

CONGRESSIONAL BRIEFING: OPEN SCIENCE IN ECOSYSTEM RESEARCH

September 18, 2024



Ms. Natalie Ward

Policy Analyst at the White House Office of Science and Technology Policy (former)

Implementation of Open Science Across Federal Agencies

Ms. Natalie Ward recently served in the White House, where she focused on advancing open science and inclusivity in research. As a Policy Analyst at the White House Office of Science and Technology Policy (OSTP), she supported the launch and implementation of key initiatives such as the 2022 OSTP Public Access Memo, the White House Year of Open Science, the Blueprint for an AI Bill of Rights, and the White House Summit on STEMM Equity and Excellence. Additionally, she served as executive secretary of the National Science and Technology Council (NSTC) Subcommittee on Social and Behavioral Science, playing a pivotal role in the generation of the NSTC report and technical guide on the use of social and behavioral science to advance evidence-based policymaking. Ms. Ward's background also includes experience at the Federation of American Scientists, where she worked on sourcing and publishing science, technology, and innovation policy recommendations for executive and legislative decision-makers. She holds a BS and MS in applied mathematics and international relations from Fordham University, where she was awarded the McCartney Mathematics Research Fellowship.



Dr. Kimberly Kirkpatrick

Associate Vice President for Research and Innovation, University of Minnesota

Open Science from the Academic Perspective

Dr. Kim Kirkpatrick provides leadership in development and enhancement of academic institutes and centers that report to the Research and Innovation Office at the University of Minnesota. She supervises research infrastructure and resources including the Research Animal Resources facilities and Biosafety Level 3 program. She more broadly oversees University shared research resources and core research services, and she directs the research infrastructure investment program. Prior to joining the University of Minnesota in June of 2023, Dr. Kirkpatrick was a Distinguished Professor of Psychological Sciences and Director of the Cognitive and Neurobiological Approaches to Plasticity Center at Kansas State University.

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Dr. Paula Mabee

Chief Scientist & Observatory Director, National Ecological Observatory Network (NEON)

Open Science Data Generation: NSF's NEON

Dr. Paula Mabee has served as the Chief Scientist and Observatory Director for the National Ecological Observatory Network (NEON) since early 2020. She is a Distinguished Emeritus Professor at the University of South Dakota, formerly the Nolop Distinguished Professor in the Department of Biology at the University of South Dakota, where she served since 1997. She joined the National Science Foundation (NSF) in 2015, serving until 2017 as Division Director for the Division of Environmental Biology in the Directorate of Biological Sciences. Prior to 1997, she held assistant and associate professorships at San Diego State University. Mabee holds a BA in Biology and a B.A. in Religion from St. Olaf College, a Ph.D. in Zoology from Duke University, and was a postdoctoral fellow at the Smithsonian Institution in the Division of Fishes and a NSF postdoc in developmental biology at Dalhousie University in Nova Scotia. During her career, Dr. Mabee has authored more than 70 research publications, received 12 NSF and NIH research grant awards totaling close to \$7 million, and holds numerous editorial and advisory board positions. She has served as the president of the Society of Systematic Biologists, and on governance bodies for other societies including the Society of Integrative and Comparative Biology and the American Society of Ichthyologists and Herpetologists.



Dr. Brian Pellerin

Program Manager, Next Generation Water Observing Systems & Water Hazards, U.S. Geological Survey

Open Science to Meet Agency Missions

Dr. Brian Pellerin is the Program Manager for the USGS Next Generation Water Observing System (NGWOS), which provides high-resolution data on water quantity, quality, and use to support modern water prediction and decision making. He also leads the USGS Water Mission Area Water Hazards Program. Prior to these roles, Dr. Pellerin served in technical leadership and research roles for the USGS in the Water Mission Area and the California Water Science Center. He has a Ph.D. in Natural Resources and Earth Systems Science from the University of New Hampshire, and his prior research was on the development and use of optical sensors for water quality studies.

ABOUT AERC

The Association of Ecosystem Research Centers (AERC) aims to support and encourage cooperation in research and training among ecosystem centers; strengthen ecosystem research and its applications; and advance understanding of ecosystem science at local, regional, national and international levels.

AERC brings together a network of U.S. research programs in universities and private, state and federal laboratories that conduct research, provide training and analyze policy at the ecosystem level of environmental science and natural resources management. These centers are located throughout the U.S. mainland, as well as Alaska and Puerto Rico. These organizations conduct a major share of the ecosystem research in the United States and represent hundreds of scientists. Together these scientists conduct a major share of the ecosystem research in the United States.

The major environmental and natural-resources problems facing the earth - global climatic change, declining biodiversity, spreading surface and groundwater pollution, acid precipitation, desertification, declining fisheries - are so extensive that they can only be addressed on a regional, continental, or global scale, and with a broadly coordinated interdisciplinary focus. Such scales and focus imply the need for extensive communication; and for exchange of views and collaboration on research, training, and policy needs.



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- Cary Institute of Ecosystem Studies
- Center for Freshwater Studies, University of Alabama
- Natural Resources Research Institute, University of Minnesota
- Earth and Ecosystem Sciences Division, Desert Research Institute
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- Ecology Center, Utah State University
- Ecology Research Center, Miami University
- Environmental Sciences Department, University of Virginia
- Flathead Lake Biological Station, The University of Montana
- Global Institute of Sustainability, Arizona State University
- Hancock Biological Station and Watershed Studies Institute, Murray State University
- Harvard Forest & Quabbin Watershed, National Ecological Observatory Network (NEON)
- Institute for the Study of Earth, Oceans, and Space, University of New Hampshire
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