

Phantom midges (Diptera, Chaoboridae) from Finnmark, northern Norway

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Cryophila lapponica (Bergroth in Martini, 1928) is recorded for the first time from Norway and *Mochlonyx velutinus* (Ruthe, 1831) and *Chaoborus flavicans* (Meigen, 1830) are recorded for the first time from Finnmark. The number of Chaoboridae species recorded from Norway now stands at eight.

Key words: Chaoboridae, *Cryophila lapponica*, distribution, Finnmark, Norway.

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Introduction

Phantom midges (Diptera, Chaoboridae) is a small family of midges closely related to the Culicidae. They can be distinguished from Culicidae on the absence of a proboscis and from Chironomidae on the more complex wing venation and presence of wing scales. All known species have aquatic larval stages in standing waters, where they are important predators of zooplankton. The described world fauna consists of 50 extant species in six genera; of which nine species in three genera are known from Europe (Borkent 1993).

The European fauna of Chaoboridae is well known, with all life stages and both sexes described for all species (Sæther 1997, 2002). The distribution of the species in Norway, however, is poorly known. Seven species have previously been listed, with most records from the southeastern parts of the country (Nilsen 1974, Sæther 1996, Håland 2005, Olsen 2008).

Three species of Chaoboridae were collected in 2010 during the project “Insects inhabiting freshwater and humid habitats in Finnmark, northern Norway” (Ekrem *et al.* 2012). Of these

Cryophila lapponica (Bergroth in Martini, 1928) is recorded for the first time from Norway, while *Mochlonyx velutinus* (Ruthe, 1831) and *Chaoborus flavicans* (Meigen, 1830) are recorded for the first time from Finnmark.

Material and methods

The material was collected in Malaise traps. Specimens of all three species were dissected, macerated in 10% KOH and mounted on slides in Canada balsam. Additional material of *Chaoborus flavicans* is preserved in alcohol. Identifications are according to Sæther (1997, 2002). All material is deposited in the Department of Natural History, University Museum of Bergen (ZMBN).

The localities are referred to by a locality number according to Ekrem *et al.* (2012).

The species

Mochlonyx velutinus (Ruthe, 1831)

Material. FinLoc19, 25 June–9 July 2010,

3♂♂; 9–24 July 2010, 2♀♀; 24 July–6 August 2010, 4♂♂3♀♀, Malaise trap; FinLoc21, 9–24 July 2010, 1♂4♀♀; 24 July–6 August 2010, 1♂9♀♀, Malaise trap.

Remarks. A widespread species in Europe (Wagner 2012). Previous Norwegian records are from southeastern Norway, Nordland and Troms (Håland 2005, Olsen 2008).

Cryophila lapponica (Bergroth in Martini, 1928)

Material. FinLoc19, 9–24 July 2010, 1♂, Malaise trap.

Remarks. The species has a comparatively stout hypopygium and is the only European Chaoboridae species to possess tibial spurs (Figure 1). It is previously recorded from Sweden, Finland and Northwest Russia (Borkent 1993, Sæther 1997). Further, Wagner (2012) also lists it from Norway and Lithuania, but according to Rudiger Wagner (pers. comm.) there are no published records from these countries.

Chaoborus flavicans (Meigen, 1830)

Material. FinLoc19, 25 June–9 July 2010, 1♂ (slide-mounted), Malaise trap; FinLoc65, 19–24 June 2010, 62♂♂ 27♀♀ (in alcohol); 24 June–20 July 2010, 19♂♂ (slide-mounted); 20–30 July 2010, 1♂1♀ (slide-mounted), 103♂♂163♀♀ (in alcohol), Malaise trap.

Remarks. The species is quite common and widespread in Europe (Wagner 2012). Previous Norwegian records are from southern Norway and Troms (Sæther 1967, 1970; Nilsen 1974; Olsen 2008).

Discussion

Sæther (1996) listed six species of Chaoboridae from Norway, but without exact locality information. Later, Olsen (2008) added *Chaoborus pallidus* (Fabricius, 1794) from Østfold and Akershus. In the present paper *Cryophila lapponica* (Bergroth in Martini, 1928) is recorded for the first time from Norway. This is not a surprising record as the species is known to occur in Sweden, Finland and Western Russia

where it is associated with small, often temporary, bodies of standing water (Borkent 1993; Sæther 1996, 1997, 2002).

The number of Chaoboridae species taken in Norway thus stands at eight. The only European chaoborid species not taken in Norway is *Mochlonyx triangularis* Klink, 1982, a species which with certainty only is known to occur in the Netherlands and Germany (Wagner 2012).

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FIGURE 1. *Cryophila lapponica* (Bergroth in Martini, 1928), male. **A.** Hypopygium. **B.** Apex of hind tibia with two spurs.

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