

GEO Policies

Below is a copy of the current standing policies for GEO visitors (A) and staff (B). Aspects of the current policies that will be modified based on award of this proposal are discussed individually later in the proposal under **Approach to Meeting Objectives**.

A. Visitation & Use Policies for Emory University Herbarium (GEO)

- **Contact Information:**

Herbarium staff are Dr. Cassandra L. Quave, Curator and Dr. E. Jane Bradbury, Collections Manager:	
Dr. Cassandra L. Quave, Curator	Dr. E. Jane Bradbury, Collections Manager
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- **Hours of Operation:**

The Herbarium is open from 9:00 AM to 12:00 PM and 1:00 PM to 5:00 PM, Monday through Friday. The herbarium is closed all federal and state holidays.

Open Visitation Hours: Visitors may drop-in between the hours of 9:30 AM to 12:00 PM and 1:00 PM to 4:30 PM, Monday through Thursday. However, to ensure that your needs can be met, you are strongly encouraged to contact the GEO Collections Manager ahead of your visit.

After-hours access: Unless special arrangements have been made with the Curator, only researchers with a key may be in the herbarium after hours. Before leaving the facility, after-hours users have the responsibility to switch off all lights and lock all doors.

- **Visitation Policies:**

Visitors must enter and leave through the herbarium workroom (Rm 102) and sign the guest book near the door each day. Visitors needing to use the collection or specific herbarium facilities (see “Use Policies” below) must make prior arrangements with herbarium staff for instructions and payment of service fees. **Smoking, pets, and food or beverages** are ***prohibited*** in the herbarium facilities. **Live plants** should be brought to the herbarium workroom (Rm 102) ***only*** after notifying and receiving permission from herbarium staff. **Live plants** are ***prohibited*** in the herbarium permanent collections (Rm 100D). **Field clothing**, including outerwear and field shoes, should not be worn in the herbarium permanent collections (Rm 100D). **Bags and hats** are prohibited in the herbarium permanent collections (Rm 100D) and may be safely stored in the herbarium workroom (Rm 102).

- **Use Policies:**

On-site Collection Use: Individuals wishing to use the herbarium collection on-site must make prior arrangements with herbarium staff in order to schedule a 30-minute training session (see “Service Fees” below) with the Collections Manager to ensure proper treatment of herbarium specimens. Additionally, individuals may either provide a detailed list of taxa they wish to consult for herbarium staff to pull from the collection prior to appointment date (“Service Fees”) **or** they may sign up with the Collections Manager for an additional 1.5 hour training session (“Service Fees”) to ensure proper removal and replacement of specimens in collection cabinets. *Specimens must be kept in the permanent collection room (Rm 102) unless expressly permitted by Curator or Collections Manager.*

Destructive Sampling: All requests for destructive sampling of specimens must be approved by the Curator. Users will be expected to provide a detailed project description and justification for desired sampling. Any processed laboratory samples arising from original GEO specimen tissue will be required to be barcoded in accordance with the GEO Data Management Plan.

Loans: Specimens will only be loaned through another herbarium. Individuals desiring specimen loans should make arrangements to receive and return the loan through their local herbarium. Local herbaria

may contact Collections Manager to process specimen loans, unless researcher desires destructive sampling, which requires Curator approval. All loan requests should be accompanied by a detailed description of loan use. All loans *to* GEO must be requested through the Collections Manager or Curator. Researchers will be charged for loan processing time (see: “Service Fees” below).

Equipment Use: Researchers may contact herbarium staff to arrange use of GEO equipment, including field presses and pressing supplies, books, scopes, herbarium computers and imaging station, etc. All equipment users are required to schedule a 30-minute training session with the Collections Manager (see: “Service Fees”).

Publication and Acknowledgements: All specimens used in publications must be cited to GEO in the sampling table and text. Any use of GEO facilities that enabled the publication must be acknowledged in the “Acknowledgements” section. All researchers must provide one free electronic copy of any publication using GEO collections or facilities to herbarium staff.

- **Services and Fees:**

Researchers are encouraged to include herbarium fees in budgetary estimates for funding solicitations.

For assistance regarding budgetary estimates, please contact the Collections Manager.

Service	Emory User Fee	Non-Emory User Fee
Specimen deposit & processing	\$50/hr	\$75/hr
Specimen taxonomic identification	\$50/hr	\$75/hr
Educational or research consultation	\$60/hr	\$80/hr
Assisted field collection trips	\$60/hr	\$80/hr
Facilities training by herbarium staff	\$30/hr	\$50/hr
Loan processing, including specimen filing	\$30/hr	\$50/hr
Equipment use	\$30/day	\$50/day

B. Policies for Emory University Herbarium (GEO) Staff

The policies detailed below are designed to promote a cooperative and productive work environment. They are not intended to supersede any University policy or state or federal law. All staff are required to read and sign a copy of all herbarium policies prior to beginning employment at GEO.

- **Herbarium Visitation & Use Policies:**

All staff are expected to be fully familiarized with all GEO visitation and use policies. All staff are responsible for ensuring that these policies are followed by all visitors to GEO.

- **Office and Workspace:**

Office and workspace is assigned at the discretion of the Curator.

- **Computers & Software:**

Every computer in the herbarium must have a software inventory documenting all installed software. Software copyright laws will be vigorously enforced in accordance with University policies.

- **“Right-to-know” Law:**

All storage and use of chemicals in the herbarium will be in compliance with the “Right-to-know” law.

- **Integrated Pest Management Procedures:**

Insect, fungal, and, to a lesser extent, bacterial pests pose the greatest long-term threat to the viability of any herbarium collection. Emory University follows campus-wide procedures of Integrated Pest Management (IPM) to prevent pest infestations of campus buildings. As an archival collection, GEO must maintain strict adherence to the following IPM guidelines:

1. The following are **strictly prohibited** in all herbarium facilities: **Smoking, Live animals and Food or beverages**
2. The following are **strictly prohibited** in the **permanent collections room (Room 100D)**: **Live plants, Field clothing** (particularly outerwear and boots), **Hats, Bags and Cardboard sheets and boxes of any kind.**
3. **Specimen Deposit:** The most likely source of entry for an exterior pest is from specimens entering the herbarium, either as new specimens or as returning loans.
 - a. **Fresh plant material:** Fresh plant material should be handled **only** on the herbarium work room table designated for fresh plants. Fresh plant material should be handled extremely cautiously. **Field bags should never be shaken.** Staff should watch vigilantly for the sign of live insects or insect eggs. All plants should be assembled into drying presses as soon as possible and placed immediately in the drying cabinet designated for new specimens. All packaging for new plants should be disposed of outside in the trash cans down the hall **immediately**. After processing fresh plants, the processing table and any herbarium equipment used (e.g. microscopes) during processing should be wiped immediately with 80% ethanol. Ensure appropriate labeling of each plant specimen and plant press.
 - b. **Dried plant material:** Plant material that is already pressed and dried should be taken out of the plant press, stacked carefully in newspaper, and secured between 2 sheets of cardboard tied with string in packages **no greater** than 15 cm thick. Package should then be frozen at -20°C for 2 weeks. After freezing, place package in drying cabinet for 24 hours.
 - c. **Mounted specimens:** Once decontaminated specimens are mounted, or if specimens arrive at herbarium already mounted, they should be labeled and digitized in accordance with the *GEO Data Management Plan*. Once specimens are digitized, they should be placed between sheets of newspaper and secured and frozen as above in **section 3b**.
 - d. Fully processed and decontaminated specimens should be taken immediately to be filed in the permanent collection (Room 100D).
4. **Doors:** The door to Room 100D should remain closed **at all times**, even when someone is in the room. The door to Room 102 should remain closed whenever there is no one in the room. Herbarium staff should remember that when the door is open, interior pest access to the herbarium is more probable.
5. **Returning Plant Presses:** Plant presses that are returning from use in the field should be disassembled as per instructions in **section 3** and placed immediately in the freezer at -20°C for 2 weeks. Stacks of pressing materials in the freezer should be **no greater** than 15 cm thick.
6. **Shipping Materials:** All incoming shipping materials should be broken down and placed by the cardboard recycling container down the hallway as soon as possible after arrival. **Absolutely no** cardboard from outside the herbarium should stay overnight in the workroom.
7. **Pest Monitoring:** All herbarium staff should be vigilant for any signs of pest invasion, including live adult pests, larvae, eggs, and the presence of pest-induced damage (e.g. shredding, emergence holes, frass). Any sighting of pest invasion in the herbarium should be noted immediately in the “Pest sighting” log in the herbarium workroom, including date, time, location, life stage, and any damage.

- a. **Sticky trap monitoring:** Two types of sticky traps are in use in the herbarium: “blunder” traps, designed to capture insects randomly wandering by, and “pheromone” based traps targeting specific insect pests, located in each herbarium cabinet in the permanent collection. Collections Manager is responsible for checking all traps quarterly and replacing traps every six months.
 - b. **Cabinet fidelity monitoring:** Each time a cabinet in the permanent collection is opened, the rubber seal around the door should be inspected to make sure it is sound. Any concerns should be reported to the Collections Manager immediately.
 - c. **If pest invasion is discovered in a permanent collection case:** All the specimens from that cabinet should be removed immediately to work room and inspected for damage or evidence of infestation. These specimens should then be placed at -20°C for **4 weeks** before drying and re-filing. Infested cabinet should be wiped with 80% ethanol and vacuumed out using a shop-vac with HEPA filter. Special attention should be given to the cracks and undersides of shelves. Depending on the pest, it may be appropriate to paint either a baited barium fluorosilicate mixture or a baited mixture of diatomaceous earth into cabinet cracks.
8. **Coordination with Emory IPM:** Collections Manager is responsible for routinely coordinating with the Emory University IPM team to ensure that proper exterior precautions are being followed for the building of 1462 Clifton, including monitoring of exterior entry points, removal of detritus from around the building foundation, monitoring and rapid removal of dead birds, reptiles, or mammals from the building exterior, and removal of tree limbs and brush from within 1 meter of the building corner housing herbarium facilities.