

To John Heraty with kind regards  
Zdeněk

## Description of a new eucharitid wasp (Hymenoptera: Chalcidoidea) from southern Africa

by

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*Mateucharis glabra*, a new genus and species of Eucharitidae, is described from southern Africa; females were found ovipositing into leaves of grapevine and *Parinari curatellifolia*.

The wasps of this chalcidoid group are very poorly known in Africa but, as elsewhere, the scanty information indicates that they develop as endoparasites of larvae and pupae of ants. Their eggs are laid in the tissues of specific plants, usually in leaves, leaf buds or flower buds, in great numbers. The first-instar larvae are of the planidium type. They move actively about and attach themselves to passing insects. However, only those that find a suitable ant and are carried into the ant's nest have a chance of completing their development. In the nest they bore into the ant larvae and usually complete their development in the pupal cocoon.

### *Mateucharis* gen. nov.

Type-species: *Mateucharis glabra* spec. nov.

A genus of the Eucharitinae, i.e. with pronotum strongly reduced dorsally and at the sides fused with prepectus. Body without apparent pilosity and without any coarse sculpture, although at least thorax slightly to quite dull owing to the extremely fine microscopic irregular punctation. Head without any striae; vertex posteriorly rounded. Mandibles falcate. Antennae in both sexes 10-segmented (Figs 1, 2), in female almost simple, with distal funicular segments serrate and scape not longer than its maximum width; in male, flagellar segments 2 to 7 dorsally each with a short flattened branch; antenna clothed with very short pubescence.

Mesoscutum almost regularly convex, without any distinct groove. Scutellum convex, triangular, anteriorly bordering on mesoscutum and thus separating the short transverse axillae; apex of scutellum rounded, the extreme tip formed by ascending frenal part, which distinctly bulges over metanotum, and the steep simple propodeum. Propodeum with fine median line; spiracles placed in anterior corners; lateral side of propodeum tooth-like behind hind wing, outer side forming together with metapleuron an almost parallel-sided panel; metapleuron narrow, confined to lower half. Mesopleuron slightly convex, almost shield-like, subdivision indistinct except for suture separating subalar sclerite. Fore coxa relatively long, fully as long as hind coxa. Otherwise in legs, wings and gaster not substantially different from *Eucharis* Latreille; petiole almost parallel-sided, clearly longer than propodeum medially.

retrospirite separated by groove

as ventral to yellowish groove with E. clausi

ala separated by groove, ant spiracle, subalar sclerite

1. 1st spiracle

*Mateucharis* can be easily distinguished from all other genera of Eucharitinae by the more or less dull body without any conspicuous sculpture. It is probably closest to *Eucharis*, but differs from that genus, apart from the sculpture and lack of notaular grooves on the mesoscutum, by the undivided though relatively large last segment of the antennae and the unusually long fore coxae.

***Mateucharis glabra* spec. nov., Figs 1, 2**

**FEMALE.** Length 3.4–5.0 mm. Black; tibiae and tarsi, and often partly fore and mid tibiae, and ovipositor (not sheaths), pale brown to yellow. Wings hyaline, sometimes slightly whitish or suffused with slight brownish.

Antennal scape sparsely hairy on ventrolateral side, on ventrolateral side distinctly longer than pedicel. Last antennal segment 2.5 to fully 3 times as long as broad, bluntly acuminate at apex. Thorax with silky gloss. Scutellum in lateral aspect strongly convex, frenal part at apex not reaching high. Gastral petiole about 3 times as long as broad, slightly tapering forward in anterior half.

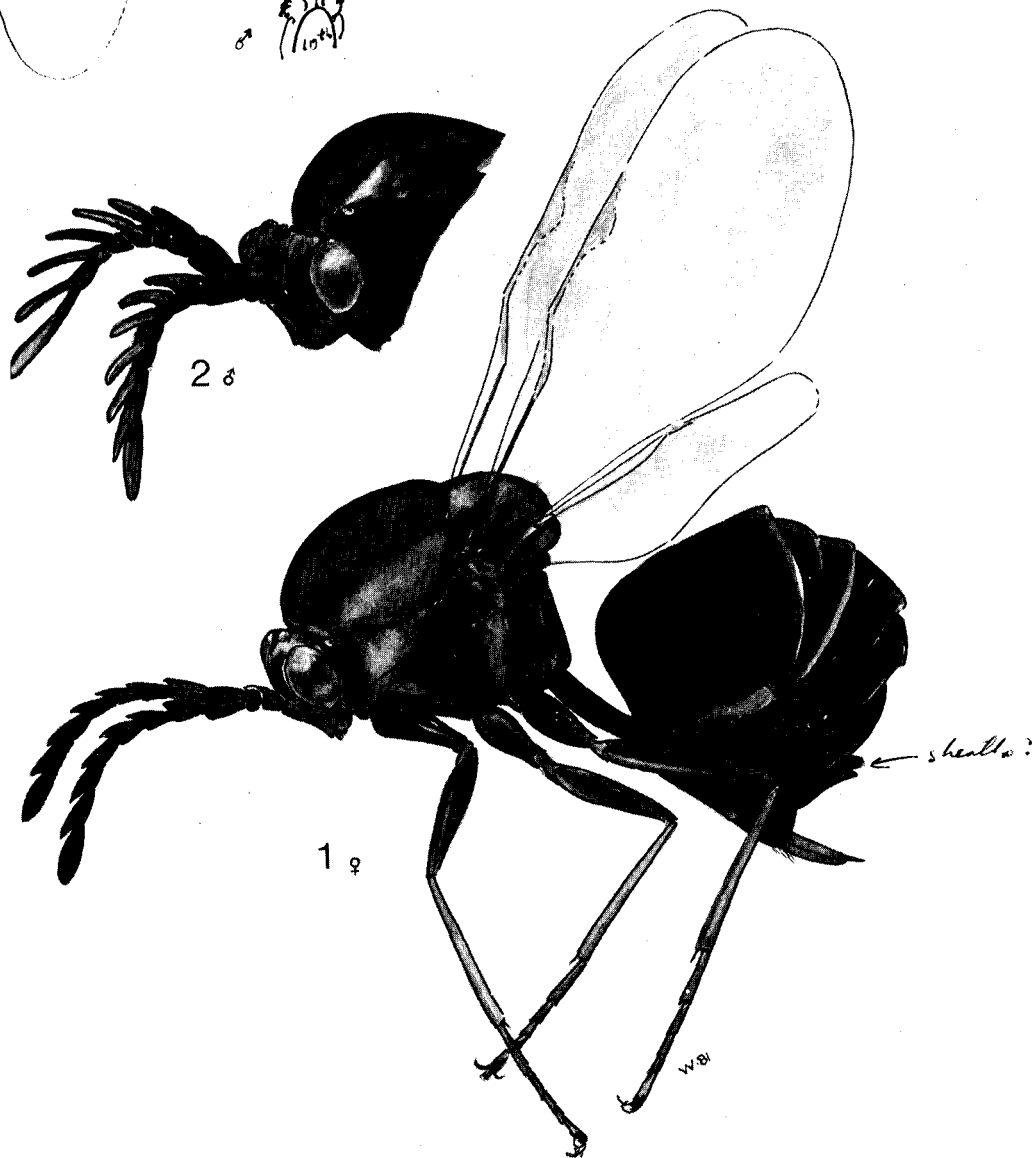
**MALE.** Similar to female in many respects, including colour and sculpture, but with distinctly branched antennae (Fig. 2), their last segment flat-clavate and in length subequal to height of head. Gaster slenderer, smaller, petiole almost parallel-sided and 4.4–5.0 times as long as broad in middle.

**BIOLOGY.** The first specimens were collected by sweeping herbaceous vegetation, after which it was found that many were attracted by yellow pan traps. Later the females of *M. glabra* were found (by A. W. in Zimbabwe) ovipositing into the underside of the leaves of a grapevine. Because the grapevine is an introduced plant, our attention was switched to the native shrubs and trees, and eventually great numbers of females were found ovipositing into the underside of the leaves of the rosaceous tree *Parinari curatellifolia*. The underside of these leaves is hairy, whitish, very similar to that of the *Vitis* leaves. Other parts of the life cycle have not yet been worked out, but we can suppose that the planidium larvae of the first stage of the wasp attach themselves to some ants visiting *Parinari* and *Vitis* and are carried into the ant nest and there become endoparasites of the ant larvae.

**MATERIAL EXAMINED.** Holotype ♀, ZIMBABWE: Chishawasha nr. Harare City (= Salisbury), ii.1980 (A. Watsham); deposited in British Museum (Natural History), London. Paratypes: ZIMBABWE: 130 ♀ 60 ♂ Chishawasha, ii.1975, ii.–v. and x.1980 – iii.1981 and x.–xii.1981; 1 ♀ 1 ♂ (figured), Makumbi Mission, i and iv.1981 (A.W.). SOUTH AFRICA: 1 ♂, Transvaal, Rustenburg Nat. Res., iii.1981 (Malaise trap; C. D. Eardley); 2 ♂, Natal, Eshowe, iv.1926 and Kloof, i.iv.1927 (R. E. Turner). TRANSKEI: 53 ♀ 67 ♂, Port St. Johns, iii.–v.1923, 1924 (Turner). Some paratypes also in National Collection of Insects, Plant Protection Research Institute, Pretoria.

Intraspecific variation seems difficult to assess, but it is possible that yet another, still duller-bodied, species of *Mateucharis* occurs in southern Africa, apart from a distinctly different species coming from Nigeria.

There is no key to the African genera of Eucharitidae to refer to but one is being prepared for publication by the senior author.



Figs 1-2. *Mateucharis glabra* spec. nov., paratypes. 1. General habitus, female. 2. Head, showing shape of antennae, male.