

## Contribution to the knowledge on distribution of Horvath's rock lizard *Iberolacerta horvathi* (Méhely, 1904) in Slovenia, new records from Pokljuka

**Prispevek k poznavanju razširjenosti Horvatove kuščarice *Iberolacerta horvathi* (Méhely, 1904) v Sloveniji, novi podatki za Pokljuko**

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The known distribution of Horvath's rock lizard (*Iberolacerta horvathi*) in Slovenia is limited to the Julian Alps, Trnovski gozd, Snežnik plateau and Dinaric mountains (Krofel et al. 2009, Vek et al. 2019). Data on newly discovered occurrence localities, gathered in recent years, show that the distribution of Horvath's rock lizard has not yet been fully explored and that thorough data, as put by Vek et al. (2019), are still missing especially for the Alpine areas.

On 15. 8. 2020, three Horvath's rock lizards were discovered in the Pokljuka Gorge (»Poključka soteska«) at approximately 800 m a.s.l. Two individuals were observed on a rocky wall near the entrance of the cave called »Poključka luknja« (Slovene cave registry No. 2771, WGS84 coordinates: N 46.3766°, E 14.0327°). Both lizards were photographed and identified as Horvath's rock lizard – the two scales above nostrils were separated, which was visible in the photos (Fig. 1), among other signs. Horvath's rock lizard's dorsal colour is greyish or brown. The belly is usually light in colour. On each side of the head, the supranasal scale is elongated towards the back and touches the loreal scale (Mršić 1997, Speybroeck et al. 2016).

One lizard was captured by hand and photographed from up close (Fig. 1). Both lizards were adults and the one captured was a female. It was a sunny day, around 10 AM, and the lizards were sunbathing on the rocky wall that was partially covered by grassy patches.



**Figure 1.** A female Horvath's rock lizard (*I. horvathi*) from Pokljuka Gorge, Slovenia (photo: K. Konc).

**Slika 1.** Samica horvatove kuščarice (*I. horvathi*) iz Poključke soteske, Slovenija (foto: K. Konc).

Around 100 meters into the forest, the third individual was found on a steep bank above the path (WGS84 coordinates: N 46.3772°, E 14.0332°). The tree canopies prevented sunlight to reach the ground directly, and due to the gorge below, the whole area was slightly damp. In close proximity to the Horvath's rock lizard, another lizard species was found – the viviparous lizard (*Zootoca vivipara*). Both lizards were photographed from afar (Fig. 2). Both species were identified based on the specific morphological characteristics, clearly visible from the photo.

The closest known records of Horvath's rock lizard are from Mrzli studenec, around 5 km southwest from the Pokljuka Gorge (De Luca 1989). According to Speybroeck et al. (2016), Horvath's rock lizards are usually found in rocky terrain, often in forested areas and close to a source of water.

The common wall lizard (*Podarcis muralis*) and *I. horvathi* display an overall similarity in morphology and ecology (Osojnik et al. 2013). Žagar et al. (2015) suggest that both lizard species occupy sun-exposed gaps in a forested landscape, both exhibiting an altitudinal segregation pattern with a high zone of overlap at middle altitudes. In addition, *I. horvathi* reaches highest densities at high altitudes and *P. muralis* at low altitudes with a broad zone of distributional overlap between the species. Osojnik et al. (2013) have ascertained that *I. horvathi* occupies areas with more damp, humid, and shaded microhabitats than *P. muralis* of the

same regions. Speybroeck et al. (2016) suggest that *I. horvathi* prefers steeper rock faces or cliffs than *P. muralis*.



**Figure 2.** Horvath's rock lizard (*I. horvathi*) (below) and viviparous lizard (*Z. vivipara*) (on top) from Pokljuka Gorge, Slovenia (photo: K. Konc).

**Slika 2.** Horvatova kuščarica (*I. horvathi*) (spodaj) in živorodna kuščarica (*Z. vivipara*) (zgoraj) iz Pokljuške soteske, Slovenija (foto: K. Konc).

Although *I. horvathi* has already been known from Pokljuka (De Luca 1989, Petras Sackl et al. 2013), the novel findings demonstrate that the area is still insufficiently explored and emphasize the need for a further systematic research.

## References

- Krofel M., Cafuta V., Planinc G., Sopotnik M., Šalamun A., Tome S., Vamberger M., Žagar A. (2009): Razširjenost plazilcev v Sloveniji: pregled podatkov, zbranih do leta 2009. Distribution of reptiles in Slovenia: a review of data collected until 2009. Nat. Slov. 11(2): 61-99.
- De Luca N. (1989): Taxonomic and Biogeographic Characteristics of Horvath's Rock Lizard (*Lacerta horvathi* MEHELY 1904, Lacertidae, Reptilia) in Yugoslavia. Scopolia 18: 1-48.
- Mršić N. (1997): Plazilci (Reptilia) Slovenije, 1. natis. Zavod Republike Slovenije za šolstvo, Ljubljana, pp. 94-95.
- Osojnik N., Žagar A., Carretero M.A., García-Muñoz E., Vrezec A. (2013): Ecophysiological Dissimilarities of Two Sympatric Lizards. Herpetologica 69: 445-454.
- Petras Sackl T., Smukavec U., Scholl C., Marolt M., Kralj T. (2013): CAMP – Triglavski narodni park – testno območje Pokljuka, project HABIT-CHANGE. Central Europe programme, pp. 23.
- Speybroeck J., Beukema W., Bok B., Van Der Voort J. (2016): Field Guide to the Amphibians & Reptiles of Britain and Europe. Bloomsbury Publishing Plc, London, pp. 311-312.
- Vek M., Kirbiš N., Lešnik A. (Eds.) (2019): Življenje okoli nas: Dvoživke in plazilci visokogorja Slovenije. Center za kartografijo favne in flore, Miklavž na Dravskem polju & Herpetološko društvo – Societas herpetologica slovenica, Ljubljana, pp. 19.
- Žagar A., Carretero M.A., Osojnik N., Sillero N., Vrezec A. (2015): A place in the sun: interspecific interference affects thermoregulation in coexisting lizards. Behav. Ecol. Sociobiol. 69: 1127-1137.