

## **NSC ALLIANCE WASHINGTON REPORT**

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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](mailto:rgropp@aibs.org)

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#### **A Budget Bump for the Smithsonian: Collections, Biodiversity are Beneficiaries**

For fiscal year (FY) 2011, the President has requested a \$36 million budget increase for the Smithsonian Institution (SI). If provided by Congress, SI would operate with approximately \$797.6 million of federal funds. Within this amount, roughly \$661 million (an increase of \$27 million) would be allocated to Salaries and Expenses with the balance of \$136.8 million allocated to the Facilities Capital budget.

The Salary and Expenses budget line reflects Smithsonian’s new strategic plan. According to SI budget documents, increases are allocated according to the “following categories, or four grand challenges, of the plan: \$8 million for Biodiversity, which includes funds for biodiversity and climate change research, DNA barcoding and the Encyclopedia of Life Web site; \$1 million for Understanding the American Experience; \$500,000 for Unlocking the Mysteries of the Universe; and \$500,000 for World Cultures.”

The budget request also proposes to invest an additional “\$2.4 million to improve the preservation, storage, documentation and accessibility to the Institution’s collections and for the care of the animals at the National Zoo. The term ‘broadening access’ in the strategic plan refers to making the collections accessible to researchers and people who cannot visit the museums by using the Internet and other technologies. A total of \$1.5 million will be dedicated to staff and computer equipment to continue the process of digitizing the Smithsonian collections.”

Funding for collections would grow to \$73 million, up from roughly \$69 million for FY 2010 and the \$64 million appropriated for FY 2009. The President has also requested important new funding for SI research. If the requested \$86 million is appropriated, the federal investment in SI research would be roughly \$15 million higher than the FY 2009 appropriation and nearly \$12 million above the estimated funding for FY 2010.

The President's budget also includes funding to provide for an increase of nearly 70 civilian full time equivalent (FTE) positions across SI.

From the approximately \$137 million proposed for Facilities Capital, the President would "provide funds for critical infrastructure improvements at the Cooper-Hewitt, National Design Museum; research facilities at the Smithsonian Environmental Research Center and the Smithsonian Tropical Research Institute; and to continue the design of the National Museum."

The SI conducts research in the natural and physical sciences and in the history of cultures, technology, and the arts. The Institution acquires and preserves for reference and study purposes over one hundred and thirty-six million items of scientific, cultural, and historic importance. It maintains public exhibits in a variety of fields. The Institution operates and maintains 19 museums and galleries; a zoological park and animal conservation and research center; research facilities; and supporting facilities. Included in the presentation of the Salaries and Expenses account are data for the Canal Zone biological area fund.

### **NSF BIO, Collections and the FY 2011 Budget**

For fiscal year (FY) 2011, the President has requested \$7.4 billion for the National Science Foundation (NSF), an increase of roughly 8 percent from FY 2010.

"The essence of NSF's 2011 Budget Request is the reaffirmation of the agency's roots as the nation's wellspring of scientific innovation," said NSF director Dr. Arden Bement, Jr. during the release of the agency's FY 2011 budget. "The plan is part of an overall strategy to increase the nation's total R&D investment to three percent of Gross Domestic Product. In addition, the 2011 Budget Request includes an increase of 41 percent in our Major Research Equipment & Facilities Construction account," said Bement.

The budget request is aligned with the Administration's National Innovation Strategy (NIS), which was released last fall. The NIS "encourages technology and business innovation in the United States. The strategy's three-pronged plan invests in the building blocks of innovation, promotes competitive markets that spur entrepreneurship, and drives breakthroughs for national priorities such as clean energy and healthcare technology," according to NSF documents released with the budget.

For the Research and Related Activities (R&RA) account, which includes funding for the various disciplinary directorates (e.g., Biological Sciences Directorate or BIO), the President has requested \$6.018 billion. If funded at this level, the R&RA account would see an 8.2 percent increase (\$454.91 million) from the FY 2010 appropriation. While the R&RA account would

grow by an average of 8.2 percent, BIO and GEO (Geosciences) would grow by 7.5 and 7.4 percent, respectively. These increases would provide BIO with an FY 2011 budget of \$767.81 million, an increase of \$53.27 million over FY 2010. The GEO account would grow to \$955.29 million, an increase of \$65.65 million from the FY 2010 budget. At \$268.79 million, the Social, Behavioral, and Economic Sciences Directorate (SBE) would grow by 5.3 percent (\$13.54 million).

Within the \$797.81 million request for BIO, funding would be allocated among the five divisions accordingly:

- Molecular and Cellular Biosciences \$133.69 million, an \$8.1 million (6.4 percent) increase
- Integrative Organismal Systems \$226.7 million, a \$10.45 million (4.8 percent) increase
- Environmental Biology \$155.59 million, a \$13.04 million (9.1 percent) increase
- Biological Infrastructure \$145.63 million, a \$18.77 million (14.8 percent) increase
- Emerging Frontiers \$106.2 million, a \$2.91 million (2.8 percent) increase

NSF-BIO provides roughly 68 percent of federal funding for non-medical, basic research at academic institutions in the life sciences. This includes research support for environmental biology, which provides the foundation for our understanding and response to complex issues such as climate change, food safety and security, economy, and human well-being.

According to NSF budget documents, funding was allocated to BIO programs based on the following criteria: sustaining core funding, implementing Administration priorities such as climate change research, support for cutting edge transformative research, developing new scientific areas, and broader support for students and new faculty.

Within BIO, a \$10.0 million investment in digitization and networking of specimen-based research collections would be sustained in the coming year. As noted by NSF, “these collections provide proper validation of species including a wealth of ancillary data such as DNA samples and environment/habitat information. These data provide the baseline from which to begin further biodiversity studies and provide critical information about the existing gaps in our knowledge of life on Earth. Filling these gaps is critical to a complete understanding of the biodiversity of the planet, both in space and time, and the history of climate change.”

Additionally, with respect to natural science collections, NSF plans to continue efforts initiated under the federal Interagency Working Group on Scientific Collections. Thus, with FY 2011 funding, BIO would: 1) Support the development of a strategic plan for the digitization of the U.S. natural history collections; 2) Support research projects designed to develop technologies needed to enhance digitization capabilities; and 3) Support initial digitization projects of high priority collections.

Elsewhere at NSF, the Education and Human Resources Directorate (EHR) would receive a 2.2 percent bump, bringing the FY 2011 number to \$892.0 million. The Major Research Equipment and Facilities Construction (MREFC) account would grow by 40.8 percent or \$47.9 million, bringing the program to \$165.19 million in FY 2011. Finally included within the MREFC

budget is funding (\$20.0 million) that would enable the start of construction for the National Ecological Observatory Network (NEON).

### **Biology Funding to Decline at USGS Despite Proposed Agency Boost**

The Department of the Interior (DOI) is slated for a 0.4 percent budget cut in FY 2011. Consequently, most bureaus within the department would see stagnant or declining funding. The USGS, however, is one of three Interior bureaus that would receive a budget increase (1.9 percent increase), for a total of \$1.133 billion in FY 2011.

Under the leadership of Secretary Ken Salazar, DOI is set to make significant investments once again in renewable energy (+\$14 million), climate change adaptation (+\$35 million), water conservation (+\$36 million), youth in natural resources (+\$9 million), land conservation (+\$106 million), and ecosystem restoration (+\$71 million). Among his many goals for 2011, Secretary Salazar also wants DOI to increase the number of youth it employs in conservation by 60 percent over the 2009 level.

Interior-wide, \$171 million is designated for climate change, which will allow the department to complete identification of the areas most vulnerable to climate change and to begin to implement adaptation strategies in these areas. The USGS would spend \$72.1 million on climate change (\$13.9 million increase) in FY 2011 to create and staff two regional Climate Science Centers, support accelerated assessment of biological carbon sequestration, and develop adaptation tools for resource managers.

In addition to climate change, much of the new funding within USGS is designated for administrative costs. However, the agency's fixed cost increases, such as employee pay raises and increased rent for facilities, are not funded in the budget – a \$13.5 million shortfall. This means that each program will have to absorb any cost increases through a reduction in services or by finding other administrative efficiencies.

The Biological Resources Discipline within the USGS would receive \$201.3 million, a \$3.6 million (1.8 percent) decrease from FY 2010, but still \$16.0 million more than FY 2009. Biological research and monitoring would be cut by \$1.2 million (0.8 percent decrease) and the budget for the Cooperative Research Units would remain essentially flat with the proposed \$170,000 decrease. The \$2.2 million (8.9 percent) decrease in funding for biological information management and delivery would largely be accomplished through removing unrequested Congressional funding (“earmarks”) and a reduction in payments to states for data coordination.

Despite the negative top line numbers, some new funding would be made available to the Biological Resources Discipline. Science support to other Interior bureaus would receive an additional \$4.0 million. Funding for research on the impacts of renewable energy development on wildlife would be increased by \$3.0 million.

### **NSF Director to Retire**

Dr. Arden L. Bement will retire at the end of May to lead Purdue University's new Global Policy Research Institute. Bement has served as director of the National Science Foundation (NSF) since 2003.

"Under Bement, NSF has seen its budget move onto a doubling path, created a series of new science and engineering initiatives around innovation themes, increased its role in the international scientific policy arena and increased its commitment to core basic research areas," according to a press release issued by NSF.

"I want to thank Dr. Bement for his nearly seven years of distinguished service at NSF's helm and his unwavering commitment to America's research and education enterprise," said Dr. John Holdren, President Obama's science advisor and director of the Office of Science and Technology Policy.

Bement was appointed to a six year term by President George W. Bush after serving as acting director of NSF for 10 months. He will be vacating his appointment six months before it ends.

## **2010 Science and Engineering Indicators Released**

On 15 January 2010, the National Science Foundation (NSF) released the most recent snapshot of the nation's scientific research and education system. According to this year's report, "The state of the science and engineering (S&E) enterprise in America is strong, yet its lead is slipping..." Prepared biennially and delivered to the President and Congress on even numbered years by January 15 as statutorily mandated, Science and Engineering Indicators (SEI) provides information on the scope, quality and vitality of the nation's S&E enterprise.

"The data begin to tell a worrisome story," said Kei Koizumi, assistant director for federal research and development (R&D) in the President's Office of Science and Technology Policy (OSTP). Calling SEI 2010 a "State of the Union on science, technology, engineering and mathematics," he noted that "U.S. dominance has eroded significantly."

Koizumi and OSTP hosted the public rollout at which National Science Board (NSB) Chairman Steven Beering, NSF Director Arden L. Bement, Jr., and NSB members presented SEI 2010 data and described a mixed picture. NSB's SEI Committee Chairman Lou Lanzerotti noted good news for those in the S&E community regarding public attitudes about science. "Scientists are about the same as firefighters in terms of prestige," he said.

Over the past decade, R&D intensity--how much of a country's economic activity or gross domestic product is expended on R&D--has grown considerably in Asia, while remaining steady in the U.S. Annual growth of R&D expenditures in the U.S. averaged 5 to 6 percent while in Asia, it has skyrocketed. In some Asian countries, R&D growth rate is two, three, even four, times that of the U.S.

In terms of R&D expenditures as a share of economic output, while Japan has surpassed the U.S. for quite some time, South Korea is now in the lead--ahead of the U.S. and Japan.

Investment in R&D is a major driver of innovation, which builds on new knowledge and technologies, contributes to national competitiveness and furthers social welfare. R&D expenditures indicate the priority given to advancing science and technology (S&T) relative to other national goals.

To review Science and Engineering Indicators 2010, please visit <http://www.nsf.gov/statistics/indicators>.

### **House Science Committee to Reauthorize COMPETES Act**

House Science and Technology Committee Chairman Bart Gordon (D-TN) has a busy agenda planned for 2010. Reauthorization of the America COMPETES Act, reauthorization of NASA (National Aeronautics and Space Administration), creating a nuclear energy research and development program, spurring development of new energy technologies, and codifying the National Oceanic and Atmospheric Administration (NOAA), are among the chairman's ambitious goals for the second session of the 111<sup>th</sup> Congress.

Top legislative priority for the House Science Committee is reauthorization of the America COMPETES (Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science) Act. Enacted in 2007, the law set a number of ambitious goals, including authorizing a doubling of the budgets of the National Science Foundation (NSF), the Department of Energy (DoE) Office of Science, and the National Institute of Standards and Technology (NIST) over seven years. Actual appropriations, however, have fallen well behind the authorized levels. The reauthorization will allow Congress to revisit the funding trajectories for these agencies, as well as the many science, technology, engineering, and mathematics (STEM) education programs included in COMPETES. The Act expanded early career research grant programs for young investigators and increased support for K-12 STEM education and teacher training programs at NSF and DoE.

Another bill on the Committee's legislative agenda for 2010 is of interest to biologists: the NOAA Organic Act would formally authorize the agency in law. NOAA was created by Presidential executive order in 1970. By codifying the agency in law, Congress would have greater ability to direct the agency's priorities and authorities. This issue is especially timely given NOAA's central in U.S. climate science and the Obama Administration's interest in pursuing marine spatial planning.

The House Science Committee will be under a tight deadline to complete their legislative work. With the mid-term elections in November, any bills would need to be passed by the House and Senate prior to the Congressional recess in August.

### **New Online Group Facilitates Networking Among Collections Professionals**

A new online group has formed to encourage networking among natural science collections leaders. This group offers an opportunity for leaders from collections across the nation to identify and discuss common public policy issues, and other common challenges facing natural science collections professionals.

To join this group you must first join LinkedIn ([www.linkedin.com](http://www.linkedin.com)). There is no cost for creating a profile on this site. Once you have registered, simply search the Groups function for “Natural Science Collections Leadership.” Membership in this group is limited to natural science collections professionals, but there is no cost to join or participate in this group.

### **Register Now for “Biodiversity 2010 and Beyond: Science and Collections”**

Join the Society for the Preservation of Natural History Collections (SPNHC) and the Canadian Botanical Association (CBA/ABC) for their joint annual conference to be held May 31 to June 5, 2010 in Ottawa, Canada.

With 2010 declared “The International Year of Biodiversity” by the United Nations, this gathering of natural history collection professionals and botany specialists will offer many exciting opportunities for “cross-fertilization” of ideas and transfer of knowledge between participants.

Fully synchronized programs will allow participants from both organizations to attend any of the concurrent sessions and participate in many joint conference activities.

‘Early-bird’ registration is available through March 31, 2010. For more information, please visit <http://www.spnhc-cba2010.org/home.html>.

Abstracts for presentations and posters are also being solicited. The deadline to apply is March 31, 2010. Please visit <http://www.spnhc-cba2010.org/abstract.html> for more information.

### **Nominations Requested for the 5<sup>th</sup> IPCC Assessment Report**

The State Department is seeking U.S. experts to author or review the Fifth Assessment Report of the International Panel on Climate Change (IPCC). Nominations of experts from federal, academic, non-governmental, and private sector entities are due by 15 February 2010. More information is available at <http://edocket.access.gpo.gov/2010/2010-1098.htm>.

### **USGS Launches New Marine Life Database**

The U.S. Geological Survey has launched a new online tool to enhance access to information about life in the oceans. The Ocean Biodiversity Information System ([http://www.nbii.gov/portal/community/Communities/Habitats/Marine/Marine\\_Data\\_%28OBIS-USA%29/](http://www.nbii.gov/portal/community/Communities/Habitats/Marine/Marine_Data_%28OBIS-USA%29/)) is a one-stop source for biogeographic data collected from U.S. waters. Users can

search and download millions of individual records, which include descriptions of where and when the data was collected.

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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)

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