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## A new tribe and species of Clastopterinae (Hemiptera: Cercopoidea: Clastopteridae) from Africa, Asia and North America

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## Abstract

Additional evidence supports the inclusion by Hamilton (2001) of Machaerotinae in Clastopteridae. The former Clastopteridae (Clastopterinae sensu Hamilton, 2001) is revised to include Sepulliini (tr. nov.) Clastopterini includes a fossil genus *Prisciba* Poinar & Brown and the extant *Clastoptera* with 2 new species both from North America, and *Iba* Schmidt from the old-world. The last of these has 3 species (1 new), 2 from the Philippines and 1 in subgenus *Parahindoloides* Lallemand, stat. nov., from Borneo. Sepulliini includes 5 genera and 52 species from Africa, India and southeast Asia that were formerly included in “Aphrophoridae” but are now transferred to the redefined subfamily Clastopterinae, linking Clastopterini to Zygonini of the subfamily Machaerotinae. Sepulliini includes 24 newly described species: 2 species of *Beesonella* Lallemand from India, and 1 of *Grellaphia* Schmidt from the Philippine Islands; and from continental Africa 2 species of *Sepullia* Stål from Ethiopia and Angola, *Taphrotylus insignificans* **gen. & sp. nov.** from Madagascar and 18 new species of *Tremapterus* Spinola, making *Tremapterus* (including *Abbalomba* Distant, *Nyanja* Distant and *Patriziana* Lallemand as subgenera) the largest and most widespread genus in Sepulliini. Its 38 species in sub-Saharan Africa include 2 new subgenera: *Selenion* (1 species) and *Tremiziana* (4 species). In this study, 25 new combinations are created: 20 in *Tremapterus* with *T. major* Jacobi (1910), described from Mt. Kilimandjaro, and *T. occidentalis* Schumacher (1912), described from above 1800 m on Mt. Cameroon transferred to *Witteella* Lallemand (Cercopidae, Aphrophorinae); *Penthimia maculipennis* Spinola and *Philaenus maculosa* Walker are transferred to *Clastoptera* Germar, and *Parahindoloides lumuana* Lallemand to *Iba*. The many new species and new combinations in the old-world fauna of Clastopterinae are included in keys and a checklist.

**Key words:** Hemiptera, Cercopoidea, Clastopteridae, Sepulliini, new species, new combinations

## Introduction

This study is the outgrowth of ongoing research designed to enable revisions of the world froghoppers (Cercopoidea). The traditional classification of Cercopoidea included four families: Aphrophoridae, Cercopidae, Clastopteridae and Machaerotidae (e.g., Metcalf and Wade 1960, 1961, 1962*a,b*) and a further family Epipygidae was added by Hamilton (2001). However, Machaerotidae (figs 12–16 in Hamilton 2014) resemble Clastopteridae in their triangular hind wings (Fig. 5C), deep and narrow antennal pits (Figs 6A–L) and enlarged scutellum and so were downgraded to a subfamily of Clastopteridae by Hamilton (2001).

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