PTEROMALIDS (HYMENOPTERA: PTEROMALIDAE) NEW TO ROMANIA, OBTAINED FROM REARINGS

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Abstract. The genera *Ablaxia* Delucchi, *Aggelma* Delucchi and *Metacolus* Förster, and the species *Ablaxia parviclava* (Thomson), *Aggelma abdominalis* Delucchi, *A. spiracularis* (Thomson), *Chlorocytus harmolitae* Bouček, *Dibrachys afinis* Masi, *D. fuscicornis* (Walker), *Dinotiscus aponius* (Walker), *Metacolus azureus* (Ratzeburg), *M. unifasciatus* Förster, *Pteromalus chlorospilus* (Walker), *P. dolichurus* (Thomson), *Rhaphitelus ladenbergii* (Ratzeburg), *Roptrocerus brevicornis* Thomson and *Trigonoderus pulcher* Walker (Pteromalinae) are recorded for the first time in Romania. All the species were obtained from reared material. One host record is new to science and other two are new to Romania. *D. fuscicornis* is recorded for the first time as a hyperparasitoid.

Keywords: Hymenoptera, Chalcidoidea, Pteromalidae, genera and species new to Romania, new host records.

Rezumat. Pteromalidae (Hymenoptera: Chalcidoidea) noi pentru România obţinute din creşteri. Genurile *Ablaxia* Delucchi, *Aggelma* Delucchi şi *Metacolus* Förster, precum şi speciile *Ablaxia parviclava* (Thomson), *Aggelma abdominalis* Delucchi, *A. spiracularis* (Thomson), *Chlorocytus harmolitae* Bouček, *Dibrachys afinis* Masi, *D. fuscicornis* (Walker), *Dinotiscus aponius* (Walker), *Metacolus azureus* (Ratzeburg), *M. unifasciatus* Förster, *Pteromalus chlorospilus* (Walker), *P. dolichurus* (Thomson), *Rhaphitelus ladenbergii* (Ratzeburg), *Roptrocerus brevicornis* Thomson şi *Trigonoderus pulcher* Walker (Pteromalinae) sunt citate pentru prima dată în fauna României. Toate speciile au fost obţinute din creşteri. O semnalare de gazdă este nouă pentru ştiinţă, iar alte două sunt noi pentru România. *D. fuscicornis* este menţionat pentru prima dată ca hiperparazitoid.

Cuvinte cheie: Hymenoptera, Chalcidoidea, Pteromalidae, genuri şi specii noi pentru România, noi semnalări de gazde.

Introduction

The pteromalids are small parasitic wasps feeding as larvae on the immature stages of other species of insects, many of them phytophagous. Thus, they play an important role in most of the ecosystems, mainly as secondary or tertiary consumers.

Fourteen species of pteromalids new to Romania are listed in this note. The examined material, as well as general data regarding their geographical distribution and hosts, is presented. More detailed information on these aspects, as well as the synonyms for each species, can be found in Graham (1969) and Noyes (2003).

Material and Methods

All the individuals were obtained in laboratory from reared material, consisting in twigs, stems, flower heads, galls, or directly from immature stages of different species of insects.

The material was collected in five Romanian counties (Alba, Bacău, Caraş-Severin, Cluj-Napoca and Iaşi), including two protected areas: Apuseni Mountains National Park and Valea lui David Natural Reserve.

Results and Discussion

PTEROMALINAE
TRIGONODERINI

Trigonoderus pulcher Walker

Trigonoderus pulcher Walker, 1836. Monographia Chalciditum (Continued). *Entomological Magazine* **4(1)**: 16.

Material examined: Bârnova (Iaşi county): 1♀ emerged from *Tilia* sp. twigs collected 18.IV.2005 (*M. Dascălu leg., ed.*). Additional material examined (not reared): Iaşi (Iaşi county): 1♀ collected 7.VIII.1958 (*I. Andriescu leg.*).

Remarks: *T. pulcher* is a Palearctic species, recorded from Europe and Japan (Noyes, 2003). The hosts are unknown, but they are probably xylophagous beetles.

PTEROMALINI

Ablaxia parviclava (Thomson)

Etroxys (Caenacis) parviclava Thomson, 1878. *Hymenoptera Scandinaviae 5. Pteromalus (Svederus). Continuatio*. Lund: 99.

Material examined: Iaşi (Iaşi county), Botanical Garden: 3♀ and 1♂ emerged from *Malus* sp. twigs with *Tetrops praeusta* (L.) larvae (Coleoptera: Cerambycidae), collected 14.IV.2004 (*M. Dascălu leg., ed.*).

Remarks: This is the first record of the genus *Ablaxia* in Romania. *A. parviclava* is a palearctic species, spread from North-Western to Central Europe. It is a parasitoid of Anobiidae (Coleoptera) (Noyes, 2003). The association of *A. parviclava* with *T. praeusta* needs verification.

Aggelma abdominalis Delucchi
(Fig. 1)

Aggelma abdominalis Delucchi, 1956. Pteromalidae et Eulophidae nouveaux d'Europe. *Entomophaga* **1**: 71.

Material examined: Iaşi (Iaşi county), Botanical Garden: 2♀ emerged 25.III.2005 together with individuals of *Magdalis memnonia* Gill, *M. rufa* Germ. (Curculionidae), *Anthaxia quadripunctata* L. (Buprestidae), *Pityophtorus glabratus* Eich., *Pityogenes* sp. (Scolytidae) and *Ernobius mollis* L. (Anobiidae) from *Pinus nigra* Arn. twigs collected 15.II.2005 (*L. Fusu leg., ed.*).

Remarks: This is the first record of the genus *Aggelma* in Romania. *A. abdominalis* is spread from North-Western to Central Europe (Noyes, 2003), Romania being so far the easternmost limit of its geographical distribution. The hosts are unknown. Since this is a large species, it probably parasitizes the larger species from the above mentioned ones, like *Magdalis* or *Anthaxia*. One of the analyzed females had 5 rows of sensillae on the first funicular segment instead of 4, as Graham stated in this key (1969).

Aggelma spiracularis (Thomson)

Etroxys (Caenacis) parviclava Thomson, 1878. *Hymenoptera Scandinaviae 5. Pteromalus (Svederus). Continuatio*. Lund: 96.

Material examined: Iaşi (Iaşi county), Botanical Garden: 4♀ and 6♂ emerged 18.IV.2005 together with individuals of *Magdalis memnonia* Gill, *M. rufa* Germ. (Curculionidae), *Anthaxia quadripunctata* L. (Buprestidae), *Pityophtorus glabratus* Eich., *Pityogenes* sp. (Scolytidae) and *Ernobius mollis* L. (Anobiidae) from *Pinus nigra* Arn. twigs collected 15.II.2005 (*L. Fusu leg., ed.*).

Remarks: The species was recorded from North-Western to Central Europe (Noyes, 2003), Romania being so far the easternmost limit of its geographical distribution. The previously known hosts include the two species of *Magdalis* mentioned above, as well as a different species of Buprestidae (Noyes, 2003). At three of the four examined females, the head width was only 2 – 2.25 X length instead of 2.25 – 2.35 X, as Graham stated (1969). Other significant differences were not found and the fourth female from the same series agreed well with the latter values, so the variability of this species seems to be higher then that given by Graham in his key.

Chlorocytus harmolitae Bouček

Chlorocytus harmolitae Bouček, 1957. Chalcidological notes IV, Pteromalidae (Hymenoptera, Chalcidoidea). *Casopis Ceskoslovenské Spolecnosti Entomologické* **53**: 156.

Material examined: Bârnova (Iaşi county): 15♀ and 6♂ emerged 7.IV.2005 from *Calamagrostis epigeios* (L.) Roth stems collected 27.II.2005 (*L. Fusu leg., ed.*), attacked by *Tetramesa eximia* (Gir.) (Hymenoptera: Eurytomidae) – **host record new to Romania**.

Remarks: It is a Palearctic species spread from Western to Central Europe (Noyes, 2003). Romania is so far the easternmost limit of its geographical distribution. The only known host is *T. eximia*.

Dibrachys afinis Masi

Dibrachys afinis Masi, 1907. Contribuzioni all conoscenza dei Calcididi Italiani. *Bollettino del Laboratorio di Zoologia Generale e Agraria della R. Scuola Superiore d'Agricoltura, Portici* **1**: 250.

Material examined: Târgu Ocna (Bacău county): 1♀ emerged 11.IX.1973 from a *Cydia pomonella* (L.) (Lepidoptera: Tortricidae) pupa

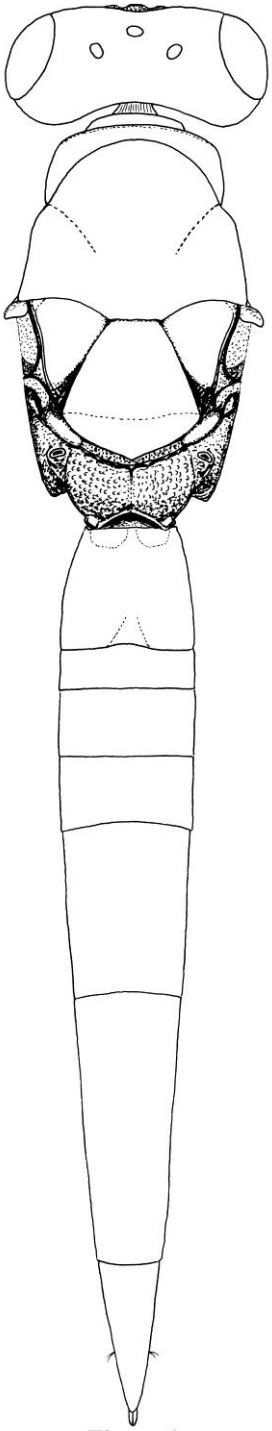

Figure 1.
A. abdominalis, ♀ in dorsal view

collected 3.VIII.1973 (*I. Andriescu leg., ed.*).

Remarks: *D. affinis* is widely distributed in Europe. The species acts both as primary and secondary parasitoid; it is known as a parasitoid of various Calliphoridae (Diptera), Gelechiidae, Lymantriidae, Sesiidae, Tortricidae, Yponomeutidae (Lepidoptera), Braconidae and Ichneumonidae (Hymenoptera) (Noyes, 2003).

Dibrachys fuscicornis (Walker)

Pteromalus fuscicornis Walker, 1836. Monographia Chalciditum (Continued). *Entomological Magazine* **3(5)**: 484.

Material examined: Iaşi (Iaşi county): 378♀ and 85♂ emerged 4.VII.1966 from *Rhogas* sp. cocoons (Hymenoptera: Braconidae) in *Leucoma salicis* (L.) larvae (Lepidoptera: Lymantriidae) (*I. Năstase leg., ed.*) – **new host record**.

Remarks: *D. fuscicornis* has a Holarctic distribution. It is a parasitoid of various species of Tenthredinidae (Hymenoptera), Lymantriidae and Yponomeutidae (Lepidoptera) (Noyes, 2003). This is the first record of *D. fuscicornis* as a hyperparasitoid.

Dinotiscus aponius (Walker)

Heteroxys aponius Walker, 1848. *List of the specimens of Hymenopterous insects in the collection of the British Museum, part 2*. Newman, London, pp. 215.

Material examined: Deniş (Cluj-Napoca county): 1♀ emerged 31.V.1965 from *Xyleborus dispar* (F.) (Coleoptera: Scolytidae) on *Malus* sp. (*T. Perju leg., ed.*) – **new host record**.

Remarks: The species is widely distributed in the Palearctics, attacking species of Scolytidae, Curculionidae (Coleoptera), but also Braconidae (Hymenoptera) (Noyes, 2003).

Metacolus azureus (Ratzeburg)

Pteromalus azureus Ratzeburg, 1844. *Die Ichneumonen der Forstinsekten in entomologischer und forstlicher Beziehung*. Berlin. **1**: 203.

Material examined: Asău (Bacău county): 2♂ emerged 6.VIII.2003 from *Pinus* sp. twigs attacked by Scolytidae (Coleoptera) (*M.-D. Mitroiu leg., ed.*).

Remarks: This is the first record of the genus *Metacolus* in Romania. *M. azureus* is a palearctic species, spread from Europe to Central Asia. It is a parasitoid of many species of Scolytidae (Coleoptera) (Noyes, 2003).

Metacolus unifasciatus Förster

Metacolus 1-fasciatus Förster, 1856. *Hymenopterologische Studien. 2. Chalcidiae und Proctotrupii.* Aachen, pp. 70.

Material examined: Iaşi (Iaşi county), Botanical Garden: 1♀ emerged together with individuals of *Magdalis memnonia* Gill, *M. rufa* Germ. (Curculionidae), *Anthaxia quadripunctata* L. (Buprestidae), *Pityophtorus glabratus* Eich., *Pityogenes* sp. (Scolytidae) and *Ernobius mollis* L. (Anobiidae) from *Pinus nigra* Arn. twigs collected 15.II.2005 (*M. Dascălu leg., ed.*).

Remarks: *M. unifasciatus* is widely distributed in the Palearctics. It is a parasitoid of many species of Scolytidae, but also Cerambycidae and Curculionidae (Coleoptera) (Noyes, 2003).

Pteromalus chlorospilus (Walker)

Eutelus chlorospilus Walker, 1834. Monographia Chalciditum (Continued). *Entomological Magazine* **2(4)**: 368.

Material examined: Valea lui David Natural Reserve (Iaşi county): 1♀ emerged from *Centaurea scabiosa* L. flower heads attacked by Tephritidae (Diptera), collected 4.IX.2004 (*M.-D. Mitroiu leg., ed.*).

Remarks: The species was previously recorded from North-Western Europe. It is a parasitoid of Tephritidae, but also Cynipidae (Hymenoptera) and Gelechiidae (Lepidoptera) (Noyes, 2003).

Pteromalus dolichurus (Thomson)

Etroxys (*Habrocytus*) *dolichurus* Thomson, 1878. *Hymenoptera Scandinaviae 5. Pteromalus (Svederus) continuatio*. Lund, pp. 119.

Material examined: Apuseni Mountains National Park (Alba, Bihor and Cluj-Napoca counties): 2♀ and 1♂ emerged from *Pontania proxima* (Serv.) galls (Hymenoptera: Tenthredinidae) on *Salix* sp. leaves, collected 10.VIII.2004 (*M.-D. Mitroiu leg., ed.*) – **host record new to Romania**.

Remarks: *P. dolichurus* is relatively widely distributed in Europe. It is a parasitoid of many species of *Pontania*, but it was also recorded from Apionidae, Curculionidae (Coleoptera) and Gracillariidae (Lepidoptera) (Noyes, 2003).

Rhaphitelus ladenbergii (Ratzeburg)

Styloceras ladenbergii Ratzeburg, 1844. *Die Ichneumonen der Forstinsekten in entomologischer und forstlicher Beziehung*. Berlin. **1**: 208.

Material examined: Mehadia (Caraş Severin county): 1♂ emerged 30.III.1966 from *Cytisus* sp. bark, collected 24.III.1966 (*I. Andriescu leg., ed.*).

Remarks: *R. ladenbergii* is a palearctic species, spread from Western to Central and Southern Europe. It is a parasitoid of Scolytidae (Coleoptera) (Noyes, 2003).

Roptrocerus brevicornis Thomson

Roptrocerus brevicornis Thomson, 1878. *Hymenoptera Scandinaviae 5. Pteromalus (Svederus) continuatio*. Lund, pp. 85.

Material examined: Asău (Bacău county): 2♀ and 1♂ emerged from *Pinus* sp. twigs attacked by Scolytidae (Coleoptera), collected 7.VIII.2003 (*M.-D. Mitroiu leg., ed.*).

Remarks: *R. brevicornis* is widely distributed in Europe and it is a parasitoid of various species of Scolytidae (Noyes, 2003).

Conclusions

The genera *Ablaxia*, *Aggelma* and *Metacolus*, and the species *Ablaxia parviclava*, *Aggelma abdominalis*, *A. spiracularis*, *Chlorocytus harmolitae*, *Dibrachys afinis*, *D. fuscicornis*, *Dinotiscus aponius*, *Metacolus azureus*, *M. unifasciatus*,

Pteromalus chlorospilus, *P. dolichurus*, *Rhaphitelus ladenbergii*, *Roptrocerus brevicornis* and *Trigonoderus pulcher* are recorded for the first time in Romania.

All the species were obtained from reared material. Nine species (*Ablaxia parviclava*, *Aggelma abdominalis*, *A. spiracularis*, *Dinotiscus aponius*, *Metacolus azureus*, *M. unifasciatus*, *Rhaphitelus ladenbergii*, *Roptrocerus brevicornis* and *Trigonoderus pulcher*) are associated with insects developing in wood or under bark; two species (*Dibrachys afinis* and *D. fuscicornis*) are associated with lepidopterans and their parasitoids; two species (*Chlorocytus harmolitae* and *Pteromalus chlorospilus*) are associated with insects developing in different organs of herbaceous plants; one species (*Pteromalus dolichurus*) is associated with galls on leaves.

One host record (*Rhogas* sp. for *D. fuscicornis*) is new to science and other two (*Tetramesa eximia* for *Ch. harmolitae* and *Pontania proxima* for *P. dolichurus*) are new to Romania. *D. fuscicornis* is recorded for the first time as a hyperparasitoid.

References

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