

First record of *Colobopsis truncata* (Hymenoptera: Formicidae) from Moldova region of Romania

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Abstract

Colobopsis truncata is a common Mediterranean species distributed mostly in southern and central Europe. In Romania, the species is expected to be widely distributed, but data are scarce. Both minor workers and soldiers of the species were collected in different sites during field observations in the spring of 2020. Herein we report the first record of *Colobopsis truncata* from Moldova and new records for southern Romania.

Keywords

citizen science, public parks, faunistics, new records.

The Romanian ant fauna has reached an official 113 species (Tăușan and Lapeva-Gjonova 2017; Wagner et al. 2018; Steiner et al. 2018). Yet, the current knowledge is not uniformly spread along the country. Regions such as Moldova, Banat and Muntenia are poorly known or understudied in terms of species composition (Markó et al. 2006).

Among the ant genera, *Camponotus* Mayr, 1861 is represented in Romania by at least 12 species (Markó et al. 2009; Tăușan and Lapeva-Gjonova 2017). More

recent, Ward et al. (2015) elevated the formerly subgenus *Colobopsis* Mayr, 1861, from the *Camponotus* genera, to a separated genus. Moreover, according to Ward et al. (2016), *Colobopsis* comprised 122 species occurring “in the New World from southern United States to Costa Rica; across the southern and central Palearctic from the western Mediterranean to Japan; throughout the Oriental and Australian biogeographic regions as far south as Tasmania; and into the Pacific as far east as New Caledonia, Vanuatu, and Fiji”. However, the genus was not recorded from the Afrotropics and most of the Neotropics (Ward et al. 2016). Among these species, *Colobopsis truncata* (Spinola, 1808) is the only one that can be found in Europe.

Colobopsis truncata is a Mediterranean species, distributed mostly in southern and central Europe and in the southern part of eastern Europe. Moreover, the species is occurring in the east as far as Turkmenistan and in the south as far as Algeria (Rigato and Toni 2011).

In Romania, the species was recorded mainly in Transylvania (Markó et al. 2009) and, more recently, in Dobrogea (Tăușan 2017).

Regarding the morphological identification of this species, Ionescu-Hirsch (2009) characterizes *Colobopsis truncata* as small dimorphic ants with phragmotic individuals. The major workers (soldier cast) has a cylindrical, abruptly truncated head, thus preventing intruders from entering nests by blocking the entrances with their heads. This is the case also, for the queens (Fig. 1). Minor workers can be easily recognized due to their “rounded head and the straight frontal carina, antennal insertion close to the middle of the frontal carina, propodeum dorsum distinctly concave in lateral view, and by the petiole scale with acute summit in lateral view and indented dorsum in front view” (Ionescu-Hirsch 2009).

According to several myrmecologists, *C. truncata* is a thermophilous species occurring in xerothermous deciduous wood stands and also single trees in more open land such as orchards and light forests (Markó et al. 2009; Seifert 2018). It nests in dead parts of living trees, mainly in dry thin branches of a wide spectrum of broad-leaved trees, exhibiting preferences towards inhabiting *Quercus* sp. L., *Juglans* sp. L. and *Prunus avium* L. (Czechowski et al. 2012; Seifert 2018).

We collected workers of *C. truncata* in three new very different locations within Romania. Namely, we collected both minor, major workers and wingless queens from *Juglans* sp. branches in a rural area from Oltenia region (Costești – Vâlcea County). Moreover, we collected minor workers from Herestrău Park, Bucharest, making this finding the second record of the species from Muntenia region. Finally, we sampled minor and major workers from a garden in Comănești (Bacău County), being the first record for Moldova region (Fig. 2).

Our data suggests that *C. truncata* might be widespread throughout the country, yet more records of the species are needed.

Via citizen science, distribution knowledge regarding ant species could be increased, especially in the case of the more easily identifiable ones occurring in habitats with easy access (e.g. parks, urban forests).

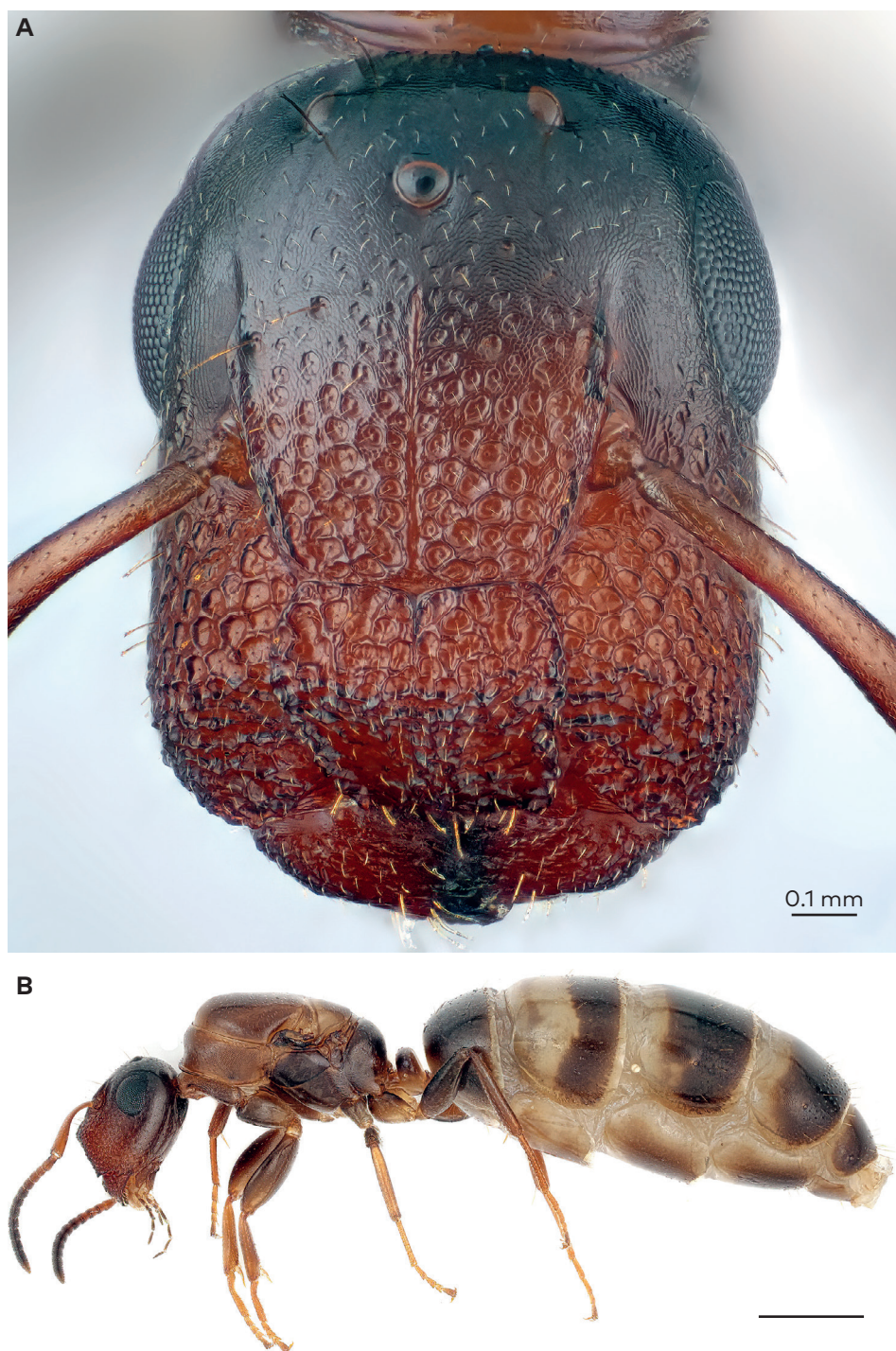


Figure 1. *Colobopsis truncata* queen: A – frontal view; B – lateral view (photo credit: Maximilian Teodorescu)

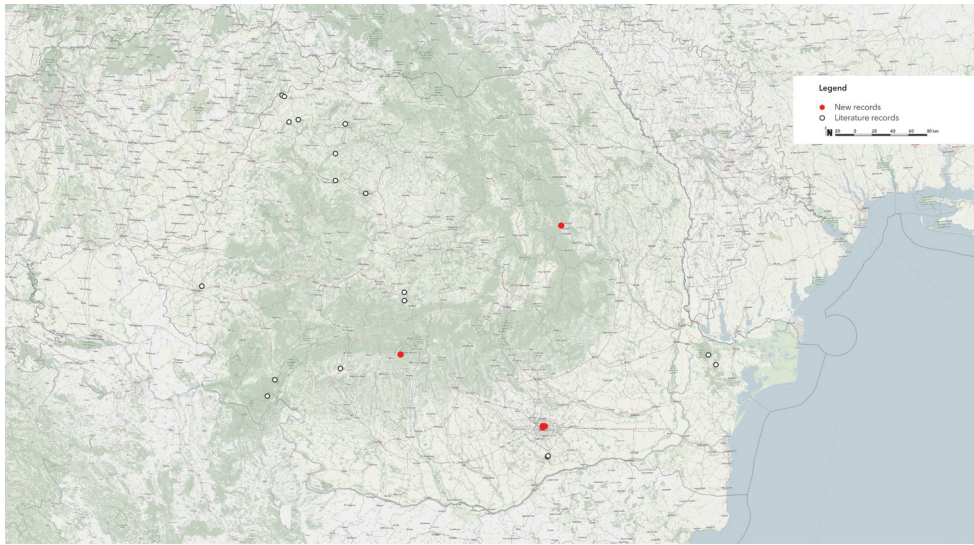


Figure 2. Known distribution of *Colobopsis truncata* in Romania

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