

February 16, 2024

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Dr. Emily S. Bernhardt
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Dear Drs. Price, Gallimore, Bennett, Alberts, Bennear, Jones, and Bernhardt,

The Natural Science Collections (NSC) Alliance strongly encourages Duke University to reconsider the decision to close its herbarium. NSC Alliance is a non-profit association that supports natural science collections, their human resources, the institutions that house them, and their research activities for the benefit of science and society. Our membership consists of 60 institutions that are part of an international network of museums, botanical gardens, herbaria, universities, and other institutions that contain natural science collections and use them in research, exhibitions, academic and informal science education, and outreach activities. We are concerned with the care of natural science collections – well-curated collections are a critical foundation for scientific research and education. Natural history collections also house unique specimens of species that no longer exist from habitats that no longer exist.

The Alliance is deeply concerned over recent reports regarding the closure of the Duke University herbarium due to a change in university funding priorities. Duke's proposed divestment of its herbarium is unprecedented. At 825,000 specimens, the Duke Herbarium will be the largest herbarium in history of the U.S. to be abandoned by its host institution. As of this writing, Duke has contributed 471,847 digitized specimen records across five separate datasets to iDigBio, the NSF-supported national natural science collections data store. The Duke Herbarium

is the 12th largest in the U.S., 9th largest university herbarium, and second largest herbarium associated with a private university (Harvard is the largest). It is the largest herbarium in the southeastern U.S., the most biodiverse region of the country.

According to data from the National Science Foundation (NSF), the herbarium's curation and digitization activities have been directly funded by the agency, as late as in [2020](#) and [2022](#), demonstrating not only the significance of the collection but also the understanding of reviewers and panelists that Duke was committed to sustaining it. It has also been the foundation for NSF-funded basic research in fields such as the evolution of economically important plants ([NSF Award No. 2038213](#)) and the biology of poorly understood Arctic ecosystems ([NSF Award No. 2031927](#)).

The decision to divest the herbarium at Duke University would dramatically inhibit future Duke students and faculty from participating in the critical work of documenting the diversity of life, monitoring its change over time, and developing innovative solutions to global challenges. It also diminishes Duke University's status as an academic institution at a time when biodiversity research and collections are being studied in increasingly novel and technologically advanced ways. Duke students in Biology, Environmental Science and Policy, and Earth and Climate Science, among many other graduate and undergraduate programs, will lose access to a world-class archive of plant biodiversity that has supported student research and training for over a century.

The Duke Herbarium is also a resource for the global botanical community, not just for personnel based at the university. This decision will hinder the work of the entire, global community of plant and fungal biodiversity collections and researchers. It is highly unlikely that any one herbarium could absorb this number of specimens. Thus, the likely outcome is that the collection will be split and sent to multiple locations. This will not only disrupt the storied historical context of the collection, it undoubtedly will lead to confusion about where particular Duke Herbarium specimens have gone. Access to specimens by researchers is imperative to realize the scientific potential a collection holds. Without sufficient resources to incorporate transferred specimens and data into their destination collections, the negative impact on the usability of specimens and enhancement of existing collections will be even greater.

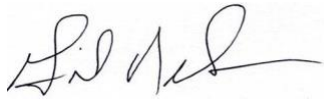
Furthermore, the decision to shutdown the herbarium is at odds with the national momentum behind biological collections. At a time when collections are increasingly being recognized as critical resources for scientific research, including in the 2022 CHIPS and Science Act ([Public Law No: 117-167](#)), the [March 2023](#) and [December 2023](#) White House reports on the U.S. Bioeconomy, and the landmark community reports published by the [Biodiversity Collections Network](#) and the [National Academies](#), Duke's decision to forgo responsibility of their herbarium specimens sets a terrible precedent.

There are 750 active herbaria in the US, and the number continues to grow. In the past five years, 63 new herbaria have been recognized in the U.S., and only 8 rather small herbaria have closed.

These institutions, despite budget pressures that may even surpass those at Duke University, prioritize the functions that allow their staff and users to identify and monitor plant and fungal diversity and thereby support biodiversity research through maintenance of their herbaria.

The world's community of scientists must work together to preserve the healthy ecosystems we need to survive in this time of environmental challenges. For a leading university like Duke – that has made its own [commitment](#) to climate research and sustainability – to discontinue support for a major resource that underlies this research now and into the future is indeed a sad way to mark the centennial of an academic institution with such a strong tradition of scientific contributions. We strongly urge you to reconsider your decision, as it would lead to serious negative ramifications not only for researchers and students at Duke, but also for a wide range of stakeholders that rely on the herbarium, including natural resource agencies in North Carolina and researchers in the Research Triangle.

Sincerely,



Gil Nelson, Ph.D.
President
Natural Science Collections Alliance