

**NEW RECORD OF MARBLED POLECAT *Vormela peregusna*
(MAMMALIA: CARNIVORA: MUSTELIDAE: ICTONYCHINAE)
OUT OF ITS CURRENT DISTRIBUTION RANGE**

Predrag Simonović^{1,2,*}, Radoslav Dekić³, Vera Nikolić¹

¹University of Belgrade, Faculty of Biology, Institute of Zoology,
Studentski trg 16, 11000 Belgrade, Serbia

²University of Belgrade, Institute for Biological Research "Siniša Stanković",
National Institute of the Republic of Serbia, Blvd. Despota Stefana 142, Belgrade, Serbia

³University of Banja Luka, Faculty of Science and Mathematics, Dr Mladena Stojanovića 2,
78000 Banja Luka, Bosnia and Herzegovina.

*Corresponding author; E-mail: pedja@bio.bg.ac.rs

(Received February 18, 2023; Accepted April 22, 2023)

ABSTRACT. This sighting record of marbled polecat *Vormela peregusna* is the westernmost for this globally vulnerable (VU) carnivore out of the native distribution range and the first one for Bosnia and Herzegovina. The current national conservational status is unknown. Hence, this species should be data deficient (DD) in the national legislative.

Keywords: first finding, mustelid carnivore, Balkans, westernmost record.

Marble polecat *Vormela peregusna* (Güldenstädt, 1770) is a small-sized carnivore native to Balkans and eastward to Caucasus, Middle East, Mongolia and China, as well as southward to Asia Minor, Near East and to the Sinai plateau, where inhabits shrubland, grassland and rocky habitats in the semi-arid and arid areas. In the Balkans, this species is listed for Bulgaria, Greece, Montenegro, North Macedonia, Serbia and Turkey. Its global IUCN status is VU (vulnerable) A2c, due to decreasing population trend caused by hunting, poisoning by rodenticides, trapping, and modification of natural areas (e.g., perennial crops farming and desertification, that cause a decline of mature individuals) (ABRAMOV *et al.*, 2016).

On Saturday, 7 August 2021 at 6.45 p.m. in the twilight, the first registering of the marble polecat for Bosnia and Herzegovina (exactly the Serb Republic) occurred. The place of animal sighting was in the north-western Bosnia and Herzegovina, in the area of the village of Previja, at the northernmost end of an island of the River Ribnik, where the "LTG" Company accommodation lodges are situated (Figure 1). The starting point of sighting was at 44°25'44.28"N and 16°49'30.89"E, and the last sighting spot was at 44°25'44.53"N and 16°49'30.67"E, at the altitude of 290 m above the sea level (asl), as georeferenced from the Google Earth Pro v. 7.3.4.8248 (64 bit) for Mac OS X (10.16.0).

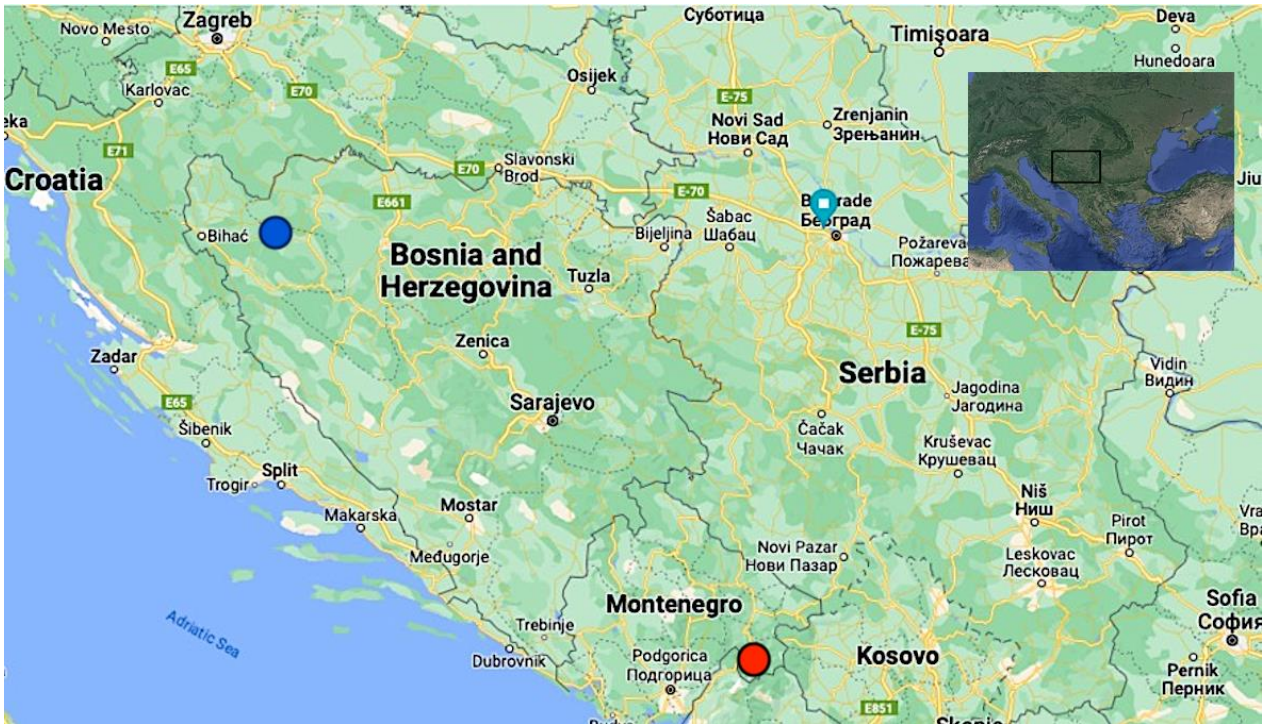


Figure 1. Map of the Western Balkans region, with the insert explaining its position in the Southeastern Europe and marks showing the rough position of the marbled polecat recorded in the Western Bosnia and Herzegovina (the blue dot) and the former reported westernmost one of RADONJIĆ *et al.* (2022) – the red dot.

A single marble polecat suddenly appeared around the eastern corner of the lodge, moving northward over the pile of rocks, partially overgrown with low-to-medium height willow shrubs (Figure 2).

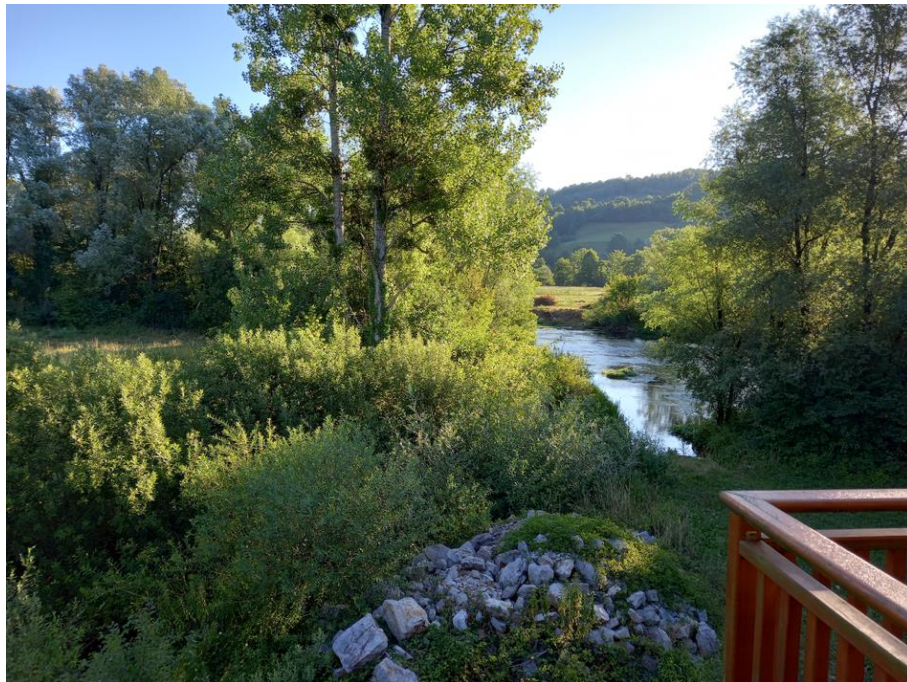


Figure 2. The photograph of the locality of sightseeing of the marbled polecat from the sighting spot, with the main river channel of the River Ribnik in the background.

The animal paused its movement twice, shortly, for a couple of seconds. The first time it was insufficiently visible for the observer, but the second stop was almost at the top of the pile to inspect the air, which gave sufficient time for doubtlessly positive species identification. The body's fur was of very short, pale-golden hair mottled with the small-to-medium sized, interconnected dark patches of irregular shapes. The coloration of the head and rounded ears was in broad horizontal brown-and-white stripes, and the belly was darker, while the tail was not visible. The estimated overall size of individual (excluding the tail) was up to about 40 cm in length, and about 15 cm in height at the top-of-head level. It was too distant from the sighting spot to notify more details. Descending down the pile to the bank of the left, narrow side arm of the River Ribnik about 1.5 m in width, marble polecat went out of sight, to appear in several seconds on the opposite bank of the side arm it swam across. Marble polecat headed along the shoreline southward, in the upstream direction through the dense herbaceous riparian vegetation, where he was traced mostly by plants' shifting, appearing only intermittently in sight, until definitely went away. The whole sighting was unexpected, and lasted in at most 45 seconds, too short period for making the image/video record. Unfortunately, subsequently three times installed an automatic infrared camera (totally for 21 days) during the summer 2022, failed to register the marbled polecat, and confirm this.

Recently, RADONJIĆ *et al.* (2022) reported the marbled polecat occurrence in the northeastern Montenegro, on the Prokletije Mt. northern slopes, in the area of the city of Plav, at high altitudes (889–1729 m asl). They considered their finding the westernmost for this species. The record we report here is more westward, hence so far it is the westernmost one both – globally, and for the Balkans.

It enriches the list of mammals for Bosnia and Herzegovina, where marbled polecat was recorded neither in the Serb Republic (ANONYMOUS, 2020), nor in the Federation of Bosnia and Herzegovina (ANONYMOUS, 2014). The description of the seen marbled polecat given above corresponds to that in GORSUCH and LARIVIÈRE (2005). The reporting of records about marbled polecat for the former Federative Republic of Yugoslavia (i.e., the western part of the Balkans) occurred hitherto only for Serbia by MIRIĆ *et al.* (1983), for Serbia and Montenegro by MILENKOVIĆ *et al.* (2000) and ŽUPAN and HOŠEK (2019), while KRYŠTUFEK (2000) summarized the earlier knowledge about that mustelid in the region. The type of vegetation in the habitat where the marbled polecat was seen, i.e., the meadows and shrubs (Figure 2), situated at the eastern foothills of the Mt. Šiša, far below the forest tree line, at a relatively low altitude, roughly corresponds to that MILENKOVIĆ *et al.* (2000) reported.

Considering the lack of data about the dispersal and local distribution in this area, as well as about the abundance of marbled polecat, i.e., the unknown status of populations there and a globally vulnerable IUCN status, the national conservation status of marbled polecat in Bosnia and Herzegovina is currently to be Data Deficient (DD), until more records from in-depth research of this species status there and threatening factors would be available.

Acknowledgments

The research was granted by Ministry of Science, Technological Development and Innovation of the Republic of Serbia (Contract # 451-03-47/2023-01/ 200178).

References:

- [1] ABRAMOV, A.V., KRANZ, A., MARAN, T. (2016): *Vormela peregusna*. The IUCN Red List of Threatened Species 2016: e.T29680A45203971. doi: 10.2305/IUCN.UK.2016-1.RLTS.T29680A45203971.en
- [2] ANONYMOUS (2014): Crvena lista divljih vrsta i podvrsta biljaka, životinja i gljiva (Službeni list Federacije Bosne i Hercegovine 7) [In Bosnian]

- [3] ANONYMOUS (2020): Uredba o strogo zaštićenim i zaštićenim divljim vrstama (Službeni list Republike Srpske 65)
- [4] GORSUCH, W.A., LARIVIÈRE, S. (2005): *Vormela peregusna*. *Mammalian Species* **779**: 1–5. doi: 10.1644/779.1
- [5] KRYŠTUFEK, B. (2000): Mustelids in the Balkans – small carnivores in the European biodiversity hot-spot. In: GRIFFITHS, H.J. (ed) *Mustelids in a modern world: management and conservation aspects of small carnivore: human interactions*. Backhuys Publishers, Leiden, Netherlands: 281–294.
- [6] MILENKOVIĆ, M., PAUNOVIĆ, M., ABEL, H.E., GRIFFITHS, H.I. (2000): The marbled polecat, *Vormela peregusna* (Güldenstädt 1770) in FR Yugoslavia and elsewhere. In: Griffiths, H.I. (ed) *Mustelids in a modern world: management and conservation aspects of small carnivore: human interactions*. Backhuys Publishers, Leiden, Netherlands: 321–335.
- [7] MIRIĆ, Đ., MILENKOVIĆ, M., TVRTKOVIĆ, N. (1983): Distribution of marble polecat (*Vormela peregusna* Güldenstädt 1770, Mustelidae, Mammalia) in Yugoslavia. *Drugi simpozijum o fauni SR Srbije, Beograd*: 185–188. [In Serbian, with English summary]
- [8] RADONJIĆ, M., ŠESTOVIĆ, B., PEEREBOOM, J.N., RALEVIĆ, S. (2022): First Evidence of the Presence of the Marbled Polecat *Vormela peregusna* (Güldenstädt, 1770) (Carnivora: Mustelidae) in Montenegro. *Acta Zoologica Bulgarica* **74** (2): 189–194.
- [9] ŽUPAN, D., HOŠEK, M. (2019): *Establishment of Natura 2000 Network, Montenegro. Final Species Report*. Agencija za zaštitu prirode i životne sredine. Podgorica, 365 pp.