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 şi Ungaria. Discutăm pe scurt distribuţia acestei specii sub-meditereene rare şi 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).

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 Constanţa 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 Cetăţuia (N 45.233, E 28.367, ca. 70 m a.s.l.), Măcin Mts., Tulcea County, on 12.09.2004. Cetăţuia 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.), Caraş-Severin County, on 09.05.2009.

In Hungary two workers were collected by Csaba Nagy at Főti Somlyó Mountain, Hungary (N 47.622, E 19.212) on 10.06.2002. These are are kept in the collection of HNHM labeled: no. AA 152, NHM Budapest, HUNGARIA, Főti 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 *Myrmentoma* 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. 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.

**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 (Bracko 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...
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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