U.S. National Committee for the International Union of Biological Sciences (IUBS)

Committee

Gillian Bowser

Chair

Current professional positions include faculty in ecosystem science sustainability which includes research expertise on international assessments and global environmental policy. As faculty she work with graduate students and senior undergraduates on environmental negotiations such as the UN Framework Convention on Climate Change and on local environmental issues such as biodiversity changes in US National Parks. Her background is in ecology and includes an AAAS Science and Diplomacy Fellowship at the US Department of State Ocean Environment and Science, Office of Marine Conservation. In addition, she have served as a stakeholder representative for the UN Environment's Global Environmental Outlook (GEO6) and currently serve as a lead coordinating author for the GEO7 under the same organization. She also served as an author on the US National Climate Assessment on the Biodiversity Chapter. She have received recognition for this work as a AAAS Fellow in the section of society and science (section X); was awarded the Human Diversity Award from Ecological Society of America. She was elected to the executive committee of the International Union of Biological Societies and serve on the board for the Institute of Parks, People and Biodiversity at University of California Berkeley. Her background training includes a career as an ecologist for the National Park Service at eight different locations throughout the US for over two decades, as well as board service on non-profits, such as Earthwatch, that focus on community engagement in sciences.

Kofi Akamani

Member

Kofi Akamani is an Associate Professor of Forest Recreation and Conservation Social Science in the Forestry Program at Southern Illinois University Carbondale. His research employs a multi-disciplinary approach to developing conceptual models and methodological tools aimed at understanding transitions toward adaptive governance of forests, water resources and agricultural landscapes and their implications for ecosystem health and the resilience of resource-dependent communities in the US, Ghana and elsewhere. Kofi was an author of the ecosystems chapter of the Fifth National Climate Assessment, and he is currently serving as lead author of the UNEP Global Environment Outlook 7 report, as well as the IPBES nexus assessment on the interlinkages among biodiversity, health, food, water, and climate. He recently received the 2023 International Alumni Achievement Award from the University of Idaho's College of Natural Resources. Kofi is a member of the American Association for the Advancement of Science. He received his Ph.D. in natural resources from the University of Idaho, an MPhil in Culture, the environment and Sustainability from the University of Oslo, and a BSc. degree in Planning from the Kwame Nkrumah University of Science and Technology in Ghana.

Karen Bailey

Member

Karen Bailey is an Assistant Professor of Environmental Studies at the University of Colorado at Boulder. She is a systems researcher interested in understanding how human-environment interactions impact human health and well-being and natural resource management. She is an interdisciplinary environmental social scientist and combines social science research with environmental and ecological data to understand feedbacks between communities and their environments, how we can build resilience to climate change, and how to support landscapes that meet human needs and sustainability goals. Her current projects focus on climate adaptation in southern Africa, human health and well-being in east Africa, barriers to entry in natural resource fields, just and equitable climate change research, and urban communities and environmental engagement. She also has an emphasis on justice, equity, diversity, and inclusion in environmental fields and STEM more broadly and is committed to research that supports, amplifies and engages the most vulnerable among us. Dr. Bailey completed her Ph.D. in 2018 in the School of Natural Resources and the Environment at the University of Florida. She also previously served as a member of the National Academies Standing Committee on the Use of Emerging Science for Environmental Health Decisions.

Yana Bromberg

Member

Dr. Yana Bromberg is a professor in the Departments of Biology and Computer Science at Emory University and an adjunct professor at the Biomedical Engineering department, joint between Emory University and Georgia Tech. She is also a fellow of the Institute for Advanced Study at the Technical University of Munich, Germany, the principal fellow of the Emory Center for AI Learning, and a Director of the International Society for Computational Biology. Dr. Bromberg received her bachelor's degrees in biology and computer science from SUNY Stony Brook and her PhD in Biomedical Informatics from Columbia University. She is known for her seminal work on a machine learning-based method for screening for effects of genetic variation. The primary focus of Dr. Bromberg's research is the concept of "function" in biology. Specifically, she is interested in understanding the origins and mechanisms of the molecular machinery that underpins life. She aims to use the (deep) advances in ML and other computational techniques to gain a deeper understanding of how biological functionality is encoded in genomic data, whether on the level of individual genes, whole genomes, or metagenomes. Dr. Bromberg's work has been supported by both government agencies and private foundations, as well as recognized by several awards, including the US NSF CAREER award and the Hans-Fischer Fellowship of the Institute for Advanced Study at TU Munich.

Gustavo C. MacIntosh

Member

Dr. Gustavo MacIntosh is currently a Liberal Arts and Sciences Dean's Professor in the Roy J. Carver Department of Biochemistry, Biophysics and Molecular Biology at Iowa State University (ISU). He earned his bachelor's and master's degrees in biology from the National University of Mar del Plata, and his PhD in Chemical Biology from the University of Buenos Aires, both in Argentina. His research focuses on two main areas: cellular homeostasis in eukaryotes and plant immunity. Dr. MacIntosh was elected and served as President of the American Society of Plant Biologists in 2022-2023. Previous to this position, he served as the chair of the Equity, Diversity and Inclusion committee in the society. He has also served in committees for the Genetics Society of America and founded the ISU chapter of the Society for the Advancement of Chicanos/Hispanics and Native Americans in Science. He is currently a member of the Steering Committee for the ROOT & SHOOT research coordination network that includes seven plant science societies. Among his awards, Dr MacIntosh has been recognized for his equity and inclusion work, and he was named Distinguished Scientist by the Iowa Academy of Science. He served as the chair and voting delegate of the US National Academies of Sciences delegation to the International Union of Biological Sciences General Assembly in 2023.

Carol L. O’Donnell

Member

Dr. Carol O’Donnell is Executive Director of Smithsonian Science Education Center, dedicated to transforming K-12 Education through Science in collaboration with communities across the globe. Carol’s career spans being a science teacher, curriculum developer, research scientist for the US Department of Education, and part-time faculty for the Physics Department of George Washington University, where she received her doctorate in science education. She serves on numerous national and international STEM committees, including for the Office of Science and Technology Policy; InterAcademy Partnership, through a National Academies appointment; and UN Broadband Commission on Sustainable Development. Carol was the winner of the American Educational Research Association Graduate Research and Excellence Award for her research in implementation science; National Alliance for Partnerships in Equity Unsung Hero Award; Smithsonian Innovation in Education Award for her research in Education for Sustainable Development; and the University of Pittsburgh Distinguished Alumni Award, for her lifelong service to STEM education. She was Principal Investigator of an NSF INCLUDES grant for her Center’s work in “Building Networks and Enhancing Diversity in the K-12 STEM Teaching Workforce” and is PI of the grant “Integrating Inclusive/Universal Design and Accessibility Strategies into K-12 STEM Classrooms.” Her TedX talk demonstrates her passion for integrating digital and physical interactions in teaching science.

Pamela H. Templer

Member

Pamela Templer is Professor and Chair of the Department of Biology at Boston University. She is also Director of the Boston University URBAN Graduate Program and a Fellow of the Ecological Society of America (ESA). She has published over 100 papers on a wide range of topics, including the effects of climate change, air pollution, and urbanization on the functioning of temperate forest ecosystems. She pursues projects that integrate across environmental science and policy through a collaborative approach with governments, non-governmental organizations, and the private sector. Dr. Templer was awarded the 2015 Metcalf Award for Excellence in Teaching and the 2021 Provost Scholar-Teacher of the Year Award from Boston University. She was awarded a 2007 Andrew W. Mellon Foundation Junior Faculty Research grant and a 2012 NSF CAREER Award, NSF’s most prestigious award for early-career faculty who serve as role models and leaders in research and education. She is also the lead PI of a five-year NSF Research Traineeship (NRT) PhD Program at Boston University. She received her BA from the University of California Santa Cruz and her PhD in Ecology & Evolutionary Biology from Cornell University and completed her postdoctoral work at the University of California Berkeley.

Ethell Vereen, Jr

Member

Dr. Ethell Vereen, Jr. (Pronouns: he/him; Hear pronunciation of name https://namedrop.io/ethellvereen) is an Assistant Professor of Biology at Morehouse College with a STEM Education focus on diversity and inclusion in natural resources, Pan-African pedagogy, and Virtual Reality (VR) for teaching, learning and assessment; and a research focus on water quality, microbial ecology, environmental health and justice, and sustainability. Dr. Vereen has been awarded over $1 million in research grants and awards from agencies including but not limited to the National Science Foundation, Department of Education, and the Environmental Protection Agency that has increased the research capacity at Morehouse College and provides additional training opportunities for the College's STEM students. He currently serves on several boards and foundations including the board for the Environmental Leadership Program, NSF NEON Technical Working Group, SC State University Foundation, and his exemplary contributions in the areas of undergraduate education, student learning and campus life have also been noted as he was awarded the 2019 Vulcan Teaching Excellence Award and recently recognized as one of 1000 Inspiring Black Scientists in America. Dr. Vereen earned a BS in Biology from SC State University before earning his MPH and PhD both from the University of Georgia focusing on Environmental Health and Ecology respectively. He completed postdoctoral training at Emory University as an IRACDA fellow in the Fellowship in Research and Science Teaching (FIRST) program.

Marvalee H. Wake

Member

Marvalee Wake is Professor of the Graduate School in the Department of Integrative Biology at the University of California, Berkeley. She is "retired", but still actively writing, teaching, and working with graduate students, serving on committees there are for professional societies and editorial boards. Relevant positions are her presidencies of the International Union of Biological Sciences and other international/national biological societies that promote biology. She is an evolutionary morphologist, with organismal biology, development, systematics, reproductive biology, and evolution, coupled with biodiversity science. She is a Member of the American Academy of Arts and Sciences, a fellow of the Linnaean Society of London, the Radcliffe Institute for Advanced Study, the American Association for the Advancement of Science, the California Academy of Science, etc., and holds other medals, honors, and citations. She is a member of several professional societies. She has a PH.D. in biology from the University of Southern California, and has taught and done research at the University of California, Berkeley, for more than 50 years. Her prior HRC service includes membership in the US National Committee 1984t-2007, several formal oversight and review committees, etc. She is a National Associate of the Academies of Sciences, Engineering, and Medicine.

Tanya Y. Berger-Wolf

Ex Officio Member

Dr. Tanya Berger-Wolf is a Professor of Computer Science Engineering, Electrical and Computer Engineering, and Evolution, Ecology, and Organismal Biology at the Ohio State University, where she is also the Director of the Translational Data Analytics Institute. Berger-Wolf is the co-founder of the AI for wildlife conservation non-profit Wild Me and the director of the Imageomics Institute and the AI and Biodiversity Change Global Climate Center. Prior to coming to OSU in January 2020, Berger-Wolf was at the University of Illinois at Chicago (2005-2020). Her research is in AI for ecology, biodiversity, and conservation. She has received numerous awards for her research and mentoring, including University of Illinois Scholar, UIC Distinguished Researcher of the Year. Berger-Wolf is a member of the US National Academies Board on Life Sciences, CNRS International Scientific Advisory Board, Artificial Intelligence for Science, Science for Artificial Intelligence (AISSA) Centre, and the Advisory Boards of Conservation X Labs and the Ocean Vision AI (OVAI) project. She served on the Global Partnership on AI (GPAI) AI on Biodiversity working group, WWF working group on AI Collaboration to End Wildlife Trafficking, among many others. Sher received her PhD from the University of Illinois at Urbana-Champaign in 2002.

Jessica Gurevitch

Ex Officio Member

Dr. Gurevitch is Distinguished Professor and Department Head of Forestry and Natural Resources at Purdue University. She was previously Department Chair and Distinguished Professor at Stony Brook University, State University of New York. She holds a Ph.D. from the University of Arizona and was a postdoctoral fellow at the University of Chicago. She is a Fellow of AAAS and Fellow of the Ecological Society of America. Her research is in ecology and has focused on plant ecology, biological invasions, population and community ecology, research synthesis, meta-analysis and experimental design. Current interests include interdisciplinary work on the ecological implications of proposals for climate intervention (particularly solar radiation modification or geoengineering). She has served on the Governing Board of the Ecological Society of America and as President of the Society for Research Synthesis Methodology, and is currently Section Chair for Biological Sciences of the American Association for the Advancement of Science.

Shahid Naeem

Ex Officio Member

Shahid Naeem is Professor of Ecology in the Dept. of Ecology, Evolution, and Environmental Biology. He has served on the faculty of the University of Minnesota, the University of Washington, and currently serves on the faculty of Columbia University. His research, teaching and service focus on the importance of biodiversity in the functioning of ecosystems and the services they provide. He and his lab-group have worked on plants, animals, and microbes in

freshwater, terrestrial, and marine systems. Recipient of the Ecological Society of America's Buell and Mercer Awards and the Lenfest Distinguished Faculty award at Columbia University, he is also a fellow of the American Association for the Advancement of Science and an Aldo Leopold Leadership fellow. He is currently President of the Ecological Society of America (2022-2025 term). He has published over 200 research papers, edited two volumes on biodiversity loss, and currently serves as Deputy Editor for Science Advances. He obtained his PhD from the University of California at Berkeley, was a postdoctoral fellow at Imperial College of London, the University of Copenhagen, and University of Michigan. He currently serves on the NASEM Committee on Research at Multiple Scales: A Vision for Continental Scale Biology.

Judith E. Skog

Ex Officio Member

Dr. Skog is an emeritus professor at George Mason University after serving as Professor of Biology. She served as Program Officer at NSF in Biology and Geology, Deputy Division Director and Division Director in Biological Infrastructure, and then as Program Officer for the Biology Program on Collections Digitization. Her major research interests are the evolution of ferns and lower vascular plants and has studied fossils and modern ferns using molecular techniques as well as morphology, spores, and anatomy.

Memberships of societies include the American Fern Society (Treasurer, Vice President, President), Botanical Society of America (President Elect, President, Past President), Geological Society of America, American Institute of Biological Sciences (Secretary, Vice President, President). She did her undergraduate studies at Tufts University (B.S.) and then graduate degrees from Univ. Connecticut (M.S,) and Cornell University (Ph.D.).

Leeann E. Thornton

Ex Officio Member

Dr. Leeann Thornton is a Professor of Biology at The College of New Jersey, and she is currently President of the American Society of Plant Biologists (ASPB). Dr. Thornton has extensive training in undergraduate science education and research mentoring. In addition to teaching a variety of biology courses, she leads a team of undergraduate researchers in studying the role of plant Cytochrome P450 enzymes in environmentally regulated changes to hormones and defensive compounds. Dr. Thornton has been involved in ASPB leadership throughout the past ten years, including as a representative on the Membership Committee, the Council, and through the Primarily Undergraduate Institutions Section. Becoming ASPB President-Elect in 2022 has allowed Dr. Thornton to work closely with ASPB staff and all levels of governance to lead the society into its second century. ASPB has a broad national and international presence in the scientific community through its journals, conferences, education and outreach, as well as a multi-society network

supporting inclusivity in plant science. Dr. Thornton earned a BS in Biology from James Madison University and a PhD in Plant Biology from Washington University in St. Louis. She collaborates with scientists at research universities and plant science institutes in the US and internationally.