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Two species of *Mesopolobus* WESTWOOD, 1833  
(Hymenoptera: Chalcidoidea: Pteromalidae)  
new in Poland

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**ABSTRACT:** Two species of pteromalid wasps are recorded from Poland for the first time: *Mesopolobus pseudofuscipes* ROSEN, reared from galls of *Rabdophaga salicis* (SCHRANK) (Diptera: Cecidomyiidae) on willow, collected in the Wielkopolsko-Kujawska Lowland, and *Mesopolobus xanthocerus* (THOMSON), reared from a gall of *Biorhiza pallida* (OLIVIER) (Hymenoptera: Cynipidae) on oak, taken in Lower Silesia.

**KEY WORDS:** Hymenoptera, Chalcidoidea, Pteromalidae, *Mesopolobus*, Poland.

### **Introduction**

The genus *Mesopolobus* WESTWOOD, 1833 comprises currently nearly 130 species and is one of the largest in the family Pteromalidae. They are small Hymenopterans rarely surpassing the length of 4 mm, with a metallic and usually green or golden-green coloring. The representatives of the genus *Mesopolobus* are characterized with the following features: antennae situated in the lower part of the head, two or three anelli, four- or six-segmented flagellum and three-segmented clava; unsymmetrical mandibles: the right one with four teeth, and the left with three teeth; the pronotum with a very narrow and shiny strip along the rear edge,

contrasting with a strongly shaped remaining surface; the front edge of the pronotum with a distinct edge that can be a little lifted in a cross-veined manner; the *notauli* incomplete; the *scutellum* without a separated *frenum*; the *propodeum* usually with a complete middle cross-vein and with at least partly developed *plicae*; spiracles of the metathorax oval; the upper part of the *mesepisternum* is smooth and shiny; the *speculum* of the front wings are elongated; the upper surface of the costa naked; *abdomen sessile*. Males of some of the species have heavily modified tibia of middle legs—flattened and widened, often with different outgrowths and colorful spots or strips; these structures probably perform crucial functions during mating rituals (VAN DEN ASSEM 1974).

The species whose trophic connections are known are parasitoids of larvae or the pupas of Hymenoptera, Coleoptera, Diptera, and Lepidopterans; only some of them undergo larval stages in the eggs of Lepidoptera and Hymenopterans; also known in this genus are obligatory and facultative hyperparasitoids that develop externally on the larvae of other Pteromalidae and Braconidae or Ichneumonidae, inside beetle larvae and sawflies (GRAHAM 1969). From Poland, eighteen species have been hitherto recorded (WIŚNIEWSKI 1997). The localities of two representatives of the genus *Mesopolobus*, not known from our country before, are provided below:

*Mesopolobus pseudofuscipes* ROSEN, 1958

- The Wielkopolsko-Kujawska Lowland: XU51 Promno ad Poznań, 30 IV 2016, 11 ♀♀, 12 ♂♂ reared (imagines V 2016) from galls of *Rabdophaga salicis* (SCHRANK, 1803) (Diptera: Cecidomyiidae) collected from a *Salix aurita* L. on a midforest wet meadow, leg., cult. et coll. P. JAŁOSZYŃSKI.

Males of this species (Fig. 1, 2) have moderately flattened and widened tibia of middle legs, with an elongated, orange-brown strip (Fig. 2); it is also one of the few representatives of the genus developing in galls of Cecidomyiadea connected with willows. *Mesopolobus pseudofuscipes* was recorded from Sweden, and apart from there, it is also known from Austria and Scotland (GRAHAM 1969; DALE-SKEY & al. 2016).

*Mesopolobus xanthocerus* (THOMSON, 1878)

- Lower Silesia: XS37Wrocław-Świniary, 11 VI 2016, 1♂ reared (imago 15 VI 2016) from galls of *Biorhiza pallida* (OLIVIER, 1791) (Hymenoptera: Cynipidae) collected from an old park forest with old oaks, leg., cult. et coll. P. JAŁOSZYŃSKI.

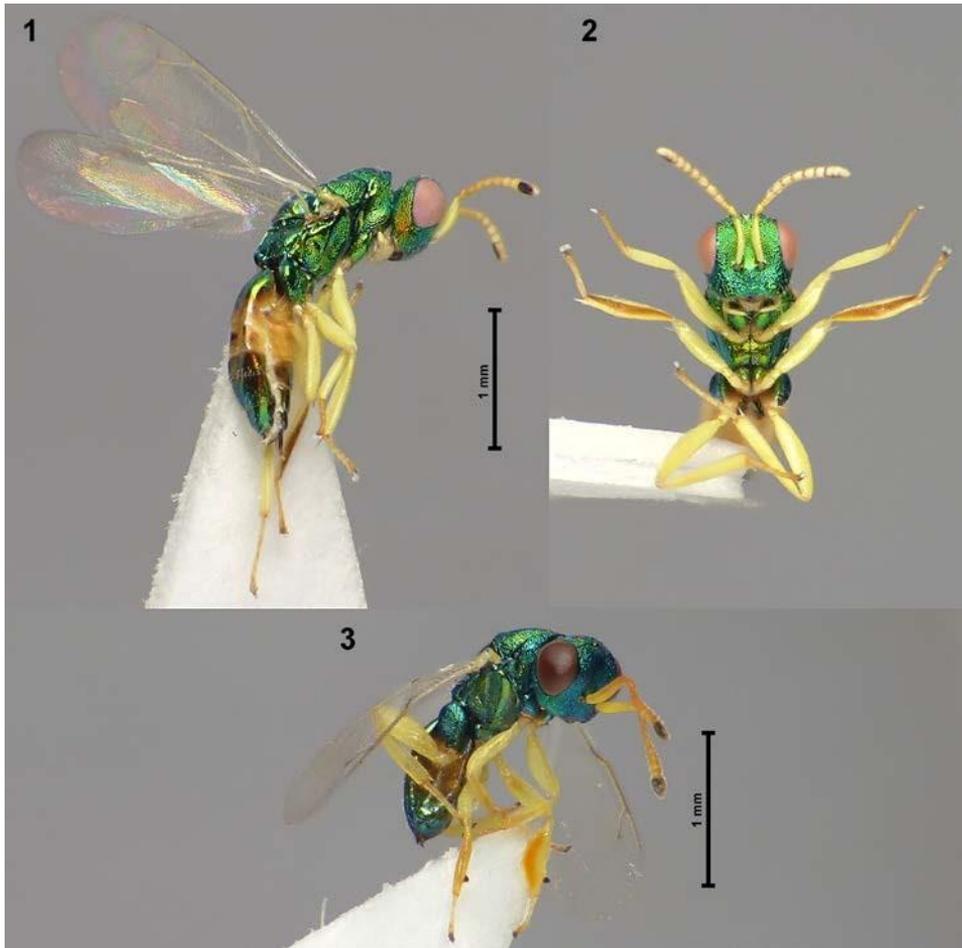


Fig. 1-3. Males of *Mesopolobus pseudofuscipes* (1, 2) and *M. xanthocerus* (3).

Males of this species (Fig. 3) have flattened and very heavily widened tibia of middle legs, with an orange elongated strip and a characteristic black outgrowth before the tip. *Mesopolobus xanthocerus* is connected with galls of different Cynipidae species on oaks; probably widely distributed in Europe, recorded from Spain to Moldavia, and from the British Isles and Fennoscandia to Hungary and Romania, though it has still not been recorded from many countries (NOYES 2016).

## SUMMARY

The genus *Mesopolobus* WESTWOOD is one of the largest among Pteromalidae, comprising currently nearly 130 species, predominantly parasitoids of larvae and pupae of Hymenoptera, Diptera, Coleoptera and Lepidoptera, less frequently eggs of Hymenoptera and Lepidoptera, and including some hyperparasitoids as well. To date, eighteen species have been recorded from Poland. Another two species of *Mesopolobus* are reported in this paper to occur in Poland: *M. pseudofuscipes* ROSEN was reared from galls of *Rabdophaga salicis* (SCHRANK) (Diptera: Cecidomyiidae) on willow (Wielkopolsko-Kujawska Lowland), and *M. xanthocerus* (THOMSON) from a gall of *Biorhiza pallida* (OLIVIER) (Hymenoptera: Cynipidae) on oak (Lower Silesia).

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