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EVOLUTIONARY DIVERSITY IN SPINIFEX GRASSES: AN EXAMPLE FROM THE *TRIODIA BASEDOWII E.PRITZ.* SPECIES COMPLEX

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Ongoing molecular investigations of diversity in spinifex grasses (*Triodia* spp.) are revealing that current species numbers are underestimated, especially in northern and western Australia. This disparity between current taxonomy and actual biodiversity has implications for characterizing species' ecology. This talk will highlight preliminary results from one group of closely related species, the *Triodia basedowii* species complex, investigated using nuclear and chloroplast markers and morphology in an attempt to clarify species boundaries. The results reveal unrecognized diversity, particularly in the Pilbara region of Western Australia. Field observations indicate that some of this diversity is differentiated between substrates. Relatively low genetic diversity in central Australia may support a relatively recent expansion into the sandy deserts, but this remains to be tested.

Benjamin Anderson is from Vancouver, Canada, and is studying Triodia spp. (spinifex grasses) for my PhD at the University of Western Australia. He is interested in taxonomy, systematics and phylogeography.