



Twisted flowers and tales to match: phylogenetic inference of Australian *Caesia* (Asphodelaceae, Hemerocallidoideae).

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Caesia R.Br. (Asphodelaceae, Hemerocallidoideae) is a predominantly Australian, tepaloid monocot genus with high species diversity in the east and south-west. It contains 14 species and at least eight additional entities recognised by phrase names. Identification and morphological analysis of *Caesia* from herbarium material is challenging, due to a paucity of distinguishing features retained on specimens (e.g. flower colour, roots). The phylogeny of Australian *Caesia* was inferred, based on five chloroplast regions generated using targeted amplicon sequencing. *Caesia* is polyphyletic, as Western Australian ‘rigid-leaved’ species are more closely related to *Corynotheca* F.Muell. ex Benth. *Caesia* species relationships are elucidated. *Caesia parviflora* is polyphyletic, with *C. parviflora* var. *vittata* more closely related to *C. calliantha* and *C. chlorantha*. *Caesia walalbai*, a south-east Queensland endemic, is newly described, segregated from the *C. parviflora* complex. *Caesia calliantha* is also polyphyletic. Northern species, *Caesia chlorantha* and *C. setifera*, represent species complexes; each is monophyletic and includes lineages with distinct morphological features or geographic distributions. *Caesia* sp. Mt Zeil (NT), *C. sp.* Foster Cliff (NT) and *C. sp.* Wheatbelt (WA) are each monophyletic and their relationships are inferred. Further work and additional collections are required to clarify species complexes in Australian *Caesia*.

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