

FIRST RECORD OF *CAREBARA OERTZENI* FOREL, 1886 (HYMENOPTERA: FORMICIDAE) FROM ALBANIA

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The first record of the rare ant *Carebara oertzeni* Forel, 1886 from Albania is reported. Two workers of *C. oertzeni* were discovered in the south-eastern part of the country, near the village of Benjë-Novoselë. So far, it is the northernmost known distribution of this very rarely collected species, the sole representative of its genus in Europe, whose previous records all come from Greece and Turkey. In addition, we also found a specimen determined as the *Proceratium melinum* Roger, 1860 worker ant in the same soil sample.

Key words: ants, Balkans, *Carebara oertzeni*, distribution, Formicidae

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Rad donosi prvi nalaz rijetke vrste mrava *Carebara oertzeni* Forel, 1886 iz Albanije. Dva radnika pronađena su u jugoistočnom dijelu zemlje, blizu sela Benjë-Novoselë. Dosad je to najsjevernija točka u rasprostranjenosti ove rijetke pronađene vrste, jedinog predstavnika tog roda u Europi; prethodni nalazi potječu iz Grčke i Turske. Osim toga u istom uzorku tla pronađen je primjerak radnika vrste *Proceratium melinum* Roger, 1860.

Ključne riječi: mravi, Balkan, *Carebara oertzeni*, rasprostranjenost, Formicidae

With fewer than 80 known species (AGOSTI & COLLINGWOOD, 1987a; ANDONI, 1993; BOROWIEC, 2014; WAGNER *et al.*, 2018) and the lack of a national checklist, the Albanian myrmecofauna is one of the most unexplored in Europe. Herein, we report the discovery of the tiny and rare Mediterranean species *Carebara oertzeni* Forel, 1886 in South-eastern Albania.

Two *C. oertzeni* workers (Fig. 1) were collected in the South-Eastern Albanian locality of Benjë, near Benjë-Novoselë (40° 14' 34.512" N, 20° 25' 46.451" E, ca. 336 m a.s.l., South-eastern Albania, Fig. 2, leg. J. Christophoryová & D. Jablonski, 30.IV.2016, det. A. Purkart). This locality is situated next to a canyon of the river Lengaričës, where rocky slopes are covered with small areas of forest-steppe (Fig. 3). Both *C. oertzeni* specimens were retrieved from a sample of rotten wood, leaf litter and soil taken from a decaying tree, and the collected material was then heat extracted from the sample using Tullgren funnels. One specimen determined as a worker of *Proceratium melinum* Roger, 1860 (BARONI URBANI & DE ANDRADE,

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2003) was found in the same sample. *Carebara oertzeni* workers were identified following the key provided by AGOSTI & COLLINGWOOD (1987b) and the worker description by KARAMAN & KIRAN (2017). The specimens were then deposited at the Department of Zoology, Faculty of Natural Sciences, Comenius University, Bratislava (the Slovak Republic).



Fig. 1. *Carebara oertzeni* (Forel, 1886) worker from Benjë, Albania – lateral view.

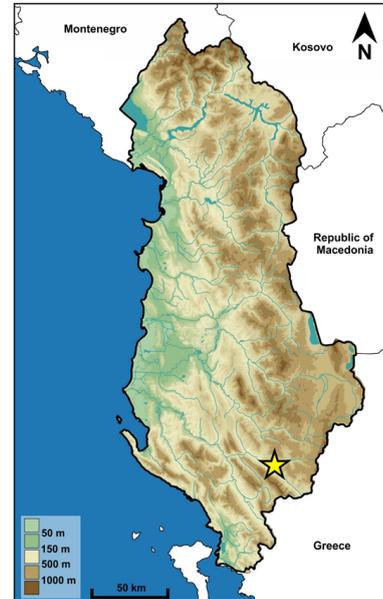


Fig. 2. The position of the locality Benjë within Albania where the individuals were recorded (yellow star).



Fig. 3. Habitat of *Carebara oertzeni* next to the river, Benjë, Albania (Photo: J. Christophoryová, 2016).

Although the ant genus *Carebara* Westwood, 1840 (*sensu* FERNÁNDEZ (2004, 2010); FISHER *et al.* (2014) contains more than 200 described species (BOLTON, 2018) and is widely distributed in subtropical and tropical regions, *Carebara oertzeni* is the only species of the genus occurring in Europe. It is very rarely collected and was previously known only from Greece and Turkey (KARAMAN & KIRAN, 2017; BOROWIEC & SALATA, 2018; SALATA & BOROWIEC, 2018). In addition, the validity of its *C. oertzeni aeolia* Forel, 1911 subspecies from Turkey remains disputed, and this issue requires further studies (BOROWIEC, 2014; KARAMAN & KIRAN, 2017). Most members of the genus *Carebara* are very small subterranean ants that are often associated with decaying wood and leaf litter (ALDAWOOD *et al.*, 2011; BHARTI & KUMAR, 2013; NIBA & YEKWAYO, 2016). However, very little information is available on their natural history because of their often cryptic lifestyle, and *C. oertzeni* had only previously been reported from the outer wall of an adobe house (KARAMAN & KIRAN, 2017) and at the foot of oleanders (BOROWIEC & SALATA, 2018). Therefore, our Albanian Benjë discovery near the canyon of the Lengariçës River extends the knowledge of its ecological presence in natural habitats.

Increased use of Tullgren funnels, Winkler sacks and other sampling techniques for endogean ants should prove beneficial in the future study of European ants (BESTELMEYER *et al.*, 2000). This is also essential because the perceived rarity of many ant species and lack of data on their actual distribution appears to be linked to inadequate sampling techniques (ESPADALER & LÓPEZ-SORIA, 1991). Finally, this approach should prove quite successful in the special case of *C. oertzeni*, because extensive efforts are required for the better understanding of the the distribution and ecological traits of this enigmatic species.

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