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Policy News from NSC Alliance

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. If you have any questions or require additional information regarding any of the following items, please contact NSC Alliance director of public policy Dr. Robert Gropp at 202-628-1500 x 250 or at rgropp@aibs.org.

President Obama Nominates New Director for NSF

If confirmed by the Senate, Dr. France Anne Cordova will become the next director of the National Science Foundation (NSF). She would be the second woman and the first Latina to lead the agency.

Dr. Cordova is an astrophysicist by training. She is a former President of Purdue University and has previously served as Chancellor of the University of California, Riverside. Dr. Cordova has also worked for the federal government as NASA's Chief Scientist and at Los Alamos National Laboratory. She is currently Chair of the Board of Regents of the Smithsonian Institution and a member of the National Science Board.

Senate and House Panels Support Funding Increase for NSF

The National Science Foundation (NSF) could receive increased funding in fiscal year 2014 if congressional appropriators have their way. In July, House and Senate panels each advanced funding plans for the agency that would provide new funding. The 1.6 percent increase proposed in the House would mean an additional \$111 million for NSF over the current, post-sequestration level. The Senate panel is backing a \$542 million increase (7.9 percent increase). NSF is currently funded at \$6.9 billion.

Both pieces of legislation prioritize NSF's Research and Related Activities account, which includes the various disciplinary research programs. NSF's research portfolio would be boosted by 8.6 percent by the Senate and 2.4 percent by the House. The Education and Human Resources account would increase by 5.6 percent if the Senate plan is adopted, but would be cut by one percent under the House mark. Similarly, the House proposes a seven percent cut to the Major Research Facilities and Construction account; the Senate recommends a seven percent increase.

Both Appropriations Committees denounced plans outlined by the Obama Administration to restructure science, technology, engineering, and mathematics (STEM) education programs. More than 100 programs at 11 agencies were targeted for elimination or reorganization. The President proposed moving some programs to the Department of Education, National Science Foundation, or Smithsonian Institution. Under the proposal NSF would become the lead agency for undergraduate and graduate STEM education.

In opposing the proposed reorganization, both congressional panels expressed concern about the lack of vetting the plan had received from the education community and Congress. The Senate Appropriations Committee stated in its report that accompanying its legislation: "The administration has yet to provide a viable plan ensuring that the new lead STEM institutions—the National Science Foundation, the Department of Education, and the Smithsonian Institution—can support the unique fellowship, training, and outreach programs now managed by other agencies. Conversely, what is proposed as a consolidation of existing STEM programs from NOAA, NASA, and NIST into the new lead STEM agencies is really the elimination of many proven and successful programs with no evaluation on why they were deemed duplicative or ineffective."

The House panel wrote in its report: "The ideas presented in the budget request lack any substantive implementation plan and have little support within the STEM education community. In addition, the request conflicts with several findings and activities of the National Science and Technology Council Committee on STEM Education, most notably on the question of whether agency mission-specific fellowship and scholarship programs are a viable target of interagency coordination efforts."

The Senate and House bills bar federal agencies from using any of the funds appropriated in fiscal year 2014 to reorganize STEM education programs.

NSF Awards Third Round of Grants to Advance Digitization of Biodiversity Collections

The National Science Foundation (NSF) has awarded eight grants as part of the Advancing Digitization of Biological Collections (ADBC) program. The program aims to increase accessibility of biological collections and associated data. The latest round of funding will support three major grants and five smaller projects.

“The ADBC program continues to grow in the breadth of its collections, including fossils, and in the depth of additional information about each specimen,” says John Wingfield, NSF Assistant Director for Biological Sciences.

According to a statement from NSF, digital photos of specimens will be linked with related information, such as pathogens found on the specimens, stratigraphic information for fossils, and environmental variables at the collecting localities.

Three new Thematic Collections Networks (TCNs) will be funded. There are seven existing TCNs. The new TCNs are:

- Fossil Insect Collaborative: A Deep-Time Approach to Studying Diversification and Response to Environmental Change
- Developing a Centralized Digital Archive of Vouchered Animal Communication Signals
- The Macroalgal Herbarium Consortium: Accessing 150 Years of Specimen Data to Understand Changes in the Marine/Aquatic Environment

Additionally, five new Partners to Existing Networks (PEN) grants were announced. These smaller grants will enhance existing TCNs by adding their collections to fill gaps identified in the original network proposals. Two new partner awards will focus on increasing the coverage of the Paleoniches TCN, which is focused on ages and localities not included in other TCNs. Three other PENs will expand the Southwest Arthropod Network, add central Midwest specimens to the InvertNet TCN, and add two historically important collections to the lichen and bryophyte TCN.

House Committee Reviews Smithsonian Collections Care

On 17 July 2013, the Committee on House Administration held a hearing on collections stewardship at the Smithsonian Institution (SI). Chairman Candice Miller (R-MI), Ranking Member Robert Brady (D-PA), and Representative Juan Vargas (D-CA) attended the hearing.

Three witnesses testified on behalf of the Smithsonian: Secretary of the Smithsonian Institution G. Wayne Clough, Ph.D.; Scott Miller, Ph.D., Deputy Under Secretary for Collections and Interdisciplinary Support; and Smithsonian Inspector General Scott Dahl.

The hearing was called to provide oversight of Smithsonian’s care of its diverse collections. Chairwoman Miller cited multiple recent reports from the Inspector General that identified deficiencies in SI’s care of scientific specimens and art and historical objects. Between 2005 and 2011, the Smithsonian’s Inspector General issued five reports on the subject. Examples of deficiencies include degraded storage facilities, incomplete inventories, and the presence of hazardous materials. Lack of funding has been cited by the SI as the biggest impediment to addressing the problems. The Inspector General also cited the decentralized approach to setting collections care policies and standards as a barrier.

The Smithsonian has taken steps to improve collections stewardship institution-wide, and has implemented 63 of the 67 Inspector General recommendations to address the identified

deficiencies. According to Miller, the remaining recommendations will be addressed by the end of the year. The SI has developed a new strategic plan that prioritizes pan-collections assessment, digitization, and collections space planning. The institution is also working to deaccession duplicate items.

Lawmakers attending the hearing were clearly supportive of SI and its mission. Chairman Miller expressed an interest in digitization of collections. During the hearing, she noted that she had done a search on the Internet to find out more about the process. She also asked about staff turnover due to retirement, and training and recruitment of younger employees.

Ranking Member Brady inquired about impacts of sequestration on museum entrance fees, the timeline for the construction of the National Museum of African American History and Culture, and intern programs at SI. Representative Vargas asked about climate control for collections.

Scientists to Meet with State and Federal Lawmakers

The Natural Science Collections Alliance is pleased to announce the start of the *5th Annual Biological Sciences Congressional District Visits* event. This national initiative encourages scientists across the nation to showcase for federal and state lawmakers the people, facilities, and equipment required to conduct scientific research. The event is made possible by the American Institute of Biological Sciences (AIBS) and the Entomological Society of America (ESA). NSC Alliance is a sponsor of the event.

“Scientific innovation drives advances in agriculture, biotechnology, environmental management, and medicine, and plays a leading role in job creation and economic growth,” said Dr. Richard O’Grady, AIBS Executive Director. “These meetings provide the opportunity for biologists to demonstrate the benefits of research.”

The *5th Annual Biological Sciences Congressional District Visits* event occurs during the month of August. Participating scientists meet with elected officials and their staff at the local district office or a research facility.

“Biological science, and insect biology in particular, is important to federal and state decision-making,” said David Gammel, ESA Executive Director. “Entomological research helps us control invasive species, improve agriculture, preserve biodiversity, and prevent disease.”

This year a record number of scientists will participate. Individuals from 34 states plan to meet with their elected officials. Participants range from graduate students to senior researchers and educators.

The *5th Annual Biological Sciences Congressional District Visits* are made possible by AIBS and ESA, with support from event sponsors: American Society of Naturalists, Botanical Society of America, Harvard Museum of Comparative Zoology, Natural Science Collections Alliance, Organization of Biological Field Stations, and Society for the Study of Evolution.

“This is a great opportunity to share the importance of science with our elected leaders,” said Dr. Christopher Pickett, a participant in the 2011 event. “My experience meeting with Senator Claire McCaskill inspired me to remain engaged in science policy.” Pickett is now a Science Policy Fellow with the American Society for Biochemistry and Molecular Biology.

Individuals in the 2013 event participated in an interactive training webinar. The program provided information about how best to communicate science to non-technical audiences, tips for conducting a successful meeting with an elected official, and information about trends in funding for research.

More information about the *Biological Sciences Congressional District Visits* event is available at www.aibs.org/public-policy/congressional_district_visits.html.

Participate in the U.S. Virtual Herbarium Survey

The 2013 U.S. Virtual Herbarium Survey is now online. This survey is designed to assess the progress herbaria in the United States are making towards the goal of making records of all specimens in all U.S. herbaria available online. The information provided by survey participants is used in reports, grant proposals, and articles highlighting a herbarium’s need for support or advertizing its accomplishments. Participate in the survey at

<https://docs.google.com/forms/d/1xcY-mT7r8VQ14io6wgu9FXEo1ZQc4GBGPsBI9FdnpiI/viewform>.

Enter the Faces of Biology: Broader Impacts Photo Contest

Biological research is transforming our society and the world. Help the public and policymakers to better understand these broader impacts in biological research by entering the Faces of Biology: Broader Impacts Photo Contest. The contest is sponsored by the American Institute of Biological Sciences (AIBS).

The theme of the contest is broader impacts of biology. Photographs entered into the contest should demonstrate how biological research is transforming our society and the world. Examples of broader impacts include, but are not limited to, informing natural resources management, improving human health, addressing climate change, enhancing food or energy security, advancing foundational knowledge, and improving science education.

The First Place Winner will have his/her winning photo featured on the cover of *BioScience*, and will receive \$250 and a one year membership in AIBS, including a subscription to *BioScience*. The Second and Third Place Winners will have his/her winning photo printed inside *BioScience*, and will receive a one year membership in AIBS, including a subscription to *BioScience*.

The contest ends on 30 September 2013 at 11:59:59 pm Eastern Time.

For more information and to enter the contest, visit <http://www.aibs.org/public-programs/photocontest.html>.

Study Explores Influence of Setting on Peer Review of Grants

Research findings recently published in *PLOS ONE* report that the setting in which a scientific peer review panel evaluates grant applications does not necessarily impact the outcome of the review process. However, the research found that the average amount of discussion panelists engage in during the review is reduced. The investigation examined more than 1,600 grant application reviews coordinated by the [American Institute of Biological Sciences Scientific Peer Advisory and Review Services \(AIBS SPARS\)](#) on behalf of a federal agency over a four-year period.

The researchers compared two years when grant applications were reviewed using an in-person peer review panel to two years when panels were conducted via teleconference or videoconference.

Funding organizations routinely bring experts together to review research grant applications. A process known as scientific peer review, the goal of these panels is to identify the best research applications.

“There are no studies exploring whether the review setting significantly alters the quality of the peer review process,” stated Dr. Stephen Gallo, the lead author of this study and Technical Operations Manager for AIBS SPARS.

“Our goal is always a reliable and high-quality peer-review process. It is important that we understand the strengths and weaknesses of different peer review methods,” said Scott Glisson, Director of AIBS SPARS and an author of this study.

The findings appear in “[Teleconference Versus Face-To-Face Scientific Peer Review of Grant Applications: Effects on Review Outcomes](#)” published in *PLOS ONE*.

“Little difference was found in most of the review metrics between face-to-face and teleconference settings,” said Gallo. Application scoring was only modestly affected and reviewers used the full scoring range regardless of review setting. The reviewer ratings were highly reliable in both settings.

Often, the greatest anticipated difference between in-person and teleconference panels is the amount of time allocated to discussing applications. This study found teleconference or videoconference panels allocated less time to application discussions than in-person panels.

“This is a first of its kind study that provides valuable data to help research program managers select appropriate models for conducting peer review,” said Glisson.

More research is needed. “We should know whether the reduced amount of discussion and

peripheral interactions that occur in a teleconference setting influence the final panel outcomes, and, ultimately the productivity of the research that is funded,” said Gallo.

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.

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