



## ***Asiorrhina*, a new Oriental genus of Lygistorrhinidae (Diptera: Sciaroidea) and its phylogenetic position**

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### **Abstract**

A new genus of Lygistorrhinidae, *Asiorrhina* **gen. n.**, and a new species, *Asiorrhina parasiatica* **sp. n.**, are described. *Asiorrhina asiatica* (Senior-White) **comb. n.** is redescribed and selected as the type species for the new genus. The systematic position of the new genus is discussed. All recent taxa of Lygistorrhinidae form a monophyletic group with the fossil genus *Palaeognoriste* Meunier as the sister group.

**Key words:** taxonomy, new taxa, phylogeny, *Lygistorrhina asiatica*, Oriental region

### **Introduction**

Lygistorrhinidae is a small family of fungus gnats (Diptera: Sciaroidea) distributed globally in warm temperate to tropical zones. Previously believed to be very rare, recently they have received more attention from taxonomists as more Malaise trap samples have become available. Currently the family includes 43 species in 13 genera; 6 genera are known only from fossils (Fungus Gnats Online 2009). The type genus of the family, *Lygistorrhina* Skuse, 1890, can be easily recognized on account of the very long proboscis, highly reduced wing venation and long and expanded hind femora and tibiae. However, one of the species, *Lygistorrhina asiatica* Senior-White, 1922, described from Sri Lanka, is significantly different from the other species of the genus. Tuomikoski (1966) proposed that the species actually belonged to *Palaeognoriste* Meunier, 1904, a genus known from the Baltic amber. Some authors (Grimaldi & Blagoderov 2001; Hippa et al. 2005) expressed an opinion that *L. asiatica* might be separated into a new genus, but failed to find any apomorphies of the species which would make description of a new genus practicable.

In August 2006 and January 2008, Jan Ševčík, while visiting the Natural History Museum in London, found two male specimens of *Lygistorrhina* in unsorted Malaise trap material from Sarawak with a relatively short proboscis and complete median fork. Examination of the specimens revealed their remarkable similarity to *L. asiatica*. The purpose of the present paper is to describe the new species from Borneo, to re-describe *L. asiatica*, and to establish a new genus for these two species supported by a new cladistic analysis.

### **Material and Methods**

The holotype of *Lygistorrhina asiatica* was studied, together with additional material collected by Senior-