

Two new species of the Australian planthopper genus *Solonaima* Kirkaldy (Hemiptera: Fulgoromorpha: Cixiidae)

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Abstract

Two new epigean species of the cixiid genus *Solonaima* Kirkaldy, which is endemic in eastern Australia, are described from Queensland (Lamington National Park) and New South Wales (Rosebank): *S. nielseni* n. sp. and *S. monteithia* n.sp.

Keywords: Hemiptera, Fulgoromorpha, Cixiidae, *Solonaima*, new species, Australia

Introduction

The genus *Solonaima* has hitherto been represented by 7 epigean and 6 cavernicolous species (Hoch 1988, Hoch & Howarth 1989). It appears to be monophyletic on the basis of morphological characters in the male and female genitalia regarded as synapomorphies (Hoch & Howarth 1989). *Solonaima* has been shown to be an excellent model to study cave adaptation (Hoch & Howarth 1989): within *Solonaima* several separate lineages colonized caves and adapted to a life underground. These cavernicolous species are found in limestone caves in the Chillagoe and Mt. Mulgrave Karst areas as well as lava tubes in Undara. They display various degrees of troglomorphy (reduction of eyes, wings and bodily pigment) and include troglophilic (facultative cave species) as well as highly modified, blind, flight- and pigmentless obligately cavernicolous (troglobitic) species (Hoch and Howarth 1989).

Epigean *Solonaima* species were known from Queensland only (Hoch 1988). Since then, additional *Solonaima* specimens were discovered in the Australian National Insect Collection (CSIRO, Canberra) and in the collection of the University of Queensland, Brisbane. Examination of this material revealed the existence of two more *Solonaima* species from Queensland and, for the first time, from New South Wales. They differ significantly from all other congeners and are described below.