

## A likely German wasp (*Vespula germanica*) breeding colony in continental Finland

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Permanent populations of German wasp (*Vespula germanica*) have been reported in Åland Islands, southwestern Finland, but until now there are no reported observations from continental Finland. We found numerous workers of this species feeding on ripe apples in Turku, southwest Finland, in summer 2005. A sample collected for species identification showed that they belonged to a colony of German wasp. The species has undergone recent range expansion in many parts of the world. We suggest that recent warm summers and mild winters facilitate the expansion of this species northwards.

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The German wasp (*Vespula germanica* Fabr.) is found throughout Europe except in northern Scandinavia (Johansson and Pekkarinen 2000). This species has been recorded as new to Finland by Hellén (1948). Several records from various localities in Åland Islands, southwestern Finland, have indicated a permanent population in the area (Pekkarinen and Huldén 1995). Dead queens have been found also from continental Finland (Pekkarinen and Huldén 1995; Johansson and Pekkarinen 2000), but until now breeding colonies have not been reported. This species has a wide distribution in temperate areas but cold winters have probably prevented them to expand northwards.

We noticed several individuals of German wasp to visit in a compost pile in Turku (60° 26' N, 22° 13' E), southwestern Finland, in September 2005. Several workers were observed to feed on ripe apples which they excavated to obtain sugary food. Four workers

were trapped for identification 19<sup>th</sup> September (Fig. 1). One of the remaining individuals was marked with black ink in its abdomen to measure how long the feeding trips to the nest colony took. Two measured trips a day after marking took 9 min 40 s and 10 min. The colony itself may thus have been several hundreds of meters from the compost. Departures from the food source always took place to the same direction for all the observed individuals.

The species has been accidentally introduced into Australia, New Zealand, Africa, North America and Argentina (Tribe and Richardson 1994; Hunt and Sanders 1998; D'Adamo et al. 2002; Ward et al. 2002). German wasps have been reported to have detrimental effects in local ecosystems by preying other arthropods (Harris 1991). We suggest that recent warm summers and mild winters facilitate the expansion of this species northwards.

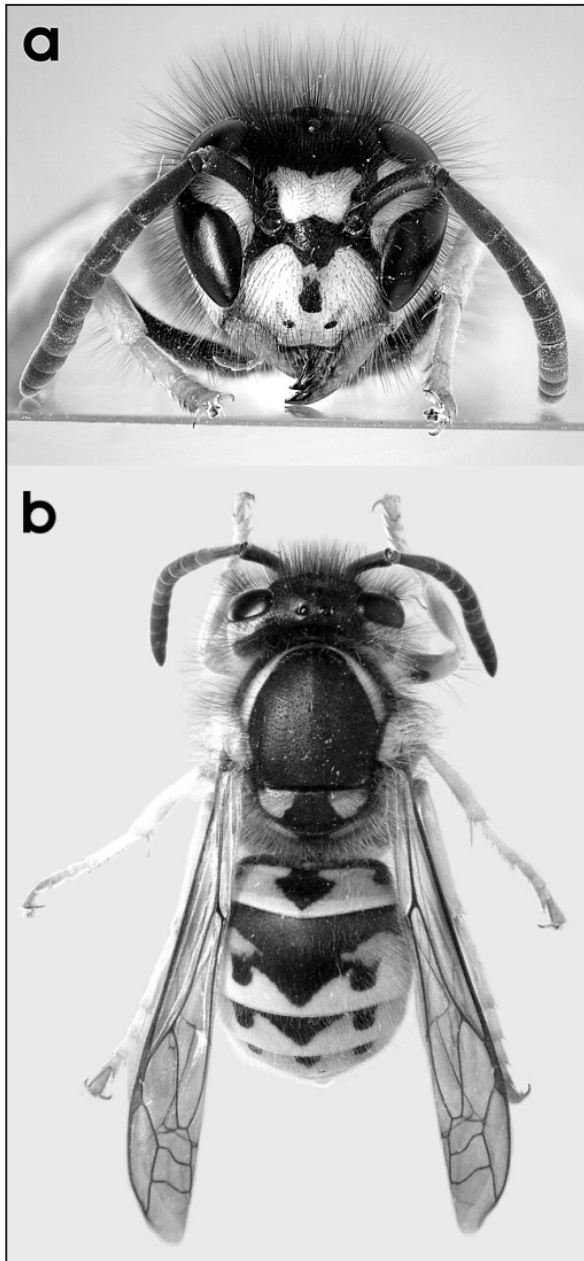


Figure 1. Frontal (a) and dorsal (b) view of a German wasp (*Vespula germanica*) worker collected from Turku in September 2005.

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### Selostus – Finnish summary

Saksanampiaisen (*Vespula germanica*) on arveltu jo pitkään pesineen Ahvenanmaalla, mutta Manner-Suomesta havaintoja pesimäkolonioista ei ole toistaiseksi raportoitu. Löysimme syyskuussa 2005 Turusta useita saksanampiaistyöläisiä ruokailemassa kompostissa mätänevillä omenoilla. Keräsimme näyteyksilöitä lajinmäärittystä varten ja merkitsimme yhden työläisen tarkempaa seuranta varten. Ruoanhakumatkan keston perusteella pesä saattoi sijaita muutaman sadan metrin säteellä havaintopaikasta. Saksanampiaisen on ihmisen toimesta levinnyt laajalle lauhkean vyöhykkeen alueella. Arvelemme että laji on ilmaston lämpenemisen myötä levittäytymässä pohjoista kohti.