Science Advisory Task Force Biographies

Carlton D. Hunt, Co-Chair

Carlton Hunt is a Research Leader with Battelle Ocean Sciences in Duxbury, Massachusetts. He received his Ph.D. in Chemical/Geochemical Oceanography from the University of Connecticut in 1979. He joined Battelle in 1986 after nearly a decade of integrated ecological research at the Marine Ecosystem Research Laboratory (MERL) at the University of Rhode Island. During the past 30 years, he has conducted and supervised projects involving the transport, fate, effects, and bioaccumulation of contaminants and water quality impacts of nutrients in diverse coastal systems. His contributions to numerous coastal monitoring programs, environmental assessments, and environmental impact statements including dredged material disposal site designations in the New York Bight, Long Island Sound and Rhode Island Sound provide him with extensive knowledge of water and sediment quality issues in the coastal environment and integrated ecosystem management. His direct experience in monitoring
program design and implementation has been accessed by the USEPA for planning and facilitation of workshops addressing monitoring programs and environmental indicators for the National Estuary Program. He completed an Implementation Manual for the Monitoring and Assessment Plan (MAP) of Comprehensive Everglades Restoration Plan (CERP) in 2005 and helped to optimized seventeen surface water quality monitoring projects for the South Florida Water Management District. Dr. Hunt has
supported the Massachusetts Water Resources Authority's Harbor and Outfall monitoring program for over 15 years in their ongoing assessment of the impact of treated sewage effluent and recovery of Boston Harbor from previous sewage loading. He was recently named to the Science Advisory Council for the Massachusetts Ocean Plan and as Co-Chair of the Rhode Island Special Area Management Plan's Science advisory committee.

Scott Nixon, Co-Chair

Scott Nixon is Professor of Oceanography at the University of Rhode Island Graduate School of Oceanography and is UNESCO/Cousteau Chair in Coastal Ecology and Global Assessment at the university, where he has been on the faculty since 1970. He took his Ph.D. in systems ecology with H.T. Odum at the University of North Carolina- Chapel Hill in 1969 and has studied a variety of coastal ecosystems ever since. He served for 16 years as Director of the Rhode Island Sea Grant College Program and for many years as Co-Editor-In-Chief of/ Estuaries and Coasts/, the journal of the Estuarine Research Federation. He has published over 100 scientific papers and served on numerous committees of the U.S. National Research Council, including the Ocean Studies Board, the Everglades Restoration Science Review Committee (vice-chair), the Florida Keys Carrying Capacity Model Review Committee (chair), and the Coastal Louisiana Restoration Plan Review Committee. He has been recognized with several awards, including the Ketchum Award for excellence in coastal research from the Woods Hole Oceanographic Institution, the New England Estuarine Research Society Lifetime Achievement Award, and the Odum Award from the Estuarine Research Federation for lifetime achievement. He is a National Associate of the National Academies.

Jon C. Boothroyd

Jon Boothroyd is the Rhode Island State Geologist and a Professor of Quaternary Geology, Department of Geosciences, College of the Environment and Life Sciences at the University of Rhode Island. He earned a B.A. in Economics from the University of New Hampshire-Durham in 1962, an M.S. in Geology from the University of Massachusetts-Amherst in 1972, and a Ph.D. in geology from the University of South Carolina-Columbia in 1974. He is primarily a field geologist specializing in coastal, braided river, and various glacial environments. He has 44 years of field experience in New England, South Carolina, Alaska, Iceland, Saudi Arabia, Madagascar, Ecuador, Mexico and the Azores. His current research interests focus on geologic mapping of Quaternary (surficial) deposits, late glacial and post-glacial landscape development, processes and development of barrier and headland shorefaces in glaciated terrain, coastal geologic hazards and management issues, long-term (years) beach changes, benthic geologic habitat of essential fish habitat and aquaculture sites, geoarchaeology of New England, holocene stratigraphy of microtidal lagoons, and geotechnical aspects of highway construction through, and use of, glacial materials.

Robert Buchsbaum

Robert Buchsbaum is a Conservation Scientist with the Massachusetts Audubon Society. He carries out research on environmental issues of practical importance to conservation, directs Mass Audubon's Ecological Inventory and Monitoring Project, advises sanctuaries in the Southeast and Islands region of Massachusetts on ecological issues, and provides technical analysis on a variety of policy issues. Dr. Buchsbaum received his Bachelor of Science degree in Natural Resources from Cornell and his Ph.D. in Marine Ecology from the Boston University Marine Program at Woods Hole in 1985. His research career includes studies of the interactions between geese and their food plants on salt marshes, nutrient cycling in coastal marine habitats, the decline of seagrasses along the Massachusetts coast, long term changes in the plants and animals of estuaries, sources of bacterial pollution in coastal waters, and the effect of invasive species on salt marsh ecosystems. He also has particular interest in how climate change is affecting New England habitats, in wetland restoration, and in how human activities are affecting wetlands. He has written numerous technical and non technical articles on environmental subjects and is the author of the Appalachian Mountain Club's Best Day Hikes in the White Mountains.

Jeremy Collie

Jeremy Collie is a quantitative ecologist who specializes in fish population dynamics at the University of Rhode Island Graduate School of Oceanography. He also studies the impacts of disturbance on benthic communities, predator-prey interactions, stock assessment and fisheries management. He teaches graduate courses on fish population dynamics and fisheries oceanography. Collie is a member of the Ecosystem Science and Management Working Group, hich is a subcommittee of the NOAA Science Advisory Board. He holds a Ph.D. in Biological Oceanography from the MIT/WHOI Joint Program, 1985 and a B.S. in Biology from University of York, 1980.

Jonathan H. Garber

Jonathan Garber is the director of the Atlantic Ecology Division/National Health and Environmental Effects Research Laboratory (EERL) in Narragansett, RI, for the U.S. Environmental Protection Agency (EPA) Office of Research and Development (ORD). He is a coastal marine ecologist and manager with expertise in nutrient dynamics and stable isotope geochemistry. His research interests include developing quantitative and historical methods to monitor and assess risks to coastal systems posed by nutrient pollution and impacts of other human stressors on coastal ecosystems. Among his appointments, Garber serves on the EPA ORD Transformation Task Force and is co-chair of the EERL Technical Qualifications Board. He is a member of the Estuarine Research Federation (ERD), is a reviewer for the academic journal "Estuaries," chaired the 14th ERD International Conference, and is a consultant to the Tanzania Coastal Management Partnership at the URI Coastal Resources Center. He holds an A.B. in Biological Science and Science Teaching from Rutgers University and a Ph.D. in Oceanography from URI.

Candace Oviatt

Candace Oviatt, Professor of Biological Oceanography, has worked at the University of Rhode Island Graduate School of Oceanography (GSO) in many aspects of coastal ecology and is currently studying low oxygen events in Narragansett Bay with a large research team. She is also a member of the team leading the Integrated Graduate Education and Research Training (IGERT) NSF program for graduate students to facilitate communication between scientists and environmental managers. Oviatt has a cooperative program with Rhode Island Department of Environmental Management, Division of Water Resources to maintain a fixed and buoy site network to monitor Narragansett Bay for water quality during the summer months.

Osvaldo Sala

Osvaldo Sala is the Sloan Lindemann Professor of Biology at Brown University. As president of the Scientific Committee on Problems of the Environment and a coordinating lead author of the Millennium Ecosystem Assessment, Sala is an international leader in ecological science and global environmental policy. Sala has explored several topics throughout his career from water controls on carbon and nitrogen dynamics in arid and semi-arid ecosystems to the consequences of changes in biodiversity on the functioning of ecosystems, including the development of biodiversity scenarios for the next 50 years. He is particularly interested in working with scenarios as a way of simplifying, understanding, and communicating the complex relationships that emerge from the study of social-ecological systems. He employs a wide variety of tools, especially direct observations, manipulative field experiments, and simulation modeling. He has worked in the Patagonian steppe, annual grasslands of California, steppes of Colorado and deserts of Southern Africa and currently he has experiments in the Chihuahuan Desert in New Mexico. Sala has served as editor of Global Change Biology, member of the Advisory Board to the Director of the National Science Foundation in issues of environmental research and education, the president of the Argentinean Society of Ecology, and a member of the governing board of the Ecological Society of America. Osvaldo Sala is an elected member of the American Academy of Arts and Sciences, the Argentinean National Academy of Sciences, and the Argentinean National Academy of Physical and Natural Sciences.

Caroly A. Shumway

Caroly Shumway is an Affiliated Faculty of Biology at Boston University and a Visiting Fellow in Psychology at Brown University. Previously, she was Director of Conservation Science for The Nature Conservancy's Rhode Island Chapter. She was the co-science lead for TNC's Northwest Atlantic Marine Ecoregional Assessment. She has 19 years of experience in aquatic conservation, both marine and freshwater, in the U.S., Africa, and the South Pacific. Her conservation work has ranged from policy, conservation biology, education, and grassroots efforts. She has been on the US State Department Delegation for 3 UN Consultations on Oceans and the Law of the Sea, as well as for the UN Conference on Small Islands and Developing States. In 1992-93, she was the Environmental and Science Advisor for USAID's South Pacific Regional Program in Fiji. Shumway did her post-doctoral work at Caltech and Boston University, received her Ph.D. in marine biology from the Scripps Institution of Oceanography, and her B.A. with honours in biology from Wellesley College.

James Yoder

Jim Yoder is currently the Vice President for Academic Programs and Dean at the Woods Hole Oceanographic Institution (WHOI). Before moving to WHOI in 2005, Dr. Yoder was a Professor at the Graduate School of Oceanography (GSO), University of Rhode Island, where he conducted research, taught graduate courses and advised MS and Ph.D. students. He served 5 years as GSO Associate Dean in charge of the graduate program in oceanography and 1.5 years as Interim Dean of the School. Dr. Yoder has also held temporary positions in the Federal Government including as a Program Manager at NASA Headquarters (1986-1988 and 1996-1997) and as Director of NSF's Division of Ocean Sciences (2001-2004). Dr. Yoder's recent research projects and scientific publications involve satellite and aircraft remote sensing of the ocean for understanding biological oceanographic processes. He participated in the Joint Global Ocean Flux Study (JGOFS) in the 1980s and 1990s and in other NASA- and NSF-supported projects. Dr. Yoder chairs the international group (IOCCG) that seeks international cooperation for satellite measurements of ocean color radiometry and its application for understanding regional to global ocean patterns in the productivity of the seas.

Roman Zajac

Roman Zajac is Professor of Environmental Science and Chair of the Department of Biology and Environmental Science at the University of New Haven. He is also coordinator of the Graduate Environmental Science Program. He received a Ph.D. in Ecology from the University of Connecticut, and a B.S. in Biology from Tufts University. His research focuses on several areas including the application of landscape ecology approaches to sea floor and coastal environments, the effects of natural and anthropogenic disturbances on sea floor populations and communities, the effects of sea level rise on salt marsh ecology, and watershed dynamics and management. He has conducted extensive studies in conjunction with the US Geological Survey, other universities, and federal and state agencies. Currently, he is working on projects test the applicability of marine protected area modeling to large estuarine and coastal systems, developing food web and benthic assessment models for Long Island Sound, how lobster population characteristics vary in relation

(**Roman Zajac continued)**

to sea floor structure, and how changes in salt marsh systems potentially related to climate change are affecting marsh invertebrate populations. He was a lead scientist for a field-based workshop in Sydney Harbor, Australia, on the application of sea floor mapping technologies to understand ecological dynamics in shallow water systems along urbanized coastlines, has presented his ideas on sea floor landscape ecology at international and national conferences, and is a member of a John Heinz Foundation for the Environment working group on coastal landscape indicators. He has also conducted research in the Panama Basin, on the continental shelf off New England and in the United Kingdom. Roman has served on and chaired various committees related to coastal and watershed management at the state and federal level, and for several NGO's, and participated in workshops and symposia conducted by the US EPA, the National Undersea Research Program, The Connecticut Academy of Sciences, and NOAA Sea Grant.