

Revision of *Trichiscus* Benoît, 1956 (Hymenoptera, Bethylidae)

CELSO O. AZEVEDO

Universidade Federal do Espírito Santo, Departamento de Ciências Biológicas, Av. Fernando Ferrari 514, Goiabeiras, 29.075-910, Vitória, ES, Brazil. E-mail: bethylidae@gmail.com

Abstract

The species of the Afrotropical genus *Trichiscus* are revised. Fourteen species are recognized, two previously described species, *T. wittei* Benoît and *T. suzannae* Benoît, and twelve new: *T. noorti* sp. nov., *T. denisi* sp. nov., *T. briani* sp. nov., *T. copelandi* sp. nov., *T. moureai* sp. nov., *T. lynnae* sp. nov., *T. normani* sp. nov., *T. luboi* sp. nov., *T. zuparkoi* sp. nov., *T. ohli* sp. nov., *T. camargoi* sp. nov. and *T. jimi* sp. nov.. A key to species is proposed.

Key words: Hymenoptera, Bethylidae, *Trichiscus*, Taxonomy, Afrotropical, tergal process, Pristocerinae

Introduction

Trichiscus Benoît is hitherto a genus with two species restricted to Democratic Republic of the Congo (former Belgian Congo) and Rwanda. Both species were described by Benoît (1956, 1986). *Trichiscus* was initially described as subgenus by Benoît (1956) because it is very similar to *Dissomphalus* Ashmead, 1893 except for the fact that the tergal process is placed at the third metasomal segment instead of second. When Benoît (1986) described the second species he erected *Trichiscus* to genus status stating that its species has “*genitalia du male la présence de rami hypertrophiés et de cuspis porteurs d'appendices*” (= male genitalia with large rami and cuspis with appendix) which according to him are “*caractères inconnus chez les Dissomphalus africains*” (= unknown characters in African *Dissomphalus*). Terayama (1996) indicated presence of tergal process in the third metasomal segment as main sinapomorphy for the genus. The females are still unknown.

The main goal of this study is to organize the taxonomic knowledge of the species of *Trichiscus*, based mostly on the review of primary and secondary type material of all available names, and describe the new species found.

Material and methods

The material was kindly provided by the following institutions: CASC—California Academy of Sciences U.S.A. (Robert Zuparko); ISAM—Iziko South African Museum, South Africa (S. van Noort); MRAC—Musée Royal d’Afrique Centrale, Belgium (E. De Coninck); MCZH—Museum of Comparative Zoology, U.S.A. (P. Perkins), NMKE—National Museums of Kenya, Kenya (Robert Copeland); PMAE—Royal Alberta Museum, Canada (Matthias Buck).

Descriptions and illustrations were prepared to only highlight the most important and useful characters in separating the species. The nomenclature of integument sculpture follows Harris (1979), and general terms follow Evans (1964) and Azevedo (1999).

Trichiscus Benoît, 1956

Trichiscus Benoît 1956: 562 (as subgenus of *Dissomphalus* Ashmead); 1986: 293.

Acknowledgements

I am most grateful to all curators cited in the text for the loan of the material examined; to Eliana De Coninck for the reception during my visit to MRAC; to Rita Maes for hosting very kindly in her home; to Daniele Mugrabi who edited the plates. The trip to Brussels was supported by The Ernest Mayr Grants—U.S.A. (year grant 2009) and CNPq—Brazil (grant #306331/2007-7). This study was supported by CNPq/FAPES grant #52263010/2011 and CNPq grant #301669/2010-4.

References

- Ashmead, W.H. (1893) Monograph of the North American Proctotrypidae. *Bulletin of the United States National Museum*, 45, 1–472.
<http://dx.doi.org/10.5479/si.03629236.45.1>
- Azevedo, C.O. (1999) Revision of the Neotropical *Dissomphalus* Ashmead, 1893 (Hymenoptera, Bethylidae) with median tergal processes. *Arquivos de Zoologia*, 35, 301–394.
<http://dx.doi.org/10.11606/issn.2176-7793.v35i4p301-394>
- Azevedo, C.O. (2003) Synopsis of the Neotropical *Dissomphalus* (Hymenoptera, Bethylidae). *Zootaxa*, 338, 1–74.
- Benoît, P.L.G. (1956) Contributions à l'étude de la faune entomologique du Ruanda-Urundi. (Mission P. Basilewsky 1953). CXII. Hymenoptera Bethylidae. *Annales Muséi Royal du Congo Belge, Sciences Géologique*, Serie 8, 51, 560–564.
- Benoît, P.L.G. (1986) Bethylidae africains (Hymenoptera) V. le genre *Trichiscus* Benoît. *Revue de Zoologie Africaine*, 99, 293–298.
- Evans, H.E. (1964) A synopsis of the American Bethylidae (Hymenoptera, Aculeata). *Bulletin of the Museum of Comparative Zoology*, 132, 1–222.
- Gobbi, F.T. & Azevedo, C.O. (2010) Taxonomia de *Pseudisobrachium* (Hymenoptera: Bethylidae) da Mata Atlântica Brasileira. *Revista Brasileira de Entomologia* 54, 173–224.
<http://dx.doi.org/10.1590/s0085-56262010000200003>
- Harris, R.A. (1979) A glossary of surface sculpturing. *Occasional Papers in Entomology*, 28, 1–31.
- Terayama, M. (1996) The phylogeny of the bethylid wasp subfamily Pristocerinae (Hymenoptera, Bethylidae). *Japanese Journal of Entomology*, 64, 587–601.