

Progress Report STP 2015-013 (FY 2015-2016)

Diversity in the *Triodia basedowii* E.Pritz. species complex and its implications for the evolution of the Australian arid zone biota

Plant Science and Herbarium

Project Core Team

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Project Team	granted
Program Leader	granted
Directorate	granted

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Progress Report

This project has substantially resolved species limits in the difficult *Triodia basedowii* species complex, which has a centre of taxonomic diversity in the Pilbara and has previously posed intractable taxonomic problems for ecological survey, mine-site restoration and conservation planning. The project has: improved our understanding of the taxonomic, ecological and geographic limits of the named taxa *T. basedowii*, *T. lanigera*, *T. concinna* and *T. plurinervata*; resolved ready for formal naming the phrase-named species *T.sp.* Shovelanna Hill (S. van Leeuwen 3835), *T. sp.* Little Sandy Desert (S. van Leeuwen 4935), *T. sp.* Peedamulla (A.A. Mitchell PRP 1636), *T. sp.* Warrawagine (A.L. Payne PRP 1859) and *T. sp.* Pannawonica (B.M. Anderson & M.D. Barrett BMA 89); and discovered and characterised three new species. All species will be formally described in a forthcoming taxonomic revision of the group. In addition, the project has provided new knowledge on the evolutionary history of the Pilbara and of arid Australia based on phylogenetic and biogeographic patterns in the species complex.

This project will finish in July 2016 with submission of a PhD thesis.