

## **Progress Report CF 2011-105**

# **Herbarium collections management**

**Plant Science and Herbarium**

### **Project Core Team**

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### **Project status as of Sept. 12, 2017, 10:15 a.m.**

Approved and active

### **Document endorsements and approvals as of Sept. 12, 2017, 10:15 a.m.**

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

## Herbarium collections management

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### Context

The Western Australian Herbarium's Collection provides the core resource for knowledge of the state's plants, algae and fungi. The Collection is growing constantly, through addition of new specimens representing new taxa and new records of existing taxa. The collection is maintained to a high standard, and provides Parks and Wildlife and the community with the fundamental resource providing knowledge of the diversity, distribution and abundance of plants throughout Western Australia.

### Aims

- Fully document and audit the diversity of Western Australia's plants, algae and fungi.
- Maintain in perpetuity a comprehensive, adequate and representative research and archive collection of specimens of all taxa in these groups occurring in Western Australia.
- Contribute to, support and service the research, conservation and decision-making activities of Parks and Wildlife.
- Contribute to, support and service taxonomic research by the world's scientific community.

### Progress

- 8732 specimens were added to the collection, which now stands at 759797, a 1.16% increase in holdings during this period.
- The major plant groups in the collection are summarised in Appendix 1, Table 1
- Loans and exchange: loans outward—18 loans consisting of 484 specimens; loans inward—7 loans consisting of 115 specimens; loans returned to the Herbarium—28 loans consisting of 713 specimens; loans returned to their home institution—24 loans consisting of 515 specimens; exchange inward—1137 specimens; exchange outward—1222 specimens including 12 requests for destructive sampling.
- Volunteer participation was significant, totalling 8993 hours which is equivalent to 5 full time employees.
- Tasks managed by Collections staff with the assistance of volunteers were as follows: mounting and labelling 8441 specimens; validating the name and occurrence of 2327 incoming specimens for lodgement.
- Recruited 45 volunteers.
- Reference Herbarium: maintained the facility, which has over 14775 specimens representing 11702 taxa and also added or replaced 180 specimens. 1108 visitors used this resource to identify plant specimens during this period. This year the Swan River Trust Reference Collection was merged with the Reference Herbarium.
- Research Collection: accessed by 432 visitors to study taxa or help identify specimens.
- Provided 94 high resolution scans of herbarium specimens to Parks and Wildlife district staff and industry consultants to aid in the identification and location of known and new populations of priority and threatened taxa.
- Significant lodgements: industry surveys, regional DPAW officers, DPAW Kimberley Islands survey, R. Chinnock (cactus), M. & R. Barrett, Desert Discovery, N. Gibson (*Calothamnus* study).
- Reviewed, documented and made available on the Herbarium webpage: destructive sampling policy, exchange policy, loans policy, loans conditions and quarantine guidelines.
- The Herbarium Identification Program provided identifications to a range of clients and specialises in taxa and specimens that clients find challenging. Our most significant clients included Parks and Wildlife, other government agencies, environmental consultancies, regional herbaria and the public.
- Educational role: provided tours of the Herbarium for tertiary institutions, Parks and Wildlife staff, environmental consultancies and community groups.

- Scanned 532 types for the Global Plants Initiative. The project was completed this year; 7857 WA Herbarium type specimens are now accessible to the world's scientific community and other botanical resources for study.

## Management implications

- Maintenance and curation of the herbarium collections provides an authoritative inventory of the plant biodiversity of Western Australia.
- The collections are drawn upon constantly by Parks and Wildlife staff, consultants and others for validating specimen records from biological surveys and for assessing the conservation status of all native taxa.
- Many taxa in Western Australia are yet undiscovered, but many of these are already represented by specimens in the Herbarium, awaiting recognition by taxonomists.

## Future directions

- Continue to maintain the collection to an authoritative standard for all users.
- Continue to review and document collections management policy and procedures to effect efficiencies and reflect modern herbarium practices, and where applicable make available on the Herbarium webpage.
- Recruit and retain 50 new volunteers to assist in key Herbarium functions.