

## **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**

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**Project status as of June 15, 2020, 1:35 p.m.**

Update requested

**Document endorsements and approvals as of June 15, 2020, 1:35 p.m.**

<b>Project Team</b>	required
<b>Program Leader</b>	required
<b>Directorate</b>	required

# Taxonomic resolution and description of new plant species, particularly priority flora from those areas subject to mining in Western Australia

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## 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 more than 1150 putatively new and undescribed taxa on Western Australia's vascular plant census, around 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 manuscript or phrase-named plant taxa, particularly threatened and priority flora and those taxa vulnerable to future mining activities.

## Progress

- A golden anniversary edition of *Nuytsia* has been prepared and publication is well underway — 25 out of a planned 50 new Western Australian species have been published, a majority of which are poorly known. Social media is being used to promote this unique initiative, with articles also written for *Landscape*, *Bushland News* and the newsletter of the *Australian Flora Foundation*.
- Ten additional conservation-listed taxa in *Styphelia* and *Isopogon* were published in *Swainsona* or *Nuytsia*, and a key to the species of *Thomasia* was also published in *Nuytsia*.
- A small amount of targeted field work to obtain type material or progress research on undescribed, conservation-listed taxa was conducted.
- Nine poorly known species from the genera *Acacia*, *Convolvulus*, *Darwinia*, *Gomphrena*, *Leucopogon*, *Microcorys* and *Swainsona* were discovered and added to the State's vascular plant census under phrase names.
- Expanded circumscriptions of *Goodenia* and *Styphelia* were published in *PhytoKeys* and *Australian Systematic Botany* respectively and include name changes for 17 conservation-listed taxa from Western Australia.

## 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.