



## ***Aphelocheirus* (s.str.) *bruneiensis* sp.n., a new benthic water bug (Hemiptera: Heteroptera: Aphelocheiridae) from Brunei, and a key to Bornean *Aphelocheirus***

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### **Abstract**

*Aphelocheirus* (s.str.) *bruneiensis* sp.n. from Brunei is described and illustrated; its type locality is described in detail. *Aphelocheirus* (s.str.) *kinabalu* Polhemus & Polhemus, 1989 is recorded from Sarawak for the first time. An identification key to the brachypterous morphs of the six species known from Borneo is presented. Digital photographs of the new species and three other rare species are provided.

**Key words:** Aphelocheiridae, *Aphelocheirus*, taxonomy, new species, nymph, habitat, key, Borneo, Brunei, Sarawak

### **Introduction**

Benthic water bugs of the Aphelocheiridae are a relatively small taxon of the infraorder Nepomorpha and closely related to the creeping water bugs (Naucoridae). In earlier publications (e.g., Hoberlandt and Štys 1977, Polhemus and Polhemus 1989) they were often treated as a subfamily (Aphelocheirinae) of the Naucoridae, but later usually ranked at family level (e.g., Mahner 1993, Zettel 1998, Chen *et al.* 2005). Aphelocheiridae contains one genus, *Aphelocheirus* Westwood, 1833 with two subgenera (*Aphelocheirus* s.str., *Micrapphelocheirus* Hoberlandt and Štys, 1977) and approximately 80 species-group taxa. Aphelocheiridae are distributed in many parts of the Old World including the temperate regions of the Palaearctic, with highest species diversity on the southeastern Asian mainland. Minor centres of diversity occur in the Philippines, Borneo and Madagascar. Most of the species are confined to small distributional ranges. The Bornean fauna hitherto contained five endemic species of the nominotypical subgenus. This paper describes a remarkable new species from Brunei.

Biological knowledge of Aphelocheiridae is mostly based on the European species *Aphelocheirus aestivalis* (Fabricius, 1794), whereas knowledge of the biology and ecology of tropical and subtropical species of *Aphelocheirus* are extremely poor (Chen *et al.* 2005).

### **Material and methods**

*Aphelocheirus* specimens were collected in Brunei during a survey of freshwater invertebrates of the Sungai Tutong carried out between June and December 2004. This survey was commissioned by the Brunei Darus-