

## The pteromalid genus *Collentis* (Hymenoptera: Pteromalidae) newly reported from the Palaearctic Region

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**Abstract.** *Collentis* Heydon, 1992 is newly reported from the Palaearctic region with the transfer of *Callimerismus suecicus* Graham, 1969 to *Collentis* as *C. suecicus*, comb. nov. *Collentis* is compared with *Callimerismus* Graham, 1956 and Palaearctic Miscogastrini, and *Collentis suecicus* is compared with *Collentis latipennis* (Ashmead, 1890) from Colorado, USA, the only other known species in the genus.

**Distribution, taxonomy, new combination, new record, parasitoid, Hymenoptera, Chalcidoidea, Pteromalidae, Miscogastrini, Palaearctic region**

### INTRODUCTION

The miscogastrine genus *Collentis* Heydon, 1992 was described for *Dipara latipennis* Ashmead, 1890, a species known only from two localities in Colorado, USA (Heydon & Bouček 1992). The species had previously been transferred to *Callimerismus* Graham, 1956 by Hedqvist (1969), a genus now classified in the Sphegigastrini. Heydon (1989) established that a major difference between the Sphegigastrini and Miscogastrini was the form of the petiolar base. Sphegigastrini have a complete anterior ventral flange, whereas Miscogastrini do not (unsclerotized antero-ventrally). The confusion between *Callimerismus* and *Collentis* was largely because they both have an asymmetrically tridentate clypeus, lack a pronotal collar carina, and have a similarly sculptured prepectus and frenum. Aside from the petiolar flange, the only other stated difference between the two genera is the shape of the posterior margin of the first gastral tergite, which is straight in *Callimerismus* and bisinuate (mesally convex) in *Collentis* (Fig. 2). Another difference between the genera is the sculpture of the propodeum. *Callimerismus* has step-like plicae delimiting raised median panels as in many other sphegigastrines, whereas *Collentis* has much more poorly differentiated plicae and median panels as in many other small miscogastrines. *Callimerismus suecicus* Graham, 1969 was described from a single female specimen collected in Skåne, Sweden (Graham 1969). Upon examining this specimen (BMNH), I concluded that it belongs to the genus *Collentis*.

### MATERIALS AND METHODS

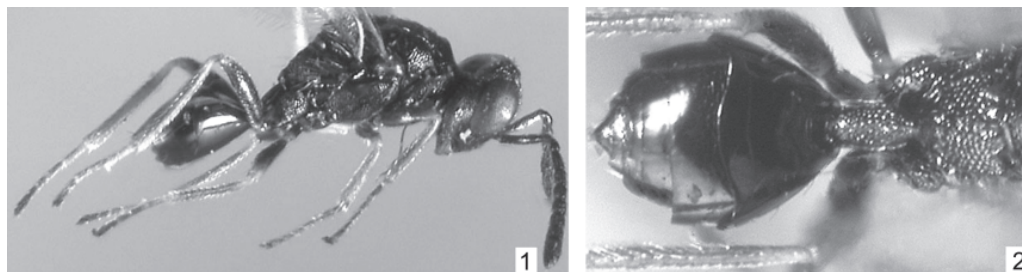
All measurements and terminology follow Graham (1969) except that “prepectus” is used for “postspiracular sclerite”, “alveolate” for sculpture divided into small polygonal cells separated by raised septa, and “coriaceous” for sculpture divided into similar cells but by sunken septa. Abbreviations for museums: (BMNH) The Natural History Museum, London; (USNM) U.S. Natural History Museum, Smithsonian Institution, Washington, DC. Photographs were taken using Auto-Montage software (version 4.04.0128 BETA, Synoptics, Ltd., UK 1997... 2003) through a 3-CCD digital videocamera attached to a stereoscope.

### DISCUSSION

*Collentis suecicus* (Graham, 1969), comb. nov. (Figs 1–2) represents the first record of the genus from the Palaearctic region. It can be distinguished from other Palaearctic Miscogastrini by keying it to *Callimerismus* in Bouček & Rasplus (1991) and then applying the characters outlined above. *Collentis*

differs from many Miscogastrini in having raised (alveolate) mesosomal sculpture and a small stigma as opposed to the sunken (coriaceous) sculpture and grossly swollen stigma of *Miscogaster* Walker, 1833 and similar genera. It is also characterized by a long ( $2\times$  longer than broad) petiole, partially bare forewing basal cell, distinct but acarinate pronotal collar, and uniformly alveolate prepectus without a diagonal carina. Particular differences between *Collentis* and similar Palaearctic Miscogastrini are as follows; *Merismus* Walker, 1833 has a carinate pronotal collar and prepectus with a diagonal carina; *Telepsogina* Hedqvist, 1958 has a much shorter, smooth petiole and stouter flagellum in females; and *Thektogaster* Delucchi, 1955 has a much shorter petiole and longer, lanceolate gaster in females.

The two species of *Collentis* are very similar in most respects, but I consider them separate on the basis of a few cranial characters. I examined the specimens of *C. latipennis* in the USNM and found the following differences: head more transverse ( $2.3\times$  broader than maximum length in *C. latipennis*,  $2.15\times$  in *C. suecicus*); and eyes smaller (distance between eyes  $1.9\times$  dorsal eye length in *C. latipennis*,  $1.4\times$  in *C. suecicus*; eye length  $2.5\times$  temple length in *C. latipennis*,  $3.5\times$  in *C. suecicus*). Males and the biology of *C. suecicus* remain unknown, although Heydon (in Heydon & Bouček 1992) speculated that the host would be a leaf- or stem-mining dipteran. The unusual distribution of *Collentis* (Colorado (USA), Sweden) is difficult to explain except through invoking extreme reduction from a previously extensive Holarctic distribution. Examination of collections for additional specimens of both species has proven fruitless so far, but elucidation of the biology of *Collentis* and collections from additional localities should provide a better understanding of the history of the genus.



Figs 1, 2. *Collentis suecicus* (Graham) comb. nov., holotype female; 1 – lateral habitus, 2 – dorsal view of propodeum and metasoma.

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