

Journal of Melittology

Bee Biology, Ecology, Evolution, & Systematics

The latest buzz in bee biology

No. 94, pp. 1–3

26 February 2020

BRIEF COMMUNICATION

An overlooked family-group name among bees: Availability of *Coelioxoidini* (Hymenoptera: Apidae)

Michael S. Engel^{1,2}, Victor H. Gonzalez³, & Claus Rasmussen⁴

Abstract. Recent phylogenetic analysis of the family Apidae has applied the tribal name *Coelioxoidini* to the distinctive genus *Coelioxoides* Cresson, which has been thought to be related to *Tetrapedia* Klug. However, the nomenclatural status of such a family-group name has not yet been assessed. Herein, we determine that this family-group name is available and discuss its authorship and proposal date.

INTRODUCTION

The genus *Coelioxoides* Cresson includes four rather wasp-like cuckoo bees (Fig. 1) that has historically been considered a close relative of their hosts in the genus *Tetrapedia* Klug (Roig-Alsina, 1990; Michener, 2007). More recently, the genus has been suggested to be related to other cleptoparasitic bees, and distant from *Tetrapediini* (Martins *et al.*, 2018; Bossert *et al.*, 2019), and each has employed the tribal name *Coelioxoidini* to accommodate the genus.

The availability of a family-group name based on the type genus *Coelioxoides* was questioned by Rocha-Filho *et al.* (2017), who wrote, “no taxonomic study has been performed in order to assign *Coelioxoides* to a distinct tribe as its type genus.” Indeed, a family-group name formed from *Coelioxoides* was not mentioned in any of the recent

¹ Division of Entomology, Natural History Museum, and Department of Ecology & Evolutionary Biology, 1501 Crestline Drive – Suite 140, University of Kansas, Lawrence, Kansas 66045-4415, USA (msengel@ku.edu).

² Division of Invertebrate Zoology, American Museum of Natural History, Central Park West at 79th Street, New York, New York 10024-5192, USA.

³ Undergraduate Biology Program and Department of Ecology & Evolutionary Biology, 1200 Sunnyside Avenue, University of Kansas, Lawrence, Kansas 66045, USA (vhgonza@ku.edu).

⁴ Department of Biology, Aarhus University, Ole Worms Allé 1, DK-8000 Aarhus, Denmark (al-runen@yahoo.com).

doi: <http://dx.doi.org/10.17161/jom.vi94.13385>



Figure 1. Female of *Coelioxoides waltheriae* Ducke from Santa Cruz, Bolivia (University of Kansas Natural History Museum, SEMC 255628).

treatments of such names among bees (Michener, 1986, 1999, 2007; Engel, 2005, 2015). Yet, Nates-Parra & Fernandez (1992) appear to have established such a family-group name in an account that provided illustrated keys to the families and tribes of bees occurring in Colombia. From an examination of that account, it seems that the name is indeed available. For availability at the time it was established, a family-group name had to be accompanied by a description in words of characters differentiating it from other taxa (ICZN, 1999: Art. 13.1.1) (in fact, a description is required for all family-group names proposed after 1930, otherwise they are *nomina nuda*), and be formed from an available genus-group name (ICZN, 1999: Art. 13.2). Names after 1999 must also explicitly designate the type genus and include a statement expressly indicating that the name is being proposed as new (ICZN, 1999: Arts. 16.1, 16.2), but these latter two requirements do not apply in the present case. Nates-Parra & Fernandez (1992: pp. 73, 85) do provide a tribal name based on the available genus-group name *Coelioxoides*, thereby satisfying Article 13.1.1 for a family-group name proposed after 1930 but before 1999. Moreover, from the descriptive characters provided in their key (p. 73), these same authors do provide a written account differentiating the tribe from other taxa, thus meeting the requirement of Article 13.2. Given that the name predates the post-1999 imposition of Articles 16.1 and 16.2, the above actions are sufficient to make available the tribal name Coelioxoidini, and owing to the Principle of Coordination render it simultaneously available at all ranks within the family group

(ICZN, 1999: Art. 36). A summation of the nomenclatural details for the name, using the format of Engel (2005), is provided here.

NOMENCLATURE

Coelioxoidini Nates-Parra & Fernandez, 1992: 73. Type genus: *Coelioxoides* Cresson, 1878. Combining stem: Coelioxoid-.

ACKNOWLEDGEMENTS

We are grateful to three anonymous reviewers for their comments on the manuscript. This is a contribution of the Division of Entomology, University of Kansas Natural History Museum.

REFERENCES

- Bossert, S., E.A. Murray, E.A.B. Almeida, S.G. Brady, B.B. Blaimer, & B.N. Danforth. 2019. Combining transcriptomes and ultraconserved elements to illuminate the phylogeny of Apidae. *Molecular Phylogenetics and Evolution* 130: 121–131.
- Cresson, E.T. 1878. Descriptions of new North American Hymenoptera in the collection of the American Entomological Society. *Transactions of the American Entomological Society* 7: 61–136.
- Engel, M.S. 2005. Family-group names for bees (Hymenoptera: Apoidea). *American Museum Novitates* 3476: 1–33.
- Engel, M.S. 2015. Notes on family-group names for bees (Hymenoptera: Apoidea). *Journal of Melittology* 46: 1–7.
- ICZN [International Commission on Zoological Nomenclature]. 1999. *International Code of Zoological Nomenclature* [4th Edition]. International Trust for Zoological Nomenclature; London, UK; xxix+306 pp.
- Martins, A.C., D.R. Luz, & G.A.R. Melo. 2018. Palaeocene origin of the Neotropical lineage of cleptoparasitic bees Ericroidini-Rhathymini (Hymenoptera, Apidae). *Systematic Entomology* 43(3): 510–521.
- Michener, C.D. 1986. Family-group names among bees. *Journal of the Kansas Entomological Society* 59(2): 219–234.
- Michener, C.D. 1999. Genus-group names of bees and supplemental family-group names. *Scientific Papers, Natural History Museum, University of Kansas* 1: 1–81.
- Michener, C.D. 2007. *The Bees of the World* [2nd Edition]. Johns Hopkins University Press; Baltimore, MD; xvi+[i]+953 pp., +20 pls.
- Nates-Parra, G., & F. Fernandez. 1992. Abejas de Colombia. II. Claves preliminares para las familias, subfamilias y tribus (Hymenoptera: Apoidea). *Acta Biológica Colombiana* 2(7–8): 55–89.
- Rocha-Filho, L.C., da, J.C. Serrano, & C.A. Garófalo. 2017. *Coelioxoides piscicauda* sp. nov., a new cuckoo bee from southeastern Brazil with a key to the species of *Coelioxoides* Cresson (Hymenoptera: Apidae). *Zootaxa* 4363(4): 535–543.
- Roig-Alsina, A. 1990. *Coelioxoides* Cresson, a parasitic genus of Tetrapediini (Hymenoptera: Apoidea). *Journal of the Kansas Entomological Society* 63(2): 279–287.



Journal of Melittology

A Journal of Bee Biology, Ecology, Evolution, & Systematics

The *Journal of Melittology* is an international, open access journal that seeks to rapidly disseminate the results of research conducted on bees (Apoidea: Anthophila) in their broadest sense. Our mission is to promote the understanding and conservation of wild and managed bees and to facilitate communication and collaboration among researchers and the public worldwide. The *Journal* covers all aspects of bee research including but not limited to: anatomy, behavioral ecology, biodiversity, biogeography, chemical ecology, comparative morphology, conservation, cultural aspects, cytogenetics, ecology, ethnobiology, history, identification (keys), invasion ecology, management, melittopalynology, molecular ecology, neurobiology, occurrence data, paleontology, parasitism, phenology, phylogeny, physiology, pollination biology, sociobiology, systematics, and taxonomy.

The *Journal of Melittology* was established at the University of Kansas through the efforts of Michael S. Engel, Victor H. Gonzalez, Ismael A. Hinojosa-Díaz, and Charles D. Michener in 2013 and each article is published as its own number, with issues appearing online as soon as they are ready. Papers are composed using Microsoft Word® and Adobe InDesign® in Lawrence, Kansas, USA.

Interim Editor

Victor H. Gonzalez
University of Kansas

Assistant Editors

Victor H. Gonzalez
University of Kansas

Claus Rasmussen
Aarhus University

Cory S. Sheffield
Royal Saskatchewan Museum

Founding Editor & Editor Emeritus

Michael S. Engel
University of Kansas

Journal of Melittology is registered in ZooBank (www.zoobank.org), and archived at the University of Kansas and in Portico (www.portico.org).

<http://journals.ku.edu/melittology>
ISSN 2325-4467