



# Article

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## **Australocorinae, a new subfamily of Geocoridae (Hemiptera: Heteroptera: Lygaeoidea) from Australia, with descriptions of a new genus and two new species**

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### **Abstract**

Australocorinae **subfam. nov.**, a new subfamily of family Geocoridae, is erected for *Australocoris* **gen. nov.** containing three species, *A. kurandae* Kirkaldy, 1908, *A. fuscomaculatus* **sp. nov.**, and *A. monticolus* **sp. nov.**, all from Queensland, Australia. *Australocoris monticolus* has been collected only from northern Queensland, near Julatten north of Cairns to Bellenden Ker Range area, and mostly at higher altitudes 800 to 1560 m; *A. kurandae* from usually lower altitudes of northern Queensland; and *A. fuscomaculatus* is known from southern Queensland. The affinities of the subfamily are discussed in relation to other subfamilies of Geocoridae as well as other related families of Lygaeoidea. Geocoridae is redefined to contain this new subfamily. A key to species is provided.

**Key words:** *Australocoris*; family redefined; new taxa; key to species; family/subfamily relationships; Queensland; Bellenden Ker Range

### **Introduction**

An overview of the family Geocoridae (formerly the subfamily Geocorinae in the family Lygaeidae) in Australia is given in Malipatil (1994), together with species-level revisions of the genera *Geocoris* Fallén and *Stylogeocoris* Montandon.

During the course of a taxonomic review of the third geocorid genus, *Germalus* Stål, a character analysis of all the Australian species that are currently included in the genus was conducted. One of the species, *Germalus kurandae* Kirkaldy, 1908 from Queensland, was found to possess certain peculiar major characters which preclude its placement in the genus *Germalus* or in any other geocorid genera.

The present paper discusses the result of this study, including a redescription of the species and a description of two new closely related species, a detailed character analysis, and justification for their placement in a new genus, *Australocoris* **gen. nov.**

The supra-generic placement of this genus is intriguing. *Australocoris* **gen. nov.**, also exhibits some similarities with members of the Lygaeidae, but differs from each one of them in some major characters that have been detailed and discussed below.

The dorsal spiracles of abdominal segments II to VII found in *Australocoris* **gen. nov.**, preclude its placement in the family Geocoridae as it is presently defined, but on this character alone it could be placed in the family Lygaeidae (*sensu* Henry 1997). However, this genus does not belong in the Lygaeidae because it lacks a pronotal impressed, transverse, usually shiny, groove. Yet, as discussed below, the new genus has more features of, and similarities with, Geocoridae than with Lygaeidae. Therefore, pending further detailed phylogenetic analysis, the genus has tentatively been placed in a new subfamily Australocorinae in the family Geocoridae, along with the other three existing subfamilies (*viz.*, Geocorinae, Bledionotinae including Pamphantinae, and Henestarinae *sensu* Henry 1997). This action is assumed preferable to erecting a new family until further morphological analysis, particularly in relation to abdominal spiracular position of all species currently included in the family Geocoridae, as well as molecular analysis, is carried out and supporting evidence becomes available.

Further detailed discussion on the supra-generic placement of this genus has been provided below.