

Phytodietus (Weisia) januszi, a new species and subgenus to Sweden (Hymenoptera, Ichneumonidae)

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A parasitoid wasp, *Phytodietus (Weisia) januszi* Kostro-Ambroziak, belonging to the subfamily Tryphoninae, is reported for the first time in Sweden, from the province of Södermanland. This is also the first record of the subgenus *Weisia* Schmiedeknecht in Scandinavia, extending the range of this subgenus further north. Current data indicate that *Ph. (W.) januszi* is an univoltine species, associated with deciduous habitats.

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Tryphoninae is a moderately large subfamily of Ichneumonidae that includes eight tribes and 56 genera (Yu et al. 2011). Morphologically they form a rather heterogeneous group (Kasparyan & Tolkantiz 1999), but they are characterized by their unique eggs and, rare among the ichneumonids, a koinobiont ectoparasitoid life-history strategy (Gauld et al. 1997).

The genus *Phytodietus* Gravenhorst, 1829 comprises parasitoids of various Lepidoptera, mainly Tortricidae (Yu et al. 2011). It is rather easy to recognize among other genera of tryphonines by a combination of the following features: inner margin of eye without a notch opposite the antennal insertion, mandible with upper tooth only slightly longer than the lower, and propodeum without carinae (Kasparyan & Tolkantiz 1999). *Phytodietus* is known from all over the world, with the exception of Antarctica, and includes about 120 described species (Yu et al. 2011). So far, 24 species of this genus have

been recorded in Europe (Zwakhals 2013, Kasparyan & Shaw 2008), of which three belong to the subgenus *Weisia* Schmiedeknecht, 1907. The



Figure 1. *Phytodietus (Weisia) januszi*, female from Sweden. *Phytodietus (Weisia) januszi*, en hona som är det första fyndet av denna parasitstekel i Sverige.



Figure 2. The habitat of *Phytodietus (Weisia) januszi* in Sweden; the single known Swedish specimen was caught by this Malaise trap.

Malaisefällan i vilken brokparasitstekeln *Phytodietus (Weisia) januszi* fångades för första gången i Sverige. Foto: Dave Karlsson

most distinctive feature of *Weisia* is the absence of an areolet in the fore wing, which is present in other subgenera of *Phytodietus* (Kasparyan & Tolkanitz 1999). In Europe this subgenus is represented by *Ph. (W.) bayeri* in the Czech Republic (Gregor 1935) and Poland (Kaźmierczak 1991), *Ph. (W.) rhodopaeus* in Bulgaria (Kolarov 2003) and *Ph. (W.) januszi* from Poland (Kostro-Ambroziak 2007) (Fig. 3).

Samples collected during the Swedish Malaise Trap Project (SMTP), a nationwide inventory (Karlsson et al. 2005), have yielded the first specimens of *Ph. (W.) januszi* from Sweden. This is also the first record of the subgenus *Weisia* from Scandinavia. A single female of this species was collected between 12–28 May 2004 at Sö, Tyresö kommun, Åva, Spirudden; latitude 59°10.313', longitude 18°22.197'. The speci-

men is deposited at Station Linné (Sweden) and stored in 96% ethanol. The colour pattern of the female from Sweden (Fig. 1) is the same as the colouration of the type specimens collected in Poland. At present, with *Ph. (W.) januszi*, twelve species of the genus *Phytodietus* are known from Sweden (Gärdenfors et al. 2003).

European species of *Phytodietus* are univoltine (one generation per year) or plurivoltine (more than one generation per year) (Kasparyan & Shaw 2008). *Phytodietus (W.) januszi* seems to be univoltine; all known specimens (about 40) of this species, both from Poland and Sweden, were collected in May and June. This species is associated with deciduous trees: mixed coastal oak forest (Sweden) (Fig. 2) and orchards with apple-trees and plum-trees (Poland). Nothing is known about the hosts of this species.

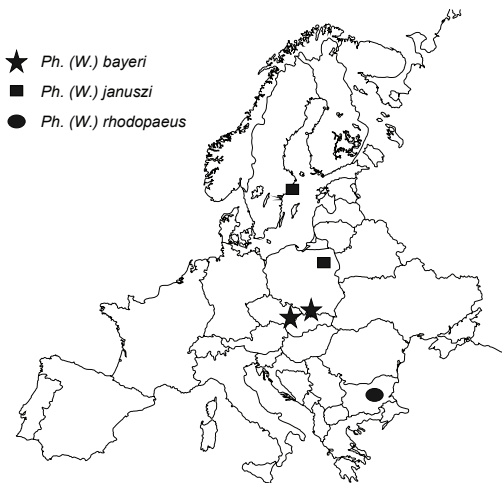


Figure 3. Distribution of the species of the subgenus *Weisia* Schmiedeknecht in Europe.

Utbredningskarta för arterna i undersläktet *Weisia* Schmiedeknecht in Europe.

This record of *Ph. (W.) januszi* from Sweden extends the known geographical distribution of *Weisia* in Europe (Fig. 3). It is also the most northern locality for this subgenus in the world.

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Sammanfattning

Parasitstekeln *Phytodietus (Weisia) januszi* Kostro-Ambroziak, 2007 (Ichneumonidae, Tryphoninae) rapporteras för första gången från Sverige med en insamlad hona från Södermanland. Detta fynd utökar utbredningsområdet för undersläktet *Weisia* Schmiedeknecht, längre norrut. Det tidigare nordligaste fyndet gjordes i Polen (Kostro-Ambroziak 2007). Aktuell information tyder på att *Ph. (W.) januszi* endast producerar en generation per år och har framförallt hittats i lövskogshabitat.