

Progress Report SP 2009-006

Taxonomic resolution and description of new plant species, particularly Priority Flora from those areas subject to mining in Western Australia

Plant Science and Herbarium

Project Core Team

Supervising Scientist	Juliet Wege
Data Custodian	Juliet Wege
Site Custodian	Juliet Wege

Project status as of Oct. 14, 2016, 5:23 p.m.

Approved and active

Document endorsements and approvals as of Oct. 14, 2016, 5:23 p.m.

Project Team	granted
Program Leader	granted
Directorate	granted

Taxonomic resolution and description of new plant species, particularly Priority Flora from those areas subject to mining in Western Australia

J Wege, KA Shepherd, R Butcher, B Rye, T Macfarlane, M Hislop, S Dillon, A Perkins, R Davis

Context

Western Australia has a rich flora that is far from fully known. New species continue to be discovered through the taxonomic assessment of herbarium collections, floristic surveys and the botanical assessment of mineral leases. There are c. 1350 putatively new and undescribed taxa currently recorded in Western Australia, a significant proportion of which are poorly known, geographically restricted and/or under threat (i.e. Threatened or Priority Flora). The lack of detailed information on these taxa makes accurate identification problematic and inevitably delays the Department's ability to survey and accurately assess their conservation status.

Aims

Resolve the taxonomy and expedite the description of manuscript or phrase-named plant taxa, particularly Threatened and Priority Flora and those taxa vulnerable to future mining activities.

Progress

- A Threatened *Atriplex* and a rare *Tricoryne* were published in *Australian Systematic Botany*.
- 21 new conservation-listed taxa in the genera *Babingtonia*, *Hibbertia*, *Lasiopetalum*, *Leucopogon*, *Malleostemon*, *Ptilotus* and *Stylidium* were published in *Nuytsia*.
- A further 50 new species (of which 41 are conservation-listed) were published in a special issue of *Nuytsia* as a result of a collaboration between the Botanic Gardens and Parks Authority and staff and research associates of the Western Australian Herbarium.
- Nine phrase-named taxa under *Dampiera*, *Goodenia*, *Leucopogon*, *Philotheca*, *Scaevola*, *Senna*, *Stylidium* and *Vigna* were found to be synonymous with known species. Papers recommending their removal from WACensus (and in several cases the *Threatened and Priority Flora list for Western Australia*) were published in *Nuytsia*.
- *Ricinocarpos* Eastern Goldfields (A. Williams 3), a putative new species from mineral leases in the Coolgardie region, was added to WACensus and the *Threatened and Priority Flora list for Western Australia*.
- Papers describing new, conservation-listed species of *Allocasuarina*, *Cochorus*, *Dysphania*, *Lasiopetalum*, *Leucopogon* and *Tetradlea* and *Trachymene* have been progressed.

Management implications

- The provision of names, scientific descriptions, illustrations and associated data will enhance the capacity of conservation and industry practitioners to identify new species, thereby improving species management, conservation assessments and land use planning.

Future directions

- Identify and formally describe new taxa of conservation significance.