Good grief, what's happening to *Goodenia*?

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A recent cpDNA phylogenetic analysis of monophyletic Goodeniaceae supported two large clades—the smaller 'LAD' group comprising *Lechenaultia*, *Anthotium* and *Dampiera*, and the 'Core Goodeniaceae' including the monotypic *Brunonia australis* as sister to *Goodenia s.l.* and *Scaevola s.l.* Core Goodeniaceae are characterised by the presence of free anthers and an indusium with a protruding stigma. *Goodenia s.l.* includes *Velleia*, *Verreauxia*, *Coopernookia*, *Selliera*, monotypic *Pentaptilon*, and *Scaevola collaris*, and is much more variable in floral morphology than *Scaevola s.l.* The majority of *Goodenia s.l.* have bilabiate flowers but it is clear that fan flowers and intermediate floral symmetries have evolved multiple times across the group. In contrast, the iconic fan flower floral symmetry is almost ubiquitous within *Scaevola s.l.*, with the notable exception of embedded monotypic *Diaspasis filifolia*, which has pseudo-actinomorphic flowers. Preliminary phylogenetic analysis of nrITS sequences corroborate cpDNA analyses and indicate that *Goodenia s.s.* resolves into three major clades with varying levels of support. Currently it appears that no morphological features unite *Goodenia s.l.*, and that most of the included smaller genera are both monophyletic and morphologically well-defined. It is deemed likely that the recognition of new genera from within *Goodenia s.s.* will be the better course of action, rather than subsuming all included taxa into an expanded genus of more than 190 taxa; however, broader taxon sampling, further cpDNA and nrDNA sequencing, and a re-evaluation of morphological synapomorphies for each new taxonomic entity are required before a formal revision of this charismatic group can be made.

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