

## A Review of the Australian Species of *Thevenetimya* Bigot, 1875 (Bombyliidae, Bombyliinae, Eclimini), with Description of Four New Species and the Pupal Case of *T. longipalpis* (Hardy)

XUANKUN LI<sup>1,2,\*</sup>, PAULA FERNANDA MOTTA RODRIGUES<sup>3</sup>,  
CARLOS JOSÉ EINICKER LAMAS<sup>3</sup> AND DAVID K. YEATES<sup>1</sup>

<sup>1</sup> Australian National Insect Collection,  
CSIRO National Research Collections Australia, Canberra, ACT 2601, Australia

<sup>2</sup> Research School of Biology, Australian National University, Canberra, ACT 2601, Australia

<sup>3</sup> Museu de Zoologia da Universidade de São Paulo,  
Avenida Nazaré, 481 Ipiranga, 04263-000, São Paulo-SP, Brazil;  
and CNPq Fellow, Brazil  
[xuankun.li@csiro.au](mailto:xuankun.li@csiro.au)

**ABSTRACT.** All six known Australian species of the bee fly genus *Thevenetimya* Bigot are reviewed, and the following four new species are described as new: *T. fergusonii* Li and Rodrigues, sp. nov., *T. infuscata* Li and Yeates, sp. nov., *T. major* Li and Yeates, sp. nov., and *T. nuri* Rodrigues and Lamas, sp. nov. The female of *T. australiensis*, the male of *T. tenta* and the pupal case of *T. longipalpis* are described and photographed for the first time. The pupal case of the North American species *T. lanigera* (Cresson) is redescribed and photographed herein. A key to the 10 Australian species of the genus is provided. Specimens of two species have been reared from decaying *Acacia* trunks, and one was associated with numerous Bostrychidae (Coleoptera), Buprestidae and Cerambycidae. It is likely that one of these families is the host. Based on these records, and those of Hull (1973), the genus parasitises beetle larvae feeding on dead or decaying wood in both Australia and the USA. Scanning electron micrographs (SEM) of the wing costa and scutum of *T. australiensis* shows the short, stout spines in rows on the male costa, which are very similar to the spines found in *Comptosia* species (Dodson & Yeates, 1990) as well as in species of *Lepidophora* and *Cyrtomyia* (Lamas & Rodrigues, 2013; Rodrigues & Lamas, 2013). Males of *Comptosia* and *Thevenetimya* can be collected hilltopping, and it may be that *Thevenetimya* males use the spines during aerial combat over territories as *Comptosia* males do.

**KEYWORDS.** *Thevenetimya*; new species; pupal case; Bombyliidae; Diptera; Australia

LI, XUANKUN, PAULA FERNANDA MOTTA RODRIGUES, CARLOS JOSÉ EINICKER LAMAS, AND DAVID K. YEATES. 2018. A review of the Australian species of *Thevenetimya* Bigot, 1875 (Bombyliidae, Bombyliinae, Eclimini), with description of four new species and the pupal case of *T. longipalpis* (Hardy). *Records of the Australian Museum* 70(3): 331–375. <https://doi.org/10.3853/j.2201-4349.70.2018.1678>