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Preliminary data on a *Vipera berus bosniensis* (Boettger, 1889) population from Central Croatia

Preliminarni podatci o istraživanju populacije *Vipera berus bosniensis* (Boettger, 1889) u Hrvatskoj

Student: MARC-ANTOINE MARCHAND, Tour du Valat - Centre de recherche pour la conservation des zones humides méditerranéennes - Le Sambuc- 13200 Arles, France, marcantoine.marchand@yahoo.fr

Supervisor: DUŠAN JELIĆ, State Institute for Nature Protection, Trg Mažuranića 5, 10000 Zagreb, Croatia, dusan.jelic@dzzp.hr

During 2009 we have been studying population ecology of a low-land population of *Vipera berus bosniensis* in surroundings of Okuje (Central Croatia). The main objective has been to examine the population status by a Capture Mark Recapture method. We also noted morphological (18 *bosniensis* subspecies characteristics) and physiological (body, air and substrat temperature) data. We captured a total of 19 individuals within 14 capture sessions. Our small data set make us use closed population estimators which are Schnabel, Schumacher-Eschmeyer and Removal method. The effective estimation results give an individuals number of 20-23 snakes on the 2,4 hectares of the study field, so a density of 8-9 individuals per hectare. This population can be considered having a high density compared to ssp. *berus* populations from Alps, north France, Scandinavian island and Finland. Looking to those same places for SVL length, our studied population has a higher length than ssp. *berus*. For *bosniensis* subspecies characters, we found that only one of the three characters given by Toth & Farkas (2004) is well represented in the population. Indeed, only 18% of 28 individuals sampling within the studied area and surrounding had two rows of sub-ocular scales, only 25% had 23 rows of dorsal scales, but 93% had an interrupted pattern. About

temperature measurement, we took temperature of cloacae (CT), ground (GT), air at 5cm (5T) and 60cm (60T) above the ground. We can conclude to this relation: $CT > GT > 5T > 60T$. Finally, an interesting finding is the different phenology between melanic and no-melanic males, represented by the Figure 1.

This analysis was made by a limited data set, and we are very interested to confirm it with a more robust sample in the future.

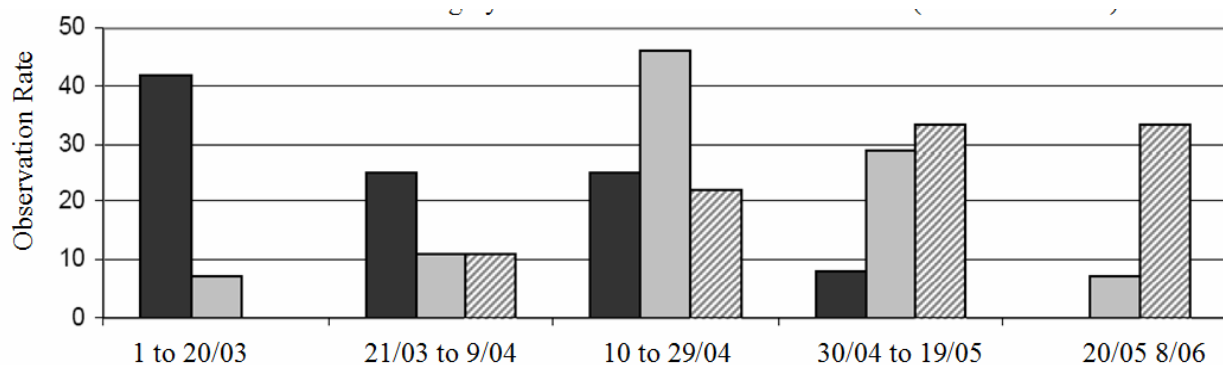


Figure 1. Activity pattern of melanic males (black), no melanic males (grey) and females (hatched).

Slika 1. Dnevna aktivnost kod crnih (melaničnih) mužjaka (crno), te normalno obojenih (ne melaničnih) mužjaka (sivo) i ženki (iscrtkano).

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