Species delimitation and morphometric analysis of *Anthotium humile* (Goodeniaceae) W–2–9

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The *Anthotium humile* R.Br. species complex comprises a small group of taxa endemic to the Southwest Australian Floristic Region (SWAFR). The complex includes *A. humile*, a widespread and morphologically variable species, and two putative taxa, informally known as *A.* sp Darling Range and *A.* sp. Peaceful Bay, the former of which is listed as a poorly known (Priority 1) taxon of conservation concern in Western Australia. This research project sought to determine whether these putative taxa should be accepted and formalised as distinct from *A. humile* (and if so, at what rank), and to assess the variation within *A. humile* itself. An integrative approach was undertaken incorporating a morphometric analysis based on 43 floral and leaf characters, an elliptical fourier analysis of floral morphology, and a molecular phylogenetic analysis using cpDNA (*trnL-F*) and nrDNA (ITS). The molecular phylogeny does not support the formalisation of *A.* sp. Darling Range and *A.* sp. Peaceful Bay as distinct species. Two clades of *A. humile* (A and B) were supported; Clade A was well supported and placed sister to *A. junciforme* (de Vriese) D.A.Morrison, while Clade B fell within a clade including *A. rubriflorum* Benth. and *A. odontophyllum* L.W.Sage. Progress continues on the morphometric and elliptical fourier analyses exploring morphological variation between Clades A and B of *A. humile* and to determine if the latter is supported as distinct from *A. odontophyllum* or if the current circumscription of this Priority 3 conservation species should be expanded. This study significantly increases our understanding of this poorly understood genus, which will in turn inform future conservation prioritisation and management strategies for *Anthotium* in particular and for the SWAFR more broadly.

Student Presenter

Systematics 2017—Integrating Systematics for Conservation and Ecology

Proceedings of the Australasian Systematic Botany Society & Society of Australian Systematic Biologists Conference and the Invertebrate Biodiversity and Conservation Biennial Meeting

27–29 November, 2017—Adelaide, Australia

Swainsona Supplement 5

systematics.ourplants.org