Zootaxa 1966: 1–52 (2008)
www.mapress.com/zootaxa/

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Revision of the world species of the genus *Fusicornia* Risbec (Hymenoptera: Platygastridae, Scelioninae)

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Accepted by M. Buffington: 31 Oct. 2008; published: 17 Dec. 2008
urn:lsid:zoobank.org:pub:AFB6DC4C-E568-44B5-9CA7-EA9626C7CDB1

Abstract

The genus *Fusicornia* Risbec (Hymenoptera: Platygastridae, Scelioninae) is a widespread group in the tropics of the Eastern Hemisphere, distributed from West Africa to Vanuatu. All scelionines are egg parasitoids of arthropods, but the host of *Fusicornia* is not yet known. The species concepts are revised and a key to world species is presented. The genus is comprised of 19 species, including five known species which are redescribed: *F. bambeyi* Risbec (sub-Saharan Africa, Madagascar, Yemen); *F. indica* Mani & Sharma (Australia, India, Philippines, Sri Lanka, Thailand); *F. koreica* Choi & Kozlov (China, Japan, Korea, Philippines); *F. spinosa* (Risbec) (sub-Saharan Africa, Saudi Arabia, United Arab Emirates, Yemen); and *F. tehrii* Mukerjee (Brunei, Indonesia, Japan, Laos, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Taiwan, Thailand). *Fusicornia noonae* Buhl is considered to be a junior synonym of *F. tehrii* Mukerjee, **n. syn**., and *F. bambeyi* var. *inermis* Risbec is considered to be a junior synonym of *F. spinosa* (Risbec), **n. syn.** The following species are hypothesized and described as new taxa: *F. ardis* Taekul & Johnson, **n. sp.** (West Africa, Kenya, Tanzania); *F. aulacis* Taekul & Johnson, **n. sp.** (Madagascar); *F. collaris* Taekul & Johnson, **n. sp.** (New Guinea); *F. crista* Taekul & Johnson, **n. sp.** (Somalia, Tanzania); *F. dissita* Taekul & Johnson, **n. sp.** (Vanuatu); *F. eos* Taekul & Johnson, **n. sp.** (West Africa, Tanzania, Yemen); *F. episcopus* Taekul & Johnson, **n. sp.** (Thailand); *F. fax* Taekul & Johnson, **n. sp.** (Papua New Guinea); *F. fortuna* Taekul & Johnson, **n. sp.** (Madagascar, Yemen); *F. paradisa* Taekul & Johnson, **n. sp.** (sub-Saharan Africa, Madagascar); *F. plicata* Taekul & Johnson, **n. sp.** (Sri Lanka); *F. skopelos* Taekul & Johnson, **n. sp.** (Madagascar); *F. sabrina* Taekul & Johnson, **n. sp.** (Somalia) and *F. speculum* Taekul & Johnson, **n. sp.** (Central African Republic, Madagascar, Nigeria, Uganda).

Key words: biodiversity informatics, egg parasitoids, Scelionidae

Introduction

The genus *Fusicornia* was originally described by Risbec (1950) with only a single species, *F. bambeyi*. In total, seven species-group taxa have been described, and published records document the distribution of the genus from West Africa east to Australia, and north to the Korean peninsula. *Fusicornia* remained unplaced within the subfamily Scelioninae until Masner (1976) classified it in the tribe Psilanteridini. Austin & Field (1997) examined the ovipositor structure and concluded that the genus was misplaced within that tribe. They did not, however, provide an alternate classification. *Fusicornia* was not included as a taxon in the most comprehensive attempt to infer relationships within the Platygastridae published to date (Murphy *et al.* 2007).

In the 58 years since the original description, *Fusicornia* has never been comprehensively reviewed or revised. The only known hosts of parasitic wasps of the family Scelioninae are the eggs of insects and spiders (Austin, Johnson and Dowton 2005). No hosts are yet known for any species of *Fusicornia*. Our goal in this paper is to present a systematic revision of the world species of genus *Fusicornia.* The taxonomic history of the genus is summarized and existing concepts are reviewed. Fourteen new species are proposed on the basis of substantially increased collections, twice the number of previously described species-group taxa. The placement of *Fusicornia* within the family is outside the scope of this contribution and is the subject of an ongoing combined morphological and molecular analysis.

Material and methods

This work is based upon specimens in the following collections, with abbreviations used in the text: ANIC, Australian National Insect Collection, CSIRO, Canberra, ACT, Australia[1]; BMNH, The Natural History Museum, London, England[2]; BPBM, Bishop Museum, Honolulu, HI[3]; CASC, California Academy of Sci-

1. http://biocol.org/urn:lsid:biocol.org:col:32981
2. http://biocol.org/urn:lsid:biocol.org:col:1009