Living Collections Policy, University of Idaho Arboreta (University of Idaho Arboretum and Botanical Garden & Charles Houston Shattuck Arboretum)

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Introduction/Purpose

The purpose of this document is to guide the development and maintenance of the collections of the University of Idaho Arboretum and Botanical Garden and the original C.H. Shattuck Arboretum, (hereafter referenced collectively as the **Arboretum**). The Collections Policy works with the existing approved Usage Policies to insure appropriate use of the Arboretum. This policy serves as a tool to achieve the goals of the following Mission Statement of the Arboretum, which was approved by the Arboretum Advisory Board and the University of Idaho Administration in 1997.

Mission Statement

The University of Idaho Arboreta are outdoor museums maintained for the acquisition and proper curation of a living collection of native and introduced plants hardy in the Inland Pacific Northwest. As a primary reference collection, the arboreta will emphasize plant variation and genetic diversity. Highest priority of the arboreta is to develop, curate, and maintain a diverse collection of cultivars and species of known origin.

As educational facilities, goals of the University of Idaho Arboreta are to:

- provide a site for instruction in botany, horticulture, forestry, landscape architecture, environmental sciences, and other fields related to the living collection;
- encourage authorized research in fields such as plant hardiness, systematics, and hybridization;
- educate the public through field trips, lectures, and tours;
- provide to the public a restful, beautiful environment for the purpose of gaining knowledge and appreciation of the importance of plants.

The Arboretum is a separate division within the Facilities, Maintenance and Operations (FMO) Department of the University of Idaho. The operation of the Arboretum is the responsibility of the Arboretum Director and the Arboretum Horticulturist (hereafter Director and Horticulturist). An Advisory Board consisting of eleven members of the University faculty and staff, representatives from FMO, a student representative, and citizens of the community evaluates and approves Arboretum policies. Funding for maintenance of the Arboretum and salaries for the two full-time staff members is provided through the general operating budget of the University. Funds for purchasing additions to the collections, as well as other assets within the Arboretum, are provided by private donations through the University of Idaho Foundation, Inc.

The Collections Policy is divided into six sections:

- 1) Acquisitions
- 2) Plant records/Accessions
- 3) Evaluations/Inventory
- 4) Maintenance
- 5) De-accessioning/Disposal
- 6) Access and Use

The purpose of the Collections Policy is to provide clear guidelines for Arboretum staff to work toward the goals of the Mission Statement. Ultimately, we seek to become accredited by the American Association of Museums, the national organization that writes the standards for quality assurance and public accountability in the field of museums and collections, including arboreta and botanical gardens. The Collections Policy is intended to be a 'living' document and will be updated periodically. Changes to the policy can be initiated through the Director and approved by the Arboretum Advisory Board.

Acquisitions Policy

The goal of the Acquisitions Policy shall be to fulfill the Mission Statement of the Arboretum. Plants may be acquired for any of the following reasons:

- 1) to evaluate species and cultivars for ornamental or economic use in this climate;
- 2) to enhance the beauty of the landscape using native and introduced plants;
- 3) to provide research and/or educational opportunities; and
- 4) to preserve rare or unusual plants with an emphasis on populations native to the northern Rocky Mountains.

Any plant acquisitions should show promise of being able to survive somewhere within the Arboretum without extreme measures taken for their protection.

Plants shall be acquired only if they can be properly maintained within the current structure of the Arboretum, in terms of water, space, budget, and personnel.

Plants that could harm existing collections or cause harm to the local environment will not be acquired. These potentially harmful qualities might include, but are not limited to, any of the following:

- 1) susceptible to or hosts and alternate hosts of damaging pathogens, insects, or other pests;
- 2) known and/or likely invasive plants; and
- 3) highly allergenic/toxic plants (e.g., poison ivy)

The Arboretum will strictly adhere to all laws and regulations regarding trade or collection of plant material. These laws will include, but are not limited to, the following:

- 1) U.S. Patents;
- 2) U.S. Trademarks;
- 3) International trade agreements/policies:
 - a) Plant Variety Protection Act;
 - b) International Convention for the Protection of New Varieties of Plants;
 - c) U.S. Department of Agriculture Plant Quarantine Regulations;
 - d) Canadian Ornamental Plant Foundation, (COPF); and
 - e) Noxious Plant Laws, (Federal, State, and Local)
- 4) Any treaties or laws dealing with rare and endangered species;
 - a) Convention on International Trade in Endangered Species of Wild Fauna and Flora, (CITES);
 - b) U.S. Endangered Species Act; and
 - c) Convention on Biological Diversity.

All plant acquisitions must have a known origin, either from documented wild sources or from reliable horticultural sources that guarantee their material is true-to-name (e.g., valid cultivars). Whenever possible the geographical origin of their stock should be documented.

Any collections of plants from the wild shall follow all applicable laws and regulations and shall not knowingly cause the destruction of any ecosystem, or endangered, threatened, rare, or unique populations.

Gifts (plants or otherwise) can only be accepted if they meet the conditions of this collections policy, are given without unacceptable restrictions, and if proper maintenance can be assured (either within current practices or by additional resources sufficient to pay for required maintenance). Any gifts shall be directed through the University of Idaho Foundation, Inc. and accepted in accordance with their gift acceptance policies. The Director shall have the final authority to decline any gift that is not consistent with the mission and purpose of this collections policy.

The Horticulturist shall review all plant acquisitions and final approval of all acquisitions is the responsibility of the Director.

Plant Records Policy

Accurate and detailed records of all plant material in the arboretum are necessary to fulfill the mission of the Arboretum of providing a properly curated living collection of native and introduced plants. The maintenance of these records shall be the responsibility of the Horticulturist under the direction of the Director.

Every plant acquired for permanent installation will be assigned an accession number as soon as it is received. The first four digits of this number shall be the year of acquisition, followed by three-digits referring to the numerical order of that acquisition within that year. The first specimen of any accession will be assigned the letter code A. If more than one specimen of a particular accession is acquired at the same time, from the same source, they will be assigned a letter code in sequence starting with A. For example, if three Quaking Aspens are acquired from one source in the year 2003, and they are the 243rd plants acquired that year, their numbers would be—2003243A, 2003243B, and 2003243C. These accession numbers will be assigned and kept in a handwritten log and entered into a computerized database as soon as possible. Back-up copies of the database shall be maintained frequently enough to insure that all the data are preserved.

The database software currently in use is BG-BASETM, a collections management software package designed specifically for keeping records in botanical gardens and arboreta. The following information must be recorded within the database for each accession:

- 1) complete scientific name, including patent numbers and cultivar registrations;
- 2) accession number;
- 3) family;
- 4) common name;
- 5) how received (seed, cutting, entire plant, etc.);
- 6) date received;
- name and complete address of the source;
 location where planted; and
- location where planted; and
- 9) cost

Further information will be required for material collected from the wild, including:

- 1) collector's name;
- 2) date of the collection: and
- geographic location of the collection, including habitat description and elevation whenever possible and any other appropriate 3) collection data.

The software also provides space for recording other significant information which will be included whenever possible. Some examples would include: identity verifications, previous accession numbers when plants are acquired from other gardens or arboreta, and propagation methods including graft compositions.

All records will follow two current codes for nomenclature:

- 1) The International Code of Botanical Nomenclature; and
- 2) The International Code of Nomenclature for Cultivated Plants.

In addition to the computerized records, an embossed metal accession label shall be attached to each plant. The accession labels will include the scientific name, the common name, the family name, the origin of the plant (either geographical or horticultural) and the accession number. The labels will be wired to the plant as close to eye-level as practical on the north side of the plant. Care must be taken to avoid girdling trunks or branches; so, preferably the wires will be wrapped around a secondary limb rather than the main trunk. Occasionally, when labels cannot be wired to a branch, the labels will be attached directly to the trunk of the plant, using stainless steel nails or screws and springs to allow for trunk growth. If a permanent label cannot be attached to the plant (herbaceous plants, etc.), a label on a stake will be used.

Evaluations/Inventory Policy

An accurate inventory of what is growing in the Arboretum is necessary to fulfill the mission of curating our collections. One third of the collection should be inventoried annually. The inventory shall be the responsibility of the Horticulturist under the direction of the Director. Adequate staff must be provided to accomplish the inventory in a timely manner, ideally within a three-week period. The inventory shall consist of three components:

- 1) Evaluating the condition of the plants;
- 2) Confirming the location of the plants according to the records system; and
- 3) Confirming that the plants are correctly labeled and monitoring the condition of the label.

Written records of all the evaluations shall be maintained with the appropriate information entered into the Arboretum records database. These records shall be used to make recommendations regarding plant maintenance, de-accessioning, and plant replacements.

The ultimate goal of the Arboretum inventory shall be to have every accessioned plant mapped (recorded using GIS/GPS technology), verified, and vouchered with herbarium specimens.

Maintenance Policy

Maintenance of the existing collections in the Arboretum will be the highest priority for the Arboretum staff. The Horticulturist will be directly responsible for the maintenance of the collections under the direction of the Director. Maintenance operations shall follow the general philosophy of integrated pest management for control of weeds, pathogens (fungi, bacteria, viruses, etc.) vertebrates, insects and other arthropods. Pest control efforts will combine alternatives to conventional pesticides (e.g., bio-controls, physical methods, and horticultural controls) with the responsible use of pesticides. Pesticides shall be used only when regular monitoring of the collection indicates that pest levels have risen to a point that could cause damage to the collection. Accurate records shall be maintained for all pesticide applications. Maintenance operations shall include, but not be limited to:

- 1) Irrigation—using treated effluent water whenever possible;
- 2) Weed control—primary efforts will focus on controlling noxious weeds and undesirable introduced plants, e.g., Canada Thistle (*Cirsium arvense*), Field Bindweed (*Convolvulus arvensis*) and Yellow Hawkweed (*Hieracium pratense*). Available legal and prudent methods of control may be employed, including chemical, biological, and physical methods;
- 3) Mowing—to maintain turf, especially in high profile areas;
- 4) Insects & other Arthropods, Pathogens, and Vertebrate Control—limited to insuring the survival of the collections, appropriate use of the arboretum, and the health and safety of patrons and employees. Pathogens causing only aesthetic problems will be left alone. Chemical usage will be limited to the least toxic available alternative. Control efforts shall be coordinated with other departments within the University and appropriate outside agencies;
- 5) Pruning—the goal of pruning in the Arboretum shall be to promote healthy growth within the collection, emphasizing natural shapes and growth habits. Some pruning will be required to allow access to and maintenance of other parts of the collection. Specialty collections will require intensive pruning, e.g., topiary or hedge collections;
- 6) Fertilizing—to correct nutrient deficiencies, using organic and slow release materials when appropriate;
- 7) Staking—to promote establishment of newly planted trees, to provide protection (especially during the winter months), and to protect individual plants from winter sports enthusiasts;
- 8) Winter Protection—primarily used to help establish young plants. Measures will include sunscald protection on smooth-barked trees and shrubs, wire rodent screens on young shrubs, and stakes and snow fence installation on vulnerable slopes to prevent sledding and skiing. Some tying and caging of individual plants may be used to reduce breakage from snow loads; and
- 9) Labeling—replacing damaged labels and moving labels to maximize visibility and to prevent girdling.

De-accessioning/ Disposal

De-accessioning is the act of formally removing an item from a managed collection. The decision to de-accession shall be the responsibility of the Director, working with the Arboretum Advisory Board in cases of de-accessioning significant specimens or collections. A plant may be removed from the collections for any of the following reasons:

- 1) The plant is dead or dying or in poor condition and unlikely to survive. Whenever possible the cause of death should be ascertained and noted in the collections database;
- 2) The plant poses a hazard to patrons, employees, or property;
- 3) The plant harbors a pathogen, insect or other arthropod that threatens other plants within the collections;
- 4) The plant is determined to be not true-to-name, or the plant's identity cannot be determined, and the plant no longer fits other criteria for retention in the collection; and
- 5) The plant is occupying space required by other plants or for new plantings that are deemed more valuable to the mission of the Arboretum.

Disposal—generally, all de-accessioned material shall be destroyed and disposed of according to good horticultural practices. Occasionally living, healthy plants might be de-accessioned. In those cases, the plants can be sold, donated, or exchanged by whatever means is determined to be in the best interests of the Arboretum by the Director. Any proceeds from the sale of de-accessioned plants shall be deposited in an appropriate Arboretum fund. Records of dead, de-accessioned, and removed plants will be maintained in the Arboretum's database

Access and Use Policy

Educational and research use is strongly encouraged. As it is in the best interests of the Arboretum to document such usage, written documentation from the instructor is required. If any material is to be removed or consumed by the activities, the Director must grant written permission.

Plant Material Collection—laws and regulations regarding plant propagation govern a large part of the Arboretum's collections. These laws and regulations include plant patents, trademarks, and international treaties and regulations. The Arboretum will strictly adhere to these regulations, which may restrict the distribution of propagation material to unlicensed individuals. Therefore, written permission from the Director shall be required to take any material for propagation or other living material from the collections, especially when that material is intended for commercial use. Any collection of living material must be done in the presence of either the Director or the Horticulturist. An appropriate fee may be charged to cover the cost of staff time and materials.

Introduction of Plants or Animals—The introduction of any plant or animal by anyone other than Arboretum staff is strictly prohibited.

Public access—The collections policy works with existing approved usage policies. Visitors have open access to the developed areas of the Arboretum. Passive recreational activities are encouraged. The Arboretum is not a sports venue and organized athletic activities of any kind are prohibited. In general, if an activity is likely to harm the collections it is prohibited.

Access to maintenance areas is prohibited unless accompanied by a full-time staff member.

Access to the records database and other non-public resources of the Arboretum (e.g., books, catalogs, written records, etc.) shall be limited to individuals or institutions having reasons for access consistent with the mission and purpose of the collections. Access shall be granted by the Director and may require his/her presence for any such access.

Collections Policy Committee February 26, 2001 Robert Tripepi, Committee Chairman, Professor-Plant Science Steven Brunsfeld, Associate Professor-Forest Resources Roberta J. Mason-Gamer, Assistant Professor-Botany Duane LeTourneau, Arboretum Advisory Board Chairman, Professor Emeritus Richard Naskali, Arboretum Director Paul Warnick, Arboretum Horticulturist

Approved by Arboretum Advisory Board: Tuesday, May 1, 2001

Approved by Jerry Wallace, Vice President for Finance and Administration Thursday, November 29, 2001