

# Another population of *Vipera ursinii macrops* MÉHELY, 1911 in Montenegro (Central Balkans)

(Squamata: Serpentes: Viperidae)

Eine weitere Population von *Vipera ursinii macrops* MÉHELY, 1911  
in Montenegro (Zentral-Balkan)  
(Squamata: Serpentes: Viperidae)

JELKA CRNOBRNJA-ISAILOVIĆ

## KURZFASSUNG

Die Gebirgs-Unterart der Wiesenotter, *Vipera ursinii macrops* MÉHELY, 1911, wurde kürzlich auf dem Berg Bjelasica in Montenegro nachgewiesen. Dieser Fund schließt die Beobachtungslücke zwischen den Populationen im Durmitor- und Prokletije-Gebirge.

## ABSTRACT

The montane subspecies of the Meadow Viper *Vipera ursinii macrops* MÉHELY, 1911 has been recently found on Bjelasica Mountain (Montenegro). This record bridges the observational gap between the populations living in the Durmitor and Prokletije Mountains.

## KEY WORDS

Squamata: Serpentes: Viperidae: *Vipera ursinii macrops*, new record, Bjelasica Mountain, Montenegro

## INTRODUCTION

The Meadow Viper *Vipera ursinii* (BONAPARTE, 1833), is discontinuously distributed in Europe, with a number of subspecies described (NILSON & ANDRÉN 1997). Alpine and subalpine dry meadows and mountain pastures of the Balkan Peninsula (Bosnia, Herzegovina, Montenegro, Serbia, northern Albania, western Macedonia) above 1000 m altitude provide the habitats of the subspecies *V. u. macrops* MÉHELY, 1911. According to the most recent review (NILSON & ANDRÉN 1997), its occurrence in Montenegro and Serbia (most information comes from the old literature) is scarce com-

paring to neighbouring Bosnia and Herzegovina (BOLKAY & ĆURČIĆ 1920; BOLKAY 1924). Concerning Montenegro, DŽUKIĆ (1991) confirmed the snake's presence in its north-western and south-eastern parts (table 1, fig. 1). In Serbia, *V. ursinii macrops* was found in the south-western, as well as southernmost mountainous areas (SCHWARZ 1936; KARAMAN 1938; PASULJEVIĆ 1968; table 1, fig. 1). The new record bridges the gap between the records in Bosnia-Herzegovina plus western Montenegro on one hand and eastern Montenegro plus south-western Serbia on the other.

## RESULTS AND DISCUSSION

On Bjelasica Mountain in eastern Montenegro (8 in table 1 and fig. 1) I captured two specimens of *V. ursinii macrops* in August 1997; one at a pasture oriented toward north-west (UTM CN3, approxi-

mately at 1.900 m a.s.l.) and the other (fig. 2) on a slope oriented toward the west and covered with bushy vegetation of Junipereto-Vaccinetum (UTM CN3, about 1800 m a.s.l.). Both vipers were found while they

Table 1: The record localities of *Vipera ursinii macrops* in Montenegro and Serbia.Tab. 1. Die Fundorte von *Vipera ursinii macrops* in Montenegro und Serbien.

Locality Fundort	UTM Grid (50 km x 50 km) UTM Raster (50 km x 50 km)	Altitude (m a.s.l.) Seehöhe (m ü. NN)	Source Quelle
1. Vranovina	DN3	?	SCHWARZ (1936)
2. Šara, Kobilica	DM4	2.000	KARAMAN (1938)
3. Nikšić	CN2	?	KARAMAN (1939)
4. Šara, Crni Kamen	DM4	1.500	PASULJEVIĆ (1968)
5. Prokletije, north	DN2	2.000	PASULJEVIĆ (1968)
6. Durmitor	CN1	1.059-1.950	DŽUKIĆ (1991)
7. Žijevo	CN4	1.504	DŽUKIĆ (1991)
8. Bjelasica	CN3	1.800-1.900	this paper/diese Arbeit

were foraging in the early afternoon, after the rain. Their feces consisted exclusively of grasshopper remnants. On the neighboring ridge near the peak named Medjedac in the same vegetation zone of subalpine pastures at 1.800 m altitude, I captured *Vipera berus bosniensis* BOETTGER, 1889 only.

According to literature data, the distribution of *V. ursinii macrops* in the territory of the former Yugoslavia is localized on the outer and inner slopes of the Dinarid mountain belt, from Dinara Mountain in the west to the contact zone of the Shara and Pindus massifs in the south-east. MATVEJEV (1961) assigned this subspecies to the characteristic faunal elements of the subprovince of the Mediterranean mountain rocks and rocky pastures - later assigned to the oromediterranean biome (MATVEJEV & PUNCER 1989). Here, general climate characteristics are the strong radiation and insolation throughout the year in combination with less precipitation than in the Alpine-Highnordic biome. Provinces of the oromediterranean biome in the territory of the former Yugoslavia have an insular distribution pattern in the mountains of Dalmatia, Bosnia, Herzegovina, Montenegro, Serbia and Macedonia. In the continental part of Montenegro, somewhat larger fragments are recognized in the Durmitor, Sinajevina, Maganik, Žijevo, Komovi, Vizitor and Prokletije mountains. Some fragments are also present on Šara Mountain along the border between Serbia and Macedonia as well as in small mountainous parts of western, central, eastern and southern Serbia.

Apparent oromediterranean refugia were not detected on Bjelasica Mountain (MATVEJEV & PUNCER 1989). This would

mean that the presence of the oromediterranean biome is an important, but not the only relevant prerequisite in searching for *V. u. macrops*. However, this recent discovery in eastern Montenegro extends the northern part of the territory of the subspecies *macrops* toward south-western Serbia where mountain ridges rarely exceed altitudes of 1.600 m. My investigations of carstic fields north of Sjenica at approximately 1.200 m a.s.l. in summer 1996 and 1997 only confirmed the presence of *V. ammodytes* (LINNAEUS, 1758) and *Coronella austriaca* LAURENTI, 1768. Sjenica is situated relatively close to the northern edge of the Pešter plateau - an area under the influence of severe steppe climate. According to the ecological requirements predicted, *V. ursinii macrops* rather could inhabit the southern or south-eastern edge of Pešter, from where SCHWARZ (1936) mentioned a record from Vranovina, near Novi Pazar. That whole area, however, has been poorly investigated during the last fifty years and deserves more attention because of complex biogeographic features. The new record from Bjelasica Mountain also poses the question about the possible occurrence of *V. ursinii macrops* on the neighbouring Komovi Mountain.

#### Conservation status

The lack of recent records of this subspecies in Serbia and Montenegro could be simply the consequence of scarce field research or/and destruction of autochthonous habitats. However, in Montenegro, there is the obvious threat of overhunting because natives make no clear differences between the Meadow Vipers and the more

*Vipera ursinii macrops* in Montenegro

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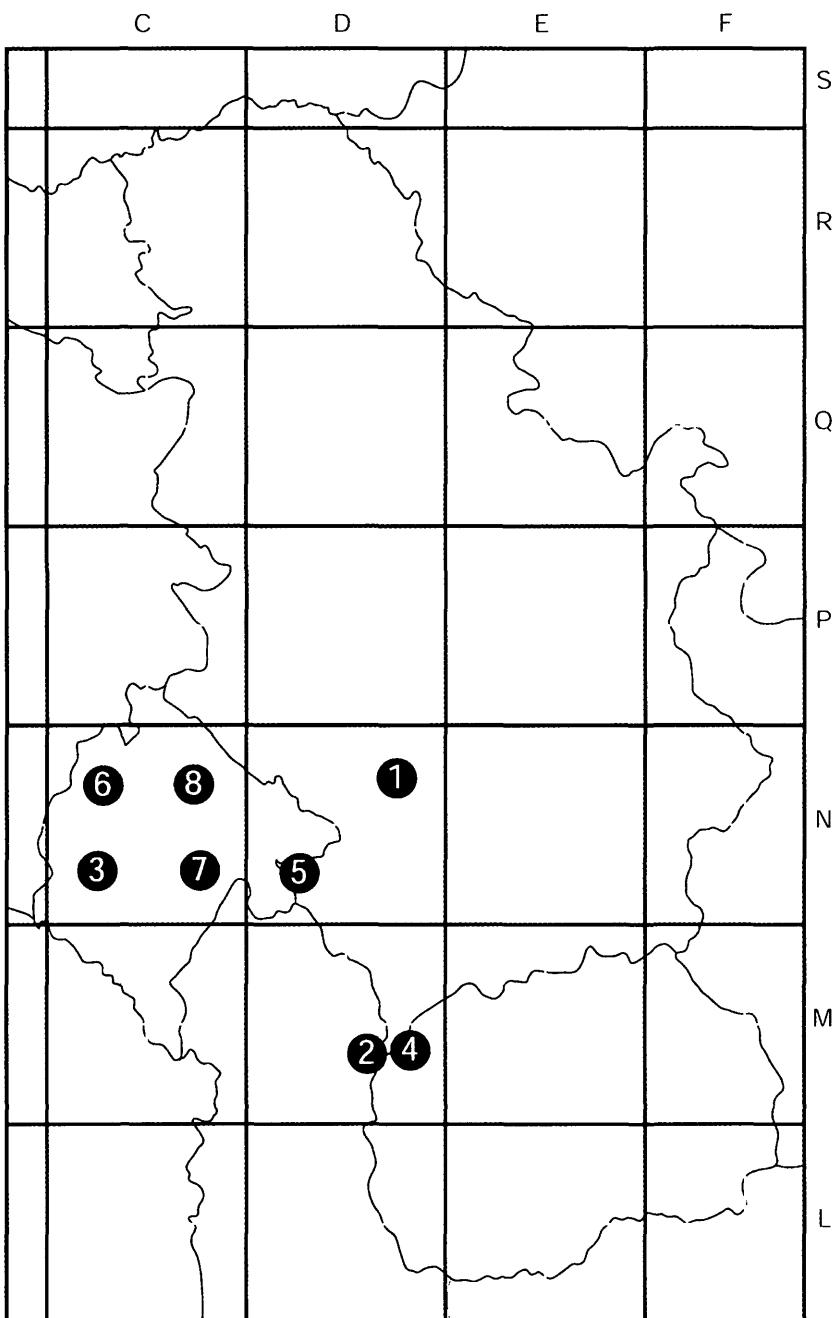


Fig. 1: The records of *Vipera ursinii macrops* in Serbia and Montenegro.  
UTM squares: 50 km x 50 km. Numbering of records as in table 1.

Abb. 1: Die Fundorte von *Vipera ursinii macrops* in Serbien und Montenegro.  
UTM-Raster: 50 km x 50 km. Fundortnumerierung wie in Tabelle 1.



Fig. 2: *Vipera ursinii macrops* from Bjelasica Mountain, Montenegro. Photograph by J. CRNOBRNJA-ISAILOVIĆ.  
Abb. 2: *Vipera ursinii macrops* vom Berg Bjelasica, Montenegro. Photo: J. CRNOBRNJA-ISAILOVIĆ.

harmful Adders. *Vipera ursinii macrops* is on the list of endangered reptiles in Serbia DŽUKIĆ (1995) and formally protected by national legislation. However, no recent

publications confirm its presence on the mountains of Serbia, except the southernmost - Šara Mountain.

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Corresponding editor: Heinz Grillitsch

AUTHOR: Dr. Jelka CRNOBRNJA-ISAILOVIĆ, Institute for biological research, 29. Novembra 142, 11060 Belgrade, FR Yugoslavia [jelka@ibiss.bg.ac.yu]

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