



World Scientific News

An International Scientific Journal

WSN 119 (2019) 238-242

EISSN 2392-2192

SHORT COMMUNICATION

New data on the occurrence of *Sirex carinthiacus* Konow, 1892 (Hymenoptera, Symphyta, Siricidae) in Poland

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ABSTRACT

New records of *Sirex carinthiacus* Konow are given, based on the collection of four females from three localities in eastern part of Poland. This very rare representative of the family Siricidae develops on spruces and undoubtedly demands protection over all its distribution area. The updated list of Siricidae occurring in Poland is given at the end of the paper.

Keywords: Hymenoptera, Symphyta, sawfly, Siricidae, *Sirex carinthiacus*, Poland, faunistic data, protection, checklist

1. INTRODUCTION

Ten species of the family Siricidae are known to occur in Poland (Głowacki 1956; Huflejt 1997; Skibińska & Chudzicka 2004; Wiśniowski 2007). The specificity of development in hard, often freshly cut wood, facilitates introduction of various siricids with timber from their native areas to other continents. Also in Poland the occurrence of two North American species had been recorded, but these have not got acclimatized (Huflejt 1997).

One of the least frequently met is *Sirex carinthiacus* Konow developing on spruces (*Picea* spp.); it has been described from Gnesau (Carinthia, southern Austria) and hitherto reported from Austria, Czech Republic and Slovakia (Konow 1892; Roller 1999; Taeger *et al.* 2006).

The data on the occurrence in Poland are very scarce. Dittrich (1909) mentions collecting of *Paururus carinthiacus* Knw. (= *Sirex carinthiacus* Konow) by Scholz in Różanka (distr. Kłodzko), what allowed Huflejt (1997) to include it in the list of Polish sawflies. Earlier it was not considered in the key to the identification of Siricidae (Głowacki 1956), what might have caused misidentifications of these horntails and, consequently, lack of information of their occurrence in Poland.

We provide new data on the occurrence of the *S. carinthiacus* on the territory of Poland below.

2. MATERIALS

The specimens have been collected in the course of studies performed by the Forestry Research Institute (Sękocin Stary, Poland), aiming at the inventoring of the fauna of the Białowieża Forest, and additionally by two persons: R. Plewa and M. Zawadzki.

3. RESULTS

- 1♀ (**Fig.**), Białowieża Forest, F.I. Browsk, 27 VI-08 VIII 2018, 52,840295N, 23,830399E, violet multi-funnel trap, suspended 5m. above the ground, leg. R. Plewa, T. Jaworski & J. Hilszczański;
- 2♀♀, Białowieża Forest, UTM: FD94, oddz. 502Ei, 17 VIII-19 IX 2018, violet multi-funnel trap, suspended 5m. above the ground, leg. R. Plewa;
- 1♀, F.I. Bielsk, 28 VII 2015, leg. M. Zawadzki.

Remarks

The genus *Sirex* L. contains 21 mainly Palaearctic and Nearctic, often difficult to identify, species of metallic dark blue colouration. A good key to Palaearctic taxa, including also the description of *S. carinthiacus*, has been published by Gussakovskij (1935). This species, having (females) all legs dark, is rather easily distinguishable from the other three Polish representatives of *Sirex* L. whose females have legs yellowish-red, yellowish-orange, or reddish-brown; additional (probably common to both sexes) distinctive features are “smoked” distal halves of both pairs of wings, small size, and characteristically greenish lustre on metallic-coloured parts of the body. More elongated (in comparison to the remaining Polish species) abdomen of female *S. carinthiacus* should be expressed as proportion of length to width, but

hitherto collected material is not sufficient to use biometrical data as diagnostic characters – this will be possible only in the future.



Fig. *Sirex carinthiacus* Konow, female collected in Białowieża Forest, dorsal view.

Threats and protection of the species

Almost complete lack of information about *S. carinthiacus* in the hitherto published literature reflects its extreme rarity throughout the distribution area. As a species developing in decaying spruces it is endangered in central Europe including Poland. Spruce forests are recently wasting away on large areas, what promotes propagation of xylophagous insects developing on this tree – perhaps just this enabled us to collect some specimens of *S. carinthiacus*. It must be kept in mind, however, that in short time spruce stands will become much reduced, and the remnants of central-european spruce forests will be restricted to higher mountain elevations. *Sirex carinthiacus*, as a very rare inhabitant of ancient spruce forests, already now deserves legal protection, together with the respective forest complexes:

appropriate cultivating treatments should, wherever possible, assure the continuous presence of host-plants (spruces).

An actual list of Polish species belonging to the Siricidae family, enriched with their host-plants

- 1) *Urocerus augur* (Klug, 1803) (*Abies* spp.)
- 2) *Urocerus fantoma* (Fabricius, 1781) (*Picea* spp.)
- 3) *Urocerus gigas* (Linnaeus, 1758) (coniferous trees, especially *Picea* spp.)
- 4) *Sirex carinthiacus* Konow, 1892 (*Picea* spp.)
- 5) *Sirex cyaneus* Fabricius, 1781 (*Abies* spp.)
- 6) *Sirex juvencus* (Linnaeus, 1758) (*Picea* spp.)
- 7) *Sirex noctilio* Fabricius, 1793 (*Pinus* spp.)
- 8) *Xeris spectrum* (Linnaeus, 1758) (coniferous trees)
- 9) *Tremex fuscicornis* (Fabricius, 1787) (deciduous trees, especially *Betula* spp.)
- 10) *Tremex magus* (Fabricius, 1787) (hardwood deciduous trees)

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