

***Steffanolampus salicetum* (STEFFAN) (Hymenoptera: Chalcidoidea,
Perilampidae) new to the Polish fauna**

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ABSTRACT. A perilampid wasp *Steffanolampus salicetum* (STEFFAN) (Hymenoptera: Chalcidoidea, Perilampidae) is recorded for the first time from Poland. One male was reared from a piece of white willow (*Salix alba* L.) trunk inhabited by anobiinae wood-boring beetles (Coleoptera: Ptinidae) collected in an old park in Rzeszów-Zalesie (Podkarpacie region). The present record of *S. salicetum* collected from a native willow (*Salix alba*), may actually be the first confirmed occurrence of the species in Europe as locally developing (and then probably established), and not just an imported species. Currently, fourteen species of perilampid wasps representing three genera are known from Poland.

KEY WORDS: Chalcidoidea, Perilampidae, parasitoids of wood-boring insects, new records, distribution, faunistics.

INTRODUCTION

The hymenopteran family Perilampidae LATREILLE, 1809 is one of the smallest in the superfamily Chalcidoidea, with ca. 280 species described in 15 genera (NOYES 2021). Adult forms are usually brightly coloured, moderately large, from 1.3 to 5.5 mm in length. Members of the most species-rich subfamily Perilampinae live hyperparasitic on tachinid and ichneumonoid primary parasitoids of Lepidoptera and Symphyta (NOYES 2021).

Generally, the family is poorly studied in Poland. The first checklist of Polish species was published in 1997 and listed 13 species in two genera known mostly from single localities (WIŚNIEWSKI 1997). Later, two species were recorded from Ojców National Park (WIŚNIEWSKI 2007). The species newly recorded herein represents both new genus and new species of the family Perilampidae in Poland.

MATERIAL AND METHODS

The specimen was reared by the second author during work on wood-boring beetles developing on willows in parks of the city of Rzeszów. A fragment of dead wood of white willow *Salix alba* L. (ca. 30 cm × 30 cm) was placed in a rearing box on April 20th and kept under laboratory conditions. All emerging insects were collected and placed in 70% ethyl alcohol. Later, the hymenopterans were glued onto mounting cards.

The studied specimen is housed in the collection of the first author.

The images were taken by the first author with a Nikon SMZ1270 stereomicroscope with DeltaPix Invenio 12EIII camera with DeltaPix InSight software. Stacks were combined with CombineZP software and then retouched using Adobe Photoshop 2021.

RESULTS

Family: **Perilampidae** LATREILLE, 1809

Steffanolampus salicetum (STEFFAN, 1952) (Figs. 1–4)

Eastern Beskid Mts. [EA73] Rzeszów-Zalesie, old park, 20.04-20.05.2018, 1♂, reared from a piece of *Salix alba* trunk, leg. & cult. T. Olbrycht.

Described in the genus *Perilampus* LATREILLE, based on specimens collected by Joseph-Étienne Giraud in 19th century on a trunk of *Salix* L. growing in Prater Park in Vienna (Austria). The specific name ‘salicetum’ was given by Giraud himself, and was published without description in 1877 (LABOULBÈNE 1877). Giraud’s collection of insects was donated to the Muséum national d’Histoire naturelle in Paris but the species remained undescribed until 1952, when a paper on French species of *Perilampus* was published (STEFFAN 1952). The description included a comment on a possible introduction of the wasp with phytophagous insects on ornamental willows from the Far East (STEFFAN 1952, BOUČEK 1956). Steffan described the new species as having numerous strange features, e.g. sculpture of thorax resembling some genera of the family Chalcididae LATREILLE, 1817, and female abdomen similar to those in the genus *Eurytoma* ILLIGER, 1807 (Hymenoptera: Eurytomidae WALKER, 1832) (STEFFAN 1952).

PECK (1974) established a new genus, *Steffanolampus* and included *P. salicetum*, which is the only representative of the genus in the world fauna. Peck also suggested North America as the region of origin for *Steffanolampus salicetum* (PECK 1974).

Distribution. Europe: Austria, Hungary, Poland (recorded hereby); North America: Canada, USA (BOUČEK 1978, NOYES 2021). According to DARLING (1997) ‘eastern and western North America’.

Biology: In North America associated with wood-boring beetles of the family Ptinidae LATREILLE, 1802 (Coleoptera: Anobiinae FLEMING, 1821), e.g. *Ptilinus ruficornis* SAY, 1823 (BOUČEK 1978, NOYES 2021). According to DARLING (1997) ‘associated with maples (*Acer*), probably a parasite of wood-boring Anobiidae or their predators (Rhipiphoridae)’. In Europe it was observed and collected on *Salix* (GIRAUD) or reared from trunks of indigenous species of willow (present research).

The present record of *S. salicetum* collected from a native willow (*Salix alba*), may actually be the first confirmed occurrence of the species in Europe as locally developing (and then probably established), and not just an imported species. Its actual host associations are not known in Europe, but they probably include anobiinae beetles living in willows.

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Fig. 1. *Steffanolampus salicetum*. Male, lateral view. Right pair of wings removed. Scale bar = 0.5 mm.

Ryc. 1. *Steffanolampus salicetum*. Samiec, widok z boku. Usunięto prawą parę skrzydeł. Skala = 0,5 mm.



Fig. 2. *Steffanolampus salicetum*. Male, head and mesosoma, lateral view. Scale bar = 0.5 mm.

Ryc. 2. *Steffanolampus salicetum*. Samiec, głowa i mesosoma, widok z boku. Skala = 0,5 mm.



Fig. 3. *Steffanolampus salicetum*. Male, head and mesosoma, dorsal view. Scale bar = 0.5 mm.

Ryc. 3. *Steffanolampus salicetum*. Samiec, głowa i mesosoma, widok z góry. Skala = 0,5 mm.



Fig. 4. *Steffanolampus salicetum*. Male, right fore wing, dorsal view. Scale bar = 0.5 mm.

Ryc. 4. *Steffanolampus salicetum*. Samiec, prawe przednie skrzydło, widok z góry. Skala = 0,5 mm.

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Streszczenie

***Steffanolampus salicetum* (STEFFAN) (Hymenoptera: Chalcidoidea, Perilampidae) – nowy gatunek w faunie Polski**

W pracy podane są informacje o błeszkotce *Steffanolampus salicetum* (STEFFAN) (Hymenoptera: Chalcidoidea, Perilampidae) stwierdzonej po raz pierwszy w Polsce. Samiec tego gatunku został wyhodowany z fragmentu pnia wierzby białej (*Salix alba* L.) zasiedlonej przez chrząszcze z podrodziny kołatków Anobiinae (Coleoptera: Ptinidae), zebranego w starym parku w dzielnicy Rzeszów-Zalesie (województwo podkarpackie). Wyhodowanie *S. salicetum* ze starego okazu rodzimego gatunku wierzby, jaką jest wierzba biała *Salix alba* L. jest prawdopodobnie pierwszym potwierdzeniem występowania tego gatunku jako przechodzącego pełny rozwój w Europie, poza obszarem rodzimego występowania (Ameryka Północna). Wskazuje to, iż *S. salicetum* jest kolejnym zawleczonym, osiadłym w Europie gatunkiem owada. Obecnie rodzina Perilampidae jest reprezentowana w Polsce przez trzy rodzaje (dotąd dwa) i 14 gatunków.

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