

FEBRUARY 14, 2024

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DIRECTOR'S MESSAGE

The American Institute of Biological Sciences is committed to advancing the biological sciences for the benefit of science and society. Our Public Policy Office consistently engages with policymakers to ensure their decisions are grounded in robust scientific information and are attuned to the needs of the biological sciences community. Additionally, we provide policy analysis and valuable insights to the scientific community to help them understand and shape decisions that impact biological research and education.

The passage of the historic CHIPS and Science Act in 2022 was a significant step towards ensuring U.S. global leadership in science and technology. Despite this initial success, it is critical that scientists continue to engage in the federal budget process to ensure that Congress follows through by funding the National Science Foundation (NSF) and other science agencies at the levels authorized by the law. AIBS remains resolved in our goal of securing robust federal funding for federal science programs through our advocacy initiatives and by working with our partners in the broader scientific community.

AIBS continues to advocate for policies to strengthen biodiversity-related and biodiversity-enabled research. Through our work with the Biodiversity Collections Network (BCoN), we ensured that important provisions supporting biological collections were retained in the finalized CHIPS and Science Act. In 2023, we continued to engage the research community and federal decisionmakers to inform the implementation of these provisions. We are excited to embark on a new NSF-funded project with BCoN in 2024 to engage a broad spectrum of stakeholders in discussions about building an integrated, expansive, and open biological and environmental data network.

In 2023, we also worked to urge policymakers to oppose cuts to publicly funded climate research, to urge investments in pathogen sequencing and surveillance, to provide robust support for agricultural research and research facilities in the Farm Bill, and to increase coordination of microbiome research across federal agencies.

AIBS remains dedicated to improving the culture of biology by enabling inclusive, diverse, equitable, and accepting (IDEA) scientific environments. We reaffirmed our commitment to promoting IDEA in 2023 and will continue this work in the years to come.

Furthermore, AIBS upholds its commitment to early career scientists by recognizing graduate student leaders with the Emerging Public Policy Leadership Award every year. We are determined to further increase the capacity of the biological sciences community to shape public opinion and inform policy. As such, we will continue to provide scientists—from early career to senior scientists and program leaders—with professional development training. Our training programs, which are offered both online and in person, have served more than 2,800 individuals so far. Our programs help scientists improve their communication and advocacy skills, interdisciplinary and team science skills, and ability to secure employment in diverse sectors.

This report describes the work AIBS has done this past year in collaboration with our members and partners to advocate for policies that advance biology and to train biologists to become effective advocates. We encourage any organization that values scientific research and science-informed decision-making to join us as we work to promote an increased understanding and appreciation of biology.

Jyotsna Pandey
Public Policy Director

KEY ACCOMPLISHMENTS (





Facilitated 56 meetings between scientists & lawmakers



Helped 94 scientists become advocates for science



Provided professional development training to 174 scientists

- Provided Congressional Testimony calling for increased federal investments in science.
- Successfully opposed a draconian measure that would have returned discretionary spending in fiscal year 2024 to 2022 levels and then limited the annual growth of spending to 1 percent for a decade.
- Worked with our science community partners to ensure that Congress follows through on the promise of the CHIPS and Science Act by fully funding the National Science Foundation (NSF) and other science agencies at the levels authorized by the law.
- Reaffirmed our commitment to advancing diversity, equity, and inclusion in the wake of the U.S. Supreme Court ruling on race considerations in college and university admissions.
- Helped facilitate community discussions on the implementation of collections-related provisions in the CHIPS and Science Act, namely a specimen management plan requirement and a Biological Collections Action Center.
- Endorsed Recovering America's Wildlife Act, a bill that would make significant investments in wildlife and habitat conservation.
- Endorsed legislation to keep public science independent from political interference.
- Supported legislation aimed at retaining international students who have completed advanced STEM degrees from U.S. educational institutions by providing them permanent resident status.
- Received an NSF award to convene stakeholder discussions toward building an integrated, open, Findable, Accessible, Interoperable, and Reusable (FAIR) data network.



SCIENCE POLICY

AIBS made notable contributions to research and science education policy in 2023. Our efforts focused on promoting federal investments in biological research and education, advocating for the responsible use of science in the policymaking process, and advancing the policy interests of biodiversity-enabled and biodiversity-related research and education.

Research Funding

AIBS advocates for increased federal investments in science. Biological research and science education funding were the focus of two AIBS advocacy events and numerous online legislative action campaigns in 2023. In testimony to Congress, AIBS called for new investments in the National Science Foundation (NSF), the National Institutes of Health (NIH), the U.S. Geological Survey, the U.S. Fish and Wildlife Service, the Smithsonian Institution, and the Environmental Protection Agency. We also advocated for robust investments in research programs at the U.S. Department of Agriculture.



In 2022, through our work with key lawmakers and partners in the scientific community we helped secure passage of the historic CHIPS and Science Act, which made critical new investments in our nation's science and technology enterprise, including doubling NSF's authorized budget over five years and significantly expanding the authorized budgets for the Department of Energy Office of Science and the National Institute of Standards and Technology. In 2023, we continued to work with community partners to ensure that Congress follows through on the promise of the CHIPS and Science Act by fully funding NSF and other science agencies at the levels authorized by the law.

In response to a draconian debt-limit measure passed by the House in May, AIBS joined 760 organizations in a letter urging Congress to reject the proposed cuts to non-defense discretionary (NDD) appropriations and instead set funding for fiscal year 2024 at a level that recognizes both rising costs and the need for investment in programs important to fostering economic growth and meeting human needs. The House measure would have returned discretionary spending to fiscal year 2022 levels — a \$130 billion cut — and then limited the annual growth of spending to 1 percent for a decade. Congress eventually passed a bipartisan measure that put limits on federal spending for two years, translating to a flat budget in 2024 and a 1 percent increase in 2025.

Science in Policymaking

Early in the year, AIBS joined 19 other scientific societies to release a statement expressing concerns about policies enacted in Florida and other states that limit academic freedom in higher education and hinder initiatives supporting diversity, equity, and inclusion (DEI). Later, we reaffirmed our commitment to advancing DEI by releasing a joint statement with 46 other scientific societies in the wake of the U.S. Supreme Court ruling on race considerations in college and university admissions.

Prompted by an editorial in *BioScience*, AIBS led 26 scientific societies and more than 280 individuals in urging NSF's Biological Sciences Directorate (BIO) to reinstate the Doctoral Dissertation Improvement Grant (DDIG) program in some form within the Divisions of Environmental Biology and Integrative Organismal Systems. DDIG was terminated within BIO in 2017 due to increased proposal workload and changes in agency priorities. The group urged NSF to think of ways to meet DDIG objectives through alternative approaches.

Additionally, AIBS has worked to urge policymakers to oppose cuts to publicly funded climate research, to urge investments in pathogen sequencing and surveillance, to provide robust support for agricultural research and research facilities in the Farm Bill, to increase coordination and support for microbiome research across federal science agencies, and to



ensure federal support for biological collections and other research infrastructure. We supported legislation to make significant investments in wildlife and habitat conservation, to keep public science independent from political interference, and to help retain international students who have completed advanced STEM degrees from U.S. educational institutions. We also submitted joint comments on NIH's Public Access Plan, urging the agency to focus on creating an environment that balances reader access to new work with researchers' ability to publish.

In 2023, we also supported efforts to advance open scholarship and data sharing practices. AIBS is now a member of the Alliance for Open Scholarship (All4OS) – a coalition of societies and associations working to identify, articulate, and socialize appropriate open scholarship good practices within their disciplines.

Biodiversity and Collections

AIBS continues to lead and support the Biodiversity Collections Network (BCoN), a national initiative that emerged from an NSF grant to AIBS. BCoN outlined a national agenda in 2019 that leverages digital data in biodiversity collections for new uses. The report, <u>Extending U.S. Biodiversity Collections to Promote Research and Education</u>, called for building an Extended Specimen Network—a community-informed research and education initiative to coordinate biodiversity data mobilization and integration.

Since the release of its report, BCoN has carried on promoting the Extended Specimen Network vision as a unifying goal for biological collections. As a part of this effort, AIBS, Natural Science Collections (NSC) Alliance, and the Society for the Preservation of Natural History Collections—the founding members of BCoN—secured the inclusion of important collections—related provisions in the CHIPS and Science Act of 2022. In 2023, we continued to facilitate community discussions to implement these provisions, which included a specimen management plan requirement for proposals that generate specimens and a Biological Collections Action Center to facilitate coordination and data sharing in the community.

In 2023, AIBS was awarded a workshop grant from NSF to convene a series of discussions, in partnership wth BCoN, to engage an expansive set of stakeholders toward Building an Integrated, Open, Findable, Accessible, Interoperable, and Reusable (BIOFAIR) Data Network. The BIOFAIR Data Network project will convene stakeholders from across the spectrum of biodiversity, ecological, and environmental data providers, curators, and users, to initiate a collaborative and accessible partnership towards an integrative and expanded data network. Over the course of this 2-year project, AIBS and BCoN will organize six virtual listening sessions and a subsequent interdisciplinary workshop to



catalyze cross-domain discussions with the goal of identifying a set of shared biodiversity data needs and developing a collaborative plan to enhance data integration.

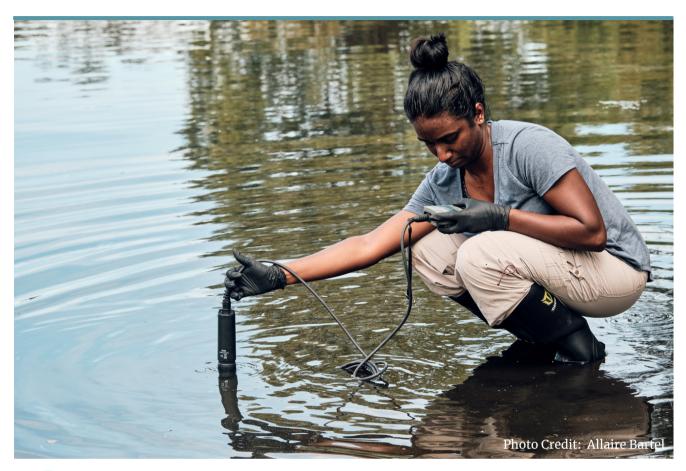
BCoN also continues to collaborate with national and international partners, including iDigBio, the Global Biodiversity Information Facility, Distributed System of Scientific Collections (DiSSCo), Atlas of Living Australia, Biodiversity Information Standards (TDWG), National Specimen Information Infrastructure of China, South African National Biodiversity Institute, and others, to promote the development of a globally integrated interconnected network of people and data – the "Digital Extended Specimen." The group, provisionally named International Partners for the Digital Extended Specimen (IPDES), has been regularly meeting since 2020 to provide a forum for updates, announcements, and shared progress.

Other Highlights

The 2023 meeting of the AIBS Council of Member Societies and Organizations was a follow-up to the NSF-funded IDEA conferences held in 2021 and 2022. The first conference focused on Enabling Scientific Societies to Support Inclusive, Diverse, Equitable, and Accepting (IDEA) Scientific Environments, while the IDEA Conference 2.0 was focused on society commitment to IDEA. The 2023 meeting, Expanding the IDEA, brought together like-minded organizations to identify collaboration opportunities, needed resources, and future activities to build on the work of the first two meetings.

The Association of Ecosystem Research Centers has worked with AIBS for many years to plan a science briefing for congressional policymakers in conjunction with their annual meeting. The 2023 hill briefing, "Federal Agency Perspectives on Advancing Environmental Justice in the 21st Century," provided insights into how the Department of Energy, the Environmental Protection Agency, and the U.S. Geological Survey are addressing new challenges and mandates focused on Environmental Justice, given its direct ties with ecosystem science.





OUTREACH AND TRAINING

Meetings with Lawmakers

Each year, AIBS offers scientists opportunities to meet with their elected officials in Washington, DC, and in their home state.

After two years of holding our Congressional Visits Day online, we returned to an inperson event in Washington, DC in April 2023, where biologists from across the nation met with their federal lawmakers on Capitol Hill. The scientists also participated in a supplemental two-day science communications and advocacy training program to prepare for their meetings. Overall, AIBS facilitated more than 40 congressional meetings with lawmakers from 14 states to discuss funding for biological research programs.

More than 100 scientists, including graduate students, senior researchers, and educators, from 20 states, Washington, DC, and Puerto Rico registered to participate in the 13th Annual Biological Sciences Congressional District Visits event. This grassroots advocacy event encourages scientists across the nation to showcase for federal and state lawmakers



the people, facilities, and equipment required to conduct scientific research. In 2023, participating scientists met with their elected officials at the local district office, virtually, or invited them to visit their research facility. In addition to helping schedule district meetings with lawmakers, AIBS policy staff provided online training and one-on-one support to prepare participants for their meetings. The event was made possible by AIBS, with support from event sponsors American Society of Primatologists, American Society of Plant Taxonomists, Botanical Society of America, NSC Alliance, Paleontological Society, Organization of Biological Field Stations, and Society for the Preservation of Natural History Collections.

Notable Meetings Facilitated by AIBS in 2023:

- Congressional Visits Day participants met with Representative Ed Case (D-HI) and Senators Angus King (I-ME) and Martin Heinrich (D-NM) to discuss funding for biological research.
- Congressional Visits Day participants also met with the offices of Representatives Mark Pocan (D-WI), Ashley Hinson (R-IA), Chellie Pingree (D-ME), Mike Collins (R-GA), Katie Porter (D-CA), and Melanie Stansbury (D-NM) and Senators Chuck Grassley (R-IA), Susan Collins (R-ME), Bernie Sanders (I-VT), Marco Rubio (R-FL), Mitt Romney (R-UT), Brian Schatz (D-HI), Alex Padilla (D-CA), and Ted Cruz (R-TX), among others.
- Representative Jim Himes (D-CT), State Senator Ceci Maher (D-CT), and State Representative Anne Hughes (D-CT) visited the DeMasi-Metowski meadow in West Redding, CT, where pollinating insects and butterflies have been documented on site for 45 years.
- Senator Warnock's (D-GA) staff toured various research facilities at the University of Georgia campus.
- Researchers at Northwestern University's Chemistry of Life Processes Institute hosted Senator Dick Durbin's (D-IL) staff for a tour of their facilities.
- Scientists participated in virtual meetings with the offices of Representatives Terri Sewell (D-AL) and Ronny Jackson (R-TX) and Senators Kirsten Gillibrand (D-NY) and Maria Cantwell (D-WA).
- In total, 56 meetings were facilitated by AIBS in 2023.



Policy and Communications Training for Scientists

In 2020, AIBS began offering its communications and advocacy training program in a virtual format in addition to offering the in-person version of the course. In 2023, we offered one virtual and four in-person communications workshops that trained 94 scientists. Our current course offerings include a science communications boot camp, an online course to improve writing skills, a training on enabling interdisciplinary and team science, and a boot camp on employment acquisition skills. Most of these programs are typically offered in Washington, DC and around the country on university campuses and at scientific meetings, and are also offered online. Overall, 174 scientists participated in AIBS professional development programs in 2023.

Emerging Public Policy Leadership Award

AIBS recognized two graduate students in the biological sciences for their achievements in science policy. The Emerging Public Policy Leadership Award was presented to Mohammad Inam Jameel, a Ph.D. student in genetics at the University of Georgia in Athens, Georgia, and Elena Suglia, a Ph.D. student in population biology at the University of California in Davis, California. The 2023 award winners received communications and advocacy training and an expense-paid trip to Washington, DC to participate in meetings with their congressional delegation. They also received a one-year subscription to the journal *BioScience*.

Help Support Student Opportunities

AIBS would like to provide more education and training opportunities to biology students, including those at Minority Serving Institutions (MSI). We particularly want to expand our highly successful Emerging Public Policy Leadership Award program and our new IDEA² Public Policy Fellowship to ensure that more early career professionals may benefit from the programs in the future. To fully fund this program and provide additional professional development opportunities for students from MSIs, we need the support of our members and friends. Please consider donating to AIBS to help us ensure more biology graduate students have an opportunity to gain the knowledge and skills they need to develop careers that allow them to successfully work at the nexus of science and public policy.

Please consider making a tax-deductible donation today by visiting https://www.aibs.org/were-stronger-together/



Publications and Information Dissemination

AIBS policy staff report on science policy developments through several outlets, including the bi-weekly AIBS Public Policy Report and the Washington Watch column in the AIBS journal *BioScience*. <u>Start your free subscription</u>.

AIBS Legislative Action Center

Grassroots advocates use the AIBS Legislative Action Center to advocate for robust science policy. In 2023, researchers wrote to their members of Congress to ask for timely completion of the appropriations process and increased funding for the biological sciences, in particular at the National Science Foundation. The center enables researchers to access information about their lawmakers and track legislation of interest to the biological sciences community. The center also offers other resources for researchers to engage in the development of the nation's science policy.

The Legislative Action Center was made possible in 2023 by financial contributions from the Society for the Study of Evolution and the Botanical Society of America.

Leadership in Biology Webinars

AIBS regularly organizes webinars for our members. In 2023, we partnered BCoN, the U.S. Culture Collection Network, and NSC Alliance to organize a joint webinar discussion on the need for a specimen management plan requirement in research proposals that generate living or preserved specimens. Recommended by the National Academies' 2020 report on biological collections, this requirement is supported by the CHIPS and Science Act. The webinar delved into the elements of a specimen management plan and its benefits to various stakeholder communities. Recordings of AIBS webinars and other programs can be viewed on our <u>YouTube channel</u>.

Photo Contest

The AIBS Faces of Biology Photo Contest continues to draw strong participation from members of the biological sciences community. The 2023 contest was co-sponsored by the Society for Integrative and Comparative Biology. The competition encourages researchers, educators, and students to showcase biological research in its many forms and settings. The photos are used to help the public and policymakers better understand the value of biological research and education.



The winners of the 2023 contest included photos depicting a graduate student from the University of New Mexico collecting alpine plants (below), a researcher at the University of Florida extracting environmental DNA (eDNA) from hundreds of sand samples collected from Florida's sea turtle nesting beaches, and a researcher using a water sampling probe at the Martin Luther King Park in Orlando, Florida for an NSF-funded project at Yale University. The first-place winner received \$250 and will be featured on the cover of an upcoming issue of *BioScience*. Learn more about the contest and past winners on the AIBS website.



Faces of Biology photo contest first place winner: Joseph Kleinkopf

GET INVOLVED

IF YOU HAVE A MINUTE...

- Join the AIBS Legislative Action Center
- Subscribe to the **Public Policy Report**
- Follow us on X (formerly Twitter)

IF YOU HAVE 15 MINUTES...

- Read an <u>AIBS position statement</u> on research funding, scientific integrity, climate change, and more
- Delve into science policy by reading an editorial, Feature article, or Washington Watch column from *BioScience*
- Support science advocacy through a small <u>donation to AIBS</u>

IF YOU HAVE 30 MINUTES...

- Learn about <u>federal investments</u> in science and the budget process
- Listen to a <u>BioScience Talks</u> podcast exploring a timely science topic

IF YOU HAVE A DAY...

- Participate in the <u>AIBS Congressional Visits Day</u> in Washington, DC
- Participate in the <u>Biological Sciences Congressional</u> District Visits event
- Coordinate a <u>professional development workshop</u>

STUDENT OPPORTUNITIES...

• Apply for the <u>Emerging Public Policy Leadership</u> Award



SUPPORTING ORGANIZATIONS

The following organizations sponsored AIBS science policy initiatives in 2023.

























HOW TO CONTRIBUTE

Financial support from individuals and organizations makes it possible for AIBS to serve the biological sciences community and to help advance a common agenda. Consider making a contribution to AIBS. Please visit <u>our website</u> to make a secure online donation.



ABOUT AIBS

The American Institute of Biological Sciences is the national scientific organization dedicated to advancing the biological sciences to promote an increased understanding of all life. Our mission is to promote the use of scientific information to inform decision making and advance biology for the benefit of science and society.

AIBS initiatives are unified by a commitment to promoting informed decision-making. Our strategic priorities include:

- Publications and Communications including reliable reports, analyses, and the peer–reviewed journal *BioScience*, which is a forum for integrating the life sciences and educating the public about biological sciences.
- Scientific Peer Advisory and Review Services for research proposals and programs sponsored by funding organizations, including the federal government, state agencies, private research foundations, and other nongovernment organizations, and to educate the community about the science of peer review.
- Community Programs that advance the field and profession of biology while
 promoting and providing leadership, with a particular emphasis on public
 policy and advocacy, education and professional development, as well as
 public awareness of science.

AIBS works with any stakeholder that advances the broad field and profession of biology. Organizations partner with us on initiatives, work with us to identify and communicate matters of common concern, and help connect us to their communities for idea and information exchange – particularly regarding public policy, education, public understanding of science, and matters of professional concern.

AIBS has member societies and organizations that support our work financially. AIBS provides services to a wide variety of scientific funding groups that include government agencies, industry, private research foundations, and other nongovernmental organizations.



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