

A new species of *Pteromalus* (Hymenoptera: Chalcidoidea) from France, associated with *Solidago virgaurea*

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Abstract: *Pteromalus (Habrocytus) solidaginis* spec. nov. is described. The species was exclusively found on flowers of *Solidago virgaurea*.

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Introduction

The species of *Pteromalus* described below was observed by both authors on several occasions and in considerable numbers, upon flowers of *Solidago virgaurea* L. (Compositae) which was growing in profusion in a particular area at Col de l'Homme Mort, Drôme, France. As more information was obtained, we decided to incorporate our findings in a joint paper. The species was not found on Mont Ventoux, 25 km W of the type locality, where *Solidago* is as abundant on a heath between 1200 and 1500 m.

Pteromalus (Habrocytus) solidaginis spec. nov. (figs. 1, 2)

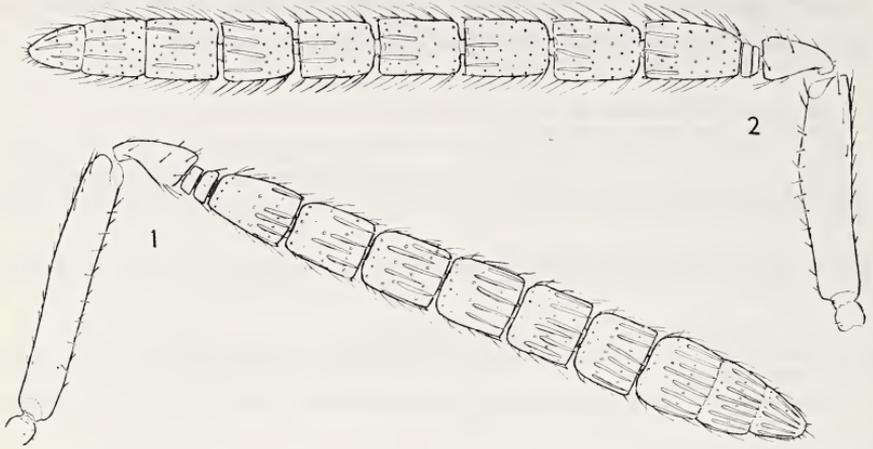
Type material

Holotype: ♀. "FRANCE, Drôme, M. W. R. de V. Graham. SÉDERON, Col de l'Homme Mort, 1.viii.1990" in collection of the Natural History Museum, London. Paratypes: same locality as holotype "M. W. R. de V. Graham. 15.viii.1988" 2 ♂♂, 45 ♀♀; same locality, "18.viii.1988" 24 ♀♀; same locality, "1.viii.1990" 7 ♂♂, 40 ♀♀; same locality, "18.viii.1990" 11 ♀♀; same locality, "27.viii.1990" 6 ♀♀. In collections of the Natural History Museum, London; Muséum National d'Histoire Naturelle, Paris; M. W. R. de V. Graham. "FRANCE, Drôme, M. J. Gijswijt. SÉDERON, Col de l'Homme Mort, 15.viii.1988" 4 ♀♀; same locality, "18.viii.1988" 12 ♀♀; same locality, "27.viii.1990" 8 ♀♀; same locality, "6.ix.1990" 6 ♀♀. In collections Instituut voor

Taxonomische Zoölogie afd. Entomologie, Amsterdam; Nationaal Natuurhistorisch Museum, Leiden; M. J. Gijswijt.

Description

Female: Eyes 1.5 times as long as broad. OOL 2.0-2.3 times OD [major diameter of lateral ocellus]. Antenna (fig. 1) with scape reaching at most to lower edge of median ocellus, F1 [first funicle segment] as long as or somewhat shorter than pedicellus, quadrate to 1.5 times as long as broad, F2 and F3 quadrate or slightly longer than broad, F4 and F5 quadrate, F6 very slightly transverse; sensilla of funicle in one (sometimes irregular) row on each segment. Forewing with row of setae on lower surface of costal cell usually complete, sometimes narrowly broken medially; speculum, on upper surface of wing, not reaching stigmal vein and often extending only about half length of marginal vein, the latter 1.42-1.57 times length of stigmal vein; apical margin of wing normally ciliate throughout, occasionally bare around the tip in worn specimens. Gaster as broad as or slightly broader than thorax, 1.70-2.15 times as long as broad, not or only slightly longer than head plus thorax; last tergite a little broader than long. Body some-



Figs. 1-2. *Pteromalus solidaginis* spec. nov. 1, female antenna; 2, male antenna.

times blue-green or blue but more often darker green or bronze-green. Wings hyaline or slightly grey-tinged; venation sordid testaceous to brownish with parastigma and stigma sometimes fuscous. Length 2.2-2.8 mm.

Male: Antennal flagellum (fig. 2) like that of *P. albipennis* Walker but rather more slender. Forewing with basal cell usually having a few setae distally, sometimes as much as distal half of cell pilose (normally bare in *P. albipennis*); speculum not reaching stigmal vein. Antennal flagellum fuscous to black, at most obscurely testaceous beneath. Other characters as in male *P. albipennis*.

Discussion

Most females of *P. solidaginis* run in Graham's key to females of *Habrocytus* and *Pteromalus* (Graham, 1969: 495) to couplet 42 and *P. decipiens* Graham, from which they differ in having eyes slightly more elongate (only 1.3-1.4 times as long as broad in *P. decipiens*), funicular segments a little longer, at most F6 very slightly transverse; apical margin of forewing normally ciliate throughout, venation darker, size on average greater.

Females having the line of setae of costal cell narrowly broken medially run in the above key to *P. decipiens* and *P. albipennis* in couplet 23, or to *P. albipennis* in couplet 25. The female of *P. solidaginis* differs from Graham's redescription of *P. albipennis* (1969: 544) in having smaller ocelli, ratio OOL : OD greater (in *P. albipennis* 1.65-1.85); antennal scape not quite, or only just, reaching lower edge of median ocellus, funicular segments with only one row of sensilla, line of setae on lower surface of costal cell usually complete, occasionally narrowly broken medially, apical margin of forewing normally ciliate throughout; gaster relatively shorter, with last tergite broader than long; wings sometimes slightly grey-tinged, with dark setae (paler in *P. albipennis*), venation relatively darker.

P. albipennis retains its characteristically pale venation at high altitudes (some Chalcidoidea tend to have darker coloration in such situations). A few females were taken in the type locality for *P. solidaginis*, indicating that the difference in venational colour, although small, is a valid character.

The host of *P. solidaginis* has not been ascertained but it will probably prove to be a species of Tephritidae (Diptera) living upon

Solidago. It is worth noting that Graham took a number of specimens of the Tephritid *Paroxyna loewiana* Hendel in company with the *Pteromalus* specimens on 18.viii.1988, 1.viii.1990 and 18.viii.1990. Possibly this is the host.

Reference

GRAHAM, M. W. R. DE V., 1969. The Pteromalidae of north-western Europe. - *Bull. Br. Mus. nat. Hist. (Ent.) Suppl.* 16: 1-908.

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