

Collection, Preparation and Use of Specimens Deposited in the Old Dominion University Herbarium

The mission of the ODU Herbarium is to maintain a regional collection of research-grade plant and fungal specimens that promote research and teaching. We use contemporary methods to store and organize the collection and strive to curate specimens using a nomenclature that is based on peer-reviewed research. This document details our policy for the collection, preparation, and use of specimens that are included in the permanent collection. For more information about the ODU Herbarium or the policies described below, contact the herbarium curator, Dr. Lisa Wallace, by email at lewallac@odu.edu.

General operating procedure

The Old Dominion University Herbarium (ODU) accepts specimens for the permanent collection through field work by faculty, staff, and students, gifts from individuals and institutions and exchanges with other institutions. We welcome the submission of plant and macro-fungal specimens from all geographic areas into ODU. We are especially interested in native and naturalized plants from Virginia, the mid-Atlantic, and the southeastern United States. To maintain the integrity and scientific utility of the collection, the following guidelines apply to the collection and preparation of specimens considered for ODU.

We do not maintain private collections. All accessioned specimens housed in the herbarium are considered the property of Old Dominion University, with the exception of material borrowed via inter-institutional loan agreement.

Accessioning is the process of officially adding specimens to a collection. Every specimen in the collection has a unique accession number that is used to identify it in our digital database. All specimens accessioned into the herbarium become the property of Old Dominion University and may be loaned to other institutions for scientific study. Digital data of specimens are made available online without restrictions on their use. Location information for rare species may be blocked from online access, though. The Curator of ODU maintains the right to decline, de-accession or dispose of specimens that were not legally collected, are not appropriately prepared, or are considered inappropriate for the collection.

To be accepted into the permanent collection, specimens must:

- be of appropriate taxonomic scope
- have scientific importance
- be of reasonable quality
- include adequate documentation (see below for instructions on preparing labels)
- have been collected in compliance with all laws and regulations of the country of origin, state of origin, and the federal government of the United States. The Curator may refuse specimens if the circumstances of their collection involved destruction of sites or when state or federal laws or international treaties (such as CITES) have been violated.

Preservation and preparation of specimens

All specimens must be pressed and/or dried according to community standards for the taxonomic group. Labels should be printed on acid-free cotton paper and must include the following information:

- Family name
- Species name as a binomial (in italics); include the variety or subspecies if appropriate
- State and county in which the plant was collected
- Exact collecting location (be as specific as possible) and habitat – GPS coordinates are desirable and should include latitude/longitude, the coordinate system (e.g., NAD, WGS), and a measurement of error
- Collector's name and collection number
- Date of collection

Pressed specimens will be attached to standard form acid-free herbarium sheets along with the label. Dried specimens will be stored in archival envelopes or boxes. In most cases, archival sheets, envelopes, and boxes will be provided, and herbarium staff will prepare the specimens. Nevertheless, a complete collection label printed on acid-free paper must be provided with each specimen. Consult the Curator for help in creating labels, if needed. For large lots of specimens (i.e., > 250), the Curator should be consulted well in advance of making collections to ensure they can be accessioned into ODU.

Policy on student collections supporting research

Students who collect plants and fungi in support of their research should prepare specimens in accordance with the guidelines indicated above. The student should make arrangements with the Curator to accession specimens well in advance of collecting. It may be necessary for the student to provide his/her/their own materials (i.e., acid-free sheets, envelopes, and paper) if the number of specimens is large. In addition to the preparation of labels, students are required to enter the label data into a CSV spreadsheet that is compatible with the herbarium database. Students should contact the Curator for details on how to go about doing this. Specimens will not be assigned accession numbers or be considered part of the collection until they are mounted and databased.

Loans and use of the collection

In-house use: Interested parties are welcome to visit the herbarium and use the collection. Visitation dates should be arranged with the Curator. Please conduct work according to the following guidelines:

1. Food and drink (not even water) are not permitted in the herbarium.
2. Borrowing of collection materials or use of mounting supplies must be approved by the Curator beforehand.
3. Fresh plants should not be brought into the herbarium. Plants should be placed in a press prior to being brought into the herbarium. The drying cabinet is available for use, but users must alert the Curator when using it for safety checks. Pressed specimens should not be left in the dryer for more than 1 week.
4. Visitors must clean up after themselves.
5. Visitors are not permitted to use the digital imaging system or computer unless approved by the Curator. The Herbarium is connected to the campus wireless network, but visitors must bring their own device to use.
6. Visitors are welcome to use the books and other reference materials in the Herbarium, but these should not be removed from the room without prior approval from the Curator.
7. Destructive sampling of specimens, including removal of material for DNA extraction is not permitted, unless approved by the Curator.

8. Specimens removed from cabinets for study must be returned to their correct location prior to leaving the herbarium. Permission is required to house an accessioned specimen outside of its permanent location in the collection (e.g., in another cabinet for repeated consultation).
9. When appropriate, specimens should be annotated by the investigator, indicating the determination of the specimen and the title of the research project for which the specimens were used. Reprints of publications pertaining to the examined material are greatly appreciated.
10. Space to house pressed plants is limited and may be provided only in consultation with the Curator. Non-accessioned specimens should not be placed in cabinets or left in the herbarium without prior approval of the Curator.
11. User charges are not typically applied to inter-institutional loans or visitation/use of the collection.

Loans from ODU: ODU maintains an active loan program with other herbaria throughout the world. Loan requests (email or mail) should be made by the herbarium curator or director of the researcher's home institution. Loans are made for a period of one (1) year, subject to extension upon approval of a written request to the director. While on loan, specimens should be maintained such that damage from handling or pests is limited. Specimens should be returned by insured parcel post or by prepaid express. Destructive sampling of specimens, including removal of material for DNA extraction is not permitted, except by approval of the Curator. Written requests for permission to destructively sample specimens should include a brief description of the sampling protocol and goals of the intended research. We request that loaned specimens be annotated by the investigator, indicating the determination of the specimen and the title of the research project for which the specimens were borrowed. Reprints of publications pertaining to the loaned material are greatly appreciated.

Loans to ODU: Specimens that are on loan to ODU will be maintained in dry, climate-controlled conditions and housed in steel herbarium cabinets when not in use. Pest strips are maintained in all cabinets to prevent infestation by insect pests and other pest control methods (e.g., sticky traps) are used in the room containing the cabinets. Upon arrival, loans will be stored in a -20C freezer before being moved to an herbarium cabinet. As a condition of requesting loans on behalf of faculty and students at ODU, it is expected that specimens will be annotated in accordance with the loaning institution before they are returned and that all conditions of the loaning institution are followed. Contact the ODU Curator to make a request on your behalf for a loan from another institution.

Digital information policy

Label data and images of accessioned specimens are made available online through the SERNEC portal (<http://sernecportal.org>), iDigBio (<https://www.idigbio.org/>), and GBIF (<https://www.gbif.org/>). Location and collection information for sensitive species (i.e., rare, threatened, or endangered) may be blocked from public view, but these data may be accessed and used for legitimate research purposes by contacting the curator. A link to the database is provided on the ODU website (<https://sites.wp.odu.edu/oduherbarium/>). Updates to the collection and changes in this policy will be published on the herbarium website.