

On the family Ditomyiidae (Diptera, Sciaroidea) in Norway

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The distribution of the two species of the genus *Symmerus* (Ditomyiidae) in Norway is discussed. *Symmerus nobilis* Lackschewitz, 1937 has hitherto not been recorded from Norway.

Key words: Diptera, Sciaroidea, Ditomyiidae, *Symmerus*, Norway.

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INTRODUCTION

The family Ditomyiidae consists worldwide of about 80 species belonging to 9 genera, mainly occurring in the Southern hemisphere. In Europe the family is represented with 4 species in 2 genera (*Symmerus* Walker, 1848 *Ditomyia* Winnertz, 1846). Of these, *Ditomyia* has a Central European distribution, while *Symmerus* has a more northerly distribution. According to Munroe (1974) *Symmerus* is endemic to the Palaearctic region, and *Symmerus sensu stricto* has not been recorded outside Europe so far.

Ditomyiidae is considered as a relatively new family of Diptera. The oldest fossil record known is from the Eocene period (36.6 – 52 mya) from Australia (Evenhuis 1994), which is much younger than the other large families of Sciaroidea. Mycetophilidae and Keroplatidae, reported from Jurassic and Cretaceous, respectively.

Symmerus annulatus (Meigen, 1830) is relatively common in Europe compared with *Symmerus nobilis* Lackschewitz, 1937. *S. nobilis* is mentioned as rare in Britain by Falk & Chandler (2005). *S. annulatus* was first recorded from Scandinavia by Zetterstedt (1851) from Esperöd, Sweden, as

“*Ceroplatus flavus*” Zetterstedt, 1851.

Little is known about the biology and ecology of these species, but larvae of *S. annulatus* have been reported reared from decaying elm wood.

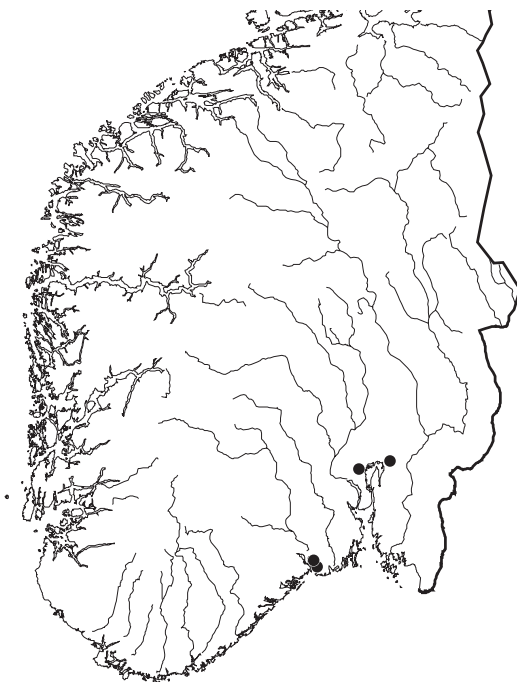
At present the species can only be identified with certainty on characters in the male genitalia. European Ditomyiidae species can be identified with Zaitzev (1978) or Landrock (1940). Munroe (1974) gives a world revision of the genera *Symmerus* (Palaearctic) and *Australosymmerus* Freeman, 1954 (Latin-America, Australia and New Zealand).

Contributions to this family in Norway have been scarce. In estimates of the number of each insect family occurring in Norway, Ottesen (1993) suggested that Ditomyiidae most probably has one species in Norway. The family was first recorded from Norway from the lake Østensjøvannet in Oslo municipality (Hansen & Falck 2000). Two males of *Symmerus annulatus* were reported, from the northern and western part of this area.

The present study deals with the genus *Symmerus* and is based on 19 specimens from 5 localities. The material is kept in the insect collection at



Figure 1: Habitus of *Symmerus annulatus* (Meigen, 1830), lateral view. Photo: K. Sund.



Map 1: Distribution of *Symmerus annulatus* (Meigen, 1830) in Norway.

the Natural History Museum, University of Oslo (NHMO). Munroe (1974) was used for identification (see this publication for figures).

THE SPECIES

Symmerus annulatus (Meigen, 1830)

(Map 1, Figure 1)

Total material: 12 ♂♂ 4♀♀.

AK Oslo: Østensjøvannet (EIS 28) 6♂♂1♀, July 1996, leg. M. Falck, coll. NHMO; Asker: Semsvik (EIS 28), 14 – 18 June 2004, 2 ♂♂, leg. Ø. Gammelmo, coll. NHMO; Semsvik (EIS 28), 18 – 25 June 2004, 2 ♂♂, leg. Ø. Gammelmo, coll. NHMO; Semsvik (EIS 28), 9 – 14 June 2004, 1 ♀, leg. Ø. Gammelmo, coll. NHMO; Semsvik (EIS 28), 24 June – 3 August 2005, leg. Ø. Gammelmo, coll. NHMO; Semsvik (EIS 28), 1 ♂, 18 – 25 June 2005, leg. Ø. Gammelmo, coll. NHMO. **TEY** Porsgrunn: Gravastranda (EIS 18),

13 June – 12 July 1988, 1 ♂, leg. G. Søli, coll. NHM; Hitterødbekken (EIS 18), 13 June – 11 July 1988, 2 ♂♂, leg. G. Søli, coll. NHMO;

Note: One specimen, caught 18 – 25 June 2004, showed some differentiation in size and color, being significantly smaller and paler. However, the genitalia were similar to the other males.

Symmerus nobilis Lackschewitz, 1937

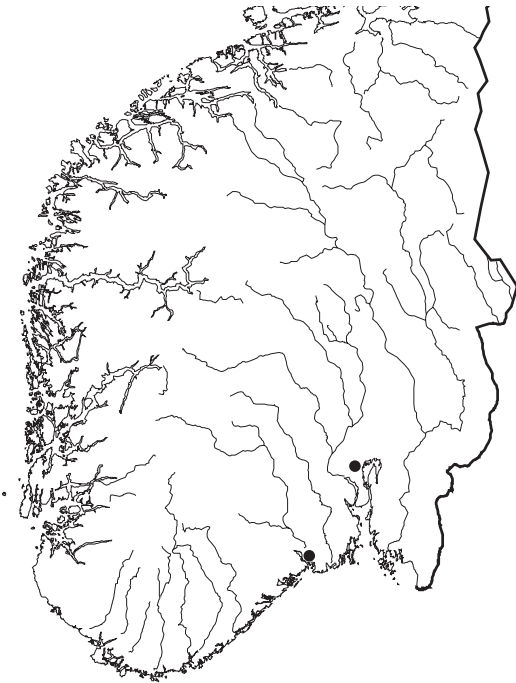
(Map 2, Figure 2)

Total material: 2 ♂♂.

AK Asker: Semsvik (EIS 28), 24 June -3 August 2005, 1♂, leg. Ø. Gammelmo, coll. NHMO. **TEY** Porsgrunn: Dammane (EIS 11), 27 June – 12 July 1998, 1♂, leg. G. Søli, coll. NHMO;

CONCLUDING REMARKS

This family is rare and relatively unknown in Norway. The *Symmerus* species seems to have



Map 2: Distribution of *Symmerus nobilis* Lack-schewitz, 1937 in Norway.



Figure 2: Habitus of *Symmerus nobilis* Lack-schewitz, 1937, lateral view. Photo: K. Sund.

a preference for south facing warm broadleaved forests. According to their limited distribution and habitat requirements should be considered for the Norwegian Red List.

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