



Towards a Taxonomic Revision of *Trachymela* (Coleoptera: Chrysomelinae).

Lyn G. Cook (the University of Queensland); Peisong Tian (the University of Queensland).

Eucalyptus, the most dominant native tree group in Australia, is host to many genera of insects. In contrast with the eucalypts themselves, most of the diversity of insects feeding on them has not yet been described or, when it has, there is no way of actually identifying specimens to species. Leaf beetles of the genus *Trachymela* are an example of this. There are 127 named species and about 135 synonyms, but the genus has not been revised for more than 100 years, and only four species have been described in the past century. Here, we report the first attempt to provide a taxonomic framework for *Trachymela* using *COI* DNA barcodes for 80 specimens. We then assess species diversity among specimens that match the description of *T. alticola* using DNA sequences from the mitochondrion (*COI*) and nuclear loci (*28S*, *EF1 α* and *ITS2*), and morphometrics.

Peisong Tian: p.tian@uqconnect.edu.au