

Progress Report CF 2011-105

Herbarium collections management

Plant Science and Herbarium

Project Core Team

Supervising Scientist	Karina Knight
Data Custodian	Karina Knight
Site Custodian	Karina Knight

Project status as of April 16, 2018, 1:10 p.m.

Approved and active

Document endorsements and approvals as of April 16, 2018, 1:10 p.m.

Project Team	granted
Program Leader	granted
Directorate	granted

Herbarium collections management

K Knight, C Parker, J Huisman, J Percy-Bower, R Rees, S Coffey, M Falconer, E McGough, E Wood-Ward, M Hislop, R Davis

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

- 11,382 specimens were added to the collection, which now stands at 779,638, a 1.5% increase in holdings during this period.
- Loans and exchange: loans outward—15 loans consisting of 636 specimens; loans inward—10 loans consisting of 402 specimens; loans returned to the Herbarium—26 loans consisting of 837 specimens; loans returned to their home institution—20 loans consisting of 3901 specimens; exchange inward—798 specimens; exchange outward—920 specimens including 15 requests for destructive sampling.
- Tasks managed by Collections staff with the assistance of volunteers were as follows: mounting and labelling 8479 specimens; validating the name and occurrence of 1419 incoming specimens for lodgement; curating the backlog of algae; curating the microscope slide collection.
- The most significant projects accomplished were the physical expansion of the research collection to ensure the safety and future protection of each specimen; and the rehousing of the spirit collection.
- Volunteer participation was significant, totalling 9690 hours, which is equivalent to ca. 5.6 full time employees.
- Maintained the Reference Herbarium facility, which has 14,931 specimens representing 11,769 taxa and also added or replaced 71 specimens. 1216 visitors used this resource to identify plant specimens during this period.
- Research Collection was accessed by 935 visitors to study taxa or help with identification.
- Provided 155 high resolution scans of herbarium specimens to Parks and Wildlife staff and industry consultants to aid in the identification and location of known and new populations of priority and threatened taxa, and to scientists for research.
- Significant collections were lodged included industry surveys, regional Parks and Wildlife staff surveys, South Western Australian Transitional Transect, Pilbara Biological Survey, M & R Barrett, G & R Byrne, Desert Discovery and Bushblitz.
- 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. Significant projects requiring identification services this year included Bushblitz, Desert Discovery and AusPlots.
- Educational role continued with staff providing tours of the Herbarium for tertiary institutions, Parks and Wildlife staff, environmental consultancies, community groups and the media.

- Scanned 110 Types for the Global Plants Initiative where Western Australian Herbarium Type specimens are now accessible to the world's scientific community for study.

Management implications

Maintenance and curation of the Herbarium collections provides an authoritative inventory of the plant biodiversity of Western Australia underpinning flora conservation and research programs. 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 native taxa.

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 a sustainable number (approx 20 per year) of volunteers to assist in key Herbarium functions.
- Merge the incoming Manjimup fungi collection with the research collection.