

A new record of the Prokletije rock lizard, *Dinarolacerta montenegrina* (Squamata: Lacertidae) in Montenegro

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The Prokletije rock lizard (*Dinarolacerta montenegrina* Ljubisavljević, Arribas, Džukić & Carranza 2007) is a distinctly flattened saxicolous small lacertid species. It is one of the two species of the genus *Dinarolacerta* endemic to south-western Dinaric mountains of the Balkan Peninsula. Up to 2007 it was considered to represent a small isolated population of the Mosor rock lizard (*Dinarolacerta mosorensis*) on the eastern border of the species range (Džukić *et al.* 1997). Ljubisavljević *et al.* (2007) established the specific status of the Prokletije rock lizard according to clear genetic differences and certain morphological distinctiveness in regard to *D. mosorensis* and other rock lizards.

D. montenegrina is stenoendemic species of the Prokletije mountain massif where it occupies rocky karst areas above 1550 m a.s.l. (Petrov 2006; Ljubisavljević *et al.* 2007). Up until now, it has been recorded at two localities in Montenegro and Albania (Figure 1A). In Montenegro the species is only known from its type locality on Đebeza mt., near the Bukumirsko Jezero Lake, at 1600 m a.s.l. However, Džukić *et al.* (1997) suggested that it could also occur in other places with suitable habitats of oromediterranean biome within the Prokletije area and adjacent mountains. These habitats could be easily identified by *Pinus heldreichii*, a tree species on mountains exposed to influence of Mediterranean climate. Guided by this idea we conducted a field survey of suitable areas surrounding the type locality in order to check the distribution of the Prokletije rock lizard. In this article, we present a new record of *D. montenegrina* in Montenegro.

During a summer field survey within the project "Research, conservation and promotion of the endemic Balkan rock lizards (*Dinarolacerta* spp.) in Montenegro" we discovered abundant population of *D. montenegrina* on 14th July 2014, in area of Kastrat katun (42°34.418'N, 19°29.041'E) at 1455 m a.s.l (Figure 1B). The new site of the Prokletije rock lizard is situated in the Žijovo Mt., approximately 9 km by road from the type locality (Figure 1A). The Žijovo Mt., with more than 20 peaks higher than 2000 m a.s.l., is in a broader sense a part of the Prokletije massif at its western limits (Belij 2003).

The habitat of *D. montenegrina* at Kastrat katun is typically karst area with blocks of limestone rocks and boulders (Figure 2). As in the type locality, the lizard occurs in open wood of white-barked pine (plant community *Pinetum heldreichii bertiscum*) with a number of Mediterranean floristic elements (*Petrorhagia saxifraga*, *Cynoglossum officinale*, *Cerastium brachypetalum*, *Dorycnium pentaphyllum* ssp. *herbaceum*, *Geum urbanum*, *Geranium robertianum*, *Hieracium bauchinii*, *Globularia meridionalis*, *Lotus corniculatus*, *Muscari racemosum*, *Onobrychis alba* ssp. *laconica*, *Sanguisorba muricata*, *Sedum acre*, *Teucrium montanum*, *Bupleurum karglii*, *Teucrium chamaedrys*, *Thymus longicaulis*, *Trifolium badium*, *Trifolium pratense*, *Medicago prostrata*, *Koeleria splendens*, *Festuca rupicola*, *Bromus erectus*).



Figure 1A-B. **A** - Left: Distribution map showing records of *Dinarolacerta montenegrina*. Open circles – literature data; solid circle – new record. **B** - Right: Prokletije rock lizard from Kastrat katun.

The specimens of the Prokletije rock lizard were recorded in the afternoon. They were found to be active at 17,5° C in cloudy, windy and fresh weather up to 16.40 h. Syntopic reptile detected there was Smooth snake (*Coronella austriaca*), while other lizard species were not observed. Anthropogenic activities and possible threats to this species recorded at the site were livestock grazing, cultivation of vegetables (mainly potatoes), building of holiday cottages, renovation and expansion of old huts, removal of stones for building of dry walls and enclosures. Also, the power line passes through this locality. Mainly small piles of solid waste were encountered during a site inspection.

This finding is another confirmation of Džukić *et al.* (1997) assumption about synergetic link between *Dinarolacerta* spp. and plant communities formed by relic pine *P. herldreichii*. Further field surveys in the Prokletije area are required in order to assess the range of *D. montenegrina*.



Figure 2. Habitat of *D. montenegrina* at Kastrat katun.

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References

- Belij, S. (2003) Geografski položaj i granice. *In: Amidžić, L., Janković, M. M. & Jakšić, P. (Eds.), Metohijske Prokletije - prirodna i kulturna baština*. Zavod za zaštitu prirode Srbije, Beograd, pp. 11–23.
- Džukić, G., Đorović, A., Kalezić, M., Aleksić, I. & Crnobrnja- Isailović, J. (1997) The Mosor lizard occurs also in the Prokletije Mountain Massif. *University Thought, Natural Sciences, Priština*, III (2), 61–62.
- Ljubisavljević, K., Arribas, O., Džukić, G. & Carranza, S. (2007) Genetic and morphological differentiation of Mosor rock lizards, *Dinarolacerta mosorensis* (Kolombatović, 1886), with the description of a new species from the Prokletije Mountain Massif (Montenegro) (Squamata: Lacertidae). *Zootaxa*, 1613, 1–22.
- Petrov, B. (2006) *Lacerta mosorensis* Kolombatović, 1886 new to the herpetofauna of Albania. *Herpetozoa*, 19, 92–93.