

NSF Collections Survey of Federally Supported Collections Interagency and NSF Activities

Report to the BIO AC April 2009



National Science Foundation
WHERE DISCOVERIES BEGIN

FY 2007-8 U.S. Budget Priorities

Scientific collections: One of two areas requiring special agency focus

“Agencies should assess the priorities for and stewardship of Federal scientific collections, which play an important role in public health and safety, homeland security, trade and economic development, medical research, and environmental monitoring. Agencies should develop a coordinated strategic plan to identify, maintain, and use Federal collections and to further collections research.”

Dr. John H. Marburger, III
Director, Office of Science and Technology Policy

Interagency Working Group on Scientific Collections (IWGSC)

Department of Commerce (DOC)

- National Institute of Standards and Technology (NIST)
- National Oceanic and Atmospheric Administration (NOAA)

Department of Energy

Department of Health and Human Services (DHHS)

- Centers for Disease Control and Prevention (CDC)
- Food and Drug Administration (FDA)
- National Institutes of Health (NIH)

Department of Transportation (DOT)

Department of the Interior (DOI)

- National Park Service (NPS)
- US Geological Service (USGS)

National Aeronautics and Space Administration (NASA)

National Science Foundation (NSF)

Smithsonian

US Department of Agriculture (USDA)

- Agricultural Research Service (ARS)
- Forest Service (FS)

Veterans Administration

IWGSC Charter

- Evaluate the state of object-based scientific collections at, supported by, or used by US Federal agencies or in federally-supported activities
- Foster the coordination of collections activities across the Federal agencies
- Increase government and public awareness of the importance and uses of collections.

Survey of Federal Agencies:

A starting point to identify and describe collections

- Descriptive information on size and scope, condition, care and preservation, accessibility, policies and procedures
- Focus on collections that are the agency's holdings or for which the agency has permanent responsibility.
- Survey now released on OSTP web site:
*[http://www.ostp.gov/galleries/NSTC
%20Reports/Revision_1-22_09_CL.pdf](http://www.ostp.gov/galleries/NSTC%20Reports/Revision_1-22_09_CL.pdf)*

Recommendations from the Federal Agency Report

- *1. The IWGSC recommends that agencies with scientific collections develop realistic cost projections for collection maintenance and operation, and work to incorporate the needed support as stable budget elements.*
- *2. The IWGSC recommends that agencies improve both the documentation of the contents of their scientific collections and access to the documentation on the internet.*
- *3. The IWGSC recommends that agencies exchange documents that describe their scientific collections policies, procedures, and best practices in order to minimize the effort needed for agencies to develop collection-specific policies and procedures*

Recommendations cont.

- *4. The IWGSC recommends a review of the legal and legislative basis for the Federal role in scientific collections, thereby clarifying agency responsibilities.*
- *5. The IWGSC recommends the creation of an online clearinghouse of information about Federal scientific collections.*
- *6. The IWGSC recommends that a periodic report on the status and condition of the scientific collection infrastructure be prepared and submitted to the Committee on Science, OSTP, and OMB.*
- *7. The IWGSC recommends a permanent committee on collections.*

NSF Role

- NSF curates no collections
- NSF supports collections through several Programs
 - Division of Biological Infrastructure
 - Division of Environmental Biology
 - Anthropology and Geosciences Research
 - Polar Programs
 - NEON

Broader issues

- Federal and federally supported collections only a small portion of the important objects used in research (federally supported, by federally employed scientists, and by researchers supported through federal funding)
- Collections owned federally but held and curated by other institutions
- Difficulty in knowing what is actually available in collections
- Condition of the US collections overall

NSF Survey

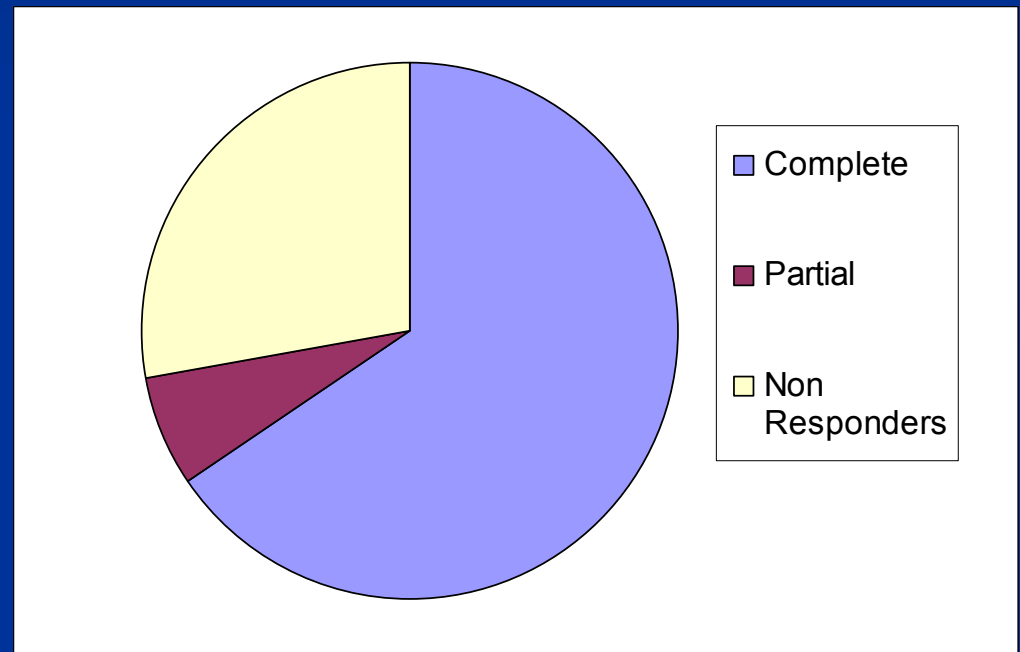
- ❖ *Many collections receive federal support*
- ❖ *Office of Management and Budget (OMB) approved survey*
- ❖ *339 collections*
- ❖ *138 institutions*
- ❖ *2 versions--Collections Managers, Administrators*
- ❖ *Response rate was about 70% for collections with data compiled as whole*

Collection Survey Topics

- Size and scope
- Growth (+ or -)
- Condition
- Staffing
- New specimens (e.g., DNA)
- Instrumentation
- Documentation and Databases
- Education and Training
- Security
- Support

Survey Results

- Number of collections managers included in survey: 339
- Complete (including Partial Completes): 222 (65.49%)
- Partial: 23 (6.78%)
- Non-Responders
 - Never Clicked on Link: 79 (23.30%)
 - Clicked on link, but did not answer any questions: 15 (4.42%)



Issues for both reports

- Some issues reflect the IWGSC findings:
 - coordination and networking
 - staffing and education
 - risk of data loss

Additions from NSF Survey

- Costs associated with replacing collections and the impossibility of replacing certain ones (e.g., due to habitat loss)
- Opportunities for discovering the processes underlying biological and geological variability
- Reduction of the risk of catastrophic loss by the preservation of a pool of genetic variability
- Coordination and interoperability of data networks critical for effective use of collections in research.

Addressing the issues

- So many specimens, so little time and money
- Training the next generation
- Information not accessible for research
 - Biodiversity information critical
 - Ecological information associated with specimens
 - Accessibility for global research, repatriation

NSF

- Begin the process of digitization of collections
 - For existing collections under improvements
 - For new collections, require preparation of specimens when collection is made, including digitization
- Emphasize networking of collections under BRC program
- Encourage the Collections community to take up the challenge