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Through the NSC Alliance partnership with the American Institute of Biological Sciences, we are pleased to provide NSC Alliance members with the following public policy update. With proper attribution to NSC Alliance, all material from these reports may be reproduced or forwarded. We encourage you to share this report with colleagues at your institution. Anyone interested in receiving copies of the NSC Alliance Washington Report may subscribe at <http://www.NSCAlliance.org>-- it's free!

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## **2nd BCoN COVID-19 Survey: Operational Status, Economic Impacts and Plans for Reopening**

In April, the Biodiversity Collections Network (BCoN) conducted a survey of the natural history collections/museum community to understand how COVID-19 related economic disruptions are affecting the work of professionals associated with such collections. [The results were shared with the scientific community, including federal program managers and policymakers, in May 2020.](#)

This second survey follows up on and uses some questions from a recent American Alliance of Museums request for information. This survey focuses on collections institutions rather than individual staff, with the goal of determining the impact of COVID-19 related economic disruptions on research and management of collections. The goal is to collect responses from as many institutions as possible; thus, one response per institution is optimal. If it is not possible to coordinate this, we would rather have multiple responses from an institution that we can combine, rather than no responses from an institution.

Institutions are invited to share information about their operating status – plans to re-open, operational status and limitations, closures, staff furloughs and Reductions in Force, program

closures or terminations, and other disruptions to institutional operations. BCoN invites information from all types of natural history collection holding institutions, which includes natural history museums, natural science collections, arboreta and herbaria, or other facilities with natural science collections.

BCoN will share a summary of the results through a variety of venues, as we did with the previous survey. No information that identifies individual institutions by name is requested.

Please take the survey at <https://bcon.aibs.org/2020/08/17/2nd-natural-history-collections-and-covid-19-survey-operational-status-economic-impacts-and-plans-for-reopening/>

### **White House Announces 2022 R&D Budget Priorities**

In an August 14, 2020 memorandum from the White House Office of Science and Technology Policy (OSTP) and the White House Office of Management and Budget (OMB), federal agencies have been directed to prioritize public health security and innovation, industrial leadership, national security, energy and environmental leadership, and space exploration in their fiscal year (FY) 2022 budget request for research and development (R&D).

The Administration's [memo](#) asserts that the federal government “serves as a catalyst for innovation by investing in early stage research, supporting workforce education and training, and optimizing research environments by streamlining administrative barriers and adhering to bedrock American values, such as free inquiry, competition, honesty, and inclusion.”

According to the memo, the Industries of the Future – namely artificial intelligence (AI), quantum information sciences (QIS), biotechnology, advanced communication networks/5G, and advanced manufacturing – will remain the Administration's highest priority. One of the goals identified is “fulfilling President Trump's commitment to double non-defense AI QIS funding by FY2022.”

The Administration's FY 2022 budget priorities include a new R&D priority -- American Public Health Security and Innovation -- to streamline biomedical and biotechnology R&D aimed at responding to the COVID-19 pandemic and ensuring that the U.S. scientific enterprise is “maximally prepared for any health-related threats.” The memo directs agencies to prioritize research to ensure timely development of modernized devices and equipment, diagnostics, therapeutics, and vaccines to protect against infectious diseases or other bio-threats. The Administration also prioritizes improving epidemiological modeling to enhance the ability to predict future pandemics and accelerating “identification and selection of R&D investments including the rapid detection, containment, and treatment of infectious diseases.”

The Administration once again stresses prioritizing the bioeconomy, defined as the “science, infrastructure, innovation and technology, health, and national security that drive economic growth, promote health, and increase public benefit across the human, plant, and animal spectrums.” To enable bioeconomic opportunities, agencies have been directed to focus on “R&D that enables forecasting and analyses from comprehensive collections of epidemiological,

clinical, and genomic data capable of driving supply chain resilience and economic growth across sectors such as healthcare and pharmaceuticals, engineering biology, nanobiotechnology, agriculture, and [Industries of the Future] including advanced manufacturing.” The memo calls for “evidence-based standards and research to rapidly and strategically continue improving biotechnology infrastructure that support human, plant, and animal safety.”

The Administration’s energy and environmental priorities include early-stage research on technologies for harnessing nuclear, renewable, and fossil energy; efforts to map, explore, and characterize the resources of the exclusive economic zone; efforts to manage large volumes of ocean observation and research data; research to understand and respond to changes in the ocean system; a national strategy to improve the predictability of earth systems and meteorological services; and efforts to “to observe, understand, and predict the physical, biological, and socio-economic processes of the Arctic to protect and advance American interests.”

The memo also details four cross-cutting actions that spread across the R&D budgetary priorities and require departments and agencies to collaborate with each other and with the other stakeholders. For one of these actions, namely optimizing research environments and results, the memo highlights four high-priority areas that require attention: strengthening U.S. research security, reducing administrative burdens in federally funded research; improving research rigor transparency, and integrity; and creating a safe, diverse, inclusive, and equitable research environment. The remaining three cross cutting actions include building the science and technology workforce of the future; facilitating multisector partnerships and technology transfer; and leveraging the “power of data” by improving data accessibility and security.

### **Judge Strikes Down Changes to Migratory Bird Protections**

A federal judge at the U.S. District Court for the Southern District of New York has ruled against the Trump Administration’s effort to narrow the reach of the Migratory Bird Treaty Act (MBTA) of 1918.

A 2017 legal opinion by the Department of the Interior solicitor’s office concluded that incidental bird take resulting from an otherwise lawful activity is not prohibited under MBTA and that the protections only apply to the intentional taking of a bird. According to the U.S. Fish and Wildlife Service (USFWS), the term “take” means “to pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture or collect,” with “incidental” take referring to an unintentional taking.

The 2017 opinion has been widely criticized by conservation groups. Lawsuits challenging the opinion, filed by the National Audubon Society, the Natural Resources Defense Council (NRDC), and a coalition of states led by New York, alleged the Interior Department violated the Administrative Procedure Act when it adopted the new interpretation of the law. “At the behest of the oil and gas industry, and with no consideration of the resulting impacts to migratory birds, the [2017] Opinion reinterpreted the MBTA to exempt effectively all industrial activities from the Act’s reach,” the challengers wrote in a legal brief.

On August 11, 2020, Judge Valerie Caproni [ruled](#) to vacate the 2017 opinion. “It is not only a sin to kill a mockingbird, it is also a crime. That has been the letter of the law for the past century,” stated Judge Caproni. “But if the Department of the Interior has its way, many mockingbirds and other migratory birds that delight people and support ecosystems throughout the country will be killed without legal consequence,” she added.

Conservation groups applauded the ruling. “This decision confirms that Interior’s utter failure to uphold the conservation mandate of the U.S. Fish and Wildlife Service simply cannot stand up in a court of law,” said Katie Umekubo, Senior Attorney at NRDC. “With the legal basis for its actions over the past year defeated, the administration should expect more defeats in court if they try to lock in their attempt to roll back the MBTA,” said Sarah Greenberger, Interim Chief Conservation Officer for the National Audubon Society.

Interior Department spokesperson Conner Swanson said the decision “undermines a common sense interpretation of the law and runs contrary to recent efforts, shared across the political spectrum, to de-criminalize unintentional conduct.”

USFWS also issued a [proposed rule](#) in February 2020 that would codify the 2017 opinion. Interior and USFWS are currently reviewing the comments received in response to the proposed regulation and it is unclear how the ruling will impact the review process.

Lawmakers in the House are considering related legislation that would clarify regulatory protections for migratory birds. If enacted, the Migratory Bird Protection Act ([H.R. 5552](#)), would amend MBTA to ensure that the “prohibition on the unauthorized take or killing of migratory birds includes incidental take by commercial activities.” The measure was approved by the House Committee on Natural Resources in January 2020.

### **Special Collection of *BioScience* Articles on Natural History Collections**

A new special collection of natural history collection related articles from *BioScience* highlights some of the exciting new ways scientists and educators are mobilizing and using biodiversity data from natural history collections. The collection entitled, “Natural History Collections: Advancing the Frontiers of Science,” is available at <https://academic.oup.com/bioscience/pages/natural-history-collections>.

### **House Science Panel Chair Calls on NASEM to Study Racism in Science**

Representative Eddie Bernice Johnson (D-TX), Chairwoman of the House Committee on Science, Space, and Technology, has requested the National Academies of Sciences, Engineering, and Medicine (NASEM) investigate systemic racism in academic research.

In a July 29, 2020 [letter](#) to Dr. Marcia McNutt, President of the National Academy of Sciences, Chairwoman Johnson asserts: “We must meet this moment in history with a rigorous and thoughtful analysis of the extent to which the U.S. scientific enterprise perpetuates systemic

inequities to the detriment of society as a whole, as well as how those inequities are manifested.” She has called on NASEM to install a panel of experts to “assess the influence of systemic racism in academia on the careers of individuals belonging to racial and ethnic groups historically underrepresented in the scientific, technical, and medical workforce.”

Johnson asks that the panel examine the ways in which systemic racism in research and learning environments influences the recruitment, retention, and advancement of marginalized racial and ethnic groups across disciplines. The letter also recommends examining the extent to which racism has shaped research agendas and limited the breadth of research topics and diversity of researchers receiving federal funding; identifying policies and strategies that have been the most successful in addressing systemic racism; and identifying principles for sustainable organizational cultural change to address systemic racism and promote diversity, equity, and inclusion in academic studies and careers.

According to *Science Insider*, NASEM is preparing to conduct such a study in response to the request. “I am quite excited about doing this study,” said Dr. McNutt, who thinks this study could set the stage for addressing systemic racism in academia in the way that a [2018 NASEM report](#) jumpstarted conversations and actions on sexual harassment in science. According to McNutt, before that report, “we had fooled ourselves into thinking that the problem had mostly been solved. We were so wrong. It had just gone underground. I worry that it is the same story with racism.”

Last month, the House of Representatives passed a fiscal year (FY) 2021 appropriations [bill](#) containing an amendment offered by Chairwoman Johnson directing the National Science Foundation to allocate \$1.5 million to fund such a study. The measure must still be agreed to by the Senate and signed into law by the President.

### **Scientists Concerned About Change to NSF GRFP Solicitation**

The National Science Foundation (NSF) has updated the guidance for its Graduate Research Fellowship Program (GRFP) by announcing three high priority research areas for 2021: artificial intelligence, quantum information science, and computationally intensive research.

The updated program [solicitation](#) encourages applications in “all disciplines supported by NSF that incorporate these high priority research areas.”

According to a report by *Nature*, some NSF-watchers worry that this update to emphasize research in applied computational science will significantly limit funding for fundamental science, particularly since NSF is the major US agency which has a mandate to promote and support all basic scientific research. Kelsey Lucas, a marine and aquatic comparative biomechanist at the University of Michigan in Ann Arbor and a former GRFP recipient, argues that the concentration of funding in certain fields without expanding the program means that other areas, including basic science, will get less funding.

“These are focus areas that are already, right now, very well-funded,” said Michael Hoffman, a computational biologist at the University of Toronto, who received the fellowship in 2003. Hoffman argues that the strength of the GRFP is that it trains scientists across a broad range of disciplines that are not typically funded by other agencies. And that is critical because “you can never predict which areas are going to have the really important discoveries.”

The GRFP supports graduate students pursuing full-time research-based master's and doctoral degrees in science, technology, engineering, and mathematics (STEM) or in STEM education with the goal “to help ensure the quality, vitality, and diversity of the scientific and engineering workforce of the United States.” Each year, NSF awards about 2,000 graduate fellowships.

Critics of the new guidance are also concerned that the narrower focus on computer science could put under-represented groups at a disadvantage. *Nature* notes that 80 percent of GRFP recipients between 1994 and 2004 were white. Roughly 19 percent of US computer-science bachelor's degrees went to Black and Latino students and 19 percent went to women in 2016.

According to NSF, the policy change is part of “a coordinated federal strategy to secure America's position as a global leader in research and innovation”, but that the fellowship “will continue to encourage and accept applications in all eligible fields of science and engineering.”

### **NSC Alliance Member Publication: Symbiotype Specimens and Tissues**

A recent publication authored by the faculty curators and staff of the Natural Science Research Laboratory of the Museum of Texas Tech University, concerning the recognition and curation of symbiotype specimens and tissues is now available. The paper, entitled, “Nomenclatural, Curatorial, and Archival Best Practices for Symbiotypes and other Type Materials in Natural History Collections,” can be accessed at <https://www.depts.ttu.edu/nsrl/publications/downloads/OP366.pdf>

### **National Fossil Day is October 14**

National Fossil Day, an annual celebration organized by the National Park Service (NPS), will take place on October 14, 2020. The event highlights the scientific and educational value of paleontology and the importance of preserving fossils for future generations.

The annual celebration will include paleontology activities planned by partner organizations across the United States. NSC Alliance has once again partnered with the National Park Service to promote the event. As a result of the COVID-19 pandemic, several online activities are planned for 2020.

NPS and National Fossil Day partners are sponsoring an art contest as a part of the celebration. The contest theme is “Life of the Paleozoic Oceans!” Entries can be submitted until October 2, 2020. For details about participating, go to: <https://www.nps.gov/subjects/fossilday/art-contest-2020.htm>

The participation of local museums, universities, and other scientific organizations is central to National Fossil Day. Help your local community learn about local paleontological and natural resources by participating in the event. To join NPS as a partner, visit <https://www.nps.gov/subjects/fossilday/index.htm>.

### **Webinar Series: Resources for Natural History Collections in a New Virtual World**

Recognizing the rapid changes happening within museum communities and the efforts being made throughout the community to adapt to these changes, iDigBio is organizing a webinar series, entitled, Adapting to COVID-19: Resources for Natural History Collections in a New Virtual World. The webinar series aims to help provide insight into how different groups and institutions are adapting to life in a quickly evolving world. AIBS, the Society for the Preservation of Natural History Collections (SPNHC), and the Natural Science Collections Alliance contributed to the planning of these programs.

The next webinar, to be held on August 25, will address lessons learned from planning the Digital Data and SPNHC conferences and will include topics such as Zoom, social media, audience engagement, managing expectations, etc. Webinars will be held from 2:00 - 3:30 ET.

All webinars will be recorded and held on Zoom. Visit the webinar series page for more information: <https://www.idigbio.org/content/webinar-series-adapting-covid-resources-natural-history-collections-new-virtual-world>

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The Natural Science Collections Alliance is a Washington, D.C.-based nonprofit association that serves as an advocate for natural science collections, the institutions that preserve them, and the research and education that extend from them for the benefit of science, society, and stewardship of the environment. NSC Alliance members are part of an international community of museums, botanical gardens, herbariums, universities, and other institutions that house natural science collections and utilize them in research, exhibitions, academic and informal science education, and outreach activities. Website: [www.NSCAlliance.org](http://www.NSCAlliance.org).

The NSC Alliance Washington Report is a publication of the NSC Alliance. For information about membership in the NSC Alliance, please contact [dbosnjak@aibs.org](mailto:dbosnjak@aibs.org).