

Summary: Future Focus Areas for NSC Alliance

At a virtual meeting held on February 5, 2026 by the Natural Science Collections Alliance, attendees participated in a breakout discussion about future priority areas for the Alliance to focus on. Participants were divided into 5 groups and given the same three questions to consider. Below is a collated summary of the responses received to each of those questions. Across all groups, participants consistently identified challenges that exceed institutional capacity and require coordinated national action—particularly in advocacy, funding sustainability, policy interpretation, digital infrastructure, and workforce support. There was strong support for NSC Alliance to serve as a convener, advocate, resource hub, and translator between collections, funders, federal agencies, and institutional leadership.

Issues Not Solvable at the Institutional Level but Well-Suited for an Organization like NSC Alliance

Federal agency engagement, policy interpretation, and responsiveness

- Agency turnover and slow or inconsistent response times create uncertainty and delays.
- Federal permits and regulations are interpreted inconsistently across regions and agencies.
- Guidance from National Parks and other federal agencies on resource requirements is changing and difficult for individual institutions to track.
- Shifts in federal priorities (e.g., NSF reorganization, new administration) have weakened prior efforts to require placement of federally funded collections at institutions.

Advocacy and national-level coordination

- Strong need for coordinated advocacy for the value and needs of collections in the current funding and political environment.
- Institutions struggle to make the case that collections are essential infrastructure rather than discretionary overhead.
- Desire for shared talking points, messaging, and advocacy tools that collection managers can use internally and externally.
- Interest in learning from parallel efforts in other countries (e.g., Canada), even if governance structures differ.

Sustainable funding models for collections

- Chronic lack of stable funding remains the dominant challenge.
- Need to diversify funding sources beyond traditional grants. Potential for reengaging foundations that once supported science and collections (e.g. Mellon and MacArthur).
- Lack of shared understanding among funders and administrators of the true costs of collections.

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- Questions about who should bear digitization, storage, and long-term curation costs (institution vs. researcher).
- Growing interest in embedding Specimen Management Plans and cost recovery mechanisms into NSF and other grant proposals.
- Difficulty assigning dollar values to specimens, despite recognition that valuation is necessary.
 - Interest in general cost guidelines, potentially differentiated by region or institution type.
 - Discussion of charging fees (e.g., bench fees, deposition fees) to help defray costs.

Digital infrastructure and the Digital Extended Specimen (DES)

- Sustainability of DES requires major, long-term investment in physical infrastructure, cyberinfrastructure, and workforce.
- Need for coordination with initiatives such as BCoN and iPDES.
- Individual institutions lack capacity to independently support the scale of digital data being generated.

Shared resources, communications, and public-facing materials

- Strong interest in pooled PR and communications resources.
 - Pre-packaged, customizable materials that institutions can brand locally.
 - Success stories, peer examples, and metrics administrators can understand.
- Desire for greater national visibility: institutions may be locally known for exhibits but nationally important for collections.
- Recognition that staff are often viewed as overhead and deprioritized in budget decisions.

National Action Center and organizational structure

- Broad support for the concept of a National Action Center to address orphaned or unfunded collections.
- Questions about whether such an effort should be centralized or distributed regionally.
- Interest in a pathway from assessment to certification of collections as a quality or sustainability benchmark.

Issues Institutions Know They Need to Solve but Don't Know Where to Start

Repatriation and ethical stewardship

- Beyond NAGPRA, uncertainty about other required or voluntary repatriations.
- Zoological collections raise unresolved questions about consultation, engagement, and long-term care responsibilities.
- Institutions lack clear frameworks for navigating emerging ethical expectations.

Digital and bioinformatics capacity

- Widespread lack of biodiversity informatics support.
- Digital infrastructure demands (storage, access, workforce) exceed institutional capacity.
- Struggles to align digitization standards and workflows post-iDigBio, especially as new tools and methods emerge.

Risk management and compliance

- Insurance for collections: what is available, what is covered, and how policies work.
- Biosecurity and biosafety concerns, including:
 - Exposure to fungal spores causing allergic reactions among students and volunteers.
 - Need for mitigation strategies for airborne contaminants.
- General lack of awareness and shared best practices around biosecurity.

Training and workforce development

- Collections training is fragmented and inconsistently available.
- Desire for better alignment of training across institutions and disciplines.
- Small, rural institutions face additional barriers due to geographic isolation and limited networks.

Institutional positioning and awareness

- Some participants were unclear about the role of NSC Alliance and wanted to better understand its advocacy function.
- Recognition that advocacy opportunities are often missed because needs are not clearly connected to policy or funding mechanisms.
- Strong interest in addressing orphaned collections through coordinated action.

Topics of Interest to Inform Future Educational Programming

Webinars and educational content

- Managing collections from federal lands:
 - Compliance with original permit conditions.
 - Obligations of collectors versus museums.
 - Implications of the Paleontological Resources Preservation Act (2006).
- International protocols and their impact on:
 - Loans and exchanges.
 - New collecting activities.
 - Shifting narratives from ownership to stewardship.
- Repatriation issues in zoological and other non-NAGPRA contexts.

Advocacy and communication

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- How to educate administrators about the importance of collections and “future-proofing” them.
- Developing narratives that justify collections as essential, long-term scientific infrastructure.
 - Addressing the challenge that collections do not generate revenue.
 - Communicating value to the media and broader public.
- Guidance on how to talk effectively with institutional leadership.

Funding and policy intelligence

- Deeper insight into NSC Alliance’s congressional visits and lobbying activities:
 - What messages were delivered.
 - How they were received.
 - What feedback or follow-up is needed.
- Understanding funding opportunities and constraints at NSF, IMLS, and other agencies.
- Exploring regionally grouped or interinstitutional funding and advocacy strategies.

Risk, insurance, and infrastructure

- Detailed education on insurance for collections and risk mitigation.
- Updates on the health of national and international digital infrastructure platforms (e.g., BHL, MorphoSource, GGBN).
 - Assessing long-term sustainability and potential vulnerabilities.