

***Panaphis juglandis* (Goeze, 1778) and *Chromaphis juglandicola* (Kaltenbach, 1843) (Hemiptera, Aphididae) in Norway – two aphid species associated with common walnut (*Juglans regia* L.)**

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The two aphid species *Panaphis juglandis* (Goeze, 1778) and *Chromaphis juglandicola* (Kaltenbach, 1843) were recorded on leaves of common walnut (*Juglans regia* L.) in June and July 2014 in the Botanical garden at Tøyen, Oslo. Both species are solely associated with the common walnut, on which they may cause damages both on leaves and fruits. The two species are hitherto not reported from Norway. Biology and distribution are briefly commented on.

Key words: Hemiptera, Aphididae, aphids, *Chromaphis juglandicola*, *Panaphis juglandis*, new records, common walnut, *Juglans regia*, Juglandaceae, Norway.

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Introduction

Aphids or plant lice are small to medium sized sap-sucking insects, representing some of the most destructive insect pests found on cultivated plants. They passively feed on sap of phloem vessels in the plants. Some species are monophagous, feeding on only one plant species, while others, like the green peach aphid *Myzus persicae* Sulzer, 1776, are polyphagous, and feed on hundreds of plant species across several plant families (Heie 1982, Dolling 1991, Blackman 2014). Even some are heteroecious and may alternate between two or more host species. Aphids often transmit plant viruses, which is a huge problem in the agriculture because the plants may wilt and die.

Approximately 5000 species of aphids in 510 currently accepted genera are known worldwide (Blackman 2014). About 250 species are serious pests in agriculture and forestry, as well as an annoyance for gardeners.

Recent classification of aphids places the

majority of species in the single family Aphididae, making up the superfamily Aphidoidea. It joins the suborder Sternorrhyncha, together with the superfamilies Aleyrodoidea, Coccoidea, Phylloxeroidea and Psylloidea (Blackman 2014, Nieto Nafria 2014).

Common walnut (*Juglans regia* L.) originates from Central Asia, but has been planted many places around the world, including Europe, mainly for nut production. However, in Norway they are almost only used as ornamental trees, because the nuts are not always ripened due to the short summer season. Eleven aphid species have *J. regia* as hostplant in the Palaerctic region (Blackman 2014), and this paper deals with the first records of two of these walnut associated species in Norway. The species belong to the two genera *Panaphis* Kirkaldy, 1904 and *Chromaphis* Walker, 1870 which, according to Heie (1982), are placed in the subtribe Callaphidina.