Psallus Fieber, 1858 and *Parapsallus* Wagner, 1952 (Hem.-Het., Miridae) in Norway

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This paper presents records on four species and one genus of phyline bugs (Hemiptera, Heteroptera, Miridae, Phylinae) previously not recorded from Norway: *Psallus (Psallus) albicinctus* (Kirschbaum, 1856), *Psallus (Hylopsallus) wagneri* Ossiannilsson, 1953, *Psallus (Pityopsallus) luridus* Reuter, 1878 and *Parapsallus vitellinus* (Scholtz, 1847), including some new regional records for additional species of *Psallus* Fieber, 1858. Notes are given on the biology and distribution of all the 22 Nordic *Psallus* and *Parapsallus* species, of which only two have not yet been recorded. This paper discusses the importance of *Quercus* L. as a host tree for *Psallus*-species, and their spatial and temporal distribution.

Key words: Phylinae, *Psallus, P. albicinctus, P. wagneri, P. luridus, Parapsallus vitellinus,* Norway, canopy.

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Introduction

The knowledge of the heteropteran fauna in Norway is increasing due to increased mapping and attention (e.g. Hågvar 2007, 2008, 2010; Ødegaard & Endrestøl 2007; Staverløkk et al. 2008, 2009). Most of the faunistic data is obtained from species found on herbs in meadows. Due to undersampling, we assume that the knowledge of the canopy fauna of Norwegian Heteroptera still is poor. Previous investigations of canopy-arthropod communities on Scots pine *Pinus sylvestris* L. in Norway have resulted in high numbers of new species to Norway and even new to science (Thunes et al. 2004).

Since 2003, the Norwegian Institute for Nature Research (NINA) has directed the project "Arealer for rødlistearter – Kartlegging og overvåking (ARKO) [Red-listed species – Survey and Monitoring] as a part of the governmentinitiated "Nasjonalt program for kartlegging og overvåking av biologisk mangfold" [National Program for Survey and Monitoring Biodiversity], where one of the main aims has been to identify important habitats (hot-spot habitats) for red listed species (Sverdrup-Thygeson et al. 2007, 2009; Kålås et al. 2010). A substantial amount of data has been recorded on rare and red listed species, including many species previously not recorded from Norway (Ødegaard et al. 2009).

One hot-spot habitat in the ARKO project is hollow oaks (*Quercus* spp.). Despite the scarce distribution of oak in Norway, it is the most important tree for insect diversity. More than 500 Norwegian species of insects are directly dependent on oak, especially mould and dead wood of old, hollow oaks. Ødegaard et al. (2009) reported 15 species new to Norway and 101 red listed species associated with oaks from the ARKO project. In this paper we report four species new to the Norwegian fauna mainly based on material collected as part of the survey of hollow oaks.