

Destructive Analysis of University of Florida Herbarium (FLAS) Specimens - Policy Statement and Contract

The University of Florida Herbarium (FLAS) has a legal, professional, and moral obligation to maintain its collections for the public good. The collections are maintained with the goal of balancing the preservation of the integrity of herbarium specimens with utilization for contemporary scientific research. The judicious dissection of specimens is normally permitted (all dissected material is returned to the specimen). Destructive sampling requests are reviewed on a case-by-case basis (e.g., permanent removal of material for DNA, anatomical studies, chemistry, etc.). There may be legal constraints governing DNA rights, particularly for international materials, that must be considered.

The destructive analysis policies follow standards as specified in: Metsger, Deborah A. and Sheila C. Byers, eds. 1999. Managing the modern herbarium: an interdisciplinary approach. Elton-Wolf Publishing, Vancouver, Canada (p. 345-350).

- **Material may be removed from specimens only with prior approval from the curator or collections manager at the University of Florida Herbarium (FLAS).** Permission is granted on a case-by-case basis and will be contingent upon the return of a signed destructive analysis contract.
- **Material may not be transferred to third-parties** without the express permission of the administration of the University of Florida Herbarium (FLAS).
- **The project must be for scientific research** and have a specific, well-defined scope with proven methodologies.
- **Commercial use** of materials, data, and by-products obtained from destructive analysis is not allowed.
- **No more than 1 cm² of material per specimen will be removed.** Vegetative material in fragment packets and from obscured portions of the specimen are often ideal. Preferably, do not remove leaf tips/bases, the smallest/largest leaves, and poorly represented parts. Take great care not to damage the specimen when removing material.
- **Material removed and plant products obtained from CITES and U.S. Fish and Wildlife listed taxa, including endangered species and noxious weeds, may not be transported without obtaining all the necessary legal permits.**
- **Material may not be removed from a herbarium sheet for a second time** if the nature of the study is the same (i.e., pollen material for SEM, leaf material for DNA analysis, etc.).
- **Material may not be removed from type collections** or from poorly represented taxa in the herbarium, except in rare instances, and then only by an appropriate staff member or with express permission of an appropriate staff member.
- **Each sheet must be annotated** to indicate the material removed, the name of the researcher and their institutional affiliation, title of the project, and the date of removal. Visiting researchers are expected to arrive with prepared annotation slips. Email requests should send an editable document with the annotations.

SAMPLE ANNOTATION:

Leaf tissue removed by Alan R. Franck, 22 Mar 2023 (FLAS 267839)
Project: Phylogenomics of Cactaceae, Lucas C. Majure, University of Florida

- **Any DNA sequence data derived from these specimens must be deposited in GenBank** (<http://www.ncbi.nlm.nih.gov/genbank/>). The voucher information in GenBank should include the collector, collector number, institution (FLAS) and the accession number of the specimen. Provide FLAS with the GenBank accession numbers as annotations.
- **Printed or digital copies of any SEM or light photographs taken of the material should be deposited at the University of Florida Herbarium.** Such photographs should provide the name of the taxon, collector's name and number, FLAS accession number, the magnification, and the method of preparation. Digital copies in the highest resolution available should be submitted.
- **The University of Florida Herbarium (FLAS) should be acknowledged in any publication.** Specimen citations should include our accepted herbarium acronym: "FLAS". Please provide us with a digital or printed copy of any publication.
- **University of Florida Herbarium material is provided without express or implied warranty,** including the implied warranty of fitness for a particular purpose.

PROJECT DETAILS (attach file if needed)

Title of project: _____

List of specimens to be sampled (be specific; attach list if needed): _____

Specific material to be removed (e.g. pollen, 1 cm² leaf): _____

Methodology: _____

I agree to abide by the University of Florida Herbarium destructive analysis regulations.

Researcher's Signature _____

Researcher's Name Printed _____ Date: _____