**NYBG Access and Benefit-Sharing policy, and**

**Destructive Sampling and Material Transfer Agreement Form**

***Policy Statement***

The New York Botanical Garden’s Steere Herbarium (NY) recognizes the critical role herbarium specimens play in modern molecular analyses of plants, algae, and fungi. NY allows destructive sampling of its specimens only in support of systematic, evolutionary, ecological, and conservation research. **Samples obtained from NY specimens can never be used for research with potential commercial applications.** NY is committed to implementing all applicable international and national legislation and other agreements governing the use of biological and genetic materials including, but not limited to:

1. [The Convention on Biological Diversity](https://www.cbd.int/)
2. [The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from their utilization to the Convention on Biological Diversity](https://www.cbd.int/abs/default.shtml#:~:text=The%20Nagoya%20Protocol%20on%20Access%20to%20Genetic%20Resources%20and%20the,a%20fair%20and%20equitable%20way.)
3. [The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)](https://cites.org/eng/disc/what.php)

**Any specimen samples released for molecular work are subject to the terms of the Material Transfer Agreement below, and any laws, agreements, and terms governing the use of biological or genetic material.** NY maintains no records on the treatment of the collections, and materials are supplied with no warranty of any kind.

***Obtaining Permission to Sample***

**Researchers must consult with NY and obtain written permission prior to sampling.** NY reserves the right to refuse to provide samples of the specimens in its care for any reason. Please complete a *Destructive Sampling Request* (see below) and return it to the appropriate NY staff member so that your request can be evaluated: for vascular plants, please contact Assistant Curator of the Herbarium Dr. Matthew Pace, [mpace@nybg.org](mailto:mpace@nybg.org); for non-vascular plants, fungi, lichens, and algae, please contact Assistant Director of the Herbarium for Cryptogamic Collections, Laura Briscoe: [lbriscoe@nybg.org](mailto:lbriscoe@nybg.org).

**If approval is granted, researchers are encouraged to remove their own samples\***. NY staff will remove samples in specific instances, and formal collaboration with NY staff and Curators is strongly encouraged. Removed fragments must be limited to 1 cm2 in size.

**\* For sampling requests of ≥ 100 – 200 samples, sampling will be conducted by NY staff (at their discretion).** For requests of this scale, researchers will be charged according to the fee schedule below. For large requests, this is the most efficient process for our staff, allowing us to ensure all necessary data and processing steps are carried out, and that specimens are handled and sampled appropriately.

**If you are writing a grant proposal that includes a large NY sampling request, please discuss this prior to submission with the Director of the Herbarium (**[**esessa@nybg.org**](mailto:esessa@nybg.org)**) and either the Assistant Curator (**[**mpace@nybg.org**](mailto:mpace@nybg.org)**) or Assistant Director for Cryptogamic Collections (**[**lbriscoe@nybg.org**](mailto:lbriscoe@nybg.org)**),** to ensure appropriate funds are included in your budget.

Fee schedule for destructive sampling of ≥ 100 – 200 samples, based on the location of the researcher’s home institution/primary place of project performance (income levels follow the World Bank’s guidelines):

*High income economies:* $20/sample

*Upper-middle income economies:* $10/sample

*Low-income and Lower-middle income economies:* $5/sample

***Destructive Sampling Requests***

**To request permission to remove samples from NY herbarium specimens, please provide the following:**

1. Basic information:
   1. Your name, email address, and the name of the institution with which you are affiliated.
   2. If you already have a loan, the NY Loan Number of the material you wish to sample.
   3. If you are a student, the name and email address of your advisor.
2. Please verify that you have checked for suitable tissue/samples or data at websites such as GenBank and the NY DNA bank (<https://sweetgum.nybg.org/science/dna-bank/>).
3. A brief summary of the proposed study, including:
   1. Nature and scientific rationale of the study.
   2. Taxa involved.
   3. Techniques employed and your previous experience with obtaining useful DNA/results from herbarium specimens of the study group.
   4. Proposed number of specimens to be sampled.
4. Provide a list of the specimens you wish to sample, in spreadsheet format, including:
   1. Your name and date of request
   2. Family name of requested taxa
   3. Full species binomial(s) (**not** clade, section, etc.; include any recent or commonly used synonyms under which the specimens may be filed)
   4. Country
   5. Collector’s name, collection number, and collection date
   6. Barcode on NY specimen (if available)
5. A signed copy of the MTA form on the final page of this document.

4.5 million of NY’s estimated 7.8 million specimens are digitally available via NY’s Virtual Herbarium (<http://sweetgum.nybg.org/science/vh/>). Please use this resource to aid in the selection of specimens, keeping in mind all holdings of a given taxon might not be digitized. If you find specimens in the Virtual Herbarium, check off the specimens to be sampled and then download the records in csv format. You can submit this spreadsheet, or one you created yourself, with your request for sampling permission.

***Sampling & Citation Procedures***

As a condition of use of samples taken from NY specimens, each applicant agrees to abide by the conditions stated in the *Policy Statement* on page 1, and also agrees to the following:

1. Use of NY specimens must be cited in any resulting publications or presentations, and copies of publications **must** be sent to the Assistant Curator ([mpace@nybg.org](mailto:mpace@nybg.org)).
2. Material may be removed only from specimens with adequate material available. Care must be taken not to damage the scientific value of the specimen.
3. Material in packets, when present, should be the first choice for sampling.
4. A given specimen may not be sampled a second time if the nature of the study or the sequencing methods are the same.
5. Type specimens\*, historical specimens, or specimens of taxa represented in the herbarium by five or fewer collections\*\* **cannot be sampled**.   
    \*exceptions may occasionally be made for fungi, at NY’s discretion.  
    \*\* exceptions may occasionally be made, at NY’s discretion.
6. Each sampled specimen must be annotated with the following information:
   1. the researcher’s name and institution
   2. type of sample taken
   3. nature of study (e.g., molecular, anatomical, pollen)
   4. date of removal
   5. identification of the specimen accepted by the researcher

Sampling of specimens for molecular research is further subject to conditions of the below Material Transfer Agreement.

***Material Transfer Agreement***

1. NY is a cosignatory of The Principles on Access to Genetic Resources and Benefit-sharing for Participating Institutions and, thus, expects its collaborators and Recipients to conform to the letter and spirit of the Convention on Biological Diversity.
2. The Recipient will comply with all international and United States national legislation, the legislation of the country from which the specimen originated, and other international protocols and / or agreements, particularly those governing the use of biological and genetic material / heritage, access, and benefit-sharing. Use of the Material (i.e., samples of specimens in the NY Herbarium) as provided by NY to the Recipient and all other parties is restricted to the terms outlined in this document.
3. In compliance with the Nagoya Protocol, the Recipient will track all uses of the Material sampled from specimens housed at NY, and will report these uses (e.g., publications, public database numbers) to NY.
4. The Material has been collected solely for use in academic research on plant, algal, or fungal systematics, molecular phylogenetics, conservation, and evolution, and will be released only for such non-commercial research. The Recipient will not sell, distribute, or use the Material for profit or any other commercial purpose.
5. The Recipient shall acknowledge NY as the source of the Material in all written and electronic publications and reports. The Recipient will provide NY with copies of any resulting publications.
6. The Recipient must submit to GenBank not only the sequence data but also essential information about the voucher specimen from which the Material was obtained: collector’s name and collection number, and the NYBG Herbarium (NY) as place of deposit of the specimen. The Recipient must provide NY with a list of specimens from which DNA sequences have been obtained.
7. The Recipient may not transfer the Material or any derivative thereof without prior permission from the Director of NY and then only to a bona fide third party, such as a university or research institution, for non-commercial scientific research. Any transfers are also subject to the conditions of this Agreement, and a new Material Transfer Agreement must be signed by the third party and the Director of the NYBG Herbarium.
8. The Recipient acknowledges that the Material is provided without any warranty. The Recipient hereby indemnifies and holds harmless NY for any liability or expenses incurred by NY as a result of Recipient’s use of the Material. This Agreement shall be governed by the laws of the State of New York, without regard to conflicts of law’s provisions.

***Agreed and Accepted:***

Recipient (Signature): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Recipient (Please print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Institution Address:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Index Herbariorum Acronym: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NYBG representative (signature): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Please sign a copy of this form and return it with your *Destructive Sampling Request* to the Assistant Curator, Dr. Matthew Pace (**[**mpace@nybg.org**](mailto:mpace@nybg.org)**), as an email attachment.**

*Document created by Matthew Pace, 2024, based on previous versions by Jackie Kallunki*