



AUSTRALIAN NATIONAL
BOTANIC GARDENS

Australian National Botanic Gardens



LIVING COLLECTION POLICY 2016-2022



Front cover photographs

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Banksia coccinea APII a-19484

Licuala ramsayi APII rfk-5819 Photo: J.L. Dowe

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Back cover photograph

Red Centre Garden APII dig-24836 Photo: A. Tatnell

Opposite

The Main Path through the Proteaceae Sections

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Australian National Botanic Gardens Living Collection Policy 2016–2022



This policy provides the framework for the management and future direction of the Living Collection at the Australian National Botanic Gardens.

It will guide strategic planning for the future, identifying opportunities to develop and enhance the values and features of one of the world's most significant collections of Australian plants and to ensure a secure future for one of Australia's most valuable natural and cultural assets.

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Eucalyptus mannifera, native to the Gardens site.

APII dig-20219 Photo: M. Fagg

Introduction

The *Living Collection Policy 2016-2022* provides the framework for the management, prioritisation and future direction of the Living Collection at the Australian National Botanic Gardens.

It will guide strategic planning for the future, identifying opportunities to develop and enhance the values and features of one of the world's most significant collections of Australian plants and to ensure a secure future for one of Australia's most valuable natural and cultural assets.

Status and purpose of the Australian National Botanic Gardens

The Australian National Botanic Gardens (ANBG) has been growing, studying and promoting Australian plants and related flora for more than 45 years.

As a botanic garden and national institution managed by the Australian Government, the ANBG has a four-fold mandate:

- to serve the nation
- to conserve its living and herbarium collections as significant records of the story of plants in Australia's cultural and natural heritage
- to encourage and support the cultivation, use and conservation of Australian plants
- to be a custodian of the national story of Australia's unique flora.

The **vision** of the ANBG is: **that Australians value, conserve, and appreciate our rich plant heritage.**

To achieve that vision, the **mission** of the ANBG is: **to inspire, inform and connect people to the Australian flora.**

The ANBG is Australia's only national institution focussing solely on Australian plants and related flora, and its collections, knowledge base and research are of both national and international significance.

The ANBG's establishment has led botanic garden design and focus in Australia to become diversified from the early colonial gardens displaying introduced plants to a range of less formally designed botanic gardens specialising in the display of native flora. It has been the inspiration for many of the nation's regional botanic gardens focusing on their local flora.

Role and significance of the ANBG Living Collection

The ANBG Living Collection is a unique and significant Living Collection of Australian plants. It is one of the ANBG's most important assets. It is the world's largest living collection of Australian plants, which is largely wild-sourced and scientifically documented. It consists of around 74,000 individual plants arranged in 40 hectares of themed sections. The collection features over 5,500 species, which represents around one third of Australia's flowering native plants. This is backed by more than 6,500 accessions and more than 3,560 plant taxa held in the ANBG seed bank.

The National Seed Bank (NSB) is a vital ex-situ conservation tool for preserving the diversity of Australian flora. It is home to an ever-increasing collection of Australian native seeds, and holds significant collections from Australian alpine and southern NSW tableland grassland communities. The National Seed Bank holds around 5,500 accessions from more than 3,560 different plant taxa, with a history of collections going back to the early 1960s. It is a member of the Australian Seed Bank Partnership (ASBP), an Australia-wide initiative to conserve Australia's native plant diversity through collaborative and sustainable seed collecting and banking, research, and knowledge-sharing for better outcomes in plant conservation and restoration.

These collections are supported by voucher specimens and associated records held at the Australian National Herbarium (ANH). The specimens contribute to taxonomic information on the Australian flora. This process includes documenting historical and extant species distributions for analysis against climatic and other environmental data.

Rationale and purpose of the Policy

This Policy provides a framework to:

- maintain and develop a well-documented, scientifically significant and valuable collection of Australian flora in line with the plan of management and the mission and vision of the ANBG
- empower staff at all levels to take responsibility collectively and individually to implement leadership in collection management and development.

The Policy has been developed to outline how the Australian National Botanic Gardens manages, prioritises and develops the living collection in line with the mission of the ANBG 'to inspire, inform and connect people to the Australian flora'. The mission and its values are underpinned by the following objectives:

- to manage the ANBG to showcase Australia's plants
- to champion the conservation of Australian plants and the role of ex-situ conservation in integrated conservation management
- to create an inspirational place for enjoyment and learning
- to engage communities in valuing and conserving Australia's natural and cultural heritage
- to increase knowledge of Australian flora through outstanding research opportunities
- to be a gateway for knowledge of Australia's flora
- to grow as a national institution
- to represent Australia's plant diversity.

The Policy guides the priorities for: current and future development of the Living Collection and its components; how it is managed, developed and presented; and the information that is connected to it. These are the ingredients that directly affect the ANBG's capacity and capability to deliver on key institutional objectives.

The Policy does not provide answers to specific questions. However, a framework to guide decisions is outlined in Section 4.9, and is addressed in detail in the Living Collections Operational Manual, the Living Collections Review, the annual Living Collection work plans and operational plans, and various forums that facilitate direction and outcomes.



Flowering of *Dendrobium* species,
Orchid Research Glasshouse.

APII dig-27585 Photo: M. Fagg

Legislative framework

This policy is underpinned by and integrated with legislation relevant to the ANBG as an institution and more specifically to the ANBG's management and development of the Living Collection.

EPBC Act

The ANBG is a Commonwealth reserve under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and is managed in accordance with the Act and associated Regulations. The Act requires that management plans be prepared for Commonwealth reserves (Section 366).

ANBG Management Plan

This Living Collection Policy is guided by a number of key policies outlined in the *ANBG Management Plan 2012–2022*.

- The living collection will be managed and developed to a high curatorial standard and display a representation of Australia's biodiversity and relevant related flora.
- National biodiversity conservation priorities and environmental sustainability will inform the management and development of the living collections.
- The living collection will be the nation's pre-eminent scientific collection of Australian plants and be housed in a garden based on state-of-the-art sustainable horticultural practices for all visitors to enjoy.
- The ANBG will continue to curate living collections that have national value and provide a reference source which serves aspects of botanical and horticultural science within the ANBG, as well as supporting the work of other academic institutions.
- Landscape developments will be designed to engage people with the Living Collection, reflect the ANBG's educational priorities and the functional and recreational needs of visitors, while giving full consideration to the horticultural and scientific roles of the ANBG.
- The ANBG will demonstrate its continued commitment to increasing knowledge about the Australian flora through growing and showcasing a national collection representing Australia's plant diversity, undertaking world-class scientific and horticultural research, and informing the community through education programs that connect Australians to our unique natural heritage.
- The ANBG will continue to present and prioritise its living collection to inspire, inform and connect people to Australian flora and provide a reference source which supports botanical and horticultural science within the ANBG, as well as supporting the work of other academic institutions.
- The collection is a representation of Australia's unique plant diversity and several parts of the collection are displayed to illustrate ecosystems and landscapes. Biodiversity conservation will continue to influence the development of the living collection. There will be a greater emphasis on using the collection to connect people with plants through various display, design and communication techniques and learning at all ages will be encouraged. These key directions will be documented in the *Living Collection Operational Manual* and *Thematic Planting Guide*.
- The development and implementation of best practice horticultural management will be based on scientific knowledge, on-site experimentation, excellence in horticultural practices and staff expertise.

- The Material Acquisition Agreement Policy and Procedures will guide both the acquisition of biological resources to enhance and maintain the ANBG collections and access to the ANBG's biological resources. The policy and procedures accord with the EPBC Act and Regulations and Australia's obligations under the CBD and CITES and be reviewed as necessary.
- The living collection database will be enhanced to appropriately support management of the living collection, research, accessibility of horticultural information and integrated conservation management.

ANBG Master Plan—2015–2035

The ANBG Master Plan sets out the future direction for developing the infrastructure of the ANBG and surrounding areas, and its implementation will integrate with the priorities and opportunities for the Living Collection. The Master Plan will be implemented in stages over a 20-year period.

The Master Plan maps out a strategy to unify and integrate the diverse range of existing and planned components of the ANBG infrastructure. The key principles of the Plan are designed to:

- maintain and reinforce major entry points to the Gardens
- increase horticulture and research capabilities through new infrastructure
- create a dynamic and active heart of the Gardens
- create a memorable experience and destination
- maximise the use of natural assets
- maximise connectivity
- maintain and enhance immersive character.

The key features of the Master Plan include a new National Seed Bank to help conserve the nation's flora; a conservatory to display a unique range of plants from northern Australia and our islands; a new Visitor Centre and Cafe & Function Centre; a children's nature-play terrace; development of ecotourism activities in our Bushland Precinct; and consolidation of our horticulture facilities at a new Horticulture Centre.

Although infrastructure is the primary focus of the Master Plan, opportunities from the new development will enable delivery of new plantings in keeping with Living Collection priorities.

Examples include: opportunities to add flora from northern Australia as part of the new conservatory, and to add a suite of new plantings surrounding the development of new infrastructure across the ANBG site.

Related policies and planning instruments

The ANBG Management Plan informs the Living Collection Policy, which in turn integrates with other key planning documents, including:

- *The Living Collections Review*
- *The Living Collections Operational Manual*
- *The ANBG Conservation Policy*
- *Thematic Plan 2002–2008*
- *Thematic Plan 2010–2020*
- section management plans.

The Living Collection Policy will guide, inform and integrate with:

- the annual gardens operational plan
- agreed garden developments and plant collection targets that are initiated through
 - the Living Collections and Horticulture Working Group
 - specific plant based working groups
- ANBG management forums
- master planning outcomes and objectives
- approved capital works and large scale development projects
- partnership projects and agreements including
 - biodiversity conservation projects
 - integrated national living collection goals and objectives with other botanic gardens and collection practitioners
 - threatened species projects and partnership collaboration
- collection succession planning
- a framework for succession planning initiated by
 - Living Collections staff managing the collections
 - plant and project requests and priorities such as propagation events developed following reports, stocktaking and reviews (see Section 4.2 Records Management).

The Living Collection Policy is underpinned by the *Living Collections Operational Manual*, which sets out the mechanisms and principles that guide the implementation of this Policy at an operational level.

Collection management principles



Collection management principles

The following principles will guide the management and development of the Living Collection.

The ANBG will continue to develop:

- a rich and diverse collection of Australian flora that is truly representative of diverse geographical and ecological areas of the Australian landscape
- a well-documented collection that maintains a strong and verifiable scientific connection between the plants, their classification, and provenance
- a collection that enables a connection between people and Australian plants, to be made through strong thematic displays and narrative
- an ongoing capacity for the Living Collection to play a key and active role for
 - biodiversity conservation
 - threatened species priorities and security
 - active research and high quality reference for Australian flora
- a collection that supports the path of mapping new discoveries for Australian flora, guiding its cultivation and strengthening its future viability
- specialised staff skills to manage the Living Collection more effectively
- capacity to 'edit', manage and develop the ANBG collections by exploring ways of improving management of data and systems
- mechanisms to review, analyse and re-prioritise agreed high priority components of the Collection, concentrating on the most valuable plants as much as possible
- partnerships and sourcing of resources to maintain the ANBG Living Collection to a high level of curation for its health, aesthetic qualities and scientific value and to underpin its further development.

The ANBG has a history of tackling the cultivation of rare, little known or rarely cultivated Australian flora and making the discoveries and new knowledge from this pioneering work readily available to the community and researchers alike. This is and will continue to be a key focus that will contribute to future collection directions.

Principles and approaches for implementing Living Collection priorities

The ANBG Living Collection is highly diverse and specialised, making it truly unique. Such a collection needs specialised mechanisms and options available to the ANBG staff and Living Collection managers to effectively manage and develop the collection. This is particularly important for realising short term, opportunistic and innovative opportunities, as well as regular, systematic and longer term strategies.

Such a dynamic and adaptable collection management system and philosophy equips the ANBG to respond strategically to:

- fluctuations in resources, climate, available skill set and capacity
- opportunities to respond to and engage with new and challenging priorities for Australian flora and its important links to biodiversity conservation and ultimately planet health
- designing ready-to-go projects and priorities for future development when opportunities and resources are secured.

To successfully meet these challenges, it will be essential to:

- maintain and develop staff expertise, capacity and capability on the Australian flora
- maintain the infrastructure and systems to ensure the collection is viable and sustainable
- maintain and develop complex and strategic succession planning and assessment
- recognise the limitations and potential of the site (climate, aspect, infrastructure and access to usable resources) to maintain existing and guide future collection development
- continue the integrated use of the *Living Collections Operational Manual*.



Field collecting near Nowra, NSW,
D. Taylor, R. Uwedo-Hampshire

APII dig-26558 Photo: M. Fagg

Policy requirements

For the ANBG to realise the potential for managing and developing its extensive and diverse collection of Australian flora effectively and to deliver key outcomes that underpin the role of the institution captured in its mission and vision, it is crucial to identify and direct the best use of resources and have mechanisms available to edit and review these priorities regularly and by various means.

Collection priorities

Two key mechanisms deliver prioritised and strategic action on the ANBG Living Collection.

First are the systems that hold the data and information that is actively analysed and queried to produce significant assessments, packaged information, and summaries of relevant aspects of the collection to inform decision making. These systems cover the priority areas of:

- ongoing assessment—including stocktaking and regular reporting templates and outputs
- specialised and tailored reporting and querying—addressing more specific priority areas and outcomes from plant working groups and stakeholder groups.

Second are the key working groups and forums within the ANBG, including plant working groups, management team forums, and project working groups (see Section 4.9 Planning and decision making).

There are nine main collection priority areas:

1. significant and important plant families (examples include Fabaceae, Myrtaceae, Asteraceae, Poaceae, Proteaceae, Cyperaceae, Orchidaceae, Ericaceae, Rutaceae, Euphorbiaceae and Orchidaceae)
2. ecologically and culturally significant plants
3. threatened plants and plants from threatened ecological communities
4. regionally significant plants
5. significant and important genera
6. flora from each state and territory
7. plants from key ecological communities, vegetation groups or alliances, which include flora from rainforest, tropics, Central Australia, Sydney Basin, and key ecological communities, including the listed and regionally significant alpine and grasslands/grassy woodlands EPBC-listed communities
8. Australian flora of cultural significance
9. plants of memorable and uniquely Australian character.

Priorities for succession planning at species or accession level for seed or vegetative holdings include:

- wild or known origin
- listed rare and threatened species
- species from listed threatened ecological communities
- accessions used for scientific research
- species or accessions with a conservation or restoration purpose
- accessions with unusual or varied morphological characters
- accessions linked to vouchers.

Details on specific collection priorities are outlined in the *Living Collections Operational Manual* (see Section 6 References).

Records management

Throughout its history, the ANBG has maintained a strong accessible link between the Living Collection and the recorded information relating to it. To maintain the value of this information and to ensure the continued succession and viability of the Living Collection, integrated, up-to-date and reliable information is essential.

Maintenance and improvement of the ANBG record-keeping system are paramount to meet the demand and need for accessing Living Collection information. The main reasons for this are:

- for taxonomic, ecological and applied research, including at the genetic and molecular level
- as reference material and for educational use
- more broadly, to support the ANBG's goal to engage people with Australia's natural heritage by providing access and links to information on Australian flora
- for effective management of the Living Collection by ANBG staff
- for the upkeep of information relating to the Living Collection and other biological resources of the ANBG site
- as part of our obligations to provide access to biological resources (see Section 4.2.1)
- to enable benefits arising from the use of the ANBG's biological resources to be shared equitably, including for the benefit of the environment.

The management of this resource overall is vital for maintaining information that is verifiable, high quality, and relevant to the purpose and values of the collection and the ANBG as an institution.

Our obligations as an institution to facilitate access to ANBG's biological resources

The ANBG Living Collection is a rich biological resource, and requests for material are regularly received from client groups, including research and educational institutions, commercial enterprises and community groups. Access to this information about biological resources (and their associated genetic resources) and to benefit-sharing sits under a framework of international obligations, including:

- the Convention on Biological Diversity (1992), the International Treaty on Plant Genetic Resources for Food and Agriculture (2001)
- the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (2010)
- the Principles and Common Policy Guidelines on Access to Genetic Resources and Benefit-sharing for Participating Institutions (Cartagena, Colombia 2000).

Access to the ANBG's biological resources is managed in accordance with these international agreements, with relevant legislation, and with the terms and conditions under which any biological resource material has been acquired by the ANBG. Where access to the ANBG's biological resources is sought for the purpose of research and development, access must be in accordance with Part 8A of the EPBC Regulations, which gives effect to Australia's obligations in relation to access and benefit-sharing under the Convention on Biological Diversity.

Under Part 8A, access requires a permit from the Minister and either permission from the access provider (for access for non-commercial purposes) or a benefit-sharing agreement with the access provider. The Director of National Parks is the access provider on behalf of the ANBG. The Minister may grant exemption from Part 8A for

biological resources that are being managed in a manner consistent with the purposes of Part 8A. In January 2007 the ANBG management arrangements for the transfer of biological resource material managed by the ANBG were exempted by the Minister from the requirements of Part 8A.

Access to biological resources is also covered by Sections 354 and 354A of the EPBC Act if the resources are members of a native species and/or if access is for commercial purposes.

The scientific information from research using the ANBG collections and other biological resources used and/or published needs to apply appropriate recognition and acknowledgement of ANBG resources, and this is managed as part of the ANBG plant release program.

Building awareness of the value of the ANBG Living Collection and other biological resources also helps to raise the ANBG's profile—internationally, nationally, and across relevant institutions, stakeholders and governments.

Maintaining best practice protocols is crucial to facilitate access to the ANBG's biological resources in accordance with international obligations, relevant legislative requirements, and the terms and conditions under which any material is acquired from other agencies and organisations.

Underpinning best practice protocols is the requirement for the ANBG to meet high standards of scientific integrity, as well as ethical and legal standards related to provenance for the acquisition of all biological resource material.

Access to our Living Collection

The ANBG will encourage and facilitate access to its Living Collection and other biological resources for taxonomic, ecological and applied research at the genetic and molecular level, in a manner that is consistent with Australia's international obligations and relevant legislative requirements.

Fees may be charged for release of plant material.

Acquisition of biological resources for the ANBG collections will be on mutually agreed terms, with prior informed consent, and the material will be used in a manner consistent with the agreed terms.

The ANBG will not acquire biological resources from organisations or individuals that do not meet the requirements of the EPBC Act and Regulations (where applicable) and relevant international obligations.

Access will be given to biological resources in accordance with Part 8A of the EPBC Regulations, where applicable, including the conditions of any exemption from Part 8A, and in accordance with Australia's international obligations.

Visiting scientists, scientific associates, ex-staff and other professionals may be provided with access to the collections and facilities to undertake research, to study, and to collect plants for the living and herbarium collections.

The ANBG will maintain best practice procedures to facilitate access to the Living Collection and other biological resources in accordance with international obligations and relevant legislative requirements.

External requests for plant material

Requests for plant material for research and/or seed from outside institutions and individuals must be accompanied by a completed and signed application form with the following information:

- requestor identification (name, affiliation, and address)
- appropriate purpose (namely for research)
- genus and species requested
- quantity requested.

The ANBG Director (on behalf of the Director of National Parks) may deny requests if:

- the information provided is insufficient or inappropriate
- the institution is not registered under the CITES legislation
- there isn't enough plant material or seed in storage to provide
- permits under which the plant material or seed was collected preclude distribution.

Requests for plant material are coordinated through the Living Collections Unit.

Permanent labelling of collections

Critical to the identification and link to accession information is the permanent labelling of the Living Collection.

Used in a large proportion of the cultivated plants throughout the ANBG, the tags, labels and signage complete with their accompanying specific accession number are the physical conduit to a range of information about each particular plant.

This labelling system provides a rich source of material for visitors, horticulture staff and stakeholders when they access information about the collection. It is a valuable, well recognised and unique asset for the institution, unmatched in the quality and extent of linked information on Australian ex-situ flora.

Greater detail on labelling is dealt with in the Living Collection and plant records procedures, and is also being developed further in the *Living Collections Operational Manual*.

Plant acquisitions and accessions

The acquisition or introduction of material to the Living Collection is best defined as the physical entry of biological material into the ANBG collection.

Acquiring plant material

This section summarises the key strategic focus and goals for plant acquisitions.

The ANBG will continue to improve its system for plant and seed acquisition that is both strategic and systematic to ensure the limited resources available for new collection introductions are targeted efficiently and effectively—that is, towards the acquisitions that have been identified as priorities and to make sure all introductions come with appropriate information on origin and on history relevant to the purpose of the collecting event.

The ANBG will continue to refine and prioritise the connection and transition of key information throughout the recording system, from field-book entry through to progeny, targeting:

- standard and agreed terminology where applicable
- searchable links to key information for better access, assessment and reporting capacity.

The ANBG will continue to promote and maintain a clear mechanism for agreeing on new acquisitions and on how resources can be allocated and built into planning for the collecting event, the recording of applicable information, and the subsequent management in the Living Collection to match the purpose of the acquisition.

New collections will be continually reviewed and considered in light of potential use by external parties; implications for conservation; education; and what holdings there are in other institutions and collections. The purpose is to avoid unnecessary duplication of effort, to best target the gaps in ex-situ collections, and to realise potential exchange of material to ensure best-practice collaboration on ex-situ insurance and viability for Australia's flora held ex situ.

Whatever the purpose, accurate record keeping that is readily understood and verifiable will remain paramount.

All acquisitions will be considered in accordance with the objectives outlined in this policy and agreed through the Living Collections and Horticulture Working Group forum (see Section 4.9 Planning and decision making).

All acquired biological material shall support the criteria set forth in the mission statement and goals of the institution.

Purpose of the acquisitions and their origins

At the ANBG, there are many specific ways to source new plant acquisitions, but typically most fall into the following categories:

- plants sourced as wild-collected plant material with provenance
- purchased plant material
- plants donated to the collection for a specific purpose
- plants sourced and collected for conservation and or managed as 'genotype' collections.

In order for each category and acquisition to deliver immediate and enduring value to the collection and the institution, the ANBG will continue to:

- prioritise collection acquisitions through plant working groups, established stakeholder networks, projects, and as part of the Living Collection annual work program and subscribe to the Collection Priorities framework (outlined in Section 4.1)
- tailor the information recorded for each acquisition to ensure it is relevant and appropriate for the purpose and use of that acquisition
- ensure the purpose of the acquisition remains consistent with the use and management of the plants in the collection
- ensure all wild-sourced biological material has adequate and relevant provenance information, considering the potentially useful information to include in the field-book that remains with the plant material indefinitely as reference
- include collection data with all incoming plant material from the outset relevant to that acquisition
- contribute significant information to land managers from the ANBG's field observations to assist better management of the areas and species in question.

This approach ensures the limited resources are used efficiently and wisely, and that those engaged in and responsible for developing the collection are clear about the priorities, purpose and legacy of each new acquisition.

Plants sourced and collected for conservation and ex-situ species security

The ANBG has a long history of collecting plants primarily for conservation purposes. Many examples have been used to promote conservation, as well as contributing to species translocations and landscape enhancement.

Conservation collecting falls into two key categories:

1. Active conservation collections, where the primary purpose of collecting is for potential use to benefit biodiversity conservation. Typical examples include seed and non-seed production, plants kept and managed as genotype collections highly suitable for translocation and landscape enhancement, and research.
2. Educational and display collections, where the primary purpose is for educational or display value.

For active conservation collections to be most effective, there must be a capacity to track and readily identify genotype, origin, collection method, genetic diversity and representation. As the custodian of 'Australia's plant collection', the ANBG has built such capacity as standard practice, as it strives to ensure that the Living Collection is comprehensive, with individual plants accompanied by all this information. This helps ensure the ANBG can maintain the Collection as a valuable resource accessible to the widest possible range of uses and users offering the most opportunities for beneficial biodiversity conservation outcomes.

To manage these specialised collections, it is vital to ensure the collection events and subsequent maintenance and development of the collections ex-situ are backed by strategic goals, including:

- agreed and clearly documented collection methods relevant to the purpose of the collection, linked with high quality and verifiable information
- clear indication that such collections are specifically for conservation (with their collection methods outlined), and that all the information is readily searchable through the database for future reference, reporting, reviewing, summarising, and historic traceability.

The outcomes and benefits of this approach are clear. High quality information on conservation collections continue to be a valuable resource for informing conservation actions and opportunities, and for use in potential future seed production, landscape enhancement and translocation opportunities. Further, a readily accessible suite of information is available for use by staff, researchers, external stakeholders, land managers, threatened species officers, other institutions with conservation collections, and those involved in and responsible for conservation and threatened species and national heritage management.

To achieve these outcomes, the Living Collections Unit will continue to work in partnership across relevant ANBG units and with staff in CSIRO and the Centre for Australian National Biodiversity Research (CANBR) to refine the methodology, and to ensure staff are adequately informed, trained and equipped to use the applicable methods, from planned acquisitions to field-book entry through to succession and management ex-situ.

Greater detail on specific methods, the use of checklists for collection events, and the evolution of these priorities will be dealt with in greater detail in the Operational Plan, and through the relevant plant working groups.

Quarantine and hygiene

With any collection acquisition there is an inherent a risk of bringing in unwanted pathogens that can adversely impact the existing collection and the site.

The ANBG manages this risk at different levels. It has specific procedures and protocols for nominated high risk scenarios such as Myrtle Rust (see 6 References: Myrtle Rust Strategy), and general protocols and strategies for the bringing in of plant material.

These general protocols cover:

- plant material purchased from commercial sources, plant material collected from the wild, and all plants brought into the ANBG site for display or sale, and by members of the public
- donated plant material.

The Living Collections Unit is responsible for managing this risk for all non-seed living plant acquisitions, and the seed bank team is responsible for managing risk for acquisitions into the National seed bank. For key identified risk areas, liaising with and informing other units where relevant is standard practice.

De-accessioning and re-prioritising collections

For the continued evolution and development of the collection, it is crucial that resources be directed effectively both to secure new priority collections and to integrate these with the management and maintenance of the existing collection as a whole.

To do this, the Living Collections team must continually review the priorities and value of its holdings in relation to the capacity of the site and the resources available to manage the collection.

Typically, decisions are needed to re-prioritise the continuity and succession planning (or not) of both individual accessions and areas containing multiple accessions across the site. A driving imperative is that limited resources must continue to be directed to triage action on succession of the collection to the high value holdings as the first priority.

Key factors and principles that guide de-accessioning and succession re-prioritising can be summarised by the categories that have been identified as significantly valuable, which classifies them as high priority 'active accession succession'. These are accessions that:

- are rare or threatened species
- have verifiable provenance
- have a significant scientific or morphological trait, eg Myrtle Rust resistant clone, unusual form
- are little known to science, either as cultivated species or as being extant in the wild
- are an active part or key element of a conservation activity or an education program, or a structural or visual element as part of the ANBG site.

Specific plant and collection assessment summaries

The detail on the scenarios and determinations for plants (accessions) and sections (garden areas) is managed through the plant working groups. Outcomes and succession priorities are determined by scrutinising information relating to the plants and the ANBG site, and can be informed by (but not limited to) collection assessment summaries and queries, thematic and section plan reviews, outcomes from stocktakes, and review of relevant external information such as holdings in other collections.

The Living Collections and Horticulture Working Group is the primary forum for reviewing capacity, timeframes and agreed implementation strategies for succession priorities, with more information being developed as part of the *Living Collections Operational Manual*.

This analysis and review of accessions re-works succession planning for accession into three main categories:

- active accession succession—where the objective is to maintain and perpetuate the holdings as part of the collection through re-propagation or re-collection of an equivalent representative
- maintaining the accession—where the existing accessions are maintained but not actively re-propagated or re-collected. Typically for living plants this means when they die or are actively removed, they are not replaced and at this point are de-accessioned
- de-accessioning—where accessions are removed or de-listed from the database.
- Garden sections, their themes, purpose and contents are reviewed and edited regularly as a standing item at the Living Collections and Horticulture Working Group forum.



Calytrix glutinosa, growing in a pipe for enhanced drainage.

APII dig-22677 Photo: M. Fagg

Conservation focus

The conservation of Australia's plant diversity is critical to the future health of our environment, the economy and our people. Conserving Australia's native plant species and threatened ecological communities requires concerted effort, and the ANBG strives to position itself as a major contributor at a regional, national and global level.

The ANBG applies its mandate to serve the nation by conserving its living and herbarium collections as significant records of the story of plants as part of Australia's cultural and natural heritage. In addition, the ANBG maintains the nation's virtual repository of flora, supports nature discovery and biodiversity science, and makes crucial biodiversity data accessible to scientists and the public.

The ANBG contributes to conservation directly through a variety of strategies and priorities for the Living Collection. These guide and empower the ANBG to:

- link and use the collection to promote education and awareness
- provide insurance for plant species through ex-situ conservation
- support in-situ conservation and landscape and biodiversity enhancement through translocation projects and ex-situ seed production
- enhance the living collections—ensuring the diversity, quality and genetic representativeness will support conservation actions now and into the future
- improve knowledge and share information—ensuring a strong applied research focus that supports plant conservation outcomes and is supported by continued improvements in the availability, accessibility and integration of knowledge and information with the Living Collection
- engage the community—to increase community support and understanding of the importance of plant biodiversity through promoting and interpreting the Living Collection and its capacity to inform and help restore Australia's biodiversity and ecological health
- strengthen partnerships—working closely with research institutions, NGOs and conservation organisations to maximise opportunity for plant conservation via the use of the ANBG Living Collection.

Threatened species

Underpinning the conservation focus is the ANBG's priority for action on and inclusion of threatened species as an important active and educational element of the Living Collection. This is reflected in past and ongoing strategic effort to:

- secure a wide range of species in the ANBG collection for educational, research and conservation opportunities
- target partnership opportunities to help secure the future for threatened species.

The priority for threatened species will be continued by the commitment to pursue collaborative project and partnership opportunities within and beyond the ANBG, and as an integrated component of each ANBG plant working group. This collaborative effort will aim to deliver better outcomes for threatened species by extending:

- to all relevant levels of strategic threatened species planning networks from local through to Commonwealth, and covering all relevant listings—national, state and widely accepted knowledge of rare non-listed species

- collaboration across all areas of threatened species management from ex-situ security, related research, to land management and enhancement
- the network of partners and specialists capable of contributing to better outcomes for threatened species
- the role and reach of the ANBG threatened species working group to regularly discuss, review and prioritise action on threatened species for the ANBG as an institution.

A detailed summary of the ANBG's conservation strategy is captured in the ANBG Conservation Policy (see also Section 4.3.3 about plants collected for conservation).

Landscape design, garden development and site enhancement

The ANBG Living Collection and actively managed landscape is uniquely placed within and surrounded by a component of remnant dry sclerophyll forest and canopy, which creates a strong and unique landscape character for the site.

The Living Collection and its evolution as a nationally representative collection of plants, a series of gardens, and as part of designed and constructed landscapes within the site have, over time, created a unique environment—a great diversity of plant species and visual forms, supported by a strong, simpler connecting element in the form of the naturally occurring tree canopy.

Several landscape priority areas combine to allow the natural landscape character to be retained, while allowing unlimited opportunities for the continued development of a national Living Collection. The ANBG can thus:

- continue to develop and integrate a diverse range of Australian flora
- develop strong themes linked to the natural landscapes from across Australia
- create landscapes, themes and designs that inspire engagement with Australia's flora from traditional to new, contemporary and innovative landscapes.

Three important issues impact and influence design and garden development. These are:

- the specific site considerations, design and planning mechanisms, which provide the framework for how, where and when this integrated, diverse and balanced landscape is achieved
- future landscape opportunities and new landscape development proposals reviewed by the Living Collections and Horticulture Working Group, and including recommendations from ANBG Living Collections Reviews
- landscape design and development that is integrated strongly with stories and themes, purpose and narrative, and more broadly with the goals of the institution and the overarching vision 'that Australians value, conserve and appreciate our rich plant heritage'.

Specific site considerations and landscape narrative

As described above, the natural vegetation is an important part of the ANBG fabric. However the ANBG site is a landscape that also cultivates a huge range of plants from across the nation.

Throughout the history of the ANBG, the challenge has been in determining where to retain natural tree canopy, and where and why to allow for the alternative—the cultivated living collection.

The solution has been captured by outlining the areas for canopy retention and areas for the Living Collection, by using the *Naturally occurring tree canopy map 2014* (see Section 6 References). The principles underpinning this map are to:

- ensure connectivity of naturally occurring tree canopy across selected cultivated areas linking adjacent remnant vegetation in reserves, ensuring there are wildlife corridors retained across the site
- identify and retain visually appealing and significant stands of naturally occurring trees within the cultivated areas of the ANBG
- allow for the Living Collection to occupy an understorey component in the areas where natural canopy corridors are retained in cultivated areas
- allow for the staged removal or exclusion and/or replacement of natural tree canopy in designated areas, to allow for a range of aspects suitable for the ANBG's diverse plant collection and garden themes to grow and thrive.

Views and site lines within and beyond the ANBG

The views within and beyond the ANBG site are a critical aspect of the visitor experience. They are also paramount for considering how to:

- 'edit' the Living Collection landscape
- develop new living collections
- set priorities for tree management.

Retaining and enhancing existing views and creating new views are ever-present opportunities in the way the ANBG manages the Living Collection. As with any living plant collection and managed landscape of this type, and given the ANBG's context, guiding the landscape to maturity with a focus on the view lines is paramount.

These major view lines are captured in the ANBG view map 2014 (see Section 6 References).

Integrating the built, cultivated and hard landscape with the Living Collection and the site

As the ANBG has evolved, it has developed a particular character and style that helps unify and connect the complex and diverse range of Australian plants and landscapes it represents.

A priority for the cultivated and developed areas across the site is the use and selection of:

- materials in context with the Living Collection, the Australian flora and landscape, and the specific context for the location within the gardens
- materials and the structures that create a link to the story and purpose of the ANBG, its collection and the location.

Using design principles and techniques to mix and match a diverse landscape and living collection

The transitions among landscapes, collections and gardens throughout the ANBG, and the changes among individual sections are big challenges in editing and refining this highly diverse environment.

To ensure successful transitions throughout and among all areas, modifying and creating landscapes and collections require application of at least three important principles:

- have a well-considered purpose, theme and narrative for the work
- create the opportunity for memorable plant combinations in context
- identify the implications of the change in the area nominated.

These implications can be identified with answers to the following questions:

- What is the impact on surrounding areas and how will the narrative of new work be integrated?
- What is the likely viability of this work to deliver its narrative in the location selected?
- How will the transition and link to surrounding areas be built into the design and, more broadly, integrate and flow with the ANBG-wide landscape?

The ANBG aims to present a diverse collection of Australian flora in traditional as well as innovative and contemporary ways. It not only has a diverse collection of plants but manages these plants and the landscape in diverse ways to ensure a range of experiences and broad appeal to engage a wide audience with Australia's flora.

Landscape design to enhance function and site potential

Providing diverse spaces and accommodating aspect and microclimates are important factors in the ANBG's design approach.

Space

A critical element for a public garden such as the ANBG is the provision of available and useable spaces throughout the site to accommodate a range of functional, event-based, scientific and social activities.

A range and variety of spaces give visitors and staff diverse ways to engage with and use the ANBG. This is important when considering the development of individual areas and gardens, and the design and planting of the site through to master planning.

Whether developing new areas or retaining and enhancing existing areas and spaces, it is a priority to provide, overall across the site:

- personal, intimate and private spaces
- areas of varying sizes where groups of people can engage together with the Living Collection
- larger areas specifically designed and used for functions, events and crowds
- spaces with varying narrative, from informal nature-inspired areas to more structured event and function areas and more orderly-style gardens.

Providing a diverse range of areas as described means that people can come to the ANBG and enjoy a range of experiences. The use and contemplation of such areas will continue to be a prime consideration for Garden design and development as well as master planning over the next 20 years.

Aspect and microclimates

The ANBG is well known as a destination for visitors seeking sanctuary from the pace, extremes and pressure of daily life, as well as refuge from weather extremes, all of which can provide a genuinely restorative experience.

The reason the Gardens has this capacity is strongly linked to the microclimates that create outdoor areas that are pleasant to be in regardless of the weather and the season. This has the dual role of inspiring people to think about:

- how (Australian) plants can be used to create sanctuary
- how such microclimates can be developed to grow a range of species not considered possible or viable in the macroclimate of the region
- how microclimates created using (Australian) plants can provide a real option for moderating extremes in temperature and exposure for buildings, living areas and landscapes at all scales.

There is great potential to explore this further, and the ANBG is doing so by:

- enhancing the site to provide areas specifically suited to Canberra seasons and weather
- using and retaining spaces and areas with good exposure to north winter sun—ideal for those classic Canberra still-but-cold winter days
- providing cool and shady spaces for those seeking sanctuary from the region's renowned hot and dry summer days
- selecting and locating plants to enhance and complement the microclimate and space, particularly for shade and shelter.

Design planning mechanisms

How does the ANBG achieve good landscape design and Garden development that enhance the sense of place and the opportunities of the site?

The ANBG team utilises several mechanisms to realise this ambition.

It has a specialised staff structure and knowledge base within the Living Collections Unit capable of planning, developing and undertaking small-to-medium garden and landscape projects. Its staff have the capacity to produce concept plans, to undertake basic landscape construction, stonemasonry and garden-bed installation, and to work in partnership with external engineers, planners, designers and specialists where needed on larger or specialised works.

For larger projects primarily covering infrastructure development, the ANBG Major Projects team, with the Living Collections Unit, is the primary partnership together with external specialists.

For reviewing Garden design and development and integrating this into site enhancement, the Living Collections and Horticulture Working Group is the primary group capable of undertaking this work, as it reviews capacity, timing and capability across units.

The agreed outcomes for site enhancement are built into annual Living Collections Unit work plans and, for major infrastructure, into project planning.

At a more detailed level, significant design and landscape issues can be captured in the section management plans, particularly in relation to the purpose and context of the section or area in question. This not only captures evolving development and landscape enhancement for a specific area, but ensures there is reference and guidance for ongoing maintenance and succession planning matched to the purpose and significance of the area.

Landscape and garden management

The maintenance of the garden areas and the ANBG site is strategically managed and detailed in several documents and forums. These are:

- section management plans—used to capture the purpose, contents and management issues for a particular section or garden
- the annual operational and Living Collection work plans
- the *Living Collections Operational Manual*
- the relevant working group forums, including the Living Collections and Horticulture Working Group, specialised plant working groups, Living Collections Unit and management forums, and ANBG management forums.

The priorities for landscape and garden maintenance are to:

- present the Collection and the site in a way that is appealing and engaging
- maintain a safe and accessible site
- manage pests, weeds and pathogens effectively
- responsibly and effectively use resources, materials, equipment and maintenance techniques to deliver a viable strategy
- maintain plant and garden bed health and viability.

To implement its landscape and garden maintenance strategy, the ANBG applies these principles:

- using integrated pest management methods where applicable and practical
- maintaining a strong culture (owned by all staff responsible for maintenance) of planning, considering and adopting sustainable and ethical horticultural practices that maximise practical opportunities to re-use and recycle and limit the impact of maintenance activities on the environment and on the health and wellbeing of staff and visitors
- engaging with specialised partners to manage the environmental weeds and landscape in ANBG areas that fall outside the cultivated areas, including the management of weeds beyond the ANBG boundary in the adjacent Black Mountain Nature Reserve.

Tree management

Of the extensive and diverse Living Collection consisting of around 74,000 individual plants, 10,000 are trees. Trees form an important structural and aesthetic component of both the actively managed and cultivated landscapes as well as the surrounding and integrated component of remnant dry sclerophyll forest and canopy, which imposes a strong and unique landscape character on the site.

The management and development of trees at the ANBG is captured in detail in the *Australian National Botanic Gardens Tree Management Strategy 2016–2026* (see Section 6 References).

The main direction-setting priorities from that Strategy identify how the ANBG:

- identifies and manages significant individuals as well as significant stands of trees across the site
- undertakes regular and responsive tree health assessments and implements any recommended actions
- implements strategic risk management for trees and ensures a safe site
- uses assessments and risk management to prioritise and inform action for tree maintenance
- manages record-keeping and documentation of trees and arboricultural items of significance
- uses outreach to engage partners, educate and inform a wider audience of the significance and role of trees and tree management, and exchange and foster knowledge of tree management and use.

Water management

Critical to the viability of the Living Collection is the management, delivery and use of water across the site, which enables the successful cultivation of a vast range of species originating from many diverse landscapes with dramatically different rainfall and water movement patterns.

Matching the delivery and use of water across the site to best suit the requirements of the existing and future plantings and taking advantage of the many microclimates in the ANBG are the keys to successful, efficient and viable water management.

Following its water-wise 'direction', the ANBG will continue to:

- design plantings to bring together (where practical) species with similar requirements for water, humidity and soil moisture. Doing this reduces the extra water needed in a mixed planting of species with differing water requirements, and focuses in a specific area those plants needing more irrigation or soil moisture
- design landscapes that use and/or modify the site, landform, materials, structures and microclimates to take full advantage of directing water (irrigation or natural rainfall) to where it is most needed and useful to those plants
- prioritise opportunities to integrate water harvesting into new gardens and where practical retrofit to allocate plants to areas where they require the least amount of supplementary water
- group the 'like water requirement' plants and plantings for standard annual plant-out activities, new gardens, and redeveloped gardens and areas.

The efficient and carefully tailored delivery of water where it is most needed also provides additional benefits, which can:

- reduce the need for additional water, thus reducing water use and costs to the Gardens
- publicly explain why and how the ANBG uses and re-uses water across the site and still grows a diverse suite of species from vastly different environments.

To keep these goals front and centre, it is standard practice to plan best use of water for all new developments, gardens and, where practical, as a retrofit for existing gardens.



Translocation of threatened *Lepidium ginninderense* after propagation in the Gardens.

APII dig-23569 Photo: J. Akmacic

Planning and decision making

Several working groups and forums provide the mechanism for reviewing, planning and deciding the key actions and priorities for managing and developing the Living Collection. These groups strategically cover and include a diverse cross-section of staff from various units within the ANBG, and many have external partners and members.

The purpose of these groups is to guide the specific actions that inform resource planning and that sit under the framework provided by the Living Collection Policy and ANBG Management Plan.

The **Living Collections and Horticulture Working Group** is the central working group for planning and decision making for the Living Collection. The scope and purpose of the group is:

- to develop and manage ideas, proposals and activities in horticulture, landscape design and collections development
- to consider and prepare proposals that will be presented to the ANBG management team for approval
- to provide a supportive venue for staff and stakeholders to present ideas for horticultural and landscape developments
- to manage proposals as a planning resource so they are not duplicated or in conflict
- to manage implementation of the Living Collection Policy and review recommendations from the Living Collection review, including documentation of the ANBG thematic plan and related projects.

The makeup of this group deliberately includes representatives across ANBG work units to ensure decisions and agreed actions take into account:

- potential implications for a range of work areas within the ANBG
- knowledge, input and perspectives provided by staff outside the Living Collections Unit
- strategic ownership of outcomes for the Living Collection across the ANBG.

Plant-based working groups are routinely used at the ANBG to focus on specific groups of plants. The scope and purpose of these groups is to:

- assess and summarise the holdings within the ANBG of a specific and nominated group of plants
- identify the key values, aspects and significant information relating to the plants
- identify specialists outside the ANBG as potential partners and collaborators
- consider what plants from the group can be grown and managed effectively on the ANBG site
- identify opportunities and priorities as a strategic succession plan for the group.

Plant-based working groups can be both short and long-term in duration, and have different purposes. They are sometimes established to coincide with a particular peak in activity or priority such as the development of a new garden or landscape or in response to a change in collection priority. This allows for flexibility to increase or pull back on resources to most efficiently direct effort where it is most effective.

Outreach—Interpreting the Living Collection

It is well known that the ANBG has an extensive collection of Australian plants. Less obvious are the huge range of stories and the wealth of both broad and specialised information connected to and available on the Living Collection for all to access and share.

To draw attention to this potential and to provide an engaging range of options for a wide audience, a strategic and diverse approach to outreach is paramount.

Engagement happens at many levels for such a rich source of information and narrative. At the ANBG, this is extended and promoted through active and direct means, and through more subtle or explorative options. This allows the audience to experience the values of the Collection directly as well as providing extensive opportunities for those wanting to find out more, including those with limited opportunity to visit the site (and physically see the Collection) itself.

The benefits and outcomes of this approach are clear: providing such a range of options for access to the Living Collection gives people an insight into the endless opportunities to use, visit and engage with the ANBG Collection as a significant piece in the jigsaw of our unique and diverse Australian plant heritage.

Getting people engaged this way naturally extends to making a broader connection to Australian flora as a significant part of the planet's biodiversity, so that people are then more likely to value it, and support action to manage and secure its future. This links directly with the goals and vision of the ANBG.

Outreach and engagement are now integrated into (standard practice) all the key forums where management and development of the Living Collection are determined. This means that, as management and development directions and decisions are made, they regularly come with a plan to deliver engagement on all items of significance relevant to the actions.

Personal connections and partnership with ANBG and divisional media teams are well established within the Living Collections Unit and extend and are supported by the Visitor Experience Unit being the key unit driving communication and engagement with the ANBG as an institution. This interaction will continue to develop as new and innovative methods and mechanisms evolve.

Partnerships

The ANBG Living Collection is integrated with and underpinned by partnerships across many jurisdictions, institutions and stakeholders. Partnerships are a high priority and a key strategic focus area that enable the development and potential of the Living Collection to be realised and extended.

Two of the ANBG's highest priorities for partnership are **Integrated Conservation** and **A nationally integrated living collection: Australia's Plant Collection**.

Integrated Conservation

A high priority for the ANBG is to continue strengthening collaboration with institutions, land managers and conservation organisations to maximise opportunities for plant conservation. This supports the fundamental role of the ANBG to use its ex-situ conservation capabilities to support in-situ programs to conserve Australia's plant biodiversity, and to assist the recovery of species and ecosystems in decline or threatened with extinction.

The ANBG will continue to strategically coordinate and facilitate ex-situ efforts (and support others to do so) with in-situ species management and development, and with ecosystem and landscape restoration covering local, state, national and international jurisdictions.

A nationally integrated living collection: Australia's Plant Collection

Although the ANBG has an extensive collection in its own right, it is part of a national pool of collections held across many botanic gardens, institutions and specific plant practitioners. Collaboration is paramount for this scenario to realise its full potential.

A priority for the ANBG is to foster better integrated collections across Australia, leading to better knowledge and understanding of what is held nationally.

Collection custodians will have more opportunities to work together to:

- direct priorities towards collections, plants and themes that complement the collections held in other areas and locations
- consider the opportunities for collaborating on threatened species, high priority collection security and exchanges, and joint bids for resources, grant applications and supplementary funding to extend the capacity of collections across institutions
- cross promote each other, identifying the specialist shared and unique elements of each institution integrated with the common goal—representing Australia's flora nationally
- avoid duplication of precious limited resources, particularly for biodiversity conservation efforts.

Many partnership arrangements form part of the ANBG's focus for working within and beyond the institution. These range from everyday, small-scale, often informal collaboration with individuals and small groups through to partnerships for major projects and multi-partner alliances, often integrated with and supported by MOUs, agreements or collaborative externally funded partnerships.

Significant partnerships are captured in *The conservation and research partnership program 2010–2020*.

Evaluation and implementation

The Living Collection Policy will be reviewed in 2022. This timing has been selected to fall in line with the review for the *ANBG Management Plan 2012–2022* and to allow time for outcomes from the review to be implemented.

The review of the policy will be done in addition to and integrated with other key planning processes, plans and reviews including:

- *The Living Collections Review*
- *ANBG Conservation Policy 2016–2022*
- annual Living Collections Unit work plans
- the continued development of the *Living Collections Operational Manual*
- master planning development and outcomes

- outcomes from the ANBG Living Collection and Horticulture Working Group and specialist plant working groups
- *Australian National Botanic Gardens Tree Management Strategy 2016–2026*
- Staff Performance and Development Scheme.

This strategic process of planning and review will address and progress:

- annual review and editing of garden sections and section management plans
- regular review of gardens and nursery practices and standards, including biosecurity and hygiene management
- regular tree assessments.

For the review of the Policy itself, a working group will be established to undertake the review and will consult widely. This will ensure a strategic, robust and transparent process.

Glossary

This glossary comprises terms (words and phrases) that are uncommon or that, while common, have a particular usage with respect to this Policy.

accession number	each collection (of plants, seed or other living material) is given a number that links the plant to computer records
active conservation collections	collections where there is a direct link to past, present and future conservation outcomes
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
collecting event	when plants, seed or other living material are collected (usually from locations outside the ANBG) and it initiates a new accession sequence
collection method	the way in which plants, seed or other living material are collected
collection succession	the renewal of an individual plant collection or a group of plant collections
curate/curation/curatorial	select, organise, and look after the items in a collection or collections of plants and or living plant material
genotype collections	collecting for specific conservation purposes beyond standard or generic collecting from multiple genotypes for use to benefit biodiversity conservation, involving agreed or potential translocations and requiring diverse, identified and traceable lineage.
de-accessioning	physically removing an item from a collection and modifying the associated data records to indicate that it no longer forms part of that collection
ex situ	conservation of living plants, seed or other living material in a place (such as a botanic garden) away from the original location
extant	a data record of the former existence of a plant, seed or other living material surviving in the wild or within a collection; not extinct
field-book	a note book used to record and detail a collection event
herbarium	a collection of preserved plant specimens, serving as both a repository for vouchers and a resource for further research
hygiene	conditions or practices conducive to maintaining health and preventing disease, especially through cleanliness

in situ	conservation of living plants, seed or other living material where they naturally occur; ie where plants live
landscape enhancement	the improvement of a natural landscape through active intervention
landscape narrative	the theme or story that captures or describes the significant aspects of a managed landscape
legacy (of an acquisition)	ongoing value and potential use of the particular acquisition
morphological	related to the physical form of an organism
outreach	extending and engaging with a wider audience beyond the institution
pathogen	a microorganism that can cause disease
progeny	a descendant or the descendants of a plant; offspring
protocol	the official procedure or system of rules that explain the correct conduct and procedures to be followed
provenance	where living plants, seed or other plant material are collected from
quarantine	a system of controls over accessioning and item movements and storage, designed to exclude pathogens and pests from collections of living or preserved plants
recording system	any system, whether paper-based or electronic, used to record information about the items in a collection and subsequent activities and derivatives involving those items
taxon (plural: taxa)	a named group of organisms within a classification
taxonomic	relating to the science of taxonomy, by which organisms are named, described and placed into classifications
translocation	the movement or release of plants from one location to another
vegetation alliance	a vegetation classification unit containing one or more associations, and defined by a characteristic range of species composition, habitat conditions, typically at least one of which is found in the uppermost or dominant stratum of the vegetation
virtual repository	holdings of ex-situ collections as seeds, plants and herbarium specimens integrated with and linked to information relating to the collections
voucher	a specimen collected and preserved to be available for future reference; eg to confirm the identification of a plant or its wild distribution
wild-sourced	taken from a population of organisms in an area where they naturally occur without human assistance or intervention

References

The ANBG Living Collection Policy has been completed with support and input from a wide range of stakeholders and reference material.

Information has been sourced from externally available texts, including (but not limited to):

- *Australian National Botanic Gardens Management Plan 2012–2022*
- *The Living Collections Review*
- *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*
- *ANBG Thematic Plan*
- *Australian National Botanic Gardens Master Plan 2015–2035*
- *ANBG Conservation Policy 2016–2022*
- *The Australian National Botanic Gardens Tree Management Strategy 2016–2026.*

Specialised information has been sourced from these internal sources:

- *Living Collections Operational Manual* (under development)
- *ANBG Myrtle Rust Response Plan*
- *ANBG Nursery Biosecurity Guidelines.*
- *ANBG Naturally occurring tree canopy strategy 2016 (map)*
- ANBG site views (map)
- The Conservation and Research Partnership Program 2010–2020
- ANBG garden development table 2010–2020
- Section management plans
- South East Botanic Gardens Bioregion Working Group
- Living Collections and Horticulture Working Group.
- **Various ANBG specialist plant working groups, including:**
 - ANBG Threatened Species Working Group
 - Pomaderris Working Group
 - Zieria Working Group
 - Banksia Working Group
 - Melaleuca Working Group
 - Homoranthus Working Group
 - Asteraceae Working Group
 - Eucalyptus Working Group.



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