

Collections Procedure

Loans

Version: 2.0

1 Procedure statement

The purpose of this procedure is to ensure that staff, research associates, volunteers and visitors of the Collections are aware of the processes they must follow when loaning specimens (both inward and outward loans).

2 Background and context

The Plant Pathology Herbarium and Insect Collection hold authoritatively identified specimens that represent virtually all of the known plant pathogens and insect pests that occur in Queensland. The collections include irreplaceable specimens that are essential for diagnostics and identification, taxonomic and phylogenetic research, continued market access for agricultural products, State legislation (*Biosecurity Act 2014*), plant health management and education.

3 Scope

This procedure applies to Department of Agriculture and Fisheries (DAF) staff working in the Plant Pathology Herbarium and Insect Collection, as well as research associates, volunteers and visitors of the collections.

4 Abbreviations, acronyms and definitions

Accessioning is the process of assigning specimens a unique number, labelling and entering record information into a Collection Management System.

The **Biosecurity Act 2014** commenced on 1 July 2016. It replaced a number of separate pieces of legislation that were previously used to manage biosecurity. It provides a consistent, modern, risk-based approach to safeguard our economy and agricultural industries.

Biosecurity Queensland is a business group within the Queensland Government Department of Agriculture and Fisheries that manages and coordinates the Queensland Government's efforts to prevent, respond to, and recover from pests and diseases that threaten the economy, agricultural and tourism industries, environment and way of life.

The **Collection Management System** is the database used to manage and report information about specimens held in the collections. Specimen records are managed by the KE EMu® database.

The **Collections** encompasses the Plant Pathology Herbarium and Insect Collection. Both collections are co-located at the Ecosciences Precinct, Dutton Park, Brisbane, and are managed by Biosecurity Queensland.

The **Department of Agriculture and Fisheries (DAF)** is a Queensland Government department that aims to develop productive and profitable agriculture, fisheries and forestry, while protecting our valuable natural resources.

The **Department of Agriculture and Water Resources (DAWR)** is a Commonwealth Government department that aims to strengthen Australia's primary industries, improve the health of Australian freshwater ecosystems, and safeguard Australia against exotic animal and plant pests and diseases.

An **Exchange** involves the non-commercial transfer of scientific specimens between two or more institutions for the purposes of developing and improving collections. This can be a useful method for entomological collections to source reference specimens of exotic insect taxa which underpin the rapid diagnosis of foreign insect pests.

A **Specimen** is an individual insect (or group of insects), diseased plant part, living culture, or genomic DNA extracted from an organism.

5 Key principles

Inward and outward loans are encouraged to enable collection staff, research associates and visitors to access the broadest selection of specimens to underpin research and diagnostics. All loans will be conducted according to this loan procedure.

The permanent exchange of specimens between institutions is not considered to be a loan. Specimen exchanges are subject to the same deaccessioning procedures as specimen transfers and disposals and therefore will be conducted according to the Deaccessioning procedure.

5.1 Inward loans

All specimens loaned to the Collections will be given the same care as specimens in the Plant Pathology Herbarium and Insect Collection. When collection staff borrow specimens from another institution, they will comply with the loan conditions of the lending institution. When collection staff borrow specimens from institutions with no loan conditions, they will comply with DAF loan conditions.

Research associates and visitors will liaise with relevant collection managers or collection staff to action loan requests from other institutions on their behalf.

5.2 Outward loans

In general, loans from the Plant Pathology Herbarium and Insect Collection will be available to institutions/organisations rather than to individuals. The purpose of the loan must be consistent with the interests of the Collections, not pose undue risk to the specimen(s) and will be subject to DAFs capacity to resource the loan. The Collections reserve the right not to lend specimens. The Collections may loan specimens to other institutions/organisations either temporarily or permanently.

Permanent loans – no loan period specified, the Collections retain legal title to all loaned specimens, and reserves the right to request their return in the future.

Temporary loans - a finite loan period applies to all loaned specimens, with the potential to negotiate extensions. The Collections retain legal title to all loaned specimens. The loan period varies between the Insect Collection and the Plant Pathology Herbarium:

- a. Plant Pathology Herbarium – 12 months (1 year).
- b. Insect Collection – 24 months (2 years).

The management of all incoming and outgoing loans is the responsibility of the relevant collection manager, though they may request the assistance of collection staff to prepare specimens for loan, create loan records in the Collection Management System, generate loan documentation and audit loaned specimens as required.

Due diligence will be carried out prior to loaning specimens to ensure that there are no concerns regarding the accuracy of specimen identification and authenticity of collection details supplied with the specimens. It is best practice for specimens to be accessioned prior to being sent on loan.

In cases where large numbers of specimens, or all specimens of a particular taxon, are requested for loan, it is best practice to send two or more loans sequentially, rather than a single loan. This is particularly important if the loan request includes type specimens. It is expected that the first loan will be returned before subsequent loans are sent.

All loans are subject to specialist transportation where necessary, the costs of which, may need to be covered by the borrowing institution.

5.3 Loan conditions

Loans from the Collections are subject to the following conditions. Collection managers are responsible for approving loan requests from other institutions and communicating the loan conditions to the borrowing institution.

5.3.1 Plant Pathology Herbarium loan conditions

1. Initial period of loan is 1 year. Extensions may be granted and can be requested by email.
2. Borrower immediately acknowledges receipt and verification of loan contents by email.
3. Annotations are made on separate slips and not on the label. Slips are to be signed and dated along with the recommended change.
4. Duplicates are not to be removed without the permission of the curator.
5. On-loaning of specimens is not permitted without permission.
6. No destructive sampling for DNA extraction is to be performed without permission.
7. When citing accession numbers, the abbreviation BRIP should be used.
8. Copies or PDF files of any publications that mention borrowed specimens are requested.

5.3.2 Insect Collection loan conditions

1. The preferred abbreviation for the Primary Industries Insect Collection is QDPC. Authors are requested to use this abbreviation in publications that include reference to borrowed specimens (e.g. in 'specimens/material examined' lists). We kindly request authors of publications including the use of QDPC specimens forward a copy (hard copy or electronic) of their work, or at least a citation, to the QDPC Loan Manager.
2. Specimen loans are granted for two years. Requests for one-year extensions beyond this duration must be made in writing by the original borrower and addressed to the Loan Manager. Approval of extension is at the discretion of the Loan Manager.
3. Borrowed specimens must remain in the institution to which the loan is made out to, and shall be housed in a way that ensures safe preservation of the specimens. Approval must be

sought from the QDPC Loan Manager before a borrower transfers any loaned specimens to another institution. QDPC loan labels must remain with specimens at all times.

4. Permission must be requested from the Loan Manager before any destructive method (i.e. dissection, SEM photography, DNA extraction) of examination is undertaken on any QDPC specimen. Requests must include details of the nature of the destruction to the specimen. Permission will be granted at the Loan Manager's discretion. All dissected body parts must be returned and clearly associated with the respective specimen.
5. Every specimen determined by the borrower should bear a legible determination label or, if impracticable, determinations should be clearly indicated by other means (e.g. by grouping specimens next to, or beneath, a label).
6. Borrowers must return ALL specimens to QDPC. Any QDPC specimens designated as a holotype, neotype or lectotype (i.e. primary types) will be transferred to the Queensland Museum (QM) by QDPC staff upon return of borrowed material. Authors are requested to contact the QM Entomology Collection Manager to request registration numbers to include in their publication. All other specimens, including non-primary type specimens (e.g. allotypes, paratypes, paralectotypes, syntypes) will remain in the QDPC Insect Collection.
7. It is extremely important that borrowers take great care when returning borrowed specimens to QDPC. Pinned specimens must be firmly pinned into a foam-bottomed mailing box, with care taken to cross-pin specimens. The mailing box should be packed into a cardboard box filled with polystyrene packing (or equivalent impact-absorbent material); the box must be at least twice as large as the mailing box in height, width and depth. Glass slides are to be protected from breakage by the use of an appropriate slide container packed in in a similar manner to that described above for pinned specimens.

5.4 Destructive sampling

The Collections will consider requests for destructive sampling for DNA extraction on a case by case basis, with approval from the relevant collection manager or curator. Requests to carry out destructive sampling must be in writing to the curator or collection manager. A decision will be based upon the following criteria:

- Age of specimen.
- Previous work (including DNA extraction) undertaken on the specimen.
- Amount of material available.
- Type status.

For inward loans, written permission must be obtained prior to undertaking destructive sampling, and documentation filed for auditing purposes.

5.5 Loan documentation

All incoming and outgoing loans must be recorded the Collection Management System. This allows collection staff to generate loan reports (i.e. loan notifications, loan summaries, overdue loan notices)

and assists with auditing processes. The KE EMu database automatically allocates a unique loan identifier to all new loan records, and this must appear on all documentation associated with the loan.

Note: A separate Loans Module User Guide has been developed and provides basic guidelines and definitions to assist collection staff enter loan records into the KE EMu database. See Section 8.

The following information will be recorded for all loans:

- Loan direction (Incoming or Outgoing).
- Loan status (On Loan, Returned).
- Loan type (Temporary loan, Permanent loan) and purpose.
- Loan supervisor.
- Borrower/lender (including contact details).
- Commencement date, completion date and notification date.
- List of specimens and/or number of specimens sent on loan.

Note: the inclusion of a loan completion notification date enables automated weekly email notifications by the Collection Management System for overdue loans.

5.6 Sending loans

Specimens requested on loan by institutions within Australia are sent via courier or registered post with a signature required on delivery. The following documentation will be emailed to the borrowing institution and will also be included within each parcel of loaned specimens:

- Loan notification with loan conditions.
- A list of specimens included in the loan.

Note: Herbarium specimens entering Western Australia are subject to inspection by Quarantine WA. All herbarium specimens must be packaged and labelled in accordance with the instructions issued by the Western Australian Herbarium. The following website provides links to relevant quarantine guidelines: <https://www.dpaw.wa.gov.au/plants-and-animals/wa-herbarium>.

5.6.1 Sending loans overseas

Specimens requested on loan by institutions outside of Australia are sent via international courier or international registered post with a signature required on delivery.

Note: Plant disease specimens loaned from the Plant Pathology Herbarium to overseas institutions will need to be accompanied by a valid Department of Agriculture and Water Resources (DAWR) import permit to facilitate entry back into Australia. In addition to the documentation listed above for loans within Australia, the following documentation will also need to be emailed to the borrowing institution and included within each parcel of loaned specimens:

- Valid DAWR import permit for herbarium specimens.

- A quarantine declaration template with instructions.

Note: The quarantine declaration template (see example below) will be pre-populated with the list of specimens that were sent on loan. The borrowing institution shall be instructed to print the declaration on their institutional letterhead, sign and date. The quarantine declaration must accompany the import permit and specimens when the loan is returned.

QUARANTINE DECLARATION

**TO ACCOMPANY HERBARIUM SPECIMENS BEING RETURNED TO THE
BIOSECURITY QUEENSLAND
PLANT PATHOLOGY HERBARIUM (BRIP)**

This declaration is an DAWR requirement

Please print this declaration on institutional letterhead

To obtain an electronic copy of the declaration, please contact
plantbiodiagnostics@daf.qld.gov.au

The enclosed plant specimens are:

- being returned to the Biosecurity Queensland Plant Pathology Herbarium (BRIP). They have been on loan to this institution (details below) for scientific study
- specimens are pressed and dried (i.e. fully processed), and before packaging were free from live insects and excess soil.

The list of specimens includes:

Signed:

Name:

Position:

Institution:

Date:

5.7 Sending specimens in ethanol

Loans of non-infectious specimens preserved in ethanol is possible under Special Provision A180 of the ICAO Technical Instructions for the Safe Carriage of Dangerous Goods by Air. For further information refer to the Civil Aviation Safety Authority (CASA) website:

<https://www.casa.gov.au/standard-page/special-provision-a180>

5.7.1 What can be shipped under Special Provision A180?

Non-infectious specimens stored in small quantities of ethanol.

- Maximum of 30 mL of ethanol per specimen vial.
- Maximum of 1 L of ethanol per shipment.

5.7.2 Packing specimens

1. Place the specimen vials in a plastic bag and heat-seal the bag.
2. Place the first plastic bag inside another plastic bag with absorbent material sufficient to contain the complete volume of liquid in the sample vials, and heat-seal this bag.
3. Place this second bag in a strong outer packaging (cardboard box or similar) with suitable cushioning material.

5.7.3 Label for package

Specimens shipped in ethanol must be marked as "Scientific research specimens. Not restricted. Special Provision A180 applies". See example shipping label below.

Scientific Research Specimens
NOT RESTRICTED
Special Provision A180 applies

5.8 Returned loans

All loan returns will be recorded the Collection Management System. Collection managers or collection staff will verify the contents of the returned loan and check that all loaned specimens have been returned. For complete loan returns, the loan record in the KE EMu database can be closed out. For partial loan returns, the returned specimens will be noted on the loan record in the KE EMu database, but the loan record must remain open until all specimens have been returned.

Note: There may be determination labels, annotations, or other changes to label information that have resulted from the loan. This information will need to be updated by collection managers or collection staff in the KE EMu database.

6 Responsibilities and accountabilities

Curator	<p>Approve the loans procedure.</p> <p>Comply with loan conditions for specimens borrowed from other institutions.</p>
Collection managers	<p>Implement the loans procedure.</p> <p>Ensure that Collection staff are made aware of loan procedures.</p> <p>Approve loan requests from other institutions or organisations.</p> <p>Manage all incoming and outgoing loans.</p> <p>Comply with loan conditions for specimens borrowed from other institutions.</p>
Collection staff	<p>Follow loans procedures as directed by Collection managers and the Curator.</p> <p>Assist Collection managers with the preparation of specimens for loan, loan documentation and auditing of loaned specimens.</p> <p>Comply with loan conditions for specimens borrowed from other institutions.</p>
Research associates and visitors	<p>Liaise with Collection managers or Collection staff to request specimens on loan from other institutions.</p> <p>Comply with loan conditions for specimens borrowed from other institutions.</p>

7 Source documentation

Not applicable

8 Related and reference documents

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Revision history

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1.0	10/01/2017	Initial draft
2.0	23/02/2017	Revised procedure