

March 24, 2016

Dr. James Olds
Assistant Director for Biological Sciences
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230

Dear Dr. Olds;

We are deeply concerned about the recent decision to put the Collections in Support of Biological Research (CSBR) program on hiatus. The CSBR program provides vitally important support to our nation's biological research collections. We respectfully urge you to reconsider this action, which can jeopardize the long-term care, stewardship, and accessibility of these irreplaceable biological specimens and their associated data. Indeed, new investments in this program would stimulate discovery in diverse fields in biological research and ensure that the complex data derived from these specimens are accessible, linked together, and stored in ways that will allow their immediate integration into future analyses.

Natural history collections are at the fore of data driven science in biology and the CSBR program has been the foundation of this success. At the same time, collections have been one of the most successful means of introducing and stimulating excitement for biology and data-driven science in diverse student populations representing the next generation of life scientists. A sustained investment from the National Science Foundation (NSF) is warranted in the same way that other components of our scientific research and education infrastructure are supported. These organizations and the many scientists that use these specimens feel strongly that this is an important program that should instead be invested in more vigorously, rather than being cut or stalled.

Biological science collections provide the essential temporal and spatial biodiversity sampling that is critical for addressing urgent questions related to environmental change. Whether maintained at a natural history museum, botanic garden, or in a university, scientific collections contain genetic, organismal, and environmental samples that constitute an irreplaceable library of Earth's history. The specimens and their associated data drive cutting edge research on the significant challenges facing society, such as improving human health, food security, or addressing climate change. These collections inspire novel interdisciplinary research that drives innovation and informs fundamental biological questions. Collections tie diverse biological fields together (e.g., genomics to stable isotope ecology; pathogen biology to ecosystem sciences), tie biology to other fields (e.g., biology to chemistry and earth sciences), and serve as the primary nexus for diverse Big Data streams (e.g., GenBank to GIS applications). The link between specimen quality and accessibility is critical and the CSBR program has significantly enhanced this infrastructure. Without that support, this vital resource is at risk.

The federal Interagency Working Group on Scientific Collections recognized the value of scientific collections in its 2009 report, which found that "scientific collections are essential to supporting agency missions and are thus vital to supporting the global research enterprise." In light of the importance of scientific collections to U.S. research, Dr. John Holdren, Director of

the White House Office of Science and Technology Policy, issued a memorandum in 2010 directing federal agencies to budget for proper care of collections. “Agencies should ensure that their collections’ necessary costs are properly assessed and realistically projected in agency budgets, so that collections are not compromised.”

Although NSF does not maintain collections of its own, it is the primary federal agency funding basic biological research at academic research centers. It plays a critical role in promoting basic infrastructure to sustain non-federal, academic collections – which have become the basis for fundamental biological research supported by other NSF programs. At the same time federal agencies are being tasked with supporting government collections, we urge NSF to sustain its support for non-government research collections.

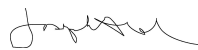
We appreciate NSF’s leadership in creating the Advancing Digitization of Biodiversity Collections (ADBC) program. The successful ADBC initiative has made millions of records from biodiversity collections available online to researchers, educators, and the public. The ADBC program is immensely valuable, but is different from the CSBR program. Although the ADBC program improves accessibility to collections, it does not provide for the care of specimens or integration of valuable orphaned collections into the public domain. Digitized images and data are a vital asset to research and education efforts, but they are not a substitute for actual collections. Once lost, physical specimens (i.e., historic biological samples) and the ancillary data associated with them can never be regained. CSBR funding has been integral in preserving and improving access to biological collections around the nation.

If you have any questions or require additional information, please do not hesitate to contact us, or Dr. Robert Gropp at 202-628-1500 x 250 or rgropp@aibs.org.

Sincerely,



Andrew Bentley
President
Society for the Preservation of Natural History Collections



Joseph Cook, Ph.D.
President
Natural Science Collections Alliance



Joseph Travis, Ph.D.
President
American Institute of Biological Sciences