

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, 10:13 a.m.

Approved and active

Document endorsements and approvals as of Sept. 12, 2017, 10:13 a.m.

Project Team	granted
Program Leader	granted
Directorate	granted

Herbarium collections management

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Context

The Western Australian Herbarium's collections provide 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 DEC and the community with the fundamental resource providing knowledge of the diversity, distributions 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 DEC.
- Contribute to, support and service taxonomic research by the world's scientific community.

Progress

- 9351 specimens were added to the collection, which now stands at 742,929, a 1.3% increase in holdings this period.
- The major plant groups in the collection are as follows:

[Project Table]

Taxonomic Group

Number of specimens

Increase since June 2012

(June 2013)

Number

%

Myxomycetes

905

90

0.01

Fungi

23519

246

0.035

Lichens

16374

83

0.01

Algae

23360

226

0.035

Liverwort and hornworts

1967

1
 0.00
 Mosses
 6714
 37
 0.005
 Ferns and fern allies
 3685
 51
 0.005
 Gymnosperms
 2039
 15
 0.00
 Flowering plants
 664362
 8620
 1.2
 Total number
 742929
 9351
 1.3

- Loans and exchange: loans outward—1197 specimens; loans inward—1105 specimens; exchange outward—1574; exchange inward—304 specimens.
- Volunteer participation was significant, totalling 8740 hours.
- Tasks managed by curation staff with the assistance of volunteers were as follows: general curation of specimens; mounting and labelling 5,351 specimens; validation of names and distribution of incoming specimens; auditing, maintaining and adding to the Reference Collection.
- Reference Herbarium: maintained the facility, which has over 14554 specimens representing 11599 taxa and also added or replaced 320 specimens. Over 2000 visitors used this resource to identify plant specimens during this period.
- The Herbarium Identification Program provides identifications to a range of clients and specialises in taxa and specimens that clients find challenging. This year over 3000 identifications were provided; our most significant clients included DEC, other government agencies, environmental consultancies, regional herbaria and the public.
- Educational role: provided tours of the herbarium for tertiary institutions, secondary schools, DEC staff, environmental consultancies and community groups.
- Scanned 1000 type specimens for the Global Plants Initiative to make accessible to the world's scientific community plant type specimens and other botanical resources for study.

Management implications

- Maintenance and curation of the herbarium collections provides an adequate and authoritative inventory of the plant biodiversity of Western Australia.
- The collections are drawn upon constantly by DEC 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

- Complete the scanning of the remaining 5000 type specimens in the collection for the Global Plants Initiative.
- Continue to maintain the collection to an authoritative standard for all users.