



A review of burrower bugs (Hemiptera: Heteroptera: Cydnidae *sensu lato*) of Guam

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Abstract

Five species representing the family Cydnidae *sensu lato* are recorded from Guam; three of them are reported for the first time from the island: *Byrsinus varians* (Fabricius, 1803), *Fromundus biimpressus* (Horváth, 1919), and *Rhytidoporus indentatus* Uhler, 1877. The widespread species, *Fromundus pygmaeus* (Dallas), was recorded by Ruckes (1963) and verified by us. The occurrence of a fifth species, previously listed from the island by Ruckes (1963) and Lis (1996), namely *Adrisa flavomarginata* (Vollenhoven, 1868), is regarded as doubtful. Of four currently known burrower bug species occurring on Guam, three are Oriental and one is American in origin. A key to all burrower bug species known from the island is provided. Additionally, *Microporus shiromai* Froeschner, 1976 from Hawaii is regarded as a junior synonym of *Byrsinus varians* (Fabricius, 1803).

Key words: Hemiptera, Heteroptera, Cydnidae, *Microporus shiromai*, Guam, review, faunistics, taxonomy, new records, new synonym, key to species

Introduction

Although the burrower bug fauna of the Oriental and Australian Regions is relatively well known (see, e.g., Lis 1994, 1996, 1997, 1999a,b,c,d, 2000a,b, 2001; Lis and Heyna 2001), some of the Pacific islands are still unsatisfactorily explored. Literature data (Ruckes 1963, Lis 1996) record two species of this family from Guam: *Fromundus pygmaeus* (Dallas, 1851) and *Adrisa flavomarginata* (Vollenhoven, 1868). However, an accurate identification of the latter species was regarded by Ruckes (1963) as almost impossible and very questionable because all three of the specimens available to him were very badly damaged. Therefore, only a single burrower bug species (i.e., *F. pygmaeus*) can be regarded as positively recorded from the island. As a result of our studies, we record three species new to the island and document the occurrence of *F. pygmaeus*. We did not discover specimens of *A. flavomarginata*.

Additionally, *Microporus shiromai* Froeschner from Hawaii is regarded as a junior synonym of *Byrsinus varians* (Fabricius).

Beginning in 2004, RSZ began to work with personnel at the University of Guam to better understand the insect fauna of Guam and the Northern Mariana Islands. The primary purpose of these studies is to verify existing records and to document more recent introductions to Guam. Guam is a primary area of military, business, and tourist movement, and introductions are common and sometimes devastating to the native fauna and flora as well as to the economy. It is important that we have an understanding of those species being introduced to the island so that when necessary, best management practices can be implemented.