

**New records of *Poecilimon vodnensis* Karaman, 1958
(Orthoptera, Phaneropterinae) in Republic of Macedonia**

Michèle Lemonnier-Darcemont & Christian Darcemont

Abstract

Poecilimon vodnensis, discovered in 1954 on Mount Vodno, near Skopje, had not been observed in the Republic of Macedonia since the sixties. Two new localities were found in 2012 and 2013 in the municipality of Prilep, in the southern extension of mountain ranges. In the still poorly studied area between old and new localities, the presence of the species is possible.

Zusammenfassung

Poecilimon vodnensis wurde im Jahr 1954 auf dem Berg Vodno, nahe Skopje, entdeckt. Seit den 1960er Jahren erfolgten keine weiteren Nachweise der Art in der Republik Mazedonien. 2012 und 2013 wurden zwei neue Vorkommen in der südlichen Verlängerung der Bergketten bei Prilep entdeckt. In dem noch wenig erforschten Gebiet zwischen diesen Fundstellen sind weitere Vorkommen der Art denkbar.

Results

Poecilimon vodnensis was discovered for the first time in Republic of Macedonia by Mladen Karaman in 1954 on Mount Vodno at 900 m asl. The author who lived at that time in the nearby town of Skopje, has found only three exemplars on the site (in 1954 and 1957) on *Rubus* sp. (KARAMAN 1958), despite he was visiting Mount Vodno often along these years (Y. Karaman pers. comm.). However, he found some more specimens later (1960, 1961; CHOBANOY & MIHAJLOVA 2010). The insect has not been found since that time on the Mount Vodno, despite several targeted recent search campaigns.

In late spring 2012 and 2013, during systematic inventories of Orthoptera populations in different areas of the country, we collected a number of samples, which, for lack of time, could not be studied until recently. Among these data, we discovered several individuals fitting the description of *P. vodnensis* according the identification criteria provided by KARAMAN (1958) and included within European species identification keys by HARZ (1969). We also compared our exemplars with the criteria of the type.

These two new populations are located in the southern half of the country, in the municipality of Prilep:

- Pass above Štavica: 41°15'04.3" / 021°35'20.9" at 1147 m a.s.l. Meadow with some thorn bushes including *Rosa* sp., in edge of beech groves. Nearly twenty taxa were also recorded including *Bradyporus dasypus*, *Pholidoptera macedonica*, *Montana macedonica*, *Poecilimon ornatus*, *Metrioptera tsirojanni*, *Celes variabilis*, *Stenobothrus fischeri*, etc.
- Between Dunje and Manastir villages: 41°13'04.0" / 021°41'24.6" at 590 m a.s.l. Grazed dry grassland on the edge of open oak forest (opened artificially). The population of Orthoptera is diversified and rich, including the presence of *Saga rammei*, *S. natoliae*, *B. dasypus*, *P. ornatus*, *Arcyptera microptera*, *Stenobothrus fischeri*, etc.

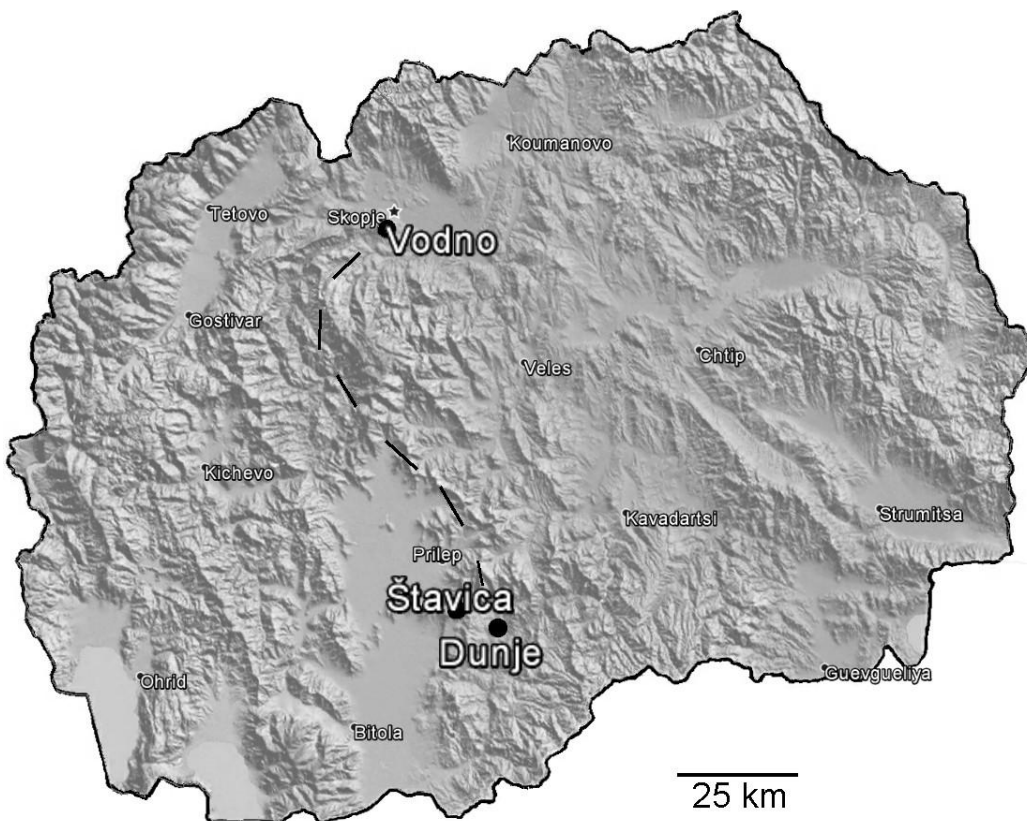


Figure 1: Map of all known localities of *Poecilimon vodnensis* in Republic of Macedonia.

On each of these two stations, respectively prospected the 30 June 2012 and the 29 May 2013, *P. vodnensis* was rather abundant.

This *Poecilimon* could be now extinct on Mount Vodno, due to human pressure and the environment changes that results. However, additional research is needed and performed during several consecutive years, in the case that the species is subject to large annual variations, to confirm or disprove this hypothesis.

Nevertheless, the discovery of stations located far south of its original point of discovery, but in a certain continuity of mountain ranges, expands considerably its potential distribution and allows us to assume its presence in other areas still under sampled, between these points.

As already reported by Mladen Karaman in his original description in 1958, we can see a morphological proximity of *P. vodnensis* with taxa of the *P. zonatus* group and also *P. varicornis*, only represented in Turkey and the Middle East. Some future comparative researches, including cytogenetic and DNA, should provide a better vision on this possible link and its origin.



Figure 2: *Poecilimon vodnensis* ♂ - Štavica.



Figure 3: *Poecilimon vodnensis* ♀ - Štavica .



Figure 4: Štavica pass.

Acknowledgments

We would like to thank Yvo Karaman & Slobodan Yvkovic for having kindly sent us the different detailed and accurate photos of the type.

Authors:

Michèle Lemonnier-Darcemont & Christian Darcemont
 Groupement d'Études Entomologiques Méditerranée (G.E.E.M.)
 Hameau de St Donat
 240 chemin du Vignaou
 83440 Callian
 France
 E-Mail: michele.lemonnier-darcemont@geem.org

References

- CHOBANOV, D.P. & MIHAJLOVA, B. (2010): Orthoptera and Mantodea in the collection of the Macedonian Museum of Natural History (Skopje) with an annotated check-list of the groups in Macedonia. - *Articulata* 25 (1): 73-107.
- KARAMAN, M.S. (1958): Neue Orthopteren-Arten aus Jugoslawien, insbesondere aus Mazedonien. - *Bioloski Glasnik* 11: 35–44.
- HARZ, K. (1969): *Die Orthopteren Europas 1.* - Series entomologica 5: xx + 749 pp.; The Hague (Dr. W. Junk N.V.).