

**Presence of *Poecilimon pechevi* Andreeva, 1978
(Orthoptera, Phaneropterinae) on Orvilos Mountain, Greece**

Michèle Lemonnier-Darcemont & Christian Darcemont

Abstract

Until now, *Poecilimon pechevi* Andreeva, 1978 was considered endemic to the Vlahina/Vlakhina Mountain (Ossogovo-Ograzhden mountain group) on the Bulgarian-Macedonian border. In July 2020, we discovered it on the Greek side of Orvilos Mountain, in the Western Rhodopes. The accurate status of this population remains to be defined by carrying out additional surveys in 2021.

Zusammenfassung

Bisher galt *Poecilimon pechevi* Andreeva, 1978 als endemisch auf dem Berg Vlahina/Vlakhina (Gebirgsgruppe Ossogovo-Ograzhden) an der bulgarisch-mazedonischen Grenze. Im Juli 2020 entdeckten wir die Art auf der griechischen Seite des Orvilos-Gebirges in den westlichen Rhodopen. Der genaue Status dieses Vorkommens soll durch zusätzliche Erfassungen im Jahr 2021 geklärt werden.

Results

Poecilimon pechevi was discovered by Andreeva in 1975 on the Bulgarian side of the Vlahina/Vlakhina Mountain (Ossogovo-Ograzhden mountain group) in the eastern part of the country (ANDREEVA 1978). In August 2012, during surveys for the establishment of the Red list of Orthoptera in the Republic of North Macedonia, we also found it on the Macedonian side of this same mountain (LEMONNIER-DARCEMONT et al. 2014). Due to its restricted distribution and reduced elevation range, between 1600 m and 1900 m altitude, and various anthropogenic threats to its biotopes, the species has been classified "Critically endangered" (CR) on the IUCN red list of threatened species (CHOBANOV et al. 2015).

During the summer 2020, our surveys on the Greek side of Mount Orvilos, in the western part of the Rhodope massif, more specifically focused on Lepidoptera, allowed us to discover a few adult individuals of *P. pechevi*.

- South slope of Mt Orvilos, north-east of the town of Serres (Fig. 4): calciophilous meadow at mountain-Mediterranean level, located at an elevation of 1560 m, not recently grazed (a priori). On July 2, we found about ten adults of *P. pechevi*. We also noted on this station the abundance of *Anterastes serbicus* Brunner von Wattenwyl, 1882.

That day, further investigations were carried out on this mountain at different altitudes, but without success. We came back on July 21 but at that time only

Poecilimon orbelicus Pančić, 1883 was present in the whole area, from 1200 m up to 1800 m elevation.

We identified *Poecilimon pechevi* in comparison to *P. ebneri* found on the Belasica Mountain by the shape of the cercus (figure 5). The Belasica Mt, on the border between Bulgaria, Greece and the Republic of North Macedonia, is located west of Orvilos and is equidistant from the Vlahina/Vlakhina Mt and the Orvilos Mt. The number of teeth at the tip of the cercus is not a criterion, as some *P. ebneri* with only one tooth have been mentioned (KARAMAN 1961). *P. ebneri* shows the apical part of the cercus, broader and regularly incurved; *P. pechevi* has a thinner apical part with a typical flattened outer side, sometimes concave, near the apex. We note a relative variability of the shapes of the cerci of both species, and we found an individual of *P. pechevi* from Orvilos with one typical cercus and the other cercus with a reduced second tooth at the apex. As no clear difference has been noted between the songs of the two species (CHOBANOV et al. 2020), and the relative variability of cerci of *P. ebneri*, it cannot be excluded that *P. pechevi* is a geographical form of *P. ebneri*. Further taxonomic studies need to be done.

The most favourable period to find adults of *P. pechevi* is probably July on the Vlahina/Vlakhina Mountain but probably June on the Orvilos Mountain, which is clearly under Mediterranean influence. This may explain the low number of individuals observed on July 2nd 2020. The status of this taxon on this mountain can only be assessed after new surveys to be carried out in 2021, earlier in the season.



Fig. 1: General map of the localities (red circle) in southern slopes of Orvilos Mountain.

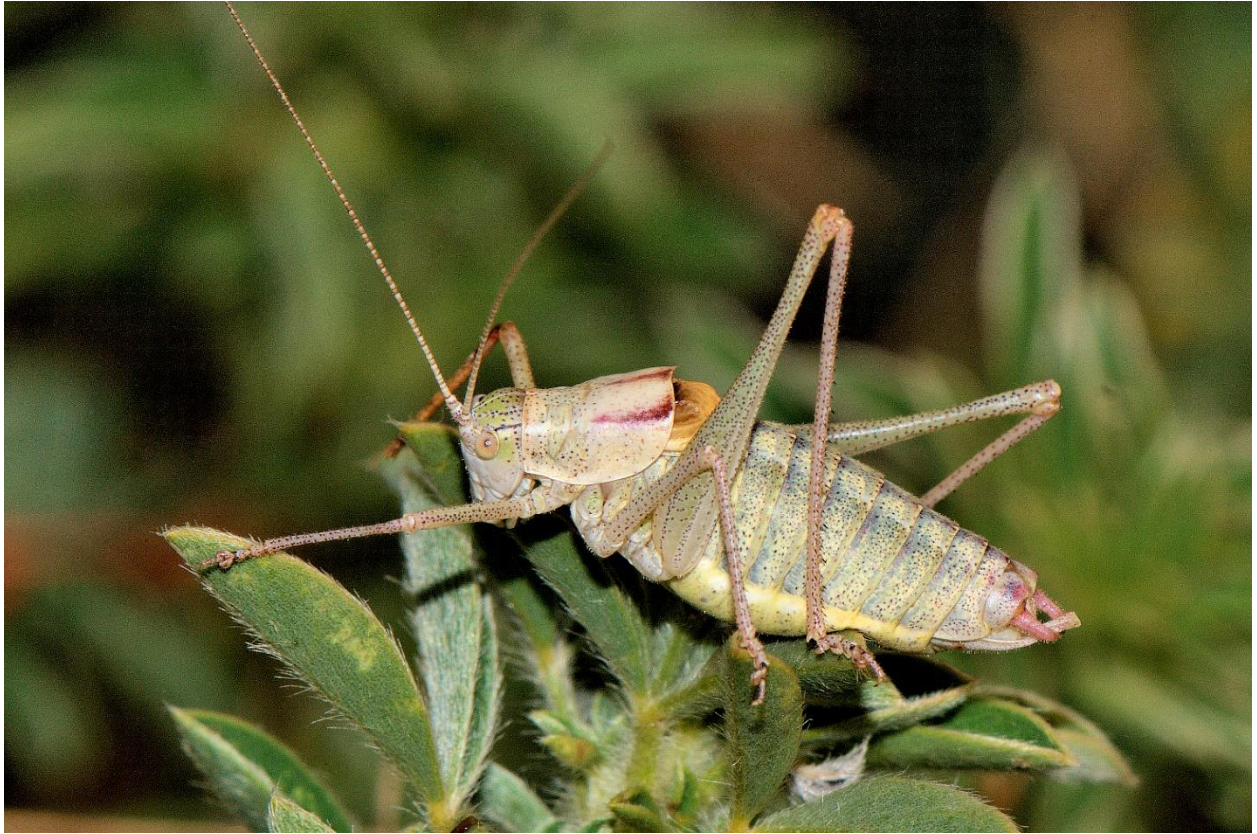


Fig. 2: *Poecilimon pechevi* ♂.



Fig. 3: *Poecilimon pechevi* ♀.



Fig. 4: Biotope.



Fig. 5: Cercus of ♂: a - *Poecilimon pechevi* from Vlahina Mt, b - *Poecilimon pechevi* from Orvilos Mt, c - *Poecilimon ebneri* from Belasica Mt.

Authors:
Michèle Lemonnier-Darcemont & Christian Darcemont
Groupement d'Études Entomologiques Méditerranée (G.E.E.M.)
P.O. BOX 60
48060 Parga
Greece
E-Mail: michele.lemonnier-darcemont@geem.org

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Autor(en)/Author(s): Lemonnier-Darcemont Michele, Darcemont Christian

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