



## The thread-legged bugs (Hemiptera: Heteroptera: Reduviidae: Emesinae) of Lord Howe and Norfolk Islands

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### Abstract

Collections from Lord Howe and Norfolk Islands include three new species and one new locality record of emesine reduviid bugs. From Lord Howe Island *Emesopsis cirratus* n. sp. the first record of this genus from Lord Howe and *Atisne reidi* n. sp. are described. *Ploiaria weiri* n. sp. is described from Norfolk Island.

This paper brings the emesine fauna of Lord Howe Island to eight species in six genera and three tribes, and that of Norfolk Island to four species in four genera and three tribes. Our findings support the hypothesis that many invertebrate species are limited in their distributions on these islands, and provide evidence of altitudinal segregation among sister-species of the genus *Atisne*.

**Key words:** assassin bugs, Australia, taxonomy

### Introduction

Despite the frequently stenotopic habits of thread-legged assassin bugs, the Emesinae (Heteroptera: Reduviidae) are broadly distributed with a number of cosmopolitan genera known (Wygodzinsky 1966). They exhibit unusually high representation on oceanic islands relative to other reduviid subfamilies (Leston 1957), and a number of flightless, narrow-range species are known. Wygodzinsky (1956, 1966) and Cassis and Gross (1995) reported the occurrence of five species of emesines from the endemically-rich Australian island, Lord Howe. With the inclusion of two new species, *Atisne reidi* n. sp. (the putative sister-species of the type species of the genus, *A. derelictus* Wygodzinsky, 1966) and *Emesopsis cirratus* n. sp., plus the new record for *Empicoris scabraventris* Tatarnic, Wall & Cassis, 2011, the island's emesine fauna is increased to eight species, incorporating six genera and three tribes. In contrast, Norfolk Island has a relatively depauperate emesine community, and is home to only four species (including the new species *Ploiaria weiri* n. sp.). Only one species, the cosmopolitan tramp species *Empicoris rubromaculatus* (Blackburn 1899) has been recorded from both islands. This cosmopolitan species is found on many oceanic islands. Though specimens of *E. rubromaculatus* were not found in the material examined for the present study, we did record the presence of the recently described *Empicoris scabraventris* which was previously known only from New South Wales, South Australia and Tasmania (Tatarnic *et al.* 2011). *Pseudobargyilia leai* Wygodzinsky, 1956 was found in lowland rainforest of the island, from two locations. This flightless species is restricted to Lord Howe Island. *Tridemula metabates* Wygodzinsky, 1956, also found on the mainland, was not found in this survey but has been previously recorded from Lord Howe Island (Wygodzinsky 1956).

### Methods and material

This study is based primarily on a handful of specimens at the Australian Museum (AM), with additional material from the Australian National Insect Collection (ANIC) and the Queensland Museum (QM). The types of all new species described herein are housed at the AM. Species concepts and characters follow those of the excellent work