

The Western Australian Herbarium's accessioning and specimen acquisition policy

The Western Australian Herbarium, part of the Department of Parks and Wildlife's Science and Conservation Division, plays an important role in understanding, managing and helping to conserve Western Australia's plants, algae and fungi. Central to this role is the State Collection of c. 750,000 specimens of both native and naturalised taxa from throughout Western Australia. The collection is the basis for important botanical research, conducted in Western Australia and elsewhere, which results in the discovery, description and naming of on average around 100 new taxa per year. It is also the authoritative set of voucher specimens used to estimate the distribution and conservation status of all Western Australian plants, algae and fungi, and a critical resource in helping to accurately identify specimens collected from throughout the State.

The Herbarium's aim 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. This means that we aim to assemble a comprehensive, adequate and representative set of high-quality specimens of every taxon, covering each taxon's geographic and morphological range.

It's important for us to maximise the number of specimens in the collection that add significant value, but also to minimise the number of specimens coming in that do not. This is because every specimen brings a significant cost to the Herbarium, in staff time to process, database and incorporate, and in costs associated with keeping the specimens under archival conditions. Incorporating only high-value specimens allows us to concentrate on the important services the Herbarium provides to the Western Australian government, industry and community.

Accordingly, the Herbarium has a policy of assessing specimens before they are accessioned for incorporation, and returning or discarding specimens that are not required.

Specimens that meet all or most of the following criteria are of very high value to the Herbarium, and are likely to be retained and incorporated:

- The specimen is well-collected, well pressed and accompanied by adequate collecting information¹
- The specimen 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)
- The specimen adds significant geographic value (e.g. it represents a range extension, or fills a gap in the known range of a taxon)
- The specimen adds significant ecological value (e.g. it was collected from an unusual habitat)

Version: 9 December 2013

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

- The specimen belongs to a taxon that currently has few specimens in the Herbarium collection
- The specimen adds value to the Herbarium in other ways (e.g. it is a voucher for a photograph donated to the Herbarium; it is a good fruiting specimen of a taxon that has few fruiting specimens)

Specimens that meet all or most of the following criteria are of low value and are likely to be discarded:

- The specimen is poorly collected (e.g. it is a small scrap or has not been adequately pressed)
- The specimen is not accompanied by adequate information (minimum requirement is collector's name and number, date of collection, precise location, and geocode)²
- The specimen comes from a locality that is already well-represented in the collection (by one to many specimens of that taxon at or near that locality)

The above are guidelines only, and some specimens will be borderline. For example, a specimen of an uncommon taxon collected close to but not exactly at a location already represented in the collection may be of moderate to high value, while a specimen of a common and widespread taxon collected at or close to a location already represented in the collection is likely to be of low value and may be discarded. Borderline specimens should be included in donations to the Herbarium, but specimens that clearly represent low value should not.

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 sending them. Processing specimens and deciding which to keep and which to return or discard is itself a time-consuming process which takes up significant staff time and resources. For this reason, we are keen to ensure that specimens that are likely to be returned or discarded are not sent to the Herbarium in the first place.

Note that this policy applies to both common and rare taxa. While it is more likely that a specimen of a rare or threatened taxon will be a welcome addition to the collection, a specimen of such a taxon from a known locality already represented in the collection by several to many specimens probably will not. There is no requirement that every voucher of every threatened, rare or Priority flora taxon needs to be submitted to the Herbarium.

The Herbarium has instituted a policy of returning specimens not needed to their collector, with a checklist outlining the reasons why the specimens have not been accepted. If you have received this document with such a list, please review it and the specimens carefully. While we are not in a position to describe the reasons for rejection of every specimen, we hope that the information provided will be helpful in guiding future donations.

Special considerations

Sterile specimens. As a general rule, sterile specimens are of low value to the Herbarium and should not be sent. Exceptions to this include clearly identifiable specimens representing significant range extensions for a taxon, and sterile collections that are believed to represent potentially new taxa

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² 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://dpaw.wa.gov.au/plants-and-animals/wa-herbarium

(e.g. specimens that can be confidently identified to genus but vegetatively match no existing taxon in that genus).

Threatened (Declared Rare Flora) and Priority Flora. Specimens from distinct, new populations of Threatened and Priority flora are always welcome at 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 20 years has elapsed since the last specimen from that population was collected). When surveying for Threatened and Priority flora, you should collect a voucher (after applying for the appropriate license) to represent each distinct population surveyed. Do not collect a voucher of every individual encountered (this is likely to represent a threatening process for the taxon, and to result in too many specimens for handling). Send to the Herbarium one good specimen representing each population, clearly marking those that are believed to represent new populations. Please be aware that the Herbarium will not necessarily retain specimens of Threatened and Priority flora if they are not considered valuable additions to the collection. Note also that each specimen should be accompanied by both a normal specimen record on paper on in electronic format and a copy of the Threatened and Priority Flora Report Form (the original of this should be submitted directly to DPaW's Species and Communities Branch). The Threatened and Priority Flora Report Form alone does not suffice as a herbarium specimen label, as it is designed to provide information on a population rather than on an individual specimen.

Survey plot collections. The Herbarium recognises that studies such as environmental impact assessments and ecological surveys have strong constraints on the quality of specimens collected. Specimens are sometimes collected in seasons when many taxa are sterile or annual taxa are dried and withered. Field constraints mean that the specimens are often small compared with a typical, purpose-collected herbarium specimen. While very significant specimens from such surveys are welcomed at the Herbarium, it is likely that many of the specimens will not be of high value. Please do not send bulk collections from such surveys; rather sort the collection first and send only those of high value.

Specimens vouchering 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, whether or not the specimens are of specific value to the Herbarium. 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 incorporated into the budget for the research project. You should discuss with the Herbarium costs and other issues involved with this vouchering service before commencing such a project.

Weeds. While many native taxa are well-collected and adequately represented in the Herbarium, many weeds (even ubiquitous ones) are not. In general, specimens of weeds from areas where they are well-known to occur but nevertheless are not represented in the Herbarium, are welcome.

Fruiting specimens. Many species in the collection are represented mainly by flowering specimens, and mature fruits are sometimes rare. This is particularly the case with taxa that do not retain their fruit on the plant for long periods. Good fruiting specimens of taxa in this category are often welcomed at the Herbarium as being very useful for taxonomic research.