



Phylogenomic analysis of the generic limits of *Chrysocephalum*.

Shelley Rowntree (University of New England); Alexander Schmidt-Lebuhn (CSIRO, Centre for Australian National Biodiversity Research); Jeremy Bruhl (University of New England); Ian Telford (University of New England); Rose Andrew (University of New England).

Chrysocephalum Walp. is a medium-sized genus in the Waitzia clade of the Australian Gnaphalieae (Asteraceae), comprising nine currently recognised species and two phrase-named species. Detailed relationships within the clades of the Gnaphalieae remain largely unresolved, and generic concepts are often based on a small number of morphological characters traditionally considered important. In a recent revision of the *C. apiculatum* and *C. semipapposum* complexes (Wilson 2016), 34 subspecies were named based on morphological characters, with a high level of complexity making distinction difficult among them. Towards my Ph.D. project, I have inferred a molecular phylogeny of selected Australian native Gnaphalieae (Asteraceae) using target capture sequences to test the monophyly of the *Chrysocephalum*. A group of three species formed the “core” *Chrysocephalum* clade, *C. apiculatum* (type species), *C. semipapposum* and *C. vitellinum*. Arid zone species formed separate clades. Further studies are underway to identify morphological and anatomical synapomorphies for clades and to resolve species limits and species-level relationships with molecular and morphological analyses.

Shelley Rowntree: srowntre@myune.edu.au