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A new genus of Aleocharinae from Madeira (Insecta: Coleoptera: Staphylinidae)

With 14 Figures

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Abstract. A study of the types and of further material of *Homalota truncorum* WOLLASTON, which has been assigned to various aleocharine genera in the past, revealed that the species, in fact, represents a new genus, *Madeirostiba* gen. nov. The description emphasizes differential characters distinguishing the genus from the related taxa *Alpinia* BRUNDIN, *Ousipalia* DES GOZIS, *Geostiba* THOMSON and *Emmelostiba* PACE and includes drawings of the external morphology, the mouthparts and the genitalia. A lectotype is designated for *H. truncorum* WOLLASTON.

Introduction

Homalota truncorum was described by WOLLASTON (1857), who collected his material on Madeira proper "at the Cruzinhas and Fanal ..., during July 1855" According to a footnote to the original description, KRAATZ, too, concluded that the specimens represented a new species of *Homalota* MANNERHEIM rather than a new genus. The species remained in *Homalota* for several decades, but was later transferred to various genera: to *Sipalia* REY (FAUVEL, 1897), to *Leptusa* KRAATZ (BERNHAUER & SCHEERPELTZ, 1926; BERNHAUER, 1940; LUNDBLAD, 1958), to *Alpinia* BRUNDIN (ERBER & HINTERSEHER, 1988) and to *Emmelostiba* PACE (PACE, 1989).

During a joint excursion on Madeira in 1993 we collected a number of specimens matching WOLLASTON's description of *H. truncorum*, a diagnosis subsequently confirmed through comparison with the types. An examination of the external morphology, the mouthparts as well as of the genitalia revealed that the species cannot be assigned to any of the genera mentioned above. Its external morphology, particularly the tarsal formula (4,5,5), clearly characterize it as a member of Athetini, whereas *Leptusa* – and hence also *Sipalia* sensu FAUVEL (1897) – belongs to the tribe Homalotini (see NEWTON & THAYER, 1992). Furthermore, although *H. truncorum* shows some overall resemblance to a few other brachypterous athetine genera, the combination of characters, such as the structure of the mouthparts, the pronotal pubescence pattern, the ventral aspect of the meso- and metathorax, the form of the abdomen, the conspicuous punctuation as well as the shape and construction of the genitalia, is unique among related taxa. Therefore, we regard the species as a representative of a new genus, which is here described.

We would like to express our thanks to Ms EMMA DE BOISE and Mr PETER M. HAMMOND, who kindly assisted the first author in studying the types in the WOLLASTON collection at the British Museum of Natural History, London (BMNH).

¹⁾ Names in alphabetical order

Madeirostiba gen. nov.

Type species: *Homalota truncorum* WOLLASTON, 1857

Body with overall appearance somewhat resembling that of *Alpinia* or *Leptusa* (Fig. 1). Forebody, especially head and pronotum, rather mat due to distinct microreticulation.

Head of characteristic truncate shape (Fig. 1), limited by a distinct occipital ridge posteriorly, with temples ca. 1.5× longer than the protruding eyes, slightly widened posteriorly with maximal width clearly behind eyes; dorsal pubescence directed diagonally caudad and mediad; postgenal ridge short, in lateral view not reaching below hind margin of eye.

Maxillary and labial palpi 4- and 3-jointed, respectively, ligula deeply incised, bifid (Figs. 2–3); mandibles and labrum as in Figs. 4–5.

Pronotum with maximal width in anterior half, sides more strongly converging posteriorly than anteriorly; hind angles rounded; pubescence on disc including midline directed posteriorly. Elytra along suture only half as long as the pronotum; alae reduced. Tarsal formula 4,5,5; tarsi short, first joint of metatarsi slightly longer than the second (Fig. 7). Central setae on exterior face of tibiae and those along pronotal margins short and inconspicuous.

In ventral aspect *Madeirostiba* differs from all the related genera in that the mesocoxal cavity is open, not delimited by a ridge or margin – which is apparently completely fused with the metasternum – posteriorly and thus almost reaching the hind margin of the metasternum (Fig. 8).

Abdomen strongly widened posteriorly, reaching its maximal width near urite VI (Fig. 1); transverse basal impression distinct on tergites III–V, very shallow on tergite VI; dorsal and ventral surface with rather long pubescence, which is particularly long and semi-erect on tergites V to VIII; setae on sclerites of urites VII and VIII thin, relatively short (hardly exceeding the pubescence in length) and therefore inconspicuous (Figs. 11–14). Aedeagus large with strongly sclerotized structures in internal sac (Fig. 9); spermatheca robust, rather strongly sclerotized and, therefore, relatively dark, light to dark brown (Fig. 10).

Apart from the unique construction of the mesocoxal cavities, *Madeirostiba* may be distinguished from similar and related athetine genera as follows:

In *Geostiba* THOMSON, with which the new genus shares the general construction of the mouthparts and the pronotal pubescence pattern, the head is narrowed posteriorly, the temples are generally rounded and the occipital ridge is less distinct (see illustrations e.g. in PACE, 1983 a, 1983 b). Furthermore, the sclerites of urites VII and VIII carry long black setae clearly standing out of the pubescence, the sculpture and punctuation of the body surface is different and the colour usually lighter. The most striking difference, however, is found in the construction of the genitalia; in *Geostiba* they are generally less sclerotized and smaller, the structures in the internal sac are less distinct and of different pattern and the spermatheca is of a characteristic shape (see PACE, 1977, 1983 a, 1983 b).

Ousipalia DES GOZIS is characterized by a ligula which is deeply incised with the two tips separated by a considerable distance. Moreover, the genus differs from *Madeirostiba* in that the urites VII and VIII carry long and conspicuous black setae clearly standing out of the pubescence, in the pronotal pubescence pattern (type II in BENICK & LOHSE, 1974) with the hairs directed more laterally than posteriorly, in the relatively narrower abdomen, in the less distinct surface sculpture and punctuation and also in the different construction and shape of the genitalia.

In *Emmelostiba* PACE the ligula is remarkably long, the pubescence on the pronotum is directed more laterally, the marginal pronotal setae are very conspicuous, the shape of the head is different and, above all, the median lobe is incised apically (see drawings in PACE, 1982).

In *Alpinia* BRUNDIN, the ligula is broader and less deeply incised, the pronotal pubescence pattern is different (type II in BENICK & LOHSE, 1974), the setae on pronotum and urites VII and VIII are longer and more distinct, the aedeagus does not possess strongly sclerotized structures in the internal sac and the spermatheca is of a characteristic shape (see drawings in BENICK & LOHSE, 1974).

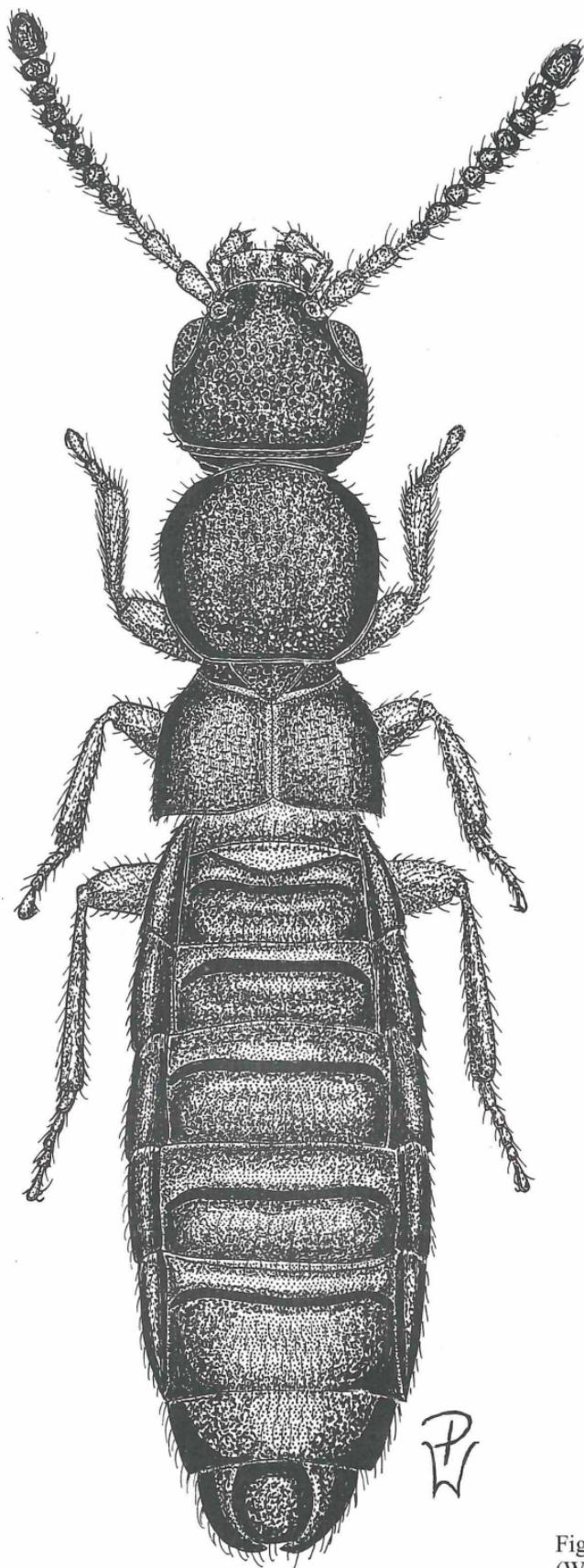
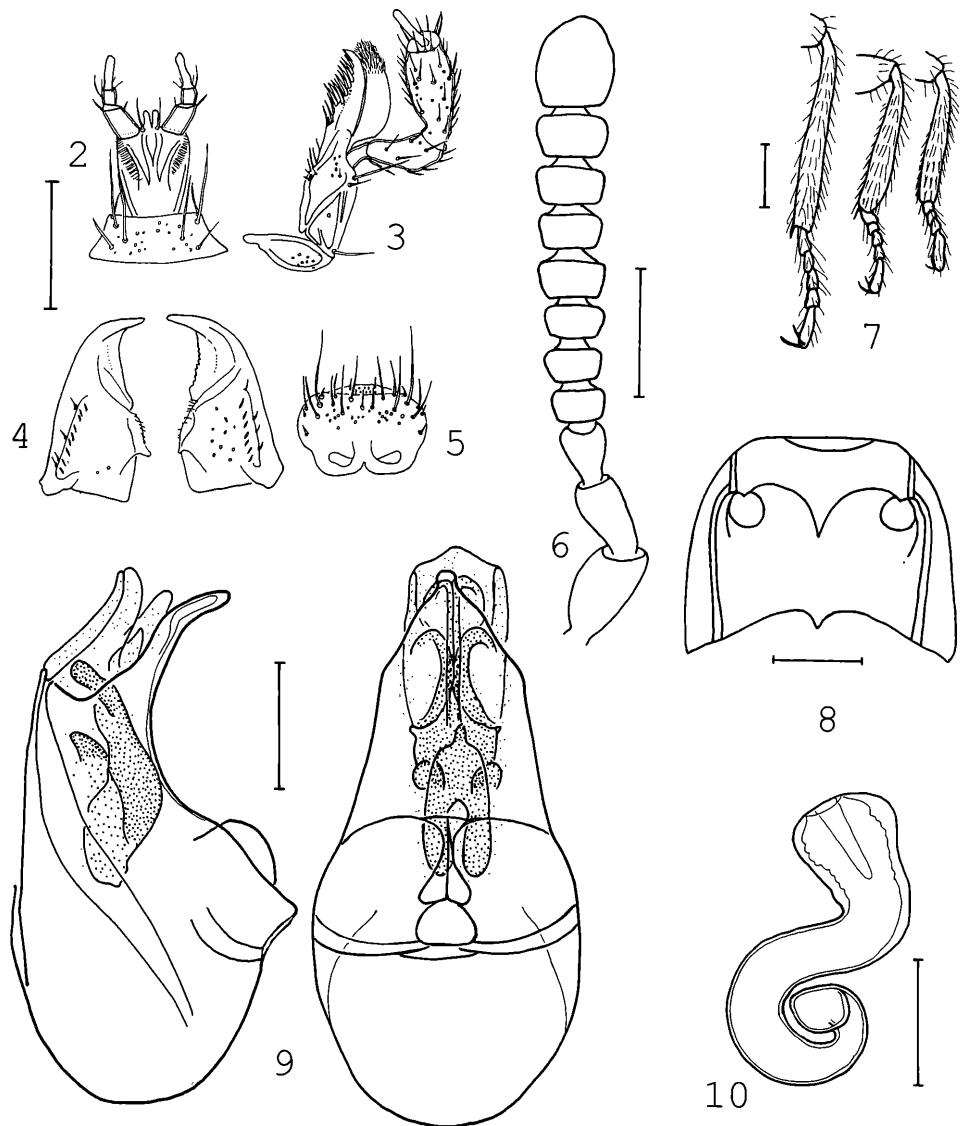


Fig. 1: *Madeirostiba truncorum*
(WOLL.): Habitus.



Figs. 2–10: *Madeirostiba truncorum* (WOLL.): labium (2); maxilla (3); mandibles (4); labrum (5); antenna (6); fore-, mid-, and hindleg (from right to left) (7); meso- and metathorax in ventral aspect (8); median lobe in lateral and in ventral view (9); spermatheca (10). Scales: 2–7, 9–10: 0.1 mm; 8: 0.25 mm.

***Madeirostiba truncorum* (WOLLASTON, 1857) comb. nov. (Figs. 1–14)**

Homalota truncorum WOLLASTON, 1857, p. 172 f.

Sipalia (Leptusa) truncorum WOLL.: FAUVEL, 1897, p. 349.

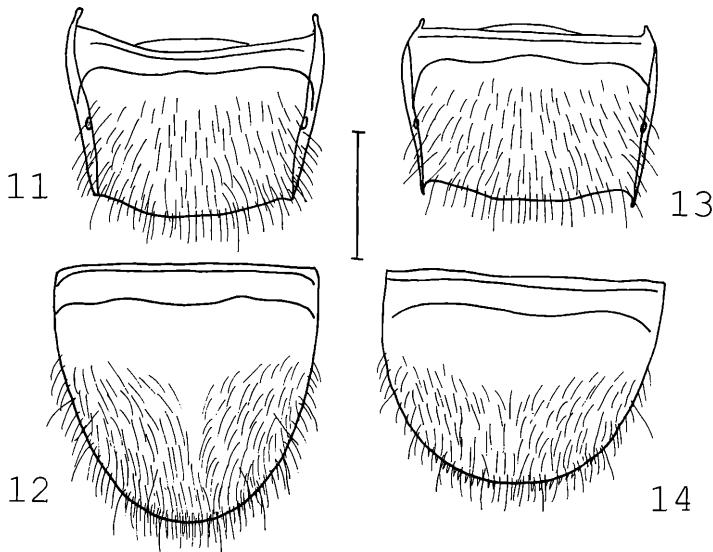
Leptusa truncorum WOLL.: BERNHAUER & SCHEERPELTZ, 1926, p. 560.

Leptusa truncorum WOLL.: BERNHAUER, 1940, p. 9.

Leptusa truncorum WOLL.: LUNDBLAD, 1958, p. 471.

Alpinia truncorum (WOLL.): ERBER & HINTERSEHER, 1988, p. 185.

Emmelostiba truncorum WOLL.: PACE, 1989, p. 23.



Figs. 11–14 *Madeirostiba truncorum* (WOLL.): ♂ tergite VIII (11); ♂ sternite VIII (12); ♀ tergite VIII (13); ♀ sternite VIII (14). Scales: 0.2 mm.

Types: Lectotype, 1 sex? (not dissected), here designated and labelled accordingly (BMNH). Paralectotypes, 2 sex?, here designated and labelled accordingly (BMNH).

In his original description WOLLASTON (1857) implies that he saw more than one specimen, but does not specify the exact number. In his collection at the BMNH there are three original specimens of *M. truncorum*, which we regard as syntypes. A fourth pinhole suggests that there is at least one further syntype, probably in the collection of the Hope Museum Oxford (HAMMOND, pers. comm.). The first of the three syntypes in the WOLLASTON collection at the BMNH was chosen as lectotype, particularly because of its better condition with only two antennomeres missing on its left antenna, whereas the remaining two specimens lack the abdomen or parts of both antennae, respectively.

Further material studied (all leg. et coll. ASSING & WUNDERLE, if not indicated otherwise): 2♂♂, 1♀: Madeira, Caramujo, 1300 m, 29. III. 1993; 2♂♂, 3♀♀: Madeira, Caramujo, 1300 m, 04. IV 1993; 5♂♂, 1♀: Madeira, Ach. do Teixeira, 1580 m, 06. IV 1993; 5♂♂, 1♀: Madeira, Ach. do Teixeira, 1350 m, 07. IV 1993; 2♂♂, 1♀: Madeira, Rabacal, 07. VIII. 1975, VIT leg. (coll. ASSING); 1♀: Madeira, Ribeiro Frio, Balcoes, V 1984; 1 sex?: Madeira, Pico do Jorge, 1500 m, in feuchtem Moos, 01. II. 1973, HINTERSEHER leg., coll. G. BENICK (Muséum d'Histoire naturelle Genève).

Description (see also description of genus):

Length 1.9–2.3 mm. Body in mature specimens ± uniformly blackish brown to black with the appendages and sometimes also the labrum light to dark brown. Habitus and proportions as in Fig. 1. Head and pronotum with very distinct microreticulation and therefore almost mat.

Head with large, yet shallow punctures, interstices on average about as wide as their diameter.

Pronotum with smaller punctures, often rather indistinct due to the strong microreticulation.

Elytra with less distinct microsculpture and therefore more shining than head and pronotum; punctation finely granulose. Whole dorsal surface of abdomen uniformly with very fine punctation and only superficial microsculpture; hind margins of tergite and sternite VIII broadly convex. Aedeagus and spermatheca as in Figs. 9–10.

Distribution and bionomics:

M. truncorum is endemic to Madeira proper, where it is apparently quite rare. With the exception of one record at Santa Madalena, 400 m above sea-level (ERBER & HINTERSEHER, 1988), the species has only been collected at higher altitudes: "at the Cruzinhas and Fanal" (WOLLASTON, 1857), Achada do Teixeira, Caramujo, Pico do Jorge and Rabacal (see above). BERNHAUER (1940), too, reported it from Rabacal. The specimens were collected in February under bark (ERBER & HINTERSEHER, 1988), March and April (our own records), May (BERNHAUER, 1940), July (WOLLASTON, 1857) and in August (VIT leg.). One ♀ taken on 07. VIII. (VIT leg.) was teneral. We sieved and extracted our specimens from moss and litter in old stands of *Erica* and at the foot of big rocks in northern exposition.

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