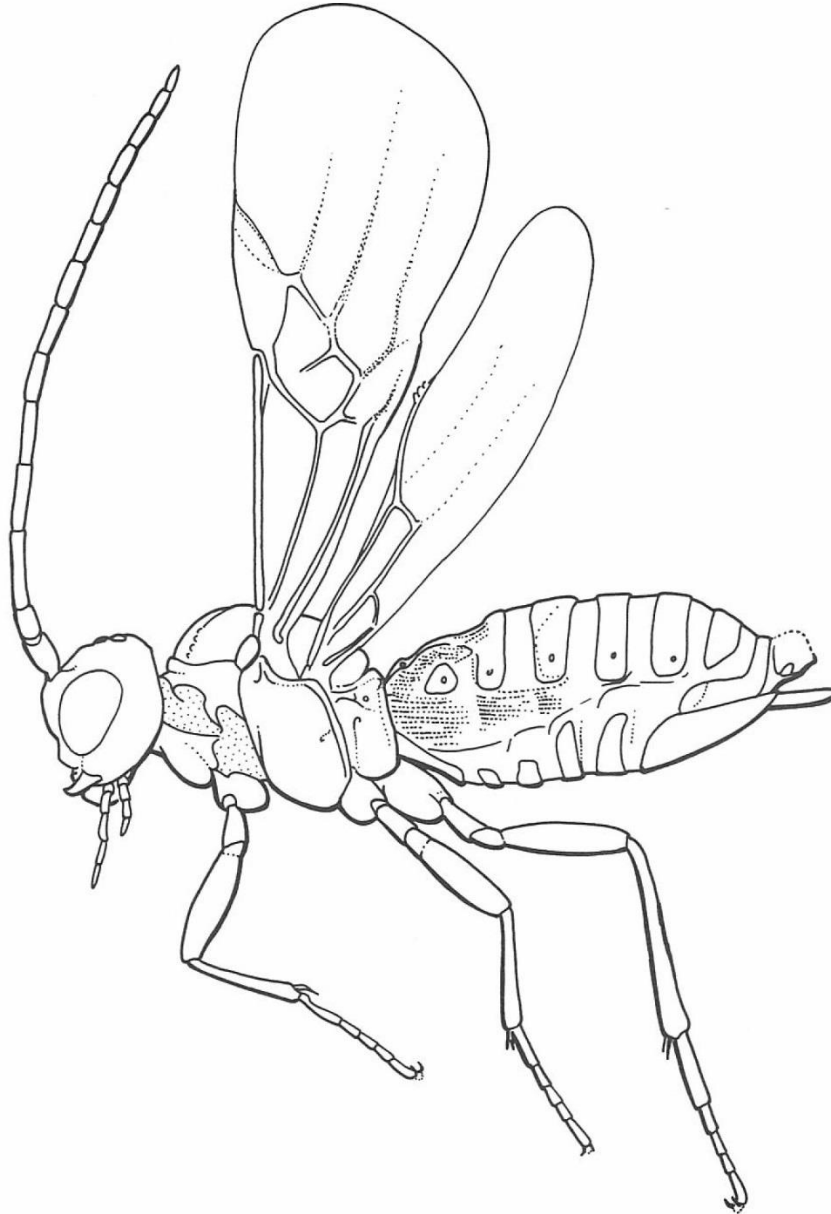


SUBFAMILY MIRACINAE

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INTRODUCTION. The subfamily Miracinae has been considered part of the Microgastrinae (Muesebeck, 1922; Nixon, 1965; Marsh, 1979) but more recently has been accepted as a distinct subfamily (Mason, 1981, 1983; Quicke and van Achterberg, 1990; Wharton et al., 1992; Whitfield and Mason, 1994). Only one genus, *Mirax* Haliday, is generally recognized, although a second generic name, *Centistidea* Rohwer, is available and occasionally used. The group has never been seriously studied. Yu et al. (2016) cataloged the world species.

PHYLOGENY. The Miracinae has long been recognized as part of the Microgastroid clade. In a large molecular analysis of the Braconidae, Sharanowski et al. (2011) found it to be sister to the Khoikhoiinae, a small subfamily restricted to southern Africa.

BIOLOGY. Many of the species have been reared, always from leaf-miners, usually from Nepticulidae or Heliozelidae but also from some Gracillariidae and Tischeriidae (Whitfield and Wagner, 1991). The larvae are endoparasitoids: the adults emerge from the host cocoon.

COMMON GENERA. *Mirax* is widely distributed and locally abundant, although not very well represented in collections.

DISTRIBUTION. Worldwide, especially well represented in tropical regions.

DISTINGUISHING FEATURES. The narrow first metasomal tergite along with the striate, membranous lateral tergites will separate miracines from all other subfamilies except Mendesellinae. From that subfamily miracines differ in having vein r-m of the fore wing absent, and the inverted T-shaped sclerotized portion of the first plus second metasomal terga is also unique.

GENERIC TREATMENT

Mirax Haliday, 1833

Diagnosis. Small size and forewing venation and T-shaped sclerotized portion of metasomal terga 1 and 2.

Biology. See previous page.

Diversity. Including those species presently included in *Centistidea* there are 34 described species of which 13 are found in the New World, dozens to hundreds more are undescribed.

Distribution. Cosmopolitan, see above.

Publications. There are no comprehensive treatments.

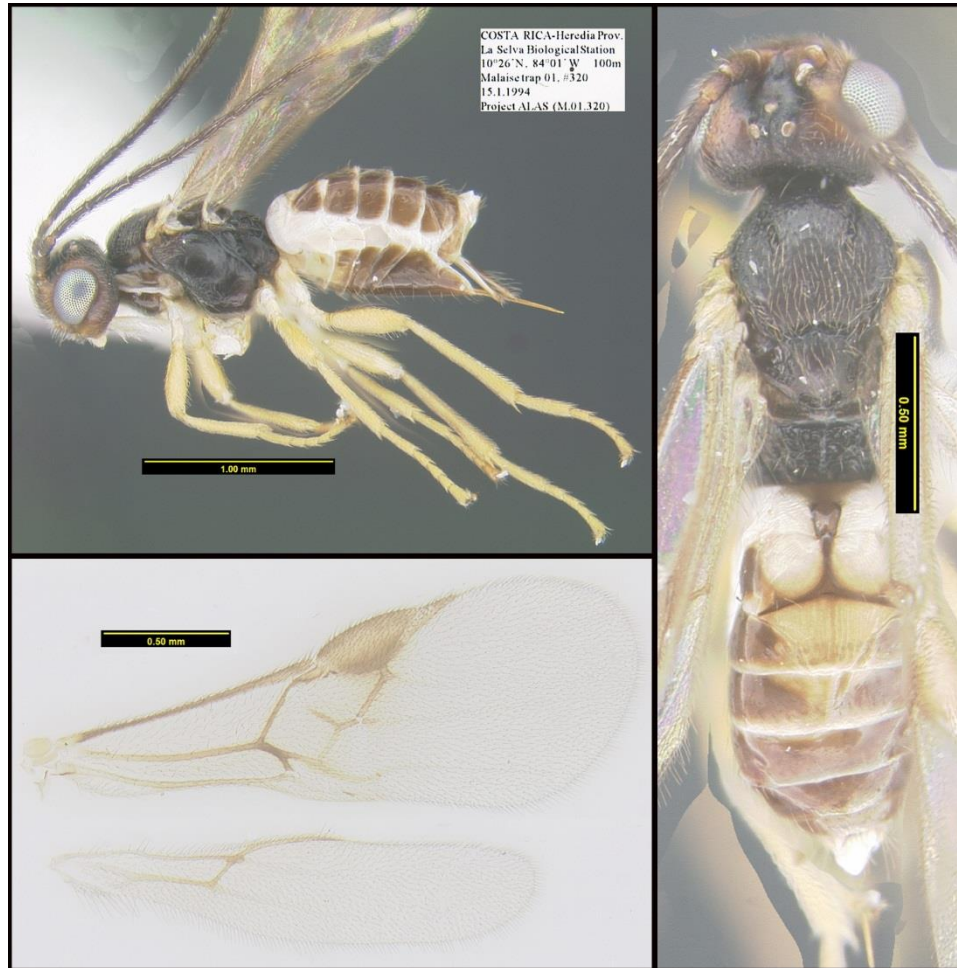


Figure 1. *Mirax* sp.

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