

PROCEDURE

School of BioSciences Research Permit

School of BioSciences, University of Melbourne

1. **Introduction**

The University of Melbourne Herbarium (MELU) is the largest university herbarium in Australia with an estimated 150,000 objects including specimens of all major plant and fungi groups. MELU is an active teaching and research collection of international significance. Specimens collection by staff and students during field work is supported by a research and collecting permit issued to the School of BioSciences by the Department of Environment, Land, Water and Planning in consultation with Parks Victoria. Data associated with The University of Melbourne Herbarium specimens are contributed to national and international repositories through Australia's Virtual Herbarium (AVH) and Atlas of Living Australia (ALA), which feed into international biodiversity data portals such as the Global Biodiversity Information Facility (GBIF).

2. **Scope**

This document provides clear direction for staff and students in terms of making field collections utilising the School of BioSciences Research Permit.

3. **Safety**

Field work will be conducted in line with the University of Melbourne Field Work OH&S guidelines (as outlined in "Field_work_OHS_guidelines.pdf"). All research and collecting activities must have a pre-collection Risk Assessment that addresses safety issues.

4. **Licences and Permits**

Department of Environment, Land, Water and Planning Research Permit/Permit to Take Protected Flora (LP10007429).

5. **Management of permit**

5.1 For administrative purposes of the School of Biosciences, the Head of School has delegated responsibility for managing compliance with this permit to two permit managers ("permit managers"):

Assoc. Prof. Andrew Drinnan (Director MELU)

Dr Joanne Birch (Curator MELU, School of BioSciences Permit Officer)

5.2 All staff and research students using this permit ("permit users") must be authorised in the first instance by a permit manager. Permit users will require a Parks Connect account. Use of the School of Biosciences Research Permit will be documented on authorised permit user's Parks Connect account.

5.3 Only permit managers are authorised to add new permit users

5.4 All permit users agree to adhere to the permit conditions, including:

- a. notification of DELWP or Parks Victoria prior to activity under the permit
- b. documentation of all activity under the permit
- c. deposition of specimens and associated data to MELU
- d. provision of research outputs to permit managers on request to meet permit reporting and renewal obligations.

6. **Training and Competency**

Only personnel listed on the permit may undertake collections. New research students are provided with on-site training by a supervisor who is a permit user.

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7. Purpose of this Permit

- 7.1 Enable research in the University of Melbourne that relies on the collection of small amounts of plant material in the field, the collection of which is low intensity and has low impact on plant populations.
- 7.2 Facilitate the effective teaching and training in plant science and related disciplines at The University of Melbourne
- 7.3 Maintain and enhance the representation of Victorian flora in the University of Melbourne Herbarium (MELU)

8. Permitted activities under this permit for Research

- 8.1 Collection of plant, algal, and fungal material sufficient for up to five herbarium specimens per species per location (a standard herbarium sheet is 29 × 43 cm). These herbarium specimens must be lodged in the University of Melbourne Herbarium (MELU).
- 8.2 Collection of plant, algal, and fungal material that represents the ecological, genetic, or morphological variation of a taxon. These samples may be destructively analysed (e.g., for chemical or genetic examination) and will be accompanied by an associated herbarium specimen to be lodged at MELU (see point 1 above).
 - 8.2.1 Population level sampling: Material (e.g., leaves, stems, flowers, or fruit) for up to 30 individuals per species per location. Up to 5 g of dried vegetative biomass and 2% of the reproductive material per individual, and/or up to 5% of any taxon per population, whichever is less.
 - 8.2.2 Taxon level sampling: Material equivalent in size to a standard herbarium sheet (29 x 43 cm) per taxon (e.g., leaves, stems, flowers, or fruit) for up to 5 individuals per taxon per location. Up to 50 g of dried vegetative biomass and 5% of reproductive material per individual, and/or up to 5% of any taxon per population, whichever is less.
- 8.3 Collection of small samples for the generation of field herbaria (e.g., in a collection notebook or exercise book) for reference in subsequent plant identifications that will not be lodged at MELU.

9. Permitted activities under this permit for Teaching

- 9.1 Supervised class excursions to National Parks managed areas as part of a subject of curriculum of the University of Melbourne. The excursion leader must be a registered permit user, and is responsible for compliance with the permit conditions. Students are not registered permit users, but a class list must be submitted to Parks Connect prior to the excursion. All student activities must be conducted under the supervision of the supervising staff member.
- 9.2 Collection of plant, algal, and fungal material sufficient for laboratory classes to enable students to identify taxa, study morphological, anatomical, or genetic diversity, and/or generate a single herbarium specimen. These specimens should only be collected in National Parks managed sites if it is not feasible to collect the material elsewhere, and should be less than 1 kg fresh biomass per taxon for herbaceous taxa and 5 kg fresh biomass per taxon for woody species. Only common and abundant species should be collected and there should be no significant impact to the species at a location.
- 9.3 Students on supervised class excursions may collect small samples for the generation of field herbaria (e.g., in a collection notebook or exercise book) for reference in subsequent plant identifications, and individual herbarium specimens, that will not be lodged at MELU.
- 9.4 Students on supervised class excursions may collect small samples for the generation of biodiversity (e.g., ecological, genetic, or morphological) data to enable training in data generation and

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analysis for class projects. These samples may be destructively sampled and will not be lodged at MELU.

9.5 Soil cores can be extracted by staff who are permit users for teaching purposes at sites that do not hold Aboriginal cultural significance and where no middens, scarred trees, or artefact scatter is present. Soil material must be replaced following the demonstration. These cores must be extracted with a manual auger (no power tools) and should not exceed 10 cm diameter or one metre deep.

10. Teaching Subjects associated with the permit:

- a. Plant Biodiversity (BOTA20002)
- b. Ecology (ECOL20003)
- c. Flora of Victoria (BOTA20004/90005)
- d. Marine Botany (BOTA30001)
- e. Plant Evolution (BOTA30002)
- f. Vegetation Management & Conservation (BOTA30004)
- g. Applied Ecology (ECOL300005)
- h. Field Botany (BOTA30006)

11. What is NOT covered by this permit

- 11.1 Establishment of permanent plots, especially if sampling infrastructure is left unattended (e.g., cameras, stakes/pegs, tapes)
- 11.2 Collection of material in excess of permit guidelines above
- 11.3 Collection of soil samples or disturbance of soil profiles (except for teaching demonstration purposes as noted above)
- 11.4 In situ experiments (e.g., experimental pollination, pollinator exclusions, transplantation)
- 11.5 Collection of whole plants for propagation
- 11.6 Any activity outside the State of Victoria

Research that includes such activities, or otherwise falls outside the scope of the School of BioSciences permit, will require an individual permit specific to that project and its research personnel. It is the responsibility of individual researchers to obtain an appropriate permit and to comply with its conditions.

12. Field Collection Procedures

- 12.1 For land managed by Department of Environment, Land, Water and Planning (DELWP), permit users are required to notify the local Biodiversity officer of their proposed activities **at least three days in advance of each visit to the park made in connection with the permit provisions.**
- 12.2 For land managed by Parks Victoria, permit-users are required to make arrangements for access and authorisation to conduct research with the Area Chief Ranger or local delegate **at least five days in advance via the Parks Connect online portal (<https://www.parkconnect.vic.gov.au/>).**
- 12.3 Individuals will carry the research permit in the field at all times.
- 12.4 Collections will be made out of public view, where possible.
- 12.5 Collection of material will be kept to a minimum per individual, population, and site, and within the guidelines of the permit.
- 12.6 Access to fragile habitats will be minimised and, where necessary, individuals will access the

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habitat from different points and not in single file to avoid trampling of the vegetation.

12.7 Collecting from communities protected under the Flora and Fauna Guarantee Act 1988 are not authorised under this permit.

12.8 Collections of Orchidaceae and plants protected under the Flora and Fauna Guarantee are not authorised under this permit.

12.9 Appropriate collecting hygiene procedures must be implemented

12.9.1 All collecting tools such as secateurs and cocky clippers must be free of plant material, and must be disinfected with bleach or ethanol as appropriate to prevent the spread of pathogens and weeds (e.g. between sites or after collecting in a disease designated area).

12.9.2 Footwear must be clean and free of soil prior to collecting at a site. After collecting in a disease designated area footwear should be disinfected in a footpath of bleach or phytoclean.

12.9.3 Vehicles should be confined to roads wherever possible. If vehicle contamination is suspected, it must be disinfected with phytoclean or bleach. If off-road vehicular access is predicted, it should be discussed in advance with a relevant Parks Victoria manager.

12.9.4 Collecting hygiene should be assessed as part of the pre-collection Risk Assessment process.

Version	Date	Name	Reason	
1.0	24/04/2018	J. Birch	Original	