

## Northernmost finding of the Dalmatian wall lizard, *Podarcis melisellensis* Braun, 1877 and its proposed conservation status in Bosnia and Herzegovina

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*Podarcis melisellensis* (Braun, 1877), also known as the Dalmatian wall lizard, is distributed along the karstic coast of the Adriatic Sea. On its most recent global distribution map (Ajtić *et al.* 2009), it occupies the eastern coast of the Adriatic Sea, from the parts of extreme Northeast Italy (Monfalcone) along southwestern Slovenia, Croatia, southern Bosnia and Herzegovina (B&H) and Montenegro to the far Northwest of Albania. It is also present on many Adriatic islands (Jelić *et al.* 2012). From the Adriatic Sea, further inland, the population spreads along the river valleys where the influence of the Mediterranean and Submediterranean climate is present (e.g. 1, from the Neretva river valley towards Ljuta river reaching Sarajevo Canton in BiH (Zimić 2015); e.g. 2 the Morača valley to Kolašin in Montenegro (Jelić *et al.* 2012; Tiedemann & Henle 1986; Gasc *et al.* 1997; Ajtić *et al.* 2009). The Dalmatian wall lizard has a high vertical distribution spanning from the coastline up to 1400 m above sea level (a.s.l). However, the majority of the population is located below 1000 m a.s.l (Gasc *et al.* 1997; Ajtić *et al.* 2009). The variety of habitats in which *P. melisellensis* can be found is large: from dry habitats, sparse and degraded forests, vineyards and olive groves to open slopes with tall grass, rocky meadows and pastures. It is also present in ruderal communities: road edges, cliffs, embankments, roadsides and gardens. As shelters they rather use holes and vegetation rather than cracks and crevices of rocks (Tiedemann & Henle 1986; Arnold 1987; Jelić *et al.* 2012). On global scale and in Croatia, the species is considered Least Concern (LC) according to IUCN criteria (Ajtić *et al.* 2009; Jelić *et al.* 2012). The same category was suggested for populations in the entity of Federation of B&H (Škrijelj *et al.* 2013). However, B&H has no conservation status for any reptile species.

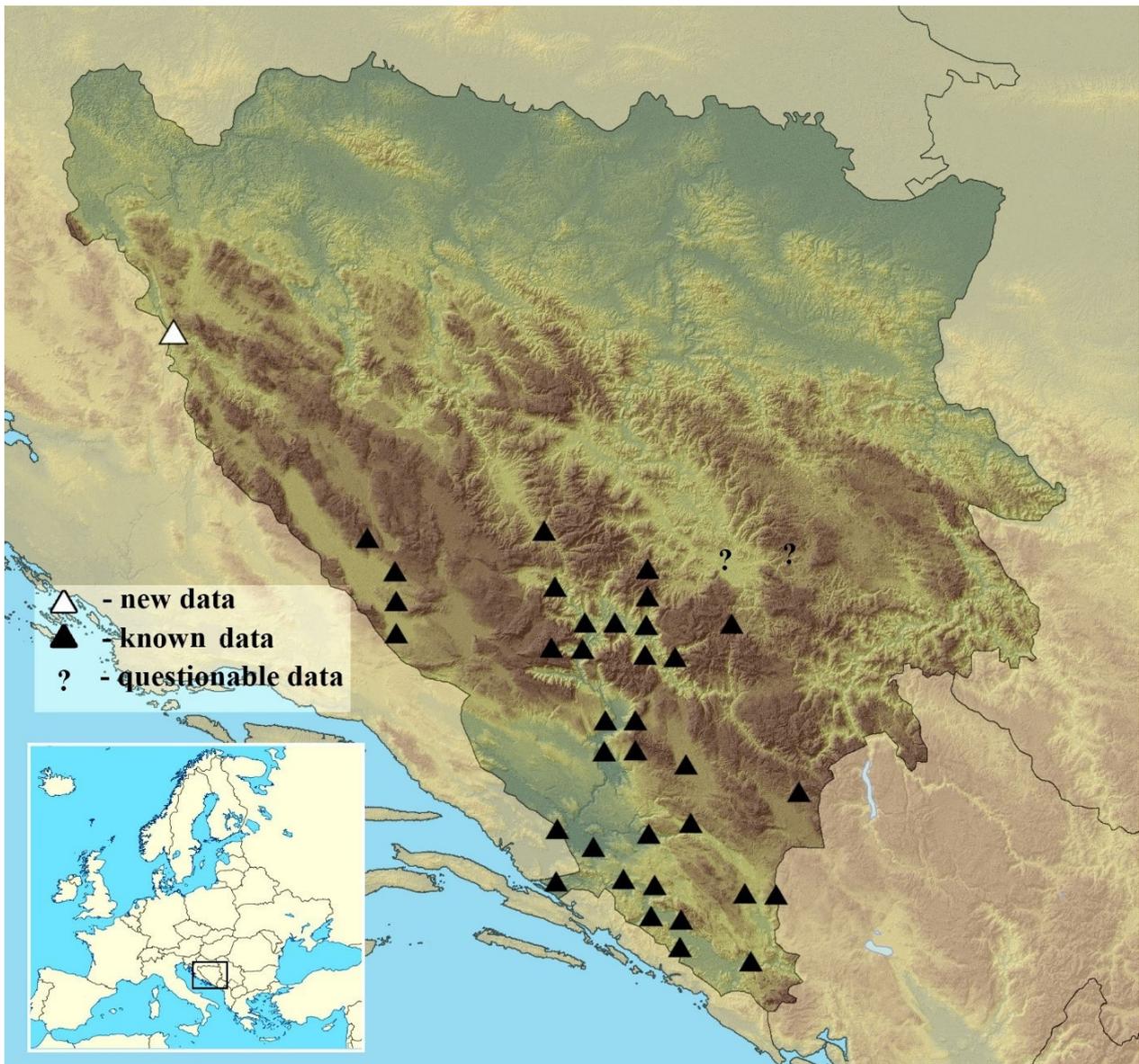


**Figure 1:** Caught individual of *Podarcis melliselensis* found in National Park Una.

In this short note we present the northernmost finding of *P. melisellensis* in B&H. During the herpetological research on 25th of May, 2015 in Una National park, Martin Brod (44°49.2096'N, 16°14.3894'E; altitude: 752 m) one subadult individual (Fig. 1) was found on rocks with sporadic vegetation on southern exposition slope.

At the same microlocality during the same field research were registered other species of herpetofauna: *Coronella austriaca*, *Zamenis longissimus*, *Natrix tessellata*, *Vipera ammodytes*, *Lacerta viridis*, *Anguis fragilis* and *Podarcis muralis* (the most common species in this area).

Within this report we also present all findings of *P. melisellensis* in B&H known so far (Bolkay 1924; Arnold 1987; Jablonski *et al.* 2012; Šunje *et al.* 2014; Zimić 2015) (Fig. 2). The significance of this northernmost finding is reflected in the distribution pattern of this species in a way that it stands out significantly from the known range of the species occurrence (Fig. 2), this indicating that its distribution could be wider compared to what was assumed so far.



**Figure 2.** Distribution of *Podarcis melisellensis* in B&H in relation to new finding.

Presenting this new finding in National park Una and three more (one confirmed, two questionable) findings for Sarajevo Canton (Zimić 2015; Fig. 2), we provide new valuable data for the distribution of this species, which has been greatly underestimated. Since the zone from Mt. Cincar to Martin Brod has no geographical

barriers that would prevent species from spreading northwards (from the central part of B&H), this species has probably reached this north area through open areas such as Livno and Kupres field (Livanjsko and Kupreško polje). The possibility that the species has spread from Croatia is unlikely due to river Una acting as a barrier.

*Podarcis melisellensis* is widespread in southern and southeastern parts of B&H which are under the influence of the Mediterranean and Submediterranean climate. This species is tolerant to habitat alteration, and there is no severe fragmentation, continuing decline or extreme fluctuations of the geographic range or population size. Therefore, it is justified to classify this species as LC in B&H, according to the IUCN global and regional guidelines (IUCN 2003; 2014).

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