

On the family Diadocidiidae (Diptera, Sciaroidea) in Norway

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This paper deals with distributional records for 4 species of Diadocidiidae (Diptera, Sciaroidea) in Norway. Remarks on their biology are given.

Keywords: *Diadocidia*, Diadocidiidae, Sciaroidea, Diptera, Faunistics, Norway.

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INTRODUCTION

Diadocidiidae is a relatively small and homogenous family, with less than 25 recognized species worldwide. The family is found in most zoogeographic regions and seems to be widespread in Palaearctic. In Europe there are six species in the genus *Diadocidia* Ruthe, 1831; *Diadocidia trispinosa* Polevoi, 1996, *Diadocidia valida* Mik, 1874, *Diadocidia ferruginosa* (Meigen, 1830), *Diadocidia fissa* Zaitzev, 1994, *Diadocidia spinosula* Tollet, 1948, and *Diadocidia setistylus* Papp, 2003 (Chandler 2004, Papp 2003). *D. fissa* Zaitzev, 1994 has the most restricted distribution, present only in Central Russia. The other species seem to be widespread, but rare. Of the 43353 specimens of fungus gnats *sensu lato* caught during one year in 38 mailaise traps by Økland & Zaitzev (1997), only 66 were diadocidiids. The genus is divided into two subgenera; *Adidocidia* Lastovka, 1972 & *Diadocidia* Ruthe, 1831.

The systematics of this group has been debated, but current studies places it close to Keroplatidae, Bolitophilidae and Ditomyiidae (Hippa & Vilkkamaa 2005, 2006; Amorim & Rindal in press). Genera like *Heterotracha* Loew, 1850

and *Sciarosoma* Chandler, 2002 are sometimes erroneously placed in this family, e.g. in Fauna Europaea.

The larvae seem to be associated with decaying wood, and develop within a slimy tube, where they feed on the hymenium of higher fungi (Zaitzev 1994). The larvae of *D. ferruginosa* are known to feed on *Peniphora* sp. (Chandler 1993). The larvae spin a silky tube and a pupal cocoon (Matile 1997). The adults occur mainly in forest habitats in shaded places alongside streams and on tree trunks.

Fossil records of this family are scarce. Diadocidiidae was though to be a relatively young family until the re-dating of Burmese amber from Cenozoic to Cretaceous (Grimaldi et al. 2002), and the subsequent description of *Docidiadia* (Blagoderov & Grimaldi 2004). Two species that apparently belong to *Diadocidia* are also recorded from Baltic amber, although their status are somewhat unclear.

Contributions to the Norwegian fauna are few. Søli (1994) listed 3 species from Jostedal and Økland (1996, 1999) and Økland & Zaitzev (1997) also listed 3 species from south-eastern Norway.