

**Pteromalidae species new for the fauna of the
Carpathian Basin (Hymenoptera: Chalcidoidea)**

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Abstract – Two species of Trigonoderini, *Trigonoderus nobilitatus* GRAHAM, 1993 and *Trigonoderus sokanowskii* NOVITZKY, 1955, which are new for the fauna of the Carpathian Basin, were found in Transylvania (Romania) and Hungary. Two other species of the family Pteromalidae were found as new for the fauna of Hungary: *Cleonymus brevis* BOUČEK, 1972, *Cratomus megacephalus* (FABRICIUS, 1793).

Key words – Hymenoptera, Pteromalidae, new records, Carpathian Basin, Hungary, Romania.

INTRODUCTION

Within the Carpathian Basin, checklists of Pteromalidae (Hymenoptera: Chalcidoidea) were published only for the former Yugoslavia (BOUČEK 1977) and the former Czechoslovakia (KALINA 1989). There are only a few papers giving species lists of the Pteromalidae from the Carpathian Basin or parts of it: PECK *et al.* (1964) for the former Czechoslovakia; ERDŐS (1953, 1960, 1964, 1970) and SZELÉNYI (1982*a, b*, 1983) for Hungary; ANDRIESCU (1971), BOȚOC (1972) and ERDŐS (1947*a, b*, 1948*a, b*, 1960) for Transylvania (Romania).

Up to now 362 Pteromalidae species were listed for the fauna of Hungary (NOYES 2003), while for Transylvania (Romania) only 67 species (ANDRIESCU 1971, BOȚOC 1972, ERDŐS 1947*a, b*, 1948*a, b*, 1960), where the estimated number of species could be at least 250–300. The Pteromalidae fauna of the eastern part of the Carpathian Basin is poorly known, and faunistic work is badly needed. Four Pteromalidae species, new for the fauna of the mentioned territory are recorded.

Abbreviations used – BMNH = Natural History Museum, London, United Kingdom; HNHM = Hungarian Natural History Museum, Budapest, Hungary; NMBE = Natural History Museum in Bern, Switzerland.

LIST OF SPECIES WITH COMMENTS
ON THEIR DISTRIBUTION AND TAXONOMY

Trigonoderus WESTWOOD, 1832

Remarks – The genus *Trigonoderus* WESTWOOD, 1832 (Chalcidoidea, Pteromalidae, Miscogasterinae), with 20 valid species (NOYES 2003), has a world-wide distribution. Nine species were described from Europe (FÖRSTER 1841, GRAHAM 1993, NEES 1834, NOVITZKY 1955, THOMSON 1878, WALKER 1836, WESTWOOD 1832). The genus was revised by GRAHAM (1993). Four species, *T. cyanescens* (FÖRSTER, 1841), *T. filatus* WALKER, 1836, *T. pulcher* WALKER, 1836 and *T. princeps* WESTWOOD, 1832 were reported until now from the Carpathian Basin (ERDŐS 1960, BOUČEK 1977, KALINA 1989).

Trigonoderus nobilitatus GRAHAM, 1993

Material examined – Hungary, [Heves county], Bükk Mountains, [Eger], Pap-hegy, 4.VII.1955, leg. M. RESKOVITS, 1 female, HNHM; Romania, Mureş county, Târgu-Mureş, oak forest (*Quercus-Carpinetum*), sweeping, 3.VII.2004, leg. Z. LÁSZLÓ, 1 female, HNHM.

Comparative material – France, Vaucluse, near Bedoin, holotype, leg. M. DE V. GRAHAM 12.VII.1980, det. M. DE V. GRAHAM 1993, 1 female, BMNH; unlocalised (probably Germany), remounted by H. BAUR 1993, det. H. BAUR 2004, 3 females, NMBE.

Remarks – The species was described from France and its distribution has been limited up to now only to France (GRAHAM 1993). Regarding the specimens collected in the Carpathian Basin the easternmost limits of its distribution seems to be here. The two collected female specimens were compared with the holotype and specimens collected in Western Europe and they appeared to be conspecific with *T. nobilitatus* GRAHAM, 1993. The male of this species is unknown yet.

Trigonoderus sokanowskii NOVITZKY, 1955

Material examined – Romania, Cluj county, Cluj-Napoca, Hoia forest (*Carpineto-Quercetum*), sweeping, 26.V.2004, leg. Z., LÁSZLÓ, 1 female, HNHM.

Comparative material – *T. sakanowskii* NOVITZKY, 1955: Russia, Western Caucasus, Sochi, lectotype, ex. *Parmena balteus* L. (Lamiidae) per S. NOVITZKY, det. Z. BOUČEK 1996, 1 female, BMNH. – *T. pulcher* WALKER, 1836: England, unlocalised, type, det. KERRICH & GRAHAM (under *T. pulcher* WALKER (= *princeps*)), 1 female, BMNH; Denmark, E-Jutland, Mols, Skovbjerg, leg. MUNK 10.IX.1997, det. Z. LÁSZLÓ 2005, 1 female, HNHM; Switzerland, Zürich, Katensee, leg. B. MERZ 17.IX.1996, det. H. BAUR 2004, 1 female, NMBE; Hungary, Mátra, leg. ERDŐS 19.VI.1952, det. Z. LÁSZLÓ 2004, 1 female, HNHM; Hungary, Mátra, Nagyatalkő, leg. ERDŐS 6.VII.1962, Z. LÁSZLÓ 2004, 2 females, HNHM; Hungary, Kalocsa, leg. ERDŐS 13.V.1945, det. Z. LÁSZLÓ 2004, 1 female, HNHM; Romania, Cluj county, Cluj-Napoca, *Carpineto-Quercetum*, leg. Z. LÁSZLÓ 27.V.2004, det. Z. LÁSZLÓ 2004, 1 female, HNHM.

Remarks – The species was mentioned by NOVITZKY (1955). However, he mentioned in his paper that SOKANOWSKY in the 1930s asked him to identify some sent specimens and gave as reference SOKANOWSKY (1936). The designated type was collected in the West Caucasus, Sotschi (Sochi), Krasnodar, Russia by BORIS SOKANOWSKY and it was reared from a larva of *Parmena balteus* (LINNAEUS, 1767) (Coleoptera, Cerambycidae) on *Hedera helix*.

KERRICH & GRAHAM (1957) regarded *T. sakanowskii* NOVITZKY, 1955 as a junior synonym of *T. princeps* WESTWOOD, 1832. GRAHAM (1993) stated correctly that it resembles more *T. pulcher* WALKER, 1836 than *T. princeps* WESTWOOD, 1832, and it could be a form or a subspecies of *T. pulcher* WALKER, 1836, but he treated it as a distinct species. The main difference between *T. pulcher* and *T. sakanowskii* is the shape of the cloud below the stigmal knob. In *T. pulcher* the cloud if it appears, is usually pale and restricted to the area below the stigmal vein, while in *T. sakanowskii* the cloud is dark and tending towards the base of the wing with a horizontal band under the marginal vein and the prestigma. After a careful examination of the female specimens of *T. pulcher* and *T. sakanowskii* no other diagnostic character was found, except that mentioned above. For a precise diagnosis of the two species, more material is required and herein I follow GRAHAM (1993) and treat *T. sakanowskii* as a distinct species.

Cratomus DALMAN, 1820

Remarks – The representatives of the genus *Cratomus* DALMAN, 1820 (Chalcidoidea, Pteromalidae, Cratominae) are distributed in the Nearctic and Western Palearctic. Only one species, *C. megacephalus* (FABRICIUS, 1793) is known from Europe, while three other species are known from North America only.

Cratomus megacephalus (FABRICIUS, 1793)

Material examined – Hungary, Veszprém county, Tihany, south coast, trap, 3–4.VII.1967, leg. L., MÓCZÁR, 1 male, HNHM; Hungary, Hajdú-Bihar county, Ártánd, in a window, 12.IV.2003, leg. Z. LÁSZLÓ, 1 male, HNHM. Two more males were found in the HNHM collection with incomplete labels: 1. “coll. Marshall”, on the back of the mounting card with the inscription “B”; 2. “Wgth. 1914, All p.most”.

Remarks – From the surrounding territories of the Carpathian Basin it was recorded from the Czech Republic (KALINA 1989) and Poland (GORNÝ 1977) only. It is a rare species, biology is unknown, only GRAHAM (1969) stated that it was collected in woody areas. Drawings of this species were given in MERCET (1924).

Cleonymus LATREILLE, 1809

Remarks – The genus *Cleonymus* LATREILLE, 1809 (Chalcidoidea, Pteromalidae, Cleonyminae), with 30 described species (GIBSON 2003), has a world-wide distribution. Only three *Cleonymus* species are known from Europe. Until now two species were listed for the Carpathian Basin: *C. brevis* BOUČEK, 1972 (KALINA 1989, BOUČEK 1977) and *C. laticornis* WALKER, 1837 (BOUČEK 1972). The third known European species, *C. balcanicus* BOUČEK, 1972 was reported from the Bulgaria and Greece (BOUČEK 1972).

Cleonymus brevis BOUČEK, 1972

Material examined – Hungary, Pest county, Szigetbecse, 13.V.1990, leg. O. MERKL, 1 female, HNHM; Italy, Calabria region, Calabria, Gerace, leg. PAGANETTI, 1 male, HNHM.

Remarks – It was reported from Slovakia, Zádiel (KALINA 1989) and Croatia, Krapina (BOUČEK 1977) and is also known from France and Italy. It was reared from a xylophagous beetle, *Hylesinus toranio* (DANTHOINE et BERNARD, 1788) (Coleoptera: Scolytidae) (BOUČEK 1972).

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