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

BCS Plant Science and Herbarium

Project Core Team

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Project status as of Sept. 27, 2023, 1:06 p.m.

X X Update requested

Document endorsements and approvals as of Sept. 27, 2023, 1:06 p.m.

X X
Project Team granted
Program Leader granted
Directorate required

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Context

[variant=australian]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 more than 1062 putatively new and undescribed taxa on Western Australia's vascular plant census, almost half 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 phrase-named plant taxa, particularly Threatened and Priority Flora and those vulnerable to future mining activities.

Progress

- 19 new taxa were named and described in Ericaceae, *Acacia* and *Lambertia*, 17 of which were conservation-listed, including 2 Threatened taxa.
- Morphological assessment of species complexes of *Geleznowia* and *Isopogon* were completed in conjunction with genetic analysis.
- Team members joined BushBlitz surveys and undertook targeted field work to progress taxonomic research. Investigations on *Lasiopetalum*, *Goodenia*, *Thysanotus, Arthropodium* and *Stylidium*were carried out and substantial progress made on associated manuscripts.
- 5 putatively new and poorly known species were added to the State's vascular plant census by team members under a phrase name.

Management implications

- [variant=american]The provision of names, scientific descriptions, illustrations and associated data will enhance the capacity of conservation and industry personnel to identify these new species, thereby improving conservation assessments and effective management.

Future directions

- Identify and formally describe new taxa of conservation significance.