



## Western Australian Herbarium Specimen Acquisition Guidelines

The Western Australian Herbarium (PERTH), part of the Department of Biodiversity, Conservation and Attractions, plays an important role in understanding, preserving, managing, and conserving Western Australia's plants, algae and fungi. Central to this role is the State Collection of more than 800,000 specimens of both native and naturalised taxa from throughout Western Australia, with infrequent vouchers from national and international locations. The collection is the basis for important taxonomic research which results in the discovery, description, and naming of around 100 new taxa per year. Amongst many different scientific and cultural uses, it is also the authoritative set of voucher specimens used to estimate the distribution and conservation status of Western Australian flora, and a critical resource in helping to accurately identify specimens collected from throughout the State.

The aim of the Western Australian Herbarium is to make the collection taxonomically and geographically representative and to ensure that our specimens are of the highest standard for taxonomic and other scientific research endeavours. We aim to assemble a comprehensive and representative set of high-quality specimens of every taxon found within Western Australia, covering each taxon's geographic and morphological range through time. We also house vouchers of taxa found outside of the Western Australian political boundaries, particularly weedy or invasive species, or closely related taxa for systematic comparison.

It is important for the Herbarium to maximise the number of specimens in the collection that add significant value for scientific and other uses. Every specimen brings a cost to the Herbarium, in staff time to process, digitize, and incorporate, and in the long-term costs associated with curating and archival housing of specimens in perpetuity. Focussing on the accession of scientifically valuable specimens conserves resources for the other critical services the Herbarium provides to the Western Australian government, industry, our scientific partners, and community.

Accordingly, the Herbarium has a process of assessing specimens before they are accessioned for incorporation, and returning, discarding, or redistributing specimens that do not fit the Herbarium's needs.

A specimen *may be of scientific value to the Western Australian Herbarium* and is likely to be retained and incorporated if it:

- Is well-collected (representative and fertile), well-pressed, and preserved<sup>1</sup>;

---

<sup>1</sup> For more information please see the guide *How to Collect Herbarium Specimens* at <http://dbca.wa.gov.au/plants-and-animals/wa-herbarium>

*The Western Australian Herbarium acknowledges the Traditional Owners of the land and waters from where our collections have come, and pays respect to their Elders past, present and emerging.*

- Is accompanied by adequate collecting metadata (minimum requirement is proof of legal collection, collector's name and number, date of collection, precise collection location and geocoordinates)<sup>2</sup>;
- Adds significant taxonomic value (e.g., it is morphologically unusual or considered likely to represent a new taxon or variant, or belongs to a group known to be taxonomically problematic);
- Adds significant geographic value (e.g., it represents a range extension or fills a gap in the known range of a taxon);
- Adds significant ecological value (e.g., it was collected from an unusual habitat or was part of an extensive biological or habitat survey);
- Belongs to a taxon that currently has few specimens represented in the Herbarium collection;
- Adds value to a time series of collections (e.g., unusual flowering/fruitletting time, common species not collected recently, presumed extinction);
- Is accompanied by preserved genetic material (e.g., tissues in silica gel);
- Is determined to add value to the Herbarium in other ways (e.g., it is a voucher for a photograph donated to the Herbarium; historical collection).

A specimen is *not* likely to be accessioned and should not be submitted for incorporation if it:

- Is poorly collected (e.g., it is a small infertile fragment, or has not been adequately preserved) and/or lacking collection metadata;
- Comes from a locality that is already well-represented in the collection at a point in time (by one to many specimens of that taxon at or near that locality within a short time-frame, such as population collections)<sup>3</sup>.

The above are guidelines only, and each specimen is assessed individually, on a case-by-case basis.

All contributors and donors of specimens to the Herbarium can play a role in helping the Herbarium fulfil its aims by carefully assessing specimens before submitting them for incorporation into the Herbarium.

If requested, the Herbarium will return specimens not incorporated to their collector. If not required, specimens may be disposed of or sent to partner herbaria as part of the national and international exchange program, at the discretion of the Herbarium.

### **Special exceptions for specimen accessioning**

*Sterile specimens.* As a general rule, sterile specimens are of low scientific value to the Herbarium. Rare exceptions to this might include clearly identifiable specimens representing significant range extensions for a taxon, or collections believed to represent potentially new taxa (e.g., specimens that can be confidently identified to genus but vegetatively match no existing taxon in that genus).

<sup>2</sup> Note that these are minimum requirements. Specimens should ideally be accompanied by more information than the minimum, including habit and habitat notes. For more information please see the guide *How to Collect Herbarium Specimens* at <http://dbca.wa.gov.au/plants-and-animals/wa-herbarium>

<sup>3</sup> It is recommended that mapping tools provided by The Australasian Virtual Herbarium (AVH) ([https://avh.ala.org.au/occurrences/search?q=collection\\_uid%3Aco75](https://avh.ala.org.au/occurrences/search?q=collection_uid%3Aco75)) be used for a rapid assessment of representation of taxa within the Western Australian Herbarium.

*Threatened and Priority Flora.* Specimens from distinct, new populations of Threatened and Priority flora are always accessioned by the Herbarium as they help in the assessment of range and conservation status for these important taxa. However, specimens from known populations are usually not required (unless more than 10 years has elapsed since the last specimen from that population was collected). With an appropriate licence, representative Threatened and Priority flora collections of each distinct population surveyed may be gathered; not every individual encountered. A single representative specimen of each population, clearly marked, may be submitted. Note also that each specimen should be accompanied by *both* a normal specimen record on paper *and* in electronic format. Threatened and Priority Flora Report Forms should be submitted directly to the DBCA Species and Communities Branch.

*Survey plot collections.* The Herbarium recognises the importance of vouchering collections for studies such as environmental impact assessments and ecological surveys, and that such studies may have strong constraints on the quality of specimens collected due to seasonality. While very scientifically significant specimens of lesser quality from such surveys may be incorporated, it is requested that discretion be used in collecting and submitting lesser quality specimens.

*Specimen vouchering for published reports.* At times it is important for specimens collected for research projects and other studies to be permanently vouchered as a record for future reference. Examples include specimens collected for genetic analysis, or for specialised ecological studies. In such cases the costs to the Herbarium of permanently keeping the specimens should be budgeted for in the research project. Please discuss costs and other issues involved with this service with the Herbarium Collections Manager ([herbarium@dbca.wa.gov.au](mailto:herbarium@dbca.wa.gov.au)) *before* commencing such a project.

*Weeds and invasive species.* While many native taxa are well-collected and adequately represented in the Herbarium, many weeds (even ubiquitous ones) are not. In general, voucher specimens of weeds and invasive species will be accepted for incorporation.

*Fruiting specimens.* Many species in the collection are represented mainly by flowering specimens, and mature fruits are rare, particularly for taxa that do not retain their fruit on the plant for long periods. The collection of both flowering and fruiting materials is encouraged.