

A new record of the Blotched snake *Elaphe sauromates* Pallas, 1811 (Serpentes: Colubridae) from an urbanized habitat in Bulgaria

BORISLAV NAUMOV¹, NIKOLAY NATCHEV^{2, 3}

¹*Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences, 2, Yurii Gagarin str., 1113 Sofia, Bulgaria; E-mail: herpetology_bg@yahoo.com*

²*Faculty of Natural Science, Shumen University, 115, Universitetska str., 9700 Shumen, Bulgaria;*

³*Department of Integrative Zoology, Vienna University, Althanstrasse 14, 1090 Vienna, Austria*

Abstract. The current paper reports a new location of the Blotched snake (*Elaphe sauromates*) in south-east Bulgaria. On 14.05.2016 we found a dead adult specimen in the east part of the town Aytos. To date the species was not recorded for the locus. This is the first record of the Blotched snake in urbanized area and we provide a discussion concerning the distribution and the habitat preferences of *E. sauromates* in Bulgaria.

Key words: Blotched snake, distribution, habitat.

Introduction

The Blotched snake (*Elaphe sauromates*) is widespread in Southeast Europe and part of Southwest Asia. In Europe, the range of the species is limited in the eastern part of the Balkan Peninsula, southern Ukraine and parts of southern Russia (see Sillero *et al.* 2014). In the legislation of the European Union the species is considered of high conservation status - Appendix II and IV at the Council Directive 92/43/EEC. In Bulgaria, the Blotched snake occurs sporadically in the Danubian plain, the Thracian lowland, the Sarnena Sredna Gora, the Eastern Rhodopes, the Sakar and Strandzha mountains, and along the Black Sea coast (see Stojanov *et al.* 2011). In the Bulgarian Red book of endangered species *E. sauromates* is listed as “threatened” (Beschkov 2015), hence all information, concerning the distribution and the biology of the species, as well as the human attitude to the snakes have to be considered as valuable for its conservation. In the current article we report a new locality of the species and discuss on the habitat use of the Blotched snake in Bulgaria.

Results and Discussion

On 14.05.2016 on the road in the eastern part of the Aytos town we found a dead Blotched snake with total length of 124 cm (Fig. 1). The coordinates of the locality are: N42°41'35.6", E27°16'1.2", 82 m a.s.l., UTM-grid 10x10 km NH22. According to the nature of land cover it represents urban area located in the town borders.

It is possible that the snake was hit by a car, but having in mind that the body was not smashed and was located rather near the curbstone, one can propose that the animal was killed other way.



Fig. 1. Photos of the dead specimen of *E. sauromates*, the exact locality of the finding and the position of the locality on the territory of Bulgaria (in UTM-grid 10×10 km).

The Blotched snake was not reported for the region of Aytos town. The nearest known records for the species are located around 20 km in south-east and in west, south-west directions (see Fig. 1; Stojanov *et al.* 2011, Beschkov 2015). The detection of the species near Aytos is not rather surprising and the new locality represents a connection link between the populations at the sea coast and these in the inland regions. The vicinity of Aytos and large parts of the Thracian lowland as a whole, are still insufficiently explored. This is due mostly to the fact that these areas are occupied by vast farmland, making them unattractive for herpetologists. The new record of *E. sauromates* is located in precisely that kind of area, which shows that in assessing the conservation status of the species (and in particular the fragmentation of their habitat), in addition to the existing threats, special attention should be paid and the level of knowledge on a particular region.

The habitat preferences of the Blotched snake in Bulgaria have not been studied purposefully. According to up to date summary publications (Beschkov & Nanév 2002, Stojanov *et al.* 2011), in Bulgaria the species can be found in open areas with steppe vegetation, sparse deciduous forests and shrubs, and often in very wet places along the banks of rivers and marshes. Reports on finding *E. sauromates* in highly urbanized areas

are lacking to date, so our record is unique for the Bulgarian scientific literature. We have to note, that relatively near to the spot of the finding (about 150 m to the west and to the south) are located agricultural lands which offer much more suitable habitats for the Blotched snakes rather than these of the town. We can accept that the found specimen entered the town accidentally and according to current data highly urbanized territories should not be included in the list of preferred and suitable habitats of the species. However we have to stress that further records have to be considered as a basis for reassessment of the knowledge about the habitat use and habitat preferences of the Blotched snakes.

Acknowledgments. We would like to thank Diana Dimitrova for the color corrections of the image representing the found Blotched snake. The study was partly supported by the Project number: RD-08-66/02.02.2016 of the Biology Department at Shumen University.

References

- Beschkov, V. (2015) Blotched Snake *Elaphe sauromates* (Pallas, 1814). In: Golemanski, V. et al. (Eds.) *Red Data Book of the Republic of Bulgaria*. Volume 2. Animals. BAS & MoEW, Sofia, p. 206.
- Beshkov, V. & Nanev, K. (2002) *Amphibians and reptiles in Bulgaria*. Pensoft, Sofia-Moscow, 120 pp.
- Sillero, N., Campos, J., Bonardi, A., Corti, C., Creemers, R., Crochet, P.-A., Crnobrnja-Isailović, J., Denoël, M., Ficetola, G.F., Gonçalves, J., Kuzmin, S., Lymberakis, P., de Pous, P., Rodríguez, A., Sindaco, R., Speybroeck, J., Toxopeus, B., Vieites, D. & Vences, M. (2014) Updated distribution and biogeography of amphibians and reptiles of Europe. *Amphibia-Reptilia*, 35: 1-31.
- Stojanov, A., Tzankov, N. & Naumov, B. (2011) *Die Amphibien und Reptilien Bulgariens*. Frankfurt am Main, Chimaira, 588 pp.