

**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). This policy, however, applies to destructive sampling, i.e., permanent removal of material for purposes such as SEM, DNA, palynological, and anatomical studies. The herbarium recognizes that destructive analysis of specimens may yield beneficial information and is in the public interest. However, there are also legal constraints governing DNA rights, particularly for international materials, that must be considered on a case-by-case basis.

The destructive analysis policies of the University of Florida Herbarium (FLAS) are a supplement to our collection use and loan policies. They 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).

- **The researcher should make a serious effort to obtain fresh material first.** . "The use of herbarium/museum material for the extraction of DNA or other compounds must be the last resort rather than the first step of a phylogenetic analysis." (Metsger, 1999, p. 347)
- **Material may be removed from specimens only with prior approval from the administration of 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).
- **Requests for destructive analysis must include the title of the project, a summary of the specimens and materials required and a description of the procedure.** The project must be for scientific research and have a specific, well-defined scope with proven methodologies. Permission is not typically granted for building general comparative collections.
- **Commercial use** of materials, data and by-products obtained from destructive analysis is not allowed.
- **You may remove no more than 1 sq. cm. of material in a manner that will not degrade the scientific value of the specimen.** E.g., do not remove leaf tips/bases, the smallest/largest leaves, and poorly represented parts. Material in fragment packets and from obscured portions of the specimen should be the first choice. 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, the nature of the study and the date of removal. Reports of failed analyses are just as important as the documentation of successes. Visiting researchers are expected to arrive with preprepared annotation slips.
- **Any DNA sequence data derived from these specimens should 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, if available, the accession number of the specimen. Please provide FLAS with the GenBank accession numbers as a list and/or include them on the annotation.
- **A printed or digital copy 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 may be submitted.
- **You must acknowledge the University of Florida Herbarium (FLAS) in any publication based on consultation of our collection and/or catalog, even when specific specimens are not cited.** Specimen citations should include our accepted herbarium acronym, "FLAS". Please provide us with a full bibliographic citation and, if available, a copy of the publication for our library.
- **University of Florida Herbarium material is provided without express or implied warranty,** including the implied warranty of fitness for a particular purpose.

Title of project: \_\_\_\_\_

Material to be removed / procedure (e.g. pollen for slide, 1 sq. cm. leaf for DNA): \_\_\_\_\_

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

Researcher's Signature \_\_\_\_\_

Researcher's Name Printed \_\_\_\_\_ Date: \_\_\_\_\_

Approved (UF Herbarium Administrator) \_\_\_\_\_ Date: \_\_\_\_\_