

Camponotus tergestinus Müller, 1921 (Hymenoptera: Formicidae): first records of a rare species for Romania and Hungary

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Summary: Some new records of *Camponotus tergestinus* MÜLLER, a rare sub-Mediterranean species, from Romania and Hungary are reported. Its distribution and a comparison with its closest relative *C. fallax* are briefly discussed.

Rezumat: Comunicăm câteva date noi ale speciei *Camponotus tergestinus* MÜLLER din România și Ungaria. Discutăm pe scurt distribuția acestei specii sub-mediterane rare și o comparăm morfologia cu *C. fallax*.

Key words: Formicidae, *Camponotus tergestinus*, distribution, Hungary, Romania

Introduction

The myrmecofauna of central and eastern Europe is relatively well-known. The new wave of European ant taxonomy in recent decades has resulted not only in the description of new species and the elucidation of taxonomical problems, but also in the updating of old checklists and faunistic monographs, or the publication of new ones. Several such works were published for central and eastern European countries (e.g. SEIFERT 2001, CZECHOWSKI *et al.* 2002, STEINER *et al.* 2002, KARAMAN 2004, BRAČKO 2006, PETROV 2006, BRAČKO 2007, WERNER & WIEZIK 2007).

The checklist of the Romanian myrmecofauna was also recently updated (MARKÓ *et al.* 2006), and currently contains 105 species, which are considerably fewer than in neighbouring countries (see MARKÓ *et al.* 2006 for comparison). In addition to cryptic, sub-Mediterranean and parasitic species, other quite common European species are not listed yet. Clearly, the Romanian myrmecofauna is still insufficiently known, especially when compared to that of Hungary. A checklist of Hungarian ants was compiled in the late 1990s and reports a fair number of sub-Mediterranean species among the 121 taxa recorded so far, in concordance with the country's geographic position (GALLÉ *et al.* 1998).

Although the number of reported *Camponotus* species in Central Europe seems relatively stable and low (MARKÓ *et al.* 2009), suggesting that the status of the genus is fairly clear, there are still taxonomic and faunistic flaws in our knowledge (see MARKÓ *et al.* 2009). Quite common *Camponotus* species are still

being reported as new findings for the myrmecofauna of certain countries, e.g. *C. truncatus* (SPINOLA, 1808) in Poland (BOROWIEC 2007, SUCHOCKA *et al.* 2008). At present, and accepting the validity of *C. atricolor* (SEIFERT 2007), 10 *Camponotus* species are reported from Romania (MARKÓ *et al.* 2006); but, because of its geographic position and high habitat diversity (from alpine zones to continental steppes and sub-Mediterranean maritime habitats), the occurrence of further *Camponotus* species is expected. Hungary has 10 *Camponotus* species (GALLÉ *et al.* 1998, GALLÉ *et al.* 2005); yet, as the Hungarian myrmecofauna includes a considerable number of sub-Mediterranean elements, the chances to discover any additional southern Mediterranean *Camponotus* are quite high.

Here we are reporting the first Hungarian and Romanian records of a rare *Camponotus* species: *C. tergestinus* MÜLLER, 1921.

Material examined

The first findings of *C. tergestinus* in Romania consisted of six workers, one winged gyne and one male, all alive, collected in Israel, Haifa Port, on 04.04.2007 by L. GAHANAMA from a container with *Quercus spp.* logs from Plopeni (N 45.0646, E 25.981), Prahova County, Romania. The small town of Plopeni is located in Southern Romania, close to the feet of Southern Carpathians, and it is surrounded by oak forests. According to the documents provided by the customs authorities the oak logs had been sealed in the container in Plopeni, Romania, and shipped directly to Israel through Constanța Port. Contamination of

the containers during transport can thus be excluded, but the exact locality where the wood was collected cannot be traced. One worker and the male are kept in the ant collection of the Department of Taxonomy and Ecology, Babeş-Bolyai University, Romania, and two workers at the National Entomological Collections, Tel-Aviv University, Israel, while the remaining specimens were returned to the Plant Protection and Inspection Services of the government of Israel. Later on, investigation of undetermined material in the ant collection of Babeş-Bolyai University, Department of Taxonomy and Ecology, yielded the identification of two additional *C. tergestinus* specimens also from Southern Romania. One worker was collected by MARKÓ and SIPOS at Cetățuia (N 45.233, E 28.367, ca. 70 m a.s.l.), Măcin Mts., Tulcea County, on 12.09.2004. Cetățuia is a clearing in the Măcin Mts. surrounded by mixed oak-forests. The other *C. tergestinus* specimen was collected by MARKÓ *et al.* in a mixed oak-forest in Nera Valley near the Damian forestry station (N 44.902, E 21.738, ca. 173 m a.s.l.), Caraș-Severin County, on 09.05.2009.

In Hungary two workers were collected by Csaba NAGY at Fóti Somlyó Mountain, Hungary (N 47.622, E 19.212) on 10.06.2002. These are kept in the collection of HNHM labeled: no. AA 152, NHM Budapest, HUNGARIA, Fóti Somlyó 3-as ter., 2002.06.10., leg. Cs. NAGY. Unfortunately, notes about the circumstances of the collection were not taken. The slopes of the mountain, which is currently a protected area, are inhabited by a high number of sub-Mediterranean species, both animals and plants; thus under these conditions the occurrence of *C. tergestinus* is not surprising.

The identity of samples was also confirmed by F. RIGATO.

Recognition

C. tergestinus belongs to the subgenus *Myrmecotoma* FOREL and is considered a sister species of *C. fallax* (NYLANDER, 1856) (RADCHENKO, 1997). It has size, habitus and ground sculpture similar to *C. fallax*, but differs from it in many details. In profile, the mesosoma of *C. tergestinus* is distinctly, although bluntly angular where the propodeal dorsum meets the declivity, and propodeal faces form a somewhat right angle (Fig. 1); whereas in *C. fallax* the propodeum is definitely more rounded between dorsum and declivity.

Head punctuation of *C. tergestinus* is coarser and the pilosity distinctly more abundant: head dorsum, excluding clypeus, with at least 16 vs. eight erect hairs; gena with many short, erect hairs vs. glabrous (Fig. 2); scape with decumbent to appressed pubescence and a row of erect setae vs. appressed pubescence only; propodeum with ca.



Fig. 1. Lateral view of *C. tergestinus*.

20 or more vs. less than 12 standing hairs. Last, *C. tergestinus* has a longer pubescence especially on gaster (see Fig. 1), where the lateral distance between two hairlets is often similar to the length of one of them, whereas in *C. fallax* the pubescence is minute and sparser.



Fig. 2. Head of *C. tergestinus*.

Distribution

The species was rarely collected after its discovery and shows a scattered distribution (Fig. 3). It is currently known from few, very distant Italian localities (F. RIGATO pers. comm.), from Slovenia (BRAČKO 2007), and from the European part of Turkey (AGOSTI and COLLINGWOOD 1987).

Its presumed presence in some parts of the former Yugoslavia (Serbia, Kosovo, Voivodina, Montenegro) (RADCHENKO 2007) is not supported by currently available checklists for Serbia (PETROV 2006) and Montenegro (KARAMAN 2004), and its record from

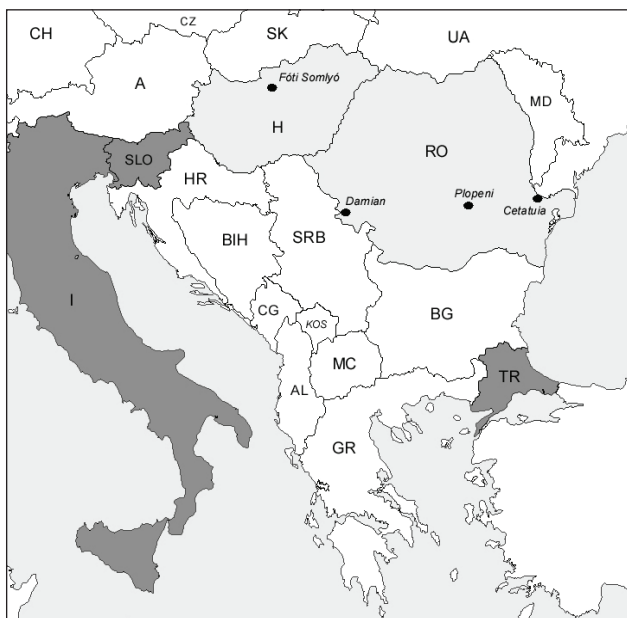


Fig. 3. Distribution of *C. tergestinus* in Europe: countries in dark grey – known occurrence; countries in light grey – new data.

Bulgaria (AGOSTI and COLLINGWOOD 1987) is also not confirmed by any available data (V. ANTONOVA pers. comm.).

Biology

Little is known about the species' ecology and life-history. MÜLLER (1923) reported the collection of a single winged gyne from beneath a fallen oak trunk and that many hibernating workers were found in a thick oak branch (firewood). He also noted that repeated intensive search in the type locality, as well as in other oak forests of the region, failed to provide additional specimens. From our recent findings we can only infer that the ant seems associated with oak forests and warm climate.

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