

# *Urocerus augur* (Klug, 1803) and *Sirex cyaneus* Fabricius, 1781 (Hymenoptera, Siricidae) new to the Danish fauna

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*Urocerus augur* (Klug, 1803) and *Sirex cyaneus* Fabricius, 1781 are reported new to the Danish fauna.

Taxonomic important data are given from the holotype of *U. augur*.

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## Introduction

Only five of the European Siricidae have been reported from Denmark. These are: *Urocerus gigas* (Linnaeus, 1758), *Sirex juvencus* (Linnaeus, 1758), *S. noctilio* Fabricius, 1773, *Xeris spectrum* (Linnaeus, 1758) and *Tremex fuscicornis* (Fabricius, 1787) (Nielsen & Henriksen 1915).

With the exception of *Tremex fuscicornis*, all North European Siricidae develop in wood of conifers, especially *Picea*, *Pinus* and *Abies*, which are introduced to Denmark. The Siricidae developing in conifers have therefore been a part of the Danish fauna only for the last couple of centuries. To check if any of the other species occurring in the neighbouring countries might be found in Denmark, material was examined in the collections of the Zoological museum of Copenhagen (ZMUC), Natural History Museum of Århus (NHMA) and the Agricultural University of Denmark.

## *Urocerus augur* (Klug, 1803)

Four females were found, labelled: »Sjælland, *Sirex gigas* F. ♀, Mus. Westerm.« (ZMUC), »Jonstrup Vang, 30.vii.1944, Graver Olsen« (ZMUC), »Århus, ix.1965, Nat. Mus. Aarh.« (NHMA) and »Aarhus, 1964, P. Johnsen, Nat. Mus. Aarh.« (NHMA). Two males, labelled: »Hundested,

21.vii.1944, H. Sørensen« (ZMUC), were also found. Two of the specimens are shown in Fig. 2 and 3.

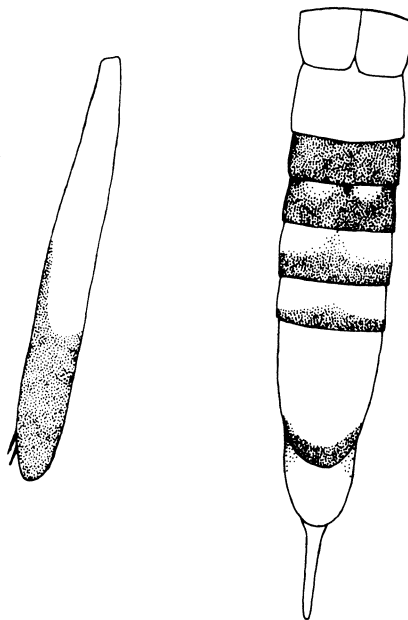


Fig. 1. Hind tibia and abdomen of holotype of *U. augur*. Redrawn after a sketch by Frank Koch.

Fig. 1. Bageste tibia og bagkrop af holotypen af *U. augur*. Omtegnet fra en skitse lavet af Frank Koch.

*U. augur* has been confounded with *U. tardigradus* (Cederhjelm, 1798) and *U. fantoma* (Fabricius, 1781) in the literature. The types of *tardigradus* and *fantoma* are lost, but the holotype of *augur* is in the Museum für Naturkunde at the Humboldt University in Berlin. Frank Koch examined the holotype for me, and made drawings of hind tibia and abdomen (Fig. 1). Some data of taxonomic importance from the holotype are listed in Tab. 1.

Specimen	<i>U. augur</i> holotype
Characters	
Ovipositor sheath length in mm.	26.3
Length of sawsheath in mm.	11.2
Dark colouration on tergites no. :	3-6. (±) apic. 7th. bas. 8th.
Colour of hind tibia	yellow, apic. 3rd. brown
Length of forewing from apex of a tegula to apex of wing in mm.	26.5
Length of forewing from apex of a tegula to apex of radial cell in mm.	23.6
Length of forewing from apex of a tegula to basis of radial cell in mm.	11.4
Claws with large subapical tooth, longer than its basal breadth.	yes
Claws with a minute subapical tooth not longer than its basal breadth.	no

Tab. 1. Taxonomic important data from the holotype of *U. augur*.

Tab. 1. *Taxonomisk vigtige karakterer taget fra holotypen af U. augur.*

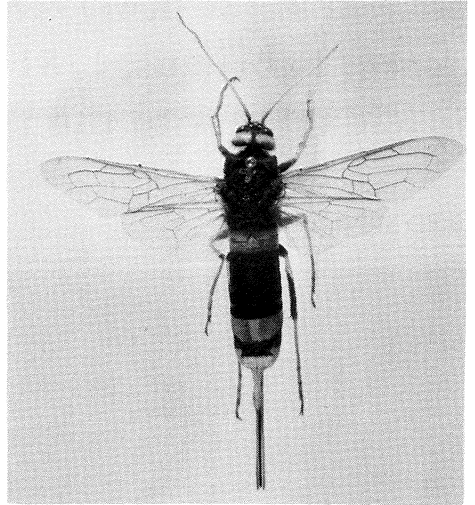


Fig. 2. *Urocerus augur* ♀ from Jonstrup Vang.  
Fig. 2. *Urocerus augur* ♀ fra Jonstrup Vang.

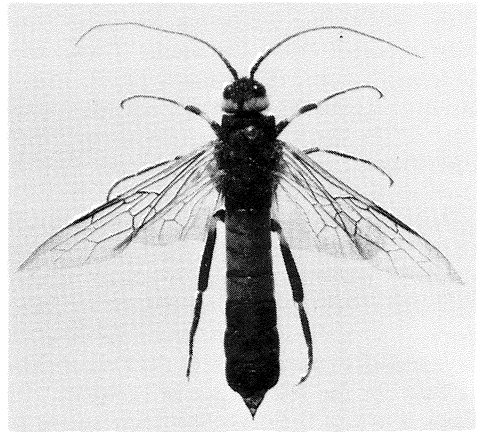


Fig. 3. *Urocerus augur* ♂ from Hundested.  
Fig. 3. *Urocerus augur* ♂ fra Hundested.

The biology of the European Siricidae has been studied by Spradbery & Kirk (1978). The species was found to develop mainly in *Abies alba* and *A. cilicica*, but was also reared from *A. borisii-regis*, *A. nobilis*, *Picea abies* and occasionally *Pinus sylvestris*. *U. augur* is distributed in Europe and the European part of USSR (Smith 1978).

## *Sirex cyaneus* Fabricius, 1781

Two females were found. They are labelled: »Favrskov, 2.x.1968, C.F.J., Østjylland, Nat. Mus. Aarh.« (NHMA) and »Odden, Silkeborg, 8.ix.1947, død med skeden i træ, ex. coll. Peder Nielsen« (ZMUC). The species can be distinguished from the other Danish *Sirex* by having a combination of black antennae, long ovipositor sheath and long distance between the pits of ovipositor (Viitasaari 1984). One of the specimens is shown in Fig. 4.

*S. cyaneus* prefers *Abies alba* (Spradbery & Kirk 1978), but has also been reared from *Larix*, *Picea*, *Pinus* and *Pseudotsuga* (Smith 1978).

It is most common in standing timber (Spradbery & Kirke 1978). The species is known from Europe and North America (Smith 1978). In Fennoscandia it has only been reported from Sweden (Kjellander 1945).

## Acknowledgements

I am indebted to Dr. Frank Koch, Berlin for examining the type of *U. augur*. I am also grateful to the staff of the Zoological Museum of Copenhagen, the Natural History Museum of Århus and the Agricultural University of Denmark for permission to examine their collections, to Mr. Tor Gulliksen for taking the photographs, and to Mr. Leif Aarvik and Dr. Øystein Austarå for improving the language.

## Sammendrag

*Urocerus augur* (Klug, 1803) og *Sirex cyaneus* Fabricius, 1781 rapporteres som nye for den danske fauna.

De tre arter *Urocerus augur*, *U. fantoma* (Fabricius, 1781 og *U. tardigradus* (Cederhjelms, 1798) har været sammenblandet i lit-

teraturen. Typerne af *U. fantoma* og *U. tardigradus* er tilsyneladende gået tabt.

Data af taxonomisk betydning fra holotypen af *U. augur* bliver givet i tabel 1.

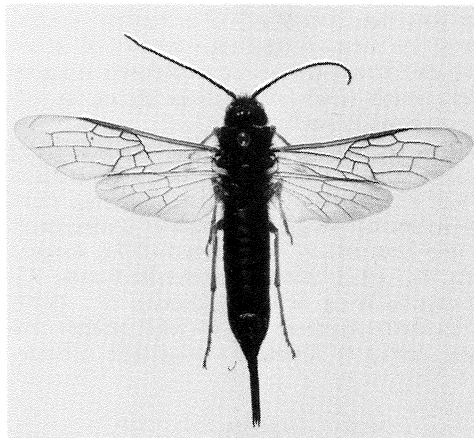


Fig. 4. *Sirex cyaneus* ♀ from Favrskov.

Fig. 4. *Sirex cyaneus* ♀ fra Favrskov.

## Litteratur

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