Two species of Aphrodinae (Hemiptera, Cicadellidae) new to the Norwegian fauna

ANDERS ENDRESTØL & HALLVARD ELVEN

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Two species in the subfamily Aphrodinae (Hemiptera, Cicadellidae) are reported from Norway for the first time. *Planaphrodes nigrita* (Kirschbaum, 1868) and *Anoscopus limicola* Edwards, 1908 are both reported from Southern Norway and both species are assumed to have a restricted distribution in Norway.

Key words: *Planaphrodes nigrita*, *Anoscopus limicola*, Aphrodinae, Auchenorryncha, Hemiptera, Norway

Anders Endrestøl, Norwegian Institute for Nature Research, NINA Oslo, Gaustadalléen 21, NO-0349 Oslo, Norway. E-mail: anders.endrestol@nina.no

Hallvard Elven, Natural History Museum, University of Oslo, P.O. Box 1172 Blindern, NO-0318 Oslo, Norway.E-mail: hallvard.elven@nhm.uio.no

Introduction

Several new species of Auchenorrhyncha (Hemiptera) have been published from Norway in recent years (Holgersen 1985, 1992, Raatikainen & Ylönen 1988, Hansen & Borgersen 1991, Olsen 1999, Hansen 2000, Endrestøl 2008). The most recent work listing the species from Northern Europe, including Norway, is Söderman et al. (submitted). In this paper, we report the findings of two species of Aphrodinae (Hemiptera, Cicadellidae) new to the Norwegian fauna: *Planaphrodes nigrita* (Kirschbaum, 1868) and *Anoscopus limicola* Edwards, 1908. The subfamily Aphrodinae is represented with 33 species and four genera in Europe (Nast 1987, including the *Aphrodes bicincta*-complex, see Tishechkin 1998). With these two additional species, a total of 12 species of Aphrodinae have been recorded in Norway (Ossiannilsson 1981, Söderman et al. (submitted)).

The species

***Planaphrodes nigrita* (Kirschbaum, 1868)**

NORWAY: Ø, EIS 19, Rygge: Bog, Bogslunden forest reserve, UTMWGS84 32VNL944859, 23.VI.2008, leg. H. Elven

This specimen (1 ♂) was collected by the second author in a pitfall trap in Bogslunden forest reserve. The reserve is situated close to the Carlberg farm in Rygge municipality (Østfold county). It is a small nature reserve covering only 57 daa of mainly broadleaved forest. The dominant tree species are Oak (*Quercus robur*), Ash (*Fraxinus excelsior*) and Aspen (*Populus tremula*). Understory vegetation consists mainly of Hazel (*Corylus avellana*) and Norwegian Spruce (*Picea abies*) (DN 2009).

The ecology of *Planaphrodes nigrita* is not clear. It has been reported to prefer damp or wet sites, mainly in mountainous areas but also

in lowland forests (Nickel 2003), but has also been reported from dry, sandy eskers (Söderman 2007). According to Dmitriev (2007), *P. nigita* is a heliophobic (sunlight-avoiding) species exclusively associated with forest herbage. The latter observation corresponds well with Bogslunden forest reserve, which is a moist lowland forest. Little is known about host plant preferrence, but some specimens have been collected on *Calamagrostis canescens* (Poaceae) and *Juncus articulatus* (Juncaceae) (Nickel 2003). These species are found in the municipality, but have so far not been found on the locality. The families Poaceae and Juncaceae are well represented however (Lid & Lid 2005, Jørgensen unpubl. data). *P. nigrita* has been reported from

Figure 1. *Planaphrodes nigrita* (Kirschbaum, 1868).

Sweden and Finland, but has so far not been found in Denmark (Söderman et al. 2009). It is considered very rare in Finland, Sweden and the rest of East Fennoscandia (Ossiannilsson 1981, Söderman 2007).

Anoscopus limicola Edwards, 1908

NORWAY: AK, EIS 28, Oslo: Hovedøya, UTMWGS84 32VNM96914130, 02.VIII.2008, leg. A. Endrestøl

This species (1 ♂) was found by the first author on the island Hovedøya using a sweep net. Hovedøya is a 469 daa island situated in the Oslofjord, just outside Oslo city. Most of this island is a nature reserve. The island has a diverse flora and fauna, dominated by broadleaved forest and calcareous dry meadows. Together with other islands in Oslo municipality, Hovedøya has been monitored for insect diversity during the last four years (e.g. Endrestøl et al. 2006). A total of 728 species of insects have so far been registered on this island, including 28 species considered threatened in Norway (Endrestøl et al. 2008, Kålås et al. 2006). *A. limicola* is endemic to the western coasts of Europe (Nickel 2003) and have been recorded from Ireland, England, the Netherlands, Germany (East Frisian Islands and a few mainland localities on the north coast) and France (both the Atlantic and Mediterranean coasts) (Nickel 2003). In northern Europe, it has previously only been found in Sweden where there are a few recordings from the southern part (Söderman et al. 2009, Ossiannilsson 1981). The species is a halobiont restricted to sea shore habitats where its host plant, *Puccinellia maritima* (Nickel 2003), lives. The species has been shown to be sensitive

Figure 2. *Anoscopus limicola* Edwards, 1908.

to grazing, although its hostplant shows high tolerance (enhanced growth) for grazing (Meyer et al. 1995).

Discussion

The two species here reported new to Norway are probably very rare in Norway. Their northern distributions are poorly known due to the scarcity of fennoscandian records, but the records from Sweden indicate a strictly south-eastern distribution for both species. The two other North European members of the subfamily Aphrodinae have not been found in Norway so far, and do probably have a more south-eastern European distribution than the above described species. *Anoscopus serratulae* (Fabricius, 1775) is widespread in Europe north to southern Sweden, where it is not uncommon (Ossiannilsson 1981). *A. albiger* (Germar, 1821) has only been reported twice from Scandinavia, once from Sweden (Gotland) (Gillefors 2002) and once from Denmark (Bornholm) (Ossiannilsson 1981). Both species are reported as hygrophilic ("moist-preferring"), and are found in woodland marshes and moist meadows (Dmitriev 2007).

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