

***Camponotus truncatus* (SPINOLA, 1808) (Hymenoptera: Formicidae) -
ant species new to Poland**

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ABSTRACT. *Camponotus truncatus* (SPINOLA, 1808), member of the subgenus *Colobopsis* MAYR, 1861 is recorded for the first time from Poland, from Wrocław. Distinctive characters for its separation from other European *Camponotus* species, as well as colour habitus photographs, are given. Some notes on its biology and distribution are also provided.

KEY WORDS: Hymenoptera, Formicidae, *Colobopsis*, *Camponotus truncatus*, fauna of Poland, new records.

INTRODUCTION AND RESULTS

Despite myrmecofauna of Poland is relatively well studied (CZECHOWSKI et al. 2002, RADCHENKO et al. 2004), new species continue to be discovered (e.g. *Myrmica lacustris* RUZSKY, 1905 in RADCHENKO et al. 2005). In this paper another new species for the Polish fauna, *Camponotus truncatus* (SPINOLA 1808), is reported. This record raises the number of ant species known from Poland to 103 and the species is the sixth *Camponotus* recorded. It was found in an old park in Świniary district of Wrocław. The park of English style was founded in 19th century by Stolberg family, close to Widawa river, including natural oak forest and planted, exotic trees. Its partly natural provenance is expressed in the occurrence of several rare beetles belonging to forest relicts: Scydmaenidae: *Scydmaenus perrisii* (REITTER), *Scydmaenus rufus* MÜLL. et KUNZE; Elateridae: *Lacon querceus* (HERBST); Peltidae: *Tenebroides fuscus* PILL. et MITT.; Cleridae: *Opilio mollis* (L.), and Colydiidae: *Pycnomerus terebrans* (OL.) (L. BOROWIEC, unpubl. data). No nest was encountered and all the specimens were collected from five sun-exposed trunks of *Quercus* trees at an area of ca. 150x150 meters. Investigations in other potential sites in and around Wrocław were

unsuccessful. At latitude of 51°12'N, the site is by far the northernmost of known species range, reaching 50°30' N in Germany (SEIFERT 1996).

Settling whether the species occurrence in this site is due to introduction, occasional successful colony foundation by airborne queen from south, recent range expansion or is the site a relict, remains speculative.

Material examined

20 minor workers. Lower Silesia, Wrocław – Świniary (51°12' N 16°59' E; UTM: XS37), 4 V 2006, leg. L. BOROWIEC, and 6 V 2006, leg. L. BOROWIEC & M. L. BOROWIEC. Voucher specimens in M. L. BOROWIEC private collection and Museum and Institute of Zoology, Polish Academy of Sciences, Warsaw.

REMARKS ON DISTRIBUTION, IDENTIFICATION AND BIOLOGY

Camponotus MAYR, 1861 is the largest and most diverse ant genus with more than 1500 taxa described worldwide (SHATTUCK 1999). Phylogenetic relationships among species are poorly resolved and genus is provisionally divided into 46 subgenera. Five species in two subgenera (*Camponotus* s. str. and *Myrmentoma* FOREL, 1912) have been reported from Poland so far. *Camponotus truncatus* is the first member of the subgenus *Colobopsis* MAYR, 1861 known from Poland. Most of about 115 described species and subspecies are known from warm and tropical regions of Southeast Asia, Australasia and North America, and in Europe the subgenus *Colobopsis* is represented by this sole species (BOLTON et al. 2006). Until now, it has been recorded from Albania, Austria, Bulgaria, Cyprus, Czech Republic, Turkey, France, Germany, Greece, Hungary, Italia, Macedonia, Malta, Portugal, Romania, Southern Russia, Slovakia, Slovenia, Spain, Switzerland, Ukraine and Yugoslavia (RADCHENKO 2005). Outside Europe, it is known to occur in North-Western Africa, Crimea, Caucasus, Kopet Dag and Middle East (RADCHENKO 1996). It has never been recorded from Finland, as erroneously stated in Fauna Europaea (RADCHENKO pers. comm.).

Camponotus truncatus is representing, according to classification in CZECHOWSKI et al. 2002, Euro-Caucasian zoogeographical element, meaning that this species is distributed mainly in deciduous and partly mixed forest zone in Europe and Caucasus.

Species of this subgenus are dendrobionts; i.e. nesting in wood, and colonies are monogynous (ATANASSOV & DLUSKY 1992). Strict worker dimorphism occurs, meaning that two morphologically distinct size groups (soldiers and minor workers) with no intermediates are present. Queens and soldier subcaste are highly distinctive because of their obliquely or perpendicularly truncated anterior part of head (Figs 3, 5), which is used to plug nest entrances. Such phenomenon is known under the name phragmosis (HÖLLDOBLER & WILSON 1990).

The species is distinctive in its morphology and it usually falls out in the first couplet in regional keys to species of the genus. However, its identification can be difficult when using some popular identification sources. The reason is that commonly used keys (particularly AGOSTI & COLLINGWOOD 1987) use the sole character of truncated head without pointing out that it applies to queens and soldiers only. This may be confusing because soldiers of *C. truncatus* leave nests only seldomly and minor workers are much more frequently encountered. BERNARD (1967) gives straight frontal carinae as a distinguishing character (versus S-shaped) for *Colobopsis* in Europe. With worker body 3.0-6.0 mm in length, the presence of metanotal groove, yellowish band on the gaster and red-brownish overall body colour, this allows certain separation from other European *Camponotus* (ATANASSOV & DLUSSKY 1992, RADCHENKO 1996).

It is worthy to note that minor workers of *C. truncatus* can look similar in the field to the more common in central Europe *Dolichoderus quadripunctatus* (LINNAEUS 1771).



Figs 1-2. *Camponotus truncatus* – minor worker: 1 – dorsal, 2 – lateral; (queen from material collected in Bulgaria).



Figs 3-5. *Camponotus truncatus* – head: 3 – queen, frontal, 4 – minor worker, frontal, 5 – queen, lateral (queen from material collected in Bulgaria).

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