



SCIENCE-BASED DECISIONS FOR SOCIETY

PUBLIC POLICY OFFICE 2022 ANNUAL REPORT

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www.aibs.org



Conner Philson

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 regularly engages with policymakers to ensure their decisions are based on sound science and are responsive to the needs of the biological sciences community. We also provide policy analysis and insights to the scientific community to help them understand and influence decisions that impact biological research and education.

2022 saw the passage of the historic CHIPS and Science Act, 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 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 the Biodiversity Collections Network (BCoN), we ensured that important provisions supporting biological collections were included in the finalized CHIPS and Science Act. In 2023, we will continue to engage the research community and federal decisionmakers to inform the implementation of these provisions.

In 2022, we also worked to urge policymakers to ensure open access to genetic sequence data, to urge investments in pathogen sequencing and surveillance, to oppose legislative provisions that would restrict federally funded research projects focused on gain of function research, to support legislation to enhance federal scientific integrity policies, to urge investments in agricultural research and innovation that improves climate outcomes, and to promote research-based efforts to prevent gun violence.

Furthermore, AIBS remains dedicated to improving the culture of biology by enabling inclusive, diverse, equitable, and accepting scientific environments—an endeavor we plan to continue in the years to come. Last year, AIBS sustained its commitment to early career scientists by recognizing graduate student leaders with the Emerging Public Policy Leadership Award. 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 science policy and communications training.

It is more important than ever to rely on scientific evidence to guide policy decisions. We need responsible public policy to address the grand challenges facing society today, including the unprecedented biodiversity loss, the climate crisis, and threats to public health and food security. Moreover, our response to the COVID-19 pandemic has demonstrated the need for clear and effective science communication.

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 communicators. 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

- ✕ Secured passage of the historic CHIPS and Science Act that authorizes critical new investments in our nation's science and technology enterprise, including doubling the National Science Foundation's (NSF) authorized budget over a 5-year period.
- ✕ Ensured that language supporting biological collections and field stations were included in the finalized CHIPS and Science Act.
- ✕ Helped 112 scientists become advocates for science.
- ✕ Endorsed the One Health Security Act, which aims to enhance interagency coordination, streamline funding, and strengthen early warning and detection networks to rapidly respond to biological threats.
- ✕ Through the USA Nagoya Protocol Action Group, provided input to the U.S. State Department and United Nations Convention on Biological Diversity stakeholders on policy options for access and benefit sharing of digital sequence information.
- ✕ Supported efforts to secure inclusion of nearly all provisions of the Tracking Pathogens Act, a legislation aimed at strengthening pathogen genomics surveillance, in the fiscal year 2023 omnibus spending package.
- ✕ Worked with our science community partners to secure notable funding increases for science in fiscal year 2023, including a \$1 billion or 12 percent boost for NSF—the largest funding increase the agency has ever received.
- ✕ Weighed in on the Supreme Court's Waters of the United States (WOTUS) case by filing an amici curiae brief with 11 other scientific societies.
- ✕ Increased awareness of the needs of the biological sciences community by facilitating 62 meetings between scientists and lawmakers.
- ✕ Provided professional development training to 162 scientists.



SCIENCE POLICY

AIBS made notable contributions to research and science education policy in 2022. Our efforts focused on promoting federal investments in biological research and education, advocating for the responsible use of science in the policymaking process, advancing the policy interests of biodiversity-enabled and biodiversity-related research and education, and advocating for policies to strengthen international biodiversity research.

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 2022. 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.

AIBS worked with key lawmakers and our partners in the scientific community to secure passage of the historic CHIPS and Science Act that makes historic new investments in the U.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.

Science in Policymaking

Early in the year, AIBS endorsed the Tracking Pathogens Act, a bill aimed at enhancing genomic sequencing and surveillance of pathogens. Working with our partners, we helped to secure the inclusion of nearly all provisions from the bill in the finalized FY 2023 omnibus spending package enacted at the end of 2022.

AIBS joined the Consortium of Aquatic Science Societies (CASS), the Ecological Society of America, and the Society for Ecological Restoration in filing an amici curiae brief with the U.S. Supreme Court to share the scientific perspective in the Sackett vs. U.S. Environmental Protection Agency (EPA) case. The Supreme Court will soon make a decision on the appropriate definition of "waters of the United States" (WOTUS) to determine the scope of waters federally regulated under the Clean Water Act.

In the fall of 2022, AIBS endorsed Senator Kirsten Gillibrand (D-NY)'s legislative initiative to apply the One Health approach to prevent, detect, and respond to biological threats. Named the One Health Security Act, the bill would create a mechanism to enhance interagency coordination, streamline funding, and strengthen our early warning and detection networks to rapidly respond to emerging biological threats. AIBS also provided substantive comments on the bill's discussion draft, endorsed by 17 other societies, urging that the forthcoming version of the bill be expanded to include biodiversity infrastructure (e.g., biorepositories, associated digital assets, expertise, field stations, and our vast natural resource agencies) as a critical component of our national research infrastructure for pathogen prediction, surveillance, and mitigation.

Additionally, AIBS condemned the invasion of Ukraine and urged policymakers to take timely action to support Ukrainian scientists; urged passage of the Scientific Integrity Act, which would require federal science agencies to adopt and enforce clear scientific integrity policies; successfully advocated for the removal of legislative provisions from the CHIPS and Science Act that would restrict, pause, or alter federally funded research projects that focus on gain of function research of concern; successfully opposed the inclusion of harmful

provisions in the CHIPS and Science Act that would change current public access policies for peer-reviewed journals; joined a group of agricultural research stakeholders in highlighting to lawmakers the climate benefits of agricultural research; expressed support for a legislative proposal to exempt STEM graduates with advanced degrees from green card caps; called on U.S. Senators to take legislative action to prevent gun violence and rely on research and evidence-based strategies to address the public health issue; and expressed support for the confirmation of Dr. Arati Prabhakar as Director of the Office of Science and Technology Policy.

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, [Extending U.S. Biodiversity Collections to Promote Research and Education](#), called for building an Extended Specimen Network—a community-informed research and education initiative to coordinate biodiversity data mobilization and integration.

In 2022, BCoN carried on promoting the Extended Specimen Network vision as a unifying goal for biological collections over the next decade. 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—successfully argued for the inclusion of important collections-related provisions in the finalized CHIPS and Science Act.

BCoN also continued to collaborate with national and international partners, including iDigBio, the Global Biodiversity Information Facility, 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.

International Policies Governing Biodiversity Research

In the fall of 2021, AIBS organized a series of online international workshops, funded by NSF, to explore the impacts of regulating digital sequence information (DSI), such as genetic sequence data, on international biodiversity science and conservation. The goal of the series

was to increase awareness of and engagement from scientists in ongoing international policy discussions, where parties to the United Nations Convention on Biological Diversity (CBD) and the Nagoya Protocol (NP) are considering whether the access and benefit sharing framework should be expanded to include DSI, in addition to the physical biological resources they were set up to address.

The workshops, conducted in partnership with the USA Nagoya Protocol Action Group and 18 different scientific professional associations and societies, featured 16 speakers from Brazil, Mexico, Argentina, Ivory Coast, UK, China, Germany, and US. In total, more than 1,100 individuals from over 30 countries registered for these events and more than 500 individuals attended live. [Recordings](#) of these sessions are available online as educational resources.

In 2022, recommendations from these workshops were published in a Viewpoint article in *BioScience* with the goal of informing ongoing negotiations. Additionally, an international coalition of 26 scientific societies and organizations and 122 scientific researchers and professionals, led by AIBS, sent a letter to CBD and NP negotiators sharing these recommendations and calling for continued open access to DSI. The letter also encouraged negotiators to mobilize the global scientific community to provide input to ensure that policies being considered will be implementable without restricting open DSI.

Other Highlights

The 2022 meeting of the AIBS Council of Member Societies and Organizations was a follow-up to the 2021 meeting, Enabling Scientific Societies to Support Inclusive, Diverse, Equitable, and Accepting (IDEA) Scientific Environments. Funded by NSF, the IDEA Conference 2.0 focused on society commitment to DEI and started with a series of virtual mini-sessions that explored societies' internal structure, external communication, and assessment, and culminated with a half-day virtual Council meeting. The meeting provided a forum for leaders and staff of more than thirty societies to engage in shared learning, discussion, and reflection on a range of topics. A summary report of conference outcomes will be published in 2023.

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 2022 hill briefing, "The Role of Horizon Scanning in Ecosystem Research," explored the application of horizon scanning as a tool for ecosystem management and assessing potential threats and opportunities.



Kristen Grace

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 transitioning to a virtual format in 2021 due to the COVID-19 pandemic, AIBS organized a *Virtual Advocacy Event* once again in April 2022, where biologists from across the nation met with their federal lawmakers virtually through the Zoom platform. The scientists also participated in a supplemental two-day online science communications and advocacy training program to prepare for their meetings. Overall, AIBS facilitated 52 virtual congressional meetings for the participants with lawmakers from 18 states to discuss funding for biological research programs.

More than 80 scientists, including graduate students, senior researchers, and educators, from 14 states registered to participate in the *12th 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 2022, 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, Helminthological Society of Washington, NSC Alliance, Paleontological Society, 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 2022:

- Virtual Advocacy Event participants met with Representatives Rick Crawford (R-AR) and Dusty Johnson (R-SD) to discuss funding for biological research.
- Senator Jerry Moran (R-KS) visited the University of Kansas Biodiversity Institute and Natural History Museum to learn about their collections and research.
- Scientists met with Senator Bob Menendez's (D-NM) staff in his district office to discuss science literacy and funding for minority scientists at the National Science Foundation and National Institutes of Health.
- Scientists participated in virtual meetings with the offices of Senators Dianne Feinstein (D-CA), Sherrod Brown (D-OH), Alex Padilla (D-CA), Chuck Schumer (D-NY), Susan Collins (R-ME), Angus King (I-ME), Kirsten Gillibrand (D-NY), Debbie Stabenow (D-MI), Gary Peters (D-MI), Amy Klobuchar (D-MN), Tina Smith (D-MN), John Thune (R-SD), Mike Rounds (R-SD), Jon Tester (D-MT), Steven Daines (R-MT), John Cornyn (R-TX), Ted Cruz (R-TX), Rick Scott (R-FL), Marco Rubio (R-FL), Richard Burr (R-NC), Thom Tillis (R-NC), Mark Warner (D-VA), Brian Schatz (D-HI), Mazie Hirono (D-HI), Roy Blunt (R-MO), Joni Ernst (R-IA), Josh Hawley (R-MO), John Boozman (R-AR), Tom Cotton (R-AR), Chuck Grassley (R-IA), John Cornyn (R-TX), John Kennedy (R-LA), Bill Cassidy (R-LA), John Hickenlooper (D-CA), and Michael Bennet (D-CO).
- Scientists also met virtually with offices of Representatives Karen Bass (D-CA), Jason Smith (R-MO), Ashley Hinson (R-IA), Kaiali'i Kahele (D-HI), Chellie Pingree (D-ME), Antonio Delgado (D-NY), Garret Graves (R-LA), Greg Steube (R-FL), Dean Phillips (D-MN), Matt Rosendale (R-MT), Debbie Dingell (D-MI), Mike Carey (R-OH), Elissa Slotkin (D-MI), Don Beyer (D-VA), Alma Adams (D-NC), and Lauren Boebert (R-CA).
- In total, 62 meetings were facilitated by AIBS in 2022.

Policy and Communications Training for Scientists

As a result of COVID-19, 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 2022, we offered three virtual and two in-person communications workshops that trained 112 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 now also offered online. Overall, 162 scientists participated in AIBS professional development programs in 2022.

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 Heidi Waite, a Ph.D. candidate in ecology and evolutionary biology at the University of California in Irvine, California, and Michael McCloy, a PhD student in ecology and evolutionary biology at the Texas A&M University in College Station, Texas. The 2022 award winners received online communications and advocacy training and will receive an expense-paid trip to Washington, DC in 2023 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. We particularly want to expand our highly successful Emerging Public Policy Leadership Award program to ensure that more early career professionals may benefit from the program in the future. To fully fund this program and provide additional professional development opportunities for students from Minority Serving Institutions, 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/>*

AIBS Legislative Action Center

Grassroots advocates use the AIBS Legislative Action Center to advocate for robust science policy. In 2022, 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 also offers summaries of legislation of interest to the biological sciences community and other resources for researchers to engage in the development of the nation's science policy.

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

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*. [Start your free subscription.](#)

Leadership in Biology Webinars

The Public Policy Office regularly organizes webinars for AIBS members. In 2022, we partnered with the Association of Ecosystem Research Centers to organize a webinar with program officers from the National Science Foundation (NSF) to discuss current and future funding opportunities at NSF for early career scientists, including at the new Technology, Innovation, and Partnerships (TIP) Directorate. We also organized a public webinar to discuss the outcomes from the 2021 AIBS Council Meeting, Enabling Scientific Societies to Support Inclusive, Diverse, Equitable, and Accepting (IDEA) Scientific Environments. 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 2022 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 2022 contest included photos depicting a Boston University researcher amidst thousands of reproducing gliding treefrogs studying their explosive breeding process (below), a collections manager at the Florida Museum of Natural History taking a measurement of a diamondback terrapin, and a Ph.D. student holding a baby marmot trapped and safely released unharmed as part of a 61-year-long study at the Rocky Mountain Biological Laboratory. The first-place winner will be featured on the cover of an upcoming issue of *BioScience* and received \$250. [Learn more](#) about the contest and past winners on the AIBS website.



Faces of Biology photo contest first place winner: Brandon Güell

GET INVOLVED

If you have a minute...

- Join the [AIBS Legislative Action Center](#)
- Subscribe to the [Public Policy Report](#)
- Follow us on [Twitter](#)

If you have 15 minutes...

- Read an [AIBS position statement](#) 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 [donation to AIBS](#)

If you have 30 minutes...

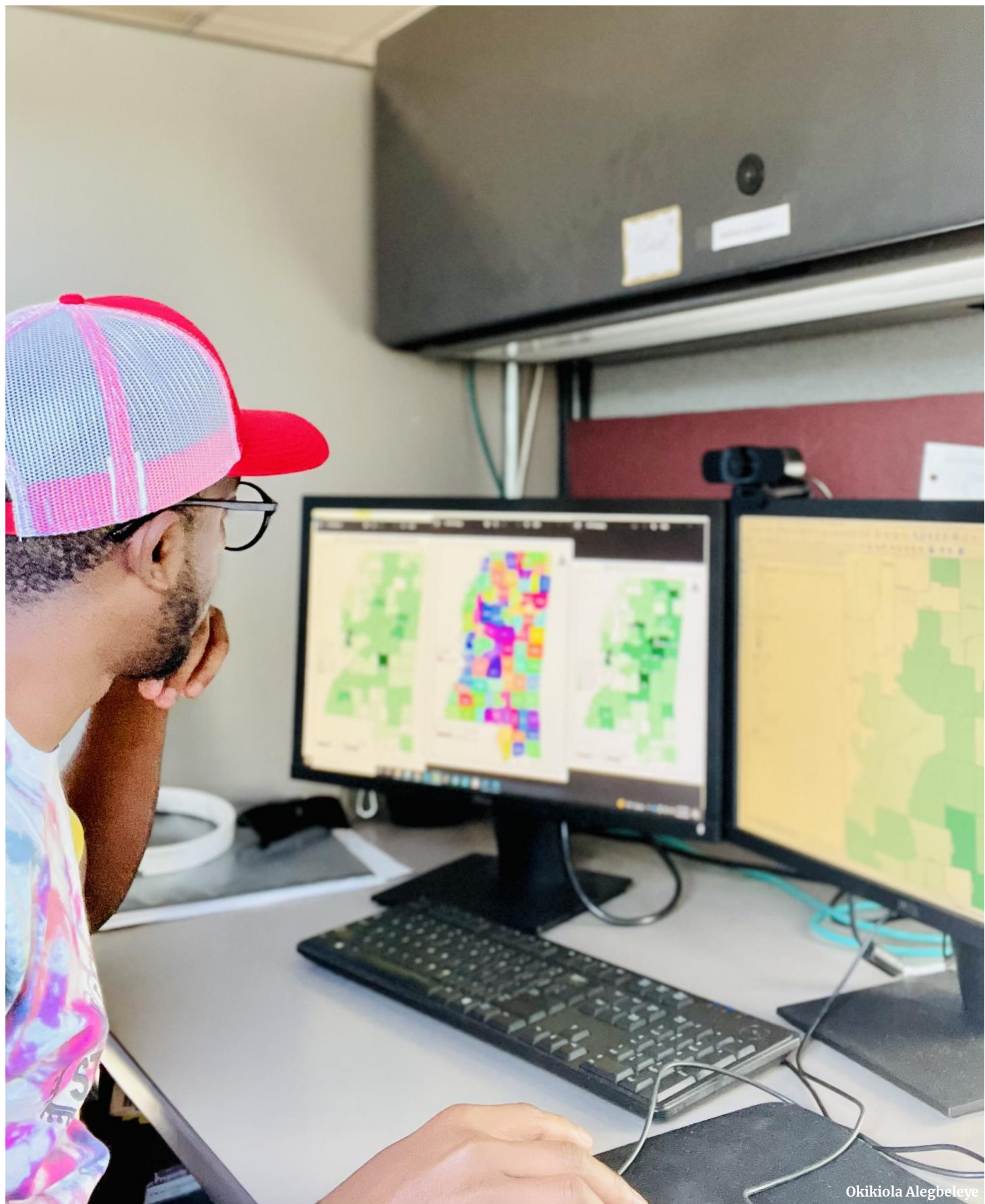
- Learn about [federal investments](#) in science and the budget process
- Listen to a [BioScience Talks](#) podcast exploring a timely science topic

If you have a day...

- Participate in the [AIBS Congressional Visits Day](#) in Washington, DC
- Participate in the [Biological Sciences Congressional District Visits](#) event
- Coordinate a [professional development workshop](#)

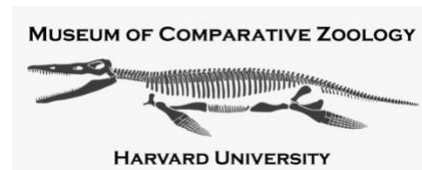
Student Opportunities

- Apply for the [Emerging Public Policy Leadership Award](#)



SUPPORTING ORGANIZATIONS

The following organizations sponsored AIBS science policy initiatives in 2022.



The Society for
Integrative &
Comparative
Biology



Society of Systematic Biologists

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 [our website](#) 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 non-government 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 non-governmental organizations.



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