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Three new species of *Baeoentedon* Girault (Hymenoptera: Eulophidae) from China, with the first record of whitefly host association (Hemiptera: Aleyrodidae)

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Abstract

Three new species of *Baeoentedon* Girault (Hymenoptera: Eulophidae) are described from China, *Baeoentedon balios* Wang, Huang & Polaszek **sp. nov.**, *Baeoentedon bouceki* Wang, Huang & Polaszek **sp. nov.** and *Baeoentedon virgatus* Wang, Huang & Polaszek **sp. nov.** Both female and male of *Baeoentedon balios* were reared from the whitefly *Pealius spina* (Singh) (Hemiptera: Aleyrodidae) on the bodhi tree *Ficus religiosa* L. (Urticales: Moraceae). The male and the whitefly host association of *Baeoentedon* are recorded for the first time. A key is also provided to females of the world species of the genus.

Key words: new species, Euderomphalini, *Pealius spina*, parasitoid

Introduction

Girault (1915) erected the genus *Baeoentedon* (Hymenoptera: Eulophidae) with the type species *B. peculicornis* Girault, based on a single female from a jungle in Queensland, Australia. Prior to this study the genus contained one species for which biological information was unknown (Noyes 2014). *Baeoentedon* was mistakenly presumed to be a parasitoid of Psylloidea (Bouček 1988: 732), or suspected to be parasitoid of whiteflies based on its clear relationship with other genera of Euderomphalini in Eulophidae (LaSalle & Schauff 1994).

Baeoentedon and other euderomphaline whitefly parasitoids are generally ignored as potential biological control agents of whiteflies because of a lack of knowledge about their biology and behavior, with the majority of whitefly parasitoids used in biocontrol belonging to Aphelinidae. However, LaSalle & Schauff (1994) reviewed all eulophid whitefly parasitoids and placed them in Euderomphalini of Entedoninae, of which the seven genera were divided into two genus groups, the *Euderomphale* and *Entedononecremnus* genus groups. Hansson & LaSalle (2003) also provided a revision of Neotropical species of Euderomphalini. All of the genera described therein have unknown biologies, but were presumed by association to be probable whitefly parasitoids.

No species of *Baeoentedon* has been recorded from China until now, except a record of an unidentified specimen deposited in the Entomology Collection of the Natural History Museum, London (NHM), collected by Zdeněk Bouček from Hainan province, China in 1983 (Bouček 1988; LaSalle & Schauff 1994). This species is described below.

In this paper three new species of *Baeoentedon*, *Baeoentedon balios*, *B. bouceki* and *B. virgatus*, are described from Fujian and Hainan provinces, China. The female and male of *B. balios* were reared from the whitefly *Pealius spina* (Singh) (Hemiptera: Aleyrodidae) on the sacred fig or “bodhi tree”, *Ficus religiosa* L. (Urticales: Moraceae). *Pealius spina* is a serious whitefly pest of *F. religiosa* in Xiamen city, Fujian province, and also attacks *F. arnotiana* and *F. bengalensis* distributed in China (Fujian, Taiwan), India, Pakistan, Philippines,

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