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## **DIRECTOR'S MESSAGE**

The American Institute of Biological Sciences (AIBS) remains steadfast in its commitment to advancing the biological sciences for the benefit of both science and society. As part of this mission, our Public Policy Office actively engages with policymakers, ensuring their decisions are informed by sound scientific evidence and aligned with the priorities of the biological sciences community. We also provide critical policy analysis and insights to help scientists understand and influence decisions that shape biological research and education.

This report highlights our recent initiatives, services, and accomplishments. One of our most exciting developments is a new professional development opportunity in science policy, offered in partnership with the Southeastern Universities Research Association (SURA). The AIBS & SURA Public Policy Fellowship, a paid opportunity available in both remote and inperson formats, provides young scientists with invaluable first-hand experience in science policy. Following a successful pilot program in 2024, we are pleased to offer this opportunity again in 2025.

AIBS also continues to recognize outstanding graduate student leaders each year through the Emerging Public Policy Leadership Award. Our commitment to strengthening the ability of the biological sciences community to shape public opinion and inform policy extends beyond awards—we provide professional development training for scientists at all career stages. Offered both online and in person, our programs have helped more than 3,000 scientists enhance their communication and advocacy skills, interdisciplinary collaboration, and career prospects across diverse sectors.

With the budget cuts in fiscal year (FY) 2024 and the uncertain outlook for FY 2025 appropriations, it is more important than ever for scientists to actively engage in the federal budget process. Securing robust support for research agencies such as the National Science Foundation (NSF) and National Institutes of Health (NIH) remains a top priority for AIBS. We remain

resolved in our goal of securing robust federal funding for federal science programs through our advocacy initiatives and by collaborating with our partners in the broader scientific community.

In 2024, we embarked on a new NSF-funded project with the Biodiversity Collections Network to engage a broad spectrum of stakeholders in discussions about building an integrated, expansive, and open biological and environmental data network. Following a series of insightful, domain-focused listening sessions over the summer, we are now preparing to develop a strategic roadmap in a final workshop this spring.

As you'll read in this report, AIBS was active on many fronts in 2024. We anticipate 2025 to be even busier, requiring a sustained commitment and engagement from our community. The results of the recent national elections will undoubtedly bring new challenges and opportunities for science, as with any change in presidential administration. AIBS remains dedicated to helping decision-makers understand the societal benefits of biological research and will continue to advocate for the needs of our community.

None of this work would be possible without the collaboration of our members and partners. We invite any organization that values scientific research and evidence-based decision-making to join us in advancing a greater understanding and appreciation of biology.

Jyotsna Pandey

Public Policy Director



# KEY ACCOMPLISHMENTS (



Facilitated 61 meetings between scientists & lawmakers



Helped 122 scientists become advocates for science



Provided professional development training to 188 scientists

- Successfully launched a new public policy fellowship program in partnership with the Southeastern Universities Research Association to provide young scientists with valuable first hand experience in science policy.
- Called for increased federal funding for research in testimony to House and Senate.
- Continued joint efforts with our science community partners to protect science from deep budget cuts and secure supplemental funding for federal research agencies.
- Created a new policy resource for students—a comprehensive list of fellowships, internships, and training opportunities in science policy available to biologists studying in the United States.
- Published guidance for the research community on implementing a specimen management plan requirement for proposals that involve collecting or generating specimens.
- Facilitated cross-domain discussions to engage an expansive set of stakeholders toward Building an Integrated, Open, Findable, Accessible, Interoperable, and Reusable (BIOFAIR) Data Network.
- Organized a science policy briefing on open science in ecosystem research for Congress.



# **SCIENCE POLICY**

AIBS made notable contributions to research and science education policy in 2024. Our efforts focused on promoting federal investments in biological research and education, advocating for evidence-based decision making, and advancing the interests of biodiversity-enabled and biodiversity-related research and education.

#### **Research Funding**

AIBS continued its efforts to positively influence federal science funding trends. Biological research and science education funding were the focus of two AIBS advocacy events and several online legislative action campaigns in 2024. 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 and the National Oceanic and Atmospheric Administration.



Federal investments in science has been constrained as a result of a debt measure passed by Congress that put limits on federal spending for two years, allowing for an overall flat budget in 2024 and a 1 percent increase in 2025. To ensure robust support for the U.S. science and technology enterprise, AIBS has been working in partnership with other national coalitions to protect science from deep budget cuts and secure supplemental funding for federal research agencies.

#### Science in Policymaking

In addition to advocating for increased federal investments in science, AIBS worked with our partners in the science policy community to urge increased investments in pathogen sequencing and surveillance, to encourage robust support for agricultural research and orphan programs in the next Farm Bill, and to urge the U.S. Forest Service Chief to fill long-standing vacant staff positions at the National Agroforestry Center to ensure that it can properly carry out its mission to accelerate the adoption of agroforestry. We also cautioned lawmakers against a blanket ban on gain-of-function research, encouraging them to allow and support the implementation of existing oversight policies at the institutional, state, federal, and global levels to help ensure that pathogen research is conducted ethically and safely by trained professionals at secure facilities.

In December, we published a Washington Watch article in *BioScience*, entitled, "Bringing Science to State Governments," about the growing number of science policy fellowship opportunities at the state-level. Currently, 21 states in the United States have a science policy fellowship program, while prior to 2018, there were only three states offering such a fellowship. Nationally, at least 530 science, technology, engineering, and math (STEM) students and recent graduates have completed state-level fellowships, with 120 fellows serving in 2024. The article was written by former AIBS Public Policy Manager Julie Palakovich Carr, who has served in the Maryland House of Delegates since 2019. Her career in science policy started as a Sea Grant Knauss fellow.

## **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. Since then, BCoN has continued to facilitate community discussions to implement these provisions, which included a specimen management plan requirement for proposals that involve collecting or generating specimens and a Biological Collections Action Center to facilitate coordination and data sharing in the community. In 2024, BCoN joined the U.S. Culture Collection Network in publishing a Special Report in *BioScience* providing guidance to the research community on implementing a specimen management plan requirement. Also published in 2024, was a white paper describing an enhanced vision for a Biological Collections Action Center. This was developed with input from more than 300 biological collections curators, collections managers, museum leaders, research and early career professionals, AI experts, and related stakeholders from across the U.S., who participated in a series of workshops and webinars organized by iDigBio, NSC Alliance, AIBS, and other partners.

In the summer of 2024, BCoN, in partnership with AIBS, ran a series of virtual listening sessions as part of the NSF-funded project, Building an Integrated, Open, Findable, Accessible, Interoperable, and Reusable (BIOFAIR) Data Network. The sessions engaged a wide range of stakeholders from federal agencies, as well as the ecological, climate, environmental, genetic, and One Health data communities to initiate a collaborative and accessible partnership towards an integrative and expanded data network. Nearly 200 participants representing 139 projects or institutions attended the listening sessions. The outcomes of these sessions, articulated in a summary report available on the BCoN website, will inform discussions at the final workshop (to be held online on February 13, 2025), where participants will develop a roadmap towards enhanced data integration.

Earlier in the year, AIBS helped coordinate a community response to Duke University's decision to close its herbarium. In addition to writing a letter to Duke leadership urging them to reconsider their decision to dismantle the collections, we encouraged our member societies and organizations to do the same and also endorse and share a petition, which ended up garnering more than 20,000 signatures. We also published a Viewpoint article in *BioScience* authored by NSC Alliance Board members calling for the continued enhancement, not dissolution of the Duke Herbarium.



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 2024 meeting of the AIBS Council of Member Societies and Organizations focused on the minority serving society (MSS) environment. The theme of the meeting was "The MSS IDEA: The Power of Community in Science." Minority serving societies and affinity groups have created a unique ecosystem of acceptance and inclusion for science, technology, engineering, mathematics, and medicine (STEMM) scientists. In an effort to gain a deeper understanding of this ecosystem, AIBS staff attended the 2024 SACNAS National Diversity in Stem (NDiSTEM) conference held in Phoenix, AZ in and provided a report of the lessons learned at the Council meeting.

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 2024 congressional briefing, "Open Science in Ecosystem Research," delved into the implementation of open science practices across various sectors of the ecosystem research community and provided perspectives from federal agencies, academia, and data stewards.







#### **Meetings with Lawmakers**

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

In April, we organized our annual fly-in event, the Congressional Visits Day, 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 50 congressional meetings with lawmakers from 16 states to discuss funding for biological research programs.

More than 100 scientists, including graduate students, senior researchers, and educators, from 21 states registered to participate in the 15th 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



infrastructure required to conduct scientific research. In 2024, 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, Florida International University Institute of Environment, Harvard Museum of Comparative Zoology, NSC Alliance, Organization of Biological Field Stations, Society for the Preservation of Natural History Collections, and Society for the Study of Evolution.

### **Notable Meetings Facilitated by AIBS in 2024:**

- Congressional Visits Day participants met with Representatives John Joyce (R-PA), Chellie Pingree (D-ME), and Steve Womack (R-AR), as well as Senators Angus King (I-ME), Joni Ernst (R-IA), and Mike Braun (R-IN) to discuss funding for biological research.
- Congressional Visits Day participants also met with the offices of Representatives
  Randy Feenstra (R-IA), Kathy Castor (D-FL), Randy Weber (R-TX), Mike Collins (R-GA), and Glenn Ivey (D-MD), and Senators John Fetterman (D-PA), Cory Booker (D-NJ), Chuck Grassley (R-IA), J.D. Vance (R-OH), Marco Rubio (R-FL), Susan Collins (R-ME), Tim Kaine (D-VA), and Tom Cotton (R-AR), among others.
- Staffers from the offices of Senators Rand Paul (R-KY) and Mitch McConnell (R-KY) and Representative Thomas Massie (R-KY) visited the Northern Kentucky University Research & Education Field Station as part of the Biological Sciences Congressional District Visits event.
- Senator Bob Casey's (D-PA) staff toured Susquehanna University's field station, the Center for Environmental Education and Research.
- Scientists participated in virtual meetings with the offices of Representative Steven Horsford (D-NV) and Senators Tammy Baldwin (D-WI) and Jerry Moran (R-KS).
- AIBS & SURA Public Policy Fellow Kristine Zikmanis met with Representative Mario Diaz-Balart's (R-FL) office in Washington, DC to discuss her research and funding for the National Oceanic and Atmospheric Administration.
- In total, 61 lawmaker meetings were facilitated by AIBS in 2024.



### **Policy and Communications Training for Scientists**

Since 2020, AIBS has been offering its communications and advocacy training program in both virtual and in-person formats. In 2024, we offered two virtual and four in-person workshops that trained 122 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, 188 scientists participated in AIBS professional development programs in 2024.

#### **Emerging Public Policy Leadership Award**

AIBS recognized two graduate students in the biological sciences for their achievements in science policy. The 2024 Emerging Public Policy Leadership Award was presented to Alex Rich, a Ph.D. student in neuroscience at Yale University in New Haven, Connecticut, and Efraín Rodríguez-Ocasio, a Ph.D. Candidate in chemical and biological engineering at the Iowa State University in Ames, Iowa. The 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*.

### **AIBS & SURA Public Policy Fellowship**

In 2024, AIBS, in partnership with the Southeastern Universities Research Association (SURA), launched a new professional development opportunity in science policy, the AIBS & SURA Public Policy Fellowship. Kristine Zikmanis, a Ph.D. candidate in the Department of Biological Sciences at Florida International University, was selected as the inaugural Fellow. During the summer of 2024, Ms. Zikmanis worked closely with AIBS and SURA policy staff to gain first-hand experience with science policy and advocacy efforts that inform federal decision-making. Ms. Zikmanis worked on a range of projects, including organizing a congressional science briefing, writing for the Public Policy Report, preparing informative policy documents, and tracking and reporting on legislative developments.







Left: 2024 EPPLA recipients Alex Rich and Efraín Rodríguez-Ocasio; Right: AIBS Community Programs Director Jyotsna Pandey and inaugural AIBS & SURA Public Policy Fellow Kristine Zikmanis with Congressman Mario Diaz-Balart's staff

#### **Help Support Student Opportunities**

AIBS would like to provide more education and training opportunities to biology students across the country. We particularly want to expand our highly successful Emerging Public Policy Leadership Award program and our new Public Policy Fellowship to ensure that more early career professionals may benefit from these programs in the future. To fully fund these programs and provide additional professional development opportunities for students, 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 needed 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 <a href="https://www.aibs.org/were-stronger-together/">https://www.aibs.org/were-stronger-together/</a>



#### **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 2024, 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.

#### **Science Policy Resource for Students**

Numerous opportunities exist for early career scientists to build skills and explore careers in science policy. In 2024, AIBS compiled a thorough list of fellowships, internships, and training opportunities in science policy available to biologists studying in the United States. These include opportunities at professional societies & NGOs, in Congress & federal agencies, as well as at the state-level. The resource is free to access on the AIBS <u>website</u>.

#### **Webinars**

AIBS regularly organizes webinars for our members. In 2024, we partnered with the NSC Alliance and the Society for the Preservation of Natural History Collections to organize an educational webinar about repatriation and how it relates to natural history collections. The program delved into the scope of the Native American Graves Protection and Repatriation Act (NAGPRA), recent updates to NAGPRA regulations, actions collections institutions may need to take to comply, how to approach repatriation, and examples of repatriation involving non-anthropological collections. Recordings of AIBS webinars and other programs can be viewed on our YouTube channel.

#### **Photo Contest**

The AIBS Faces of Biology Photo Contest continues to draw strong participation from members of the biological sciences community. The 2024 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 2024 contest included photos depicting a researcher collecting biomass cores from experimental fish exclosures in the Everglades Stormwater Treatment Areas (below), scientists collecting canopy leaves from a Cecropia tree at the Boiling River in the Peruvian Amazon (pg. 14), and a researcher giving a kiwikiu—also known as the Maui parrotbill—few droplets of medicine from a pipette (pg. 17). The first-place winner received \$250 and will be featured on the cover of an upcoming issue of *BioScience*. <u>Learn more</u> about the contest and past winners on the AIBS website.



Faces of Biology Photo Contest First Place Winner: Brandon Guell

# GET INVOLVED

#### IF YOU HAVE A MINUTE...

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

#### 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...

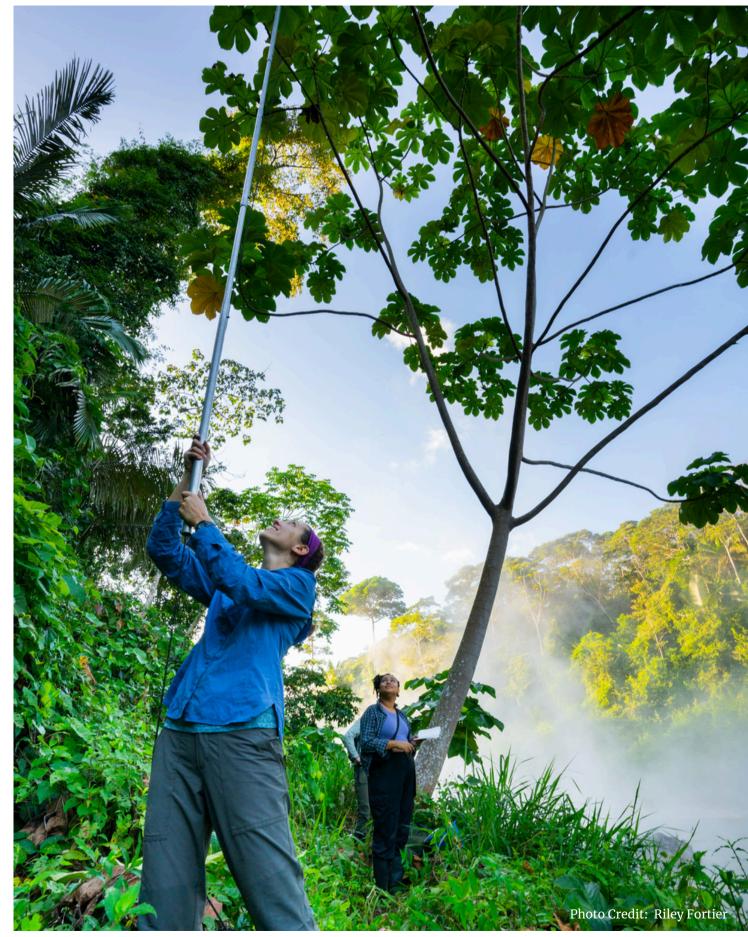
- Learn about <u>federal investments</u> in science and the budget process
- Listen to a <u>BioScience Talks</u> podcast exploring a timely science topic

#### 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>AIBS & SURA Public Policy Fellowship</u>
- Apply for the <u>Emerging Public Policy Leadership</u> <u>Award</u>



# SUPPORTING ORGANIZATIONS

The following organizations sponsored AIBS science policy initiatives in 2024.





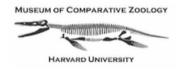












Natural Science Collections Alliance











#### **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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