeri (Strauch, 1873). Transkaukasische Kletternatter. In: Handbuch der Reptilien und Amphibien Europas, [onder redactie van] Wolfgang Bohme. Wiesbaden, Aula-Verlag; 1993. Band 3/1. Schlangen (Serpentes) I, p. 317-329.

Corbett, K. (1989). *The conservation of European reptiles and amphibians*. Londen. Helm Publishers, 1989.

Hoggren, M. (1991). Uber Haltung und Nachzucht von Elaphe hohenackeri (Strauch, 1873), mit Bemerkungen zur Verbreitung und Habitatwahl. Bonn. Salamandra ; jg. 27, nr. l, p. 46-52.

Hallmann, P. (1986). Schlangen zwischen Schwarzem und Kaspischem Meer. Berlijn. Elaphe; Sonderheft, p. 93-98.

Hoofien, J.H. (1973). Contribution to the herpetofauna of Mount Hermon. No. 4 . Elaphe hohenackeri. Jeruzalem, Israel, Journal of Zoology; jg. 22, p. 67-73.

Kudryavtjev, S.V. en S. Mamet (1989). *Terrestrial* snakes of the Soviet Union. Nittagun. The Snake; jg. 21, nr. 1, p. 29-35. Kudryavtjev, S.V., S. Mamet en M. Proutkina (1993). Keeping and breeding in captivity snakes of Russia and adjacent countries (within the former USSR). Part I, Nittagun . The Snake, jg. 25, nr. I, p. 39-53.

Nilson, G. en C. Andren (1984). A taxonomic account of the Iranian Ratsnakes of the Elaphe longissima species-group. Leiden. Amphibia-Reptila; jg. 5, p. 157-171.

Schatti, B. en I. Baran (1988). Bemerkungen zur Verbreitung von Elaphe hohenackeri (Strauch, 1873) und Vipera xanthina (Gray, 1849) in Sud-Anatolien (Serpentes: Colubridae, Viperidae). Bonn, Salamandra; jg. 24, nr. 4, pag. 306-309.

Schmidt, D. (1981) . *Die Kletternattern Europas. Teil* 1: Systematik, Verbreitung. Berlijn . Elaphe. 1981, nr. 2, p. 17-20.

Schmidt, D. (1981) . *Die Kletternattern Europas. Teil 2: Haltung, Futterung, Fortpflanzung.* Berlijn. Elaphe; 1981, nr. 3, p. 54-58.

Schulz, K.-D. (1996) . A Monograph of the Colubrid Snakes of the Genus Elaphe Fitzinger. (Havlickuv Brod) . Koeltz Scientific Books ; 996.

All pictures made by the author