



Department of **Biodiversity,  
Conservation and Attractions**  
**Western Australian Herbarium**

## Reference Herbarium User Guide

The Western Australian Herbarium **Reference Herbarium** is a special-purpose, public access facility housing representative specimens of Western Australia's native and naturalised species. It provides the most comprehensive reference collection for the identification of the State's plants, a collection of library and electronic resources, and infrastructure to facilitate botanical study.

The Reference Herbarium is a primary resource for both the community and industry consultants for identifying specimens. The Reference Herbarium consists of duplicate specimens from the Western Australian Herbarium Research Collection. **Please handle the Reference Collection with care at all times.** Replacement of specimens due to poor handling and subsequent damage is time consuming and often not feasible. We recognize the Reference Herbarium Collection is not complete and will, at times, be insufficient to finalise an identification. We encourage users to assist us with helping to provide legally-collected duplicate material to further enhance the collection.

### Access

Located in the Keiran McNamara Conservation Science Centre (KMCS), the Reference Herbarium is open to visitors during normal working hours Monday – Friday, 8.00 am to 5.00 pm, except Public Holidays, and during a twice yearly scheduled intensive cleaning (March, September/October). Use of the Reference Herbarium outside these hours requires special advanced arrangement from the Curator or Collections Manager ([herbarium@dbca.wa.gov.au](mailto:herbarium@dbca.wa.gov.au)) and will be dependent on staff availability.

Please sign the **Reference Herbarium Register** located just inside the Reference Herbarium each day when you come in, and again when you leave. Signing the register ensures your safety and allows the Herbarium to document usage of the facility, leverage funding, and provide resources to the Reference Herbarium proportionate to its use.

**By signing the Register you acknowledge that you have read and accepted the terms and conditions of use of the Reference Herbarium as set out here.**

### General Information

Eating food or drinking beverages is not permitted in the Reference Herbarium; water is permitted. A café is available on the Ground Floor, and pleasant outdoor seating surrounds the building.

Bathroom facilities are available in the corridor outside the Reference Herbarium.

Smoking is not permitted in the Reference Herbarium or within 5 metres of any part of the Keiran McNamara Conservation Science Centre building.

*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.*

The door to the Reference Herbarium must remain closed at all times.

Please consider other patrons of the Reference Herbarium at all times:

- Be respectful to staff and colleagues
- Speak in quiet tones
- Switch mobile phones to silent
- Take phone calls outside
- Wear appropriate attire and maintain appropriate personal hygiene. Clean field clothing is acceptable.
- Don't monopolise resources at the expense of others
- If the behaviour of other patrons seems inappropriate, please inform Herbarium staff.

### **Arrangement within the Reference Herbarium**

To locate a family or genus in the Reference Herbarium refer to the *Western Australian Herbarium Vascular Plant Index*. Multiple printed and bound copies are available throughout the Reference Herbarium.

- Families are arranged by APGIV.
- Genera and species are alphabetically arranged within a family.
- Subspecific taxa are arranged alphabetically within a species.
- Phrase named taxa are alphabetically arranged at the end of the genus.

Photographing Reference Herbarium specimens is permitted; please, no flash photography.

### **Safe handling of Reference Herbarium files and specimens**

Please take care when handling the files and specimens. Specimens are fragile and irreplaceable records of the WA flora.

- Wash hands before and after handling specimens.
- Take only a single file at one time. Carrying more than one folder at a time significantly increases the risk that one (or more) will be dropped.
- Pick the file up with both hands, one hand supporting the base. Do not lift the folder by the ring or the top of the spine and allow the specimens to hang unsupported.
- Do not place one open folder on top of another.
- Ensure that when the folders are lying open, specimens in the folder are lying flat.
- Place specimens back in the correct folder and in the correct order. Remember: Misfiling is a time waster.
- Specimens and folders must not be tipped upside down.
- Do not bend or twist specimens.
- Ensure specimens remain in their protective plastic sheets.
- Do not place heavy objects on, or lean on, specimens or files.
- Place the specimens face up and lock the clip at the natural height of the specimens (i.e., do not push the clip down as far as it will go - no compression) before re-shelving a file.
- Place files back with care, do not drop or force them.
- Place specimens and files back on the shelf as soon after use as possible to ensure the resource is available to others.
- Do not alter specimen labels or file information, or annotate specimens.

## Quarantine Procedures

Reference Herbarium specimens are vulnerable to damage from a range of insect pests. Specimens may enter the Reference Herbarium ONLY IF:

1. Specimens and associated packaging have been frozen using the Herbarium freezing service; or
2. Individual specimens are sealed and remain in snap-lock bags. All associated packaging must remain outside the Reference Herbarium.

### Freezing specimen checklist

Only specimens frozen on site may be taken into the Reference Herbarium without being bagged.

Freezer bags and other supplies for the freezing process are available at no charge on the bench and drawers underneath located outside the Reference Herbarium. Bags are also available for purchase from the Herbarium at \$70 per 100 bags.

- Specimens are pressed and dry. Wet specimens will mould on thawing.
- Place specimens within a standard sized Herbarium cardboard box, or in a sealed plastic storage box.
- Complete the box label providing the *most appropriate* contact information, in case issues arise (e.g., freezer failure).



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#### WESTERN AUSTRALIAN HERBARIUM - REFERENCE HERBARIUM FREEZER LABELS

DATE	CONTACT NAME	ORGANISATION
CONTACT EMAIL:		NUMBER OF BOXES:
EMAIL PREFERRED		
COMMENTS:		

- Attach label at one end of each box using supplied tape.
- Bag and tape closed cardboard boxes. Plastic boxes with a tight fitting lid do not require bagging. Push as much air out of the bag as possible and securely tape closed. The plastic bags must be sturdy (100um thick or more), new (to ensure there are no holes or old plant materials), and long enough to turn the end of the bag three times prior to taping down. Bagging prevents water damage, and moisture condensing on specimens whilst freezing or on thawing.
- Complete the box Freezer Register, found on a clip-board on the bench outside the Reference Herbarium for box tracking.
- Place the box/s on the trolley to the far right of the Reference Herbarium entrance.

Specimens delivered to the Reference Herbarium prior to 10 am enter the freezer the same day.

Integrated Pest Management protocol requires that specimens be frozen for 48 hours at -20°C, followed by a 24 hour period at room temperature before becoming available.

Specimens will be available *three working days* after entering the freezer; specimens will be delivered to allocated shelving on the back wall of the Reference Herbarium.

Freezer rotation timetable	
<i>Drop off (before 10 am)</i>	<i>Available (at 10 am)</i>
Monday	Thursday
Tuesday	Friday
Wednesday	Monday
Thursday	Tuesday
Friday	Tuesday

We will do our best to keep to this timetable but rarely freezer or staffing limitations may change the schedule. We will contact the individual listed on the freezer label in case of emergency.

#### **Checklist for specimens in sealed bags**

- Enclose each specimen in a separate, sealed bag.
- The bag must remain closed at all times whilst in the Reference Herbarium.
- If dissection of a bagged specimen is required, contact the Collections Manager to arrange access to a microscope in the Preparation Laboratory which is near the Reference Herbarium.
- Remove the specimen from the Reference Herbarium at the end of the day.

Snap lock bags are available at no charge in the drawers located under the bench outside the Reference Herbarium. Snap-lock bags must be a minimum of 50 um thick and may be purchased in a range of sizes from Vital Packaging ([sales@vitalpackaging.com.au](mailto:sales@vitalpackaging.com.au); 9317 1888).

#### **Other items which must not enter the Reference Herbarium** include:

- unwashed field clothing and field backpacks
- non-frozen presses, cardboard boxes, newspapers, and corrugates
- food and beverage items
- personal bags, as they form a trip hazard and may accidentally harbour pests

These items may be left for the day in the drawers under the bench outside the Reference Herbarium. Please leave the area outside the Reference Herbarium tidy at all times.

**At the completion of your session:**

- Please, take away your plant material, newspapers, corrugates, and snap-lock bags containing specimens.
- Clean and reset the area in which you have been working.
- Sweep up plant debris and fragments. Plant material MUST go in the **yellow** MediCollect bin.
- Cardboard and newspaper may be placed in one of the **green recycling bins** (clearly labelled).
- Place used freezing bags in the other **green recycling bin**; they must not be reused.
- Other rubbish can go in the smaller **blue bin**.

**Short-term storage area**

The short-term storage area is for users of the Reference Herbarium to store specimens being worked on. This area is for the storage of specimens which have been frozen. Specimens in snap-lock bags must not be stored in the Reference Herbarium, and must be removed daily. The shelving is regularly monitored and boxes of specimens will be removed if they have been stored for longer than a month, or if the box has no external identifying markings or labels.

**Feedback and Comment File**

The Herbarium encourages users to provide feedback, particularly when irregularities are noticed, such as damaged or insect-attacked specimens, presence of mould, incorrect names, missing specimens, missing resources, or broken equipment.

**Resources**

**As a courtesy, please place resources back on the shelf as soon after use as possible.**

**Western Australian Herbarium Vascular Plant Index:** Lists every WA family and genus represented in the Research Collection. The list is a guide to the file number on the shelves to locate a genus or family in the Reference Herbarium, and also an address to locate the genus or family in the Research Collection. Not every family or genus listed in the Index is currently represented in the Reference Herbarium but there will be a file number to allow for future expansion.

**Bench space and microscopes** are self-allocated on a first-come basis. During busy periods patrons will need to share these resources.

The **Index of WA Botanical Taxonomic Literature** is an index of references recommended to aid the identification of WA plants and alphabetically arranged per genus. Refer to the front page of the index for further instructions on how to use this resource.

**Books** including Floras, journals etc., are held in a small library in the Reference Herbarium. Please do not write on or annotate books.

**Electronic keys** prepared by the Herbarium staff and volunteers are available on each computer.

**Computers** are available for accessing FloraBase and using interactive keys. Users are unable to install software, modify configurations or files, or save anything to hard discs or other drives.

**Wifi** is available. The guest login details are available on the pin-board by the bookshelves.

**Lockable drawers** outside the Reference Herbarium are available for daily use to protect valuables or to store items that cannot be taken into the Reference Herbarium (e.g., field backpacks).

## Other resources

The **Research Collection** of the Western Australian Herbarium (PERTH) is a valuable and irreplaceable resource which underpins flora conservation, biodiversity surveys, and taxonomic and other scientific and cultural research. Scientific botanical specimens are managed to protect their value indefinitely. Many specimens are fragile, and the Herbarium must balance the needs of users with the long term safety of its specimens. This is best served by ensuring that unnecessary and inappropriate handling is avoided wherever possible. The Research Collection should be accessed only when the resources of the Reference Herbarium have been exhausted.

For those requiring *regular and necessary access* to the irreplaceable Western Australian Herbarium Research Collections, inductions are offered once a month, usually the first week of each month. Inductions are mandatory for annual access to the Research Collections; the Reference Herbarium is public access and does not require an induction. Registration and more information can be found here: <https://waherbariuminduction.eventbrite.com.au>

The Research Collection is accessible Monday – Friday, 8.30 am to 4.30 pm, except Public Holidays, during a twice yearly scheduled intensive cleaning (March, September), and a December-January closure. Please see the [Research Collection User Guide](#) for more information.

**Images of Herbarium Specimens** The Western Australian Herbarium can provide high resolution digital scans of Herbarium specimens upon request ; please note that a minimum of five (5) working days lead time is highly recommended. Please see <https://bit.ly/PERTHimaging> for more information.

**Stay up to date** In these rapidly changing times, stay up to date with changes to access and protocols while accessing the facilities of the Western Australian Herbarium by subscribing to our MailChimp service. Subscribe here: <http://bit.ly/PERTHnews>

### Contacts:

John Huisman, Curator, [John.Huisman@dbca.wa.gov.au](mailto:John.Huisman@dbca.wa.gov.au)

Shelley James, Collections Manager, [herbarium@dbca.wa.gov.au](mailto:herbarium@dbca.wa.gov.au)