

CONTRIBUTION TO THE KNOWLEDGE OF THE PTEROMALIDS (HYMENOPTERA, CHALCIDOIDEA, PTEROMALIDAE) FROM "CODRII" NATURAL RESERVE

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Abstract. After having made the investigation for the first time in this reserve there were found 128 species of pteromalids (Hymenoptera, Pteromalidae) belonging to 12 subfamilies and 58 genera, of which 2 genera (*Hyperimerus* GIRAULT, *Toxeuma* WALKER) and 9 species (*Spalangia irregularis* BOUCEK, *Hyperimerus pusillus* WALKER, *Platygerrhus affinis* WALKER, *Trigonoderus pulcher* WALKER, *Toxeuma fuscicornis* WALKER, *Semiotellus diversus* WALKER, *Dibrachys fuscicornis* WALKER, *Trichomalus flagellaris* GRAHAM, *Pteromalus procerus* GRAHAM) are new for the fauna of the Republic of Moldova.

Keywords: Hymenoptera, Pteromalidae, "Codrii" Natural Reserve, new genera and species for the Republic of Moldova, geographical distribution.

Rezumat. Contribuții la cunoașterea pteromalidelor (Hymenoptera, Chalcidoidea, Pteromalidae) din Rezervația naturală „Codrii”. Ca rezultat al investigațiilor efectuate în această rezervație, au fost identificate 128 specii de pteromalide (Hymenoptera, Pteromalidae) incluse în 12 subfamilii și 58 genuri dintre care 2 genuri (*Hyperimerus* GIRAULT, *Toxeuma* WALKER), 9 specii (*S. irregularis* BOUCEK, *H. pusillus* WALKER, *P. affinis* WALKER, *T. pulcher* WALKER, *T. fuscicornis* WALKER, *S. diversus* WALKER, *D. fuscicornis* WALKER, *T. flagellaris* GRAHAM, *P. procerus* GRAHAM) sunt noi pentru fauna Republicii Moldova.

Cuvinte cheie: Hymenoptera, Pteromalidae, Rezervația Naturală „Codrii”, genuri și specii noi pentru Moldova, răspândire geografică.

INTRODUCTION

"Codrii" Reserve was founded by the Decision of the Council of Ministers of the S. S. R. of Moldova no. 310 from September, 27th, 1971 in order to preserve (conserve) the most representative areas of the forests specific to the Central Plateau. It is situated at the 49th km, southeast of the capital of the Republic of Moldova and has the following geographical coordinates: 47°06' - Northern latitude; 28°21' - Eastern longitude. The Reserve is subordinated to the forestry Agency "Moldsilva" and works according to special Regulations adopted by the Government. The total surface of the reserve is of 5,170 ha among which 5,040 ha is covered by forest.

MATERIAL AND METHODS

All the individuals were collected using an entomological net, between 2005 and 2012, mostly by the author. The majority of the identified species were collected from different biotopes situated within the territory of the reserve.

RESULTS AND DISCUSSIONS

Family PTEROMALIDAE

Subfamily Spalangiinae

I. Genus *Spalangia* LATREILLE, 1805

1. *Spalangia irregularis* BOUCEK, 1963

Material examined: "Codrii" Reserve, Lozova (District Strășeni): 1♀ collected on July 16, 2011, orchard; (Manic leg.).

Geographical distribution: Israel, Cyprus, Romania (ANDRIESCU & MITROIU, 2008; DZHANOKMEN, 1987).

Biology: unknown (ANDRIESCU & MITROIU, 2008; DZHANOKMEN, 1987).

The species is new to fauna of the Republic of Moldova.

Subfamily Asaphinae

II. Genus *Hyperimerus* GIRAULT, 1917

2. *Hyperimerus pusillus* (WALKER, 1833)

Material examined: "Codrii" Reserve Lozova (District Strășeni): 1♀, June 14, 2012, floodable meadow; (Manic leg.).

Geographical distribution: Great Britain, ex Czechoslovakia, Romania, Sweden.

Biology: attacking various Pseudococcidae and Psyllidae (Homoptera). (BOUCEK & RASPLUS, 1991; DZHANOKMEN, 1987; MITROIU, 2006).

The genus and the species are new to fauna of the Republic of Moldova.

Subfamily Miscogasterinae

III. Genus *Platygerrhus* THOMSON, 1878

3. *Platygerrhus affinis* (WALKER, 1836)

Material examined: “Codrii” Reserve: 1♀, July 8, 2012, meadow; (Manic leg.).

Geographical distribution: Sweden, Great Britain, ex Czechoslovakia, Poland, Romania. (DZHANOKMEN, 1987; MITROIU, 2005).

Biology: primary parasitoid of wood-boring Coleoptera, e. g. *Anobium punctatum* (Anobiidae), *Leriopus punctulatus*, *Stenostola ferrea* (Cerambycidae), *Ernoporus tiliae*, *Ips curvidens* (Scolytidae), Cucujidae, but also of some Diptera e. g. *Agromyza*. (BOUCEK & RASPLUS, 1991; DZHANOKMEN, 1987; MITROIU, 2005).

The species is new to fauna of the Republic of Moldova.

IV. Genus *Trigonoderus* WESTWOOD, 1832

4. *Trigonoderus pulcher* (WALKER, 1836)

Material examined: “Codrii” Reserve: 1♀, June 5, 2011, orchard; (Manic leg.).

Geographical distribution: Great Britain, ex Czechoslovakia, Romania, Sweden.

Biology: the hosts are unknown, but they are probably xylophagous beetles (Cerambycidae, Scolytidae). (BOUCEK & RASPLUS, 1991; MITROIU et al., 2007).

The species is new to fauna of the Republic of Moldova.

V. Genus *Toxeuma* WALKER, 1833

5. *Toxeuma fuscicorne* (WALKER, 1833)

Material examined: “Codrii” Reserve: July 7, 2012, meadow; (Manic leg.).

Geographical distribution: Germany, Hungary, Ireland, Romania, Sweden, Switzerland (DZHANOKMEN, 1987).

Biology: The flying period is from May to July. Parasitoid of some Agromyzidae (Diptera) developing in seeds of various Poaceae. (BOUCEK & RASPLUS, 1991; DZHANOKMEN, 1987).

The genus and the species are new to fauna of the Republic of Moldova.

VI. Genus *Semiotellus* WESTWOOD, 1840

6. *Semiotellus diversus* (WALKER, 1834)

Material examined: “Codrii” Reserve: 1♀, June 4, 2011, orchard; 1♀, May 25, 2012, meadow, (Manic leg.).

Geographical distribution: England, Romania, Sweden (DZHANOKMEN, 1987).

Biology: Reared from pupae of Cecidomyiidae. (BOUCEK & RASPLUS, 1991).

The species is new to fauna of the Republic of Moldova.

Subfamily Pteromalinae

VII. Genus *Dibrachys* FORSTER, 1856

7. *Dibrachys fuscicornis* (WALKER, 1836)

Material examined: “Codrii” Reserve: 1♀, June 8, 22, 2012, orchard; (Manic leg.).

Geographical distribution: England, Romania (DZHANOKMEN, 1987; MITROIU et al., 2007).

Biology: it is a parasitoid of various species of Tenthredinidae (Hymenoptera), Lymantriidae and Yponomeutidae (Lepidoptera) (DZHANOKMEN, 1987; MITROIU et al., 2007).

The species is new to fauna of the Republic of Moldova.

VIII. Genus *Trichomalus* THOMSON, 1878

8. *Trichomalus flagellaris* (GRAHAM, 1969)

Material examined: “Codrii” Reserve: 2♀♀, July 16, 2011, orchard, meadow; (Manic leg.).

Geographical distribution: England, Romania. (DZHANOKMEN, 1987).

Biology: unknown (DZHANOKMEN, 1987).

The species is new to fauna of the Republic of Moldova.

IX. Genus *Pteromalus* SWEDERUS, 1795

9. *Pteromalus procerus* (GRAHAM, 1969)

Material examined: “Codrii” Reserve: 1♀, August 11, 2011, floodable meadow; (Manic leg.).

Geographical distribution: England, Ireland, Romania. (DZHANOKMEN, 1987).

Biology: unknown (DZHANOKMEN, 1987).

The species is new to fauna of the Republic of Moldova.

CONCLUSIONS

Two genera, *Hyperimerus* GIRAULT, *Toxeuma* WALKER, and nine species, *Spalangia irregularis* BOUCEK, *Hyperimerus pusillus* WALKER, *Platygerrhus affinis* WALKER, *Trigonoderus pulcher* WALKER, *Toxeuma fuscicorne* WALKER, *Semiotellus diversus* WALKER, *Dibrachys fuscicornis* WALKER, *Trichomalus flagellaris* GRAHAM, *Pteromalus procerus* GRAHAM were recorded for the first time in the Republic of Moldova. All the species were obtained from reared material. The species: *Platygerrhus affinis* and *Trigonoderus pulcher* are associated with species of Cerambycidae, Scolytidae. *Toxeuma fuscicorne* - parasitoid on some Agromyzidae (Diptera) developing in seeds of various Poaceae. One species (*Semiotellus diversus*) is reared from pupae of Cecidomyiidae. The species (*Hyperimerus pusillus*) attacks many Pseudococcidae and Psyllidae (Homoptera). The biology of three species (*Spalangia irregularis*, *Trichomalus flagellaris*, *Pteromalus procerus*) is unknown.

REFERENCES

- ANDRIESCU I. & MITROIU M. D. 2008. *Notes on Pteromalid Fauna (Hymenoptera: Chalcidoidea, Pteromalidae) of Dobrogea, Romania (II)*. Seria Biologie Animală. Analele Științifice ale Universității „Al. I. Cuza” Iași. **50**: 89-96.
- BOUCEK Z. 1961. *Notes on the Chalcid fauna (Chalcidoidea) of Moldavian SSR (in Russian with English summary)*. Trudy Moldavskogo naučno-issledovatel'skogo instituta sadovodstva i vinodeliâ. Isdatelstvo „Știința”. Kișinëv. **7**: 5-30. [In Russian with English summary].
- BOUCEK Z. 1966. *Materialy po faune hal'cid (Hymenoptera, Chalcidoidea) Moldavskoj SSR*. Trudy Moldavskogo naučno-issledovatel'skogo instituta sadovodstva i vinodeliâ. Isdatelstvo Cartea moldovenească. Kișinëv. **13**: 15-38.
- BOUCEK Z. & RASPLUS J. Y. 1991. *Illustrated Key to West Palearctic Genera of Pteromalidae (Hymenoptera, Chalcidoidea)*. Techniques et Pratiques. Institut National de la Recherche Agronomique. Paris. 140 pp.
- DZHANOKMEN A. K. 1987. *Family Pteromalida*. In: Medvedev, G. S. (Ed. in Chief) - Keys to the Insects of the European Part of USSR (Opredelitel' Nasekomykh Evropeiskoi Chasti SSR. Pereponchatokrylye, Vtoraia Chast' 1978, Nauka, Moskva-Leningrad) Hymenoptera. Rehka Printers. New Delhi. India. **3(2)**: 88-410. [In Russian].
- MANIC GH. 2010. *Diversitatea și ecologia pteromalidelor din Republica Moldova*. Edit. Știința. Chișinău. 247 pp.
- MITROIU M. D. 2005. *Pteromalidae (Hymenoptera: Chalcidoidea) new to Romania (II)*. Analele Științifice ale Universității „Alexandru Ioan Cuza”. Seria Biologie animală. Iași. **51**: 7-10.
- MITROIU M. D. 2006. *Pteromalidae (Hymenoptera: Chalcidoidea) new to Romania (III)*. Analele Științifice ale Universității „Alexandru Ioan Cuza”. Seria Biologie animală. Iași. **52**: 7-10.
- MITROIU M.-D., ANDRIESCU I., FUSU L., DASCĂLU M. M. 2007. *Pteromalids (Hymenoptera: Pteromalidae) new to Romania, obtained from rearings*. Analele Științifice ale Universității „Alexandru Ioan Cuza”. Seria Biologie animală. Iași. **53**: 135-140.
- TALICKIJ V. I. & KUSLICKIJ V. S. 1990. *Paraziticeskie Perepončatokrylye Moldavii*. Edit. Cartea Moldovenească. Kișinëv. 303 pp.

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