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## NEW FOR THE FAUNA OF BELARUS FAMILY EVANIIDAE (HYMENOPTERA: EVANIOIDEA)

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**Summary.** The family Evaniidae is recorded from Republic of Belarus for the first time. The information on distribution, biology and hosts of *Brachygaster minutus* (Olivier, 1791), a parasitoid of cockroaches oothecae, is also given.

**Key words:** ensign wasps, Evaniidae, *Brachygaster*, parasitoid, cockroaches, fauna, new record, Belarus, East Europe.

**А. М. Островский. Новое для фауны Беларуси семейство Evaniidae (Hymenoptera: Evanioidea) // Дальневосточный энтомолог. 2023. N 477. C. 6-8.**

**Резюме.** Впервые для Республики Беларусь указывается семейство Evaniidae. Приведены данные по распространению, биологии и хозяевам *Brachygaster minutus* (Olivier, 1791) – паразитоида оотек тараканов.

### INTRODUCTION

Ensign wasps (Evaniidae) is a specialized group of small or medium-sized parasitoids. Members of this family are characterized by the following main features: antennae of female and male 13-segmented with usually a very long scape; jugal lobes of fore and hind wings deeply separated, costal cell of fore wing wide, radial vein strongly upcurved distally, transverse hind wing veins lost; mesosoma short and high; metasoma small, distinctly compressed and heavily sclerotized, with petiolate first segment attached on the posterior margin of mesosoma very distantly higher than hind coxae (forming very wide propodeal bridge); ovipositor short. The members of this family are parasitoids in cockroach oothecae (Belokobylskij, 2019).

Ensign wasps consist of 20 recent genera and about 430 species, and are found all over the world except in the Polar Regions (Deans *et al.*, 2023). In the Palaearctic the Evaniidae are represented by the six genera with 18 species; three genera and three species have been recorded from Russia (Belokobylskij, 2019). So far, no species of ensign wasps have been recorded from the fauna of Belarus.

## NEW RECORD

*Brachygaster minutus* (Olivier, 1791)  
Fig 1

MATERIAL EXAMINED. Republic of Belarus: Gomelskaya oblast: W of Gomel, 52°24'36" N, 30°53'48" E, h=132 m, clearing in a mixed forest, 13.VII 2019, 1♀, leg. A.M. Ostrovsky. The examined specimen is housed at the author's collection.

DIAGNOSIS. Diagnostic features of this specimen are briefly reported below: body densely foveolate; forewing without 1st marginal cell and with 3 closed cells (costal, basal and subbasal), 4 RS absent and *r-m* present as spectral veins in fore wing; apical tooth of tarsal claw prominent.

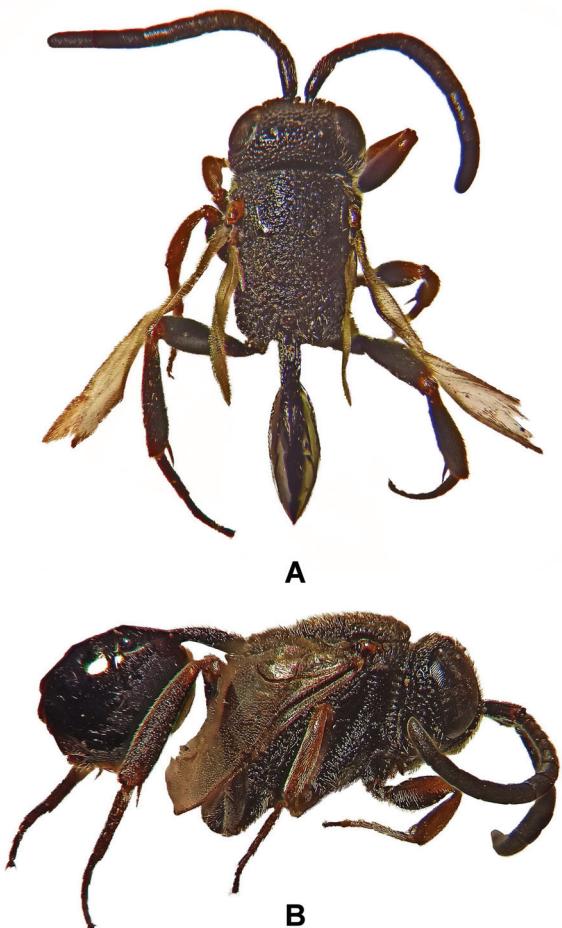


Fig 1. *Brachygaster minutus* (Olivier, 1791), female, dorsal (A) and lateral (B) view.

DISTRIBUTION. Europe (including the European part of Russia), North Africa, Abkhazia, Georgia, Azerbaijan, Israel, Kyrgyzstan, Kazakhstan, Iran (Crosskey, 1951; Deans & Huben, 2003; Deans, 2005, 2008; Žikić *et al.*, 2016; Lotfalizadeh *et al.*, 2017; Belokobylskij, 2019; Deans *et al.*, 2023).

REMARKS. *Brachygaster minutus* is a parasitoid of oothecae of *Blatta orientalis* Linnaeus, 1758 and *Blattella germanica* (Linnaeus, 1767), as well as field-dwelling cockroaches belonging to the genus *Ectobius* Stephens, 1835. The species is solitary in habit. Adults seek out and oviposit in the concealed egg-cases of cockroach. The single larva feed on the cockroach eggs, pupate and overwintering inside the ootheca as a final instar. The emergence of the adult the following summer is perfectly synchronized with the occurrence in the field of the particular cockroach species (Brown, 1973; Kozlov, 1988; Belokobylskij, 2019).

## CONCLUSION

The family Evaniidae, the genus *Brachygaster* Leach, 1815 and species *Brachygaster minutus* (Olivier, 1791) are formally new to the list of Belarus's Hymenoptera. The listed species is widespread and common in Europe but it was found for first time in South-Eastern Belarus.

## REFERENCES

- Belokobylskij, S.A. 2019. Family Evaniidae – Ensign wasps. P. 22. In: Belokobylskij, S.A., Samartsev, K.G. & Ilinskaya, A.S. (Eds). Annotated catalogue of the Hymenoptera of Russia. Vol. II. Apocrita: Parasitica. *Proceedings of the Zoological Institute RAS*, Suppl. 8, 594 p.
- Brown, V.K. 1973. The Biology and Development of *Brachygaster minutus* Olivier (Hymenoptera: Evaniidae), a parasite of the oothecae of *Ectobius* spp. (Diptera: Blattidae). *Journal of Natural History*, 7: 665–674.
- Crosskey, R.W. 1951. The morphology, taxonomy, and biology of the British Evanoidea (Hymenoptera). *Transactions of the Royal Entomological Society of London*, 102: 247–301.
- Deans, A.R. 2005. Annotated catalog of the world's ensign wasp species (Hymenoptera: Evaniidae). *Contributions of the American Entomological Institute*, 34(1): 1–164.
- Deans, A.R. 2008. *Tree of Life Web Project – Evaniidae*. Version 09 June 2008. Available from: <http://tolweb.org/Evaniidae/23533/2008.06.09> (Accessed 10.03.2023)
- Deans, A.R. & Huben, M. 2003. Annotated key to the ensign wasp (Hymenoptera: Evaniidae) genera of the world, with descriptions of three new genera. *Proceedings of the Entomological Society of Washington*, 105(4): 859–875.
- Deans, A.R., Matthew, J.Y. & Dole, K. 2023. *Evanoidea Online – catalog of information about evanioid wasps (Hymenoptera)*. Available from: <http://evanoidea.info> (Accessed 10.03.2023)
- Kozlov, M.A. 1988. Superfam. Evanoidea. P. 242–249. In: Medvedev, G.S. (Ed.). *Key to Insects of the European Part of the USSR. Hymenoptera. Vol. III, pt 6*. Nauka, Lenigrad. 268 p. [In Russian]
- Lotfalizadeh, H., Masudi-Rad, S. & Mehrvar, A. 2017. Review of the superfamily Evanoidea (Hymenoptera) in Iran with four new records. *Journal of Insect Biodiversity and Systematics*, 3(2): 141–151.
- Žikić, V., Petrović, A. & Ćetković, A. 2016. Ensign wasps of Serbia and Montenegro (Hymenoptera: Evanoidea: Evaniidae). *Acta entomologica serbica*, 21(1): 113–121.