

THE ROLE OF HORIZON SCANNING IN ECOSYSTEM RESEARCH



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Dr. Jonathan Kolby

Research Scientist, Smithsonian's National Zoo and Conservation Biology Institute

"The Value of Horizon Scanning as a Strategic Tool in Environmental Planning"

Dr. Jonathan Kolby is a Research Ecologist at Smithsonian's National Zoo and Conservation Biology Institute managing a global horizon scan to reduce the risk of zoonotic pathogen introduction to the United States through the international wildlife trade. He is a former US Fish & Wildlife Service employee with 10 years of specialized experienced regulating international wildlife trade, working at the intersection of science, policy, and law enforcement. He first worked as a USFWS Wildlife Inspector based at the Port of Newark, NJ, where he performed thousands of inspections of wildlife shipments to investigate compliance with applicable US laws and treaties, and later served at USFWS Headquarters as a CITES Policy Specialist for the Wildlife Trade & Conservation Branch of International Affairs. Jonathan earned his PhD at James Cook University where he focused on biosecurity and the spread of pathogens through international wildlife trade, and specifically those contributing towards the global amphibian extinction crisis.



Dr. David Bengston

Environmental Futurist, Strategic Foresight Group, USDA Forest Service

"The Application of Horizon Scanning for Emerging Issues in Forest Management"



Dr. David Bengston is an Environmental Futurist and Social Scientist with the Strategic Foresight Group of the Northern Research Station, USDA Forest Service located in St. Paul, Minnesota. He is also an adjunct professor at the University of Minnesota, where he teaches a seminar on environmental futures. Dr. Bengston has published more than 170 research publications, including papers in the Journal of Futures Research, World Futures Review, Futures, and The Futurist. He was the Chair of the North American Forest Commission's Foresight Working Group and is a member of World Futures Studies Federation and the Association of Professional Futurists. In 2004, Dr. Bengston was an OECD Research Fellow at Seoul National University in South Korea. He will be a visiting Fulbright scholar at the University of Eastern Finland in 2023. Dr. Bengston has worked as a consultant to the Food and Agriculture Organization of the United Nations, the United Nations Development Programme, and the International Union of Forestry Research Organization's (IUFRO) Special Programme for Developing Countries. He was the Coordinator of the IUFRO Ecological Economics in Forestry Working Group.



Dr. Lucinda Johnson

Director of Research, Natural Resources Research Institute (NRRI), University of Minnesota Duluth

"A Framework for an Early Warning System for the Laurentian Great Lakes"

Dr. Lucinda B. Johnson is an aquatic and landscape ecologist whose research focuses on the impacts of multiple stressors on aquatic ecosystems with emphasis on human activities (e.g., land use) and climate change. Her research and advisory activities lie at the nexus of research, management, and policy. Dr. Johnson is a Senior Research Fellow at the Natural Resources Research Institute of the University of Minnesota Duluth where she previously served as the Director of Research. She currently serves on the International Joint Commission's Science Advisory Board as the US Co-Chair of the Science Priority Committee, where she co-leads a Workgroup charged with developing a framework for an early warning system for the Great Lakes. Johnson also is vice chair of the Executive Committee for EPA's Board of Scientific Counselors and serves on the Minnesota Governor's Climate Change Advisory Council. Lastly, Johnson serves as the Board Secretary of the Association for Ecosystem Research Centers (AERC).



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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