



***Triodia* hummock grass systematics, hybridization and polyploidy (Poaceae: Chloridoideae).**

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The Australian hummock grass genus *Triodia* R.Br. contains numerous morphological forms that have been discovered since the last revision of the genus in 2005. More than fifty novel species have been described or are in review since 2011. Here, we provide an overview of these new taxa, using the framework of a geographically comprehensive ribosomal phylogeny containing 533 terminals. Most of the new species occur on rocky substrates and have a range of between 1 and 200 km, often restricted to localised geological landforms. We consider evidence for hybridisation, particularly in relation to the status of *T. prona* Lazarides, and the role of polyploidy in diversification of the genus. With these new discoveries, *Triodia* will become the most species-rich grass genus in Australia, accounting for about 10% of Australian native grass species diversity. The new taxonomic and phylogenetic framework will provide resources for the conservation and utilisation of grassland diversity, enabling new insight into the evolution of seasonally arid biomes.

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