

**DEPARTMENT OF THE INTERIOR
BUREAU OF OCEAN ENERGY
MANAGEMENT
OCS SCIENTIFIC COMMITTEE**

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Ex-Officio Members

NOAA Representative

BOEM Committee Members



Taber D. Allison

Director
Research and Evaluation
American Wind Wildlife Institute
1110 Vermont Avenue, NW, Suite 950
Washington, D.C. 20005



Dr. Taber Allison received his Ph.D. in Ecology from the University of Minnesota, a Master's in Forest Science from the Yale School of Forestry and Environmental Studies, and a B.A. degree in Biology from Wesleyan University. He is an ecologist with special expertise in wind-wildlife impacts. He joined American Wind Wildlife Institute in December 2010 to direct all research initiatives.

Dr. Allison also serves as a science advisor to the Bats Wind Energy Collaborative. Previously, he was Vice President for Science, Policy and Climate Change at the Massachusetts Audubon Society where he led Mass Audubon's environmental evaluation of wind energy and climate change. He has served as Program Officer at the National Science Foundation, was Director of the Rocky Mountain Biological Laboratory, and taught at Ohio State University and the University of Colorado.

Discipline: Ecology/Biology (Sea birds; Wind-Wildlife Impacts)

Robert J. Diaz

Vice-Chair

Professor Emeritus
Virginia Institute of Marine Science
College of William and Mary
P.O. Box 1346
Gloucester Pt., Virginia 23062



Dr. Bob Diaz is a Professor Emeritus at the Virginia Institute of Marine Science, College of William and Mary. He received a Ph.D. from the University of Virginia in marine science and a Doctor Honoris Causa from Gothenburg University, Sweden, for his contributions to marine and estuarine ecology. In 2011 he was named Virginia Outstanding Scientist of the year.

Dr. Diaz has over 40 years of experience working on environmental issues in marine and freshwater habitats around the globe from the intertidal to the deep-sea. He has served on science advisory and review committees for private foundations, state and federal agencies, and international organizations. He specializes in documenting the effects of both natural and human disturbance to ecosystems, and is an internationally recognized expert on animal-sediment-interactions, the effect of eutrophication (over enrichment of the seas) and hypoxia (low dissolved oxygen dead zones) on ecosystem services and functions.

Discipline: Ecology/Biology (Toxicology/Ecosystem)

Kenneth H. Dunton

Professor
Department of Marine Science
The University of Texas at Austin
750 Channel View Drive
Port Aransas, Texas 78373-5015



Dr. Ken Dunton received his Ph.D. from the University of Alaska-Fairbanks (1986), and is currently a professor in Marine Science at The University of Texas at Austin. He is a biological oceanographer whose research is focused on estuarine and coastal processes. Although his work spans from the Arctic to the Antarctic, his continuous studies of the arctic coastal ecosystem has spanned three decades and over 3000 research dives. Funded by the National Science Foundation's (NSF) Arctic System Science's Shelf-Basins Interactions study from 1999 to 2008, he examined the distribution and biomass of benthic biota and changes in trophic structure based on the application of stable isotopic signatures. He has also performed intensive studies of nearshore shelf arctic benthic communities and kelp beds since 1977 under funding from the Outer Continental Shelf Environmental Assessment Program, the Bureau of Ocean Energy Management, NSF, Shell Alaska, BP Alaska, and the U.S. Fish and Wildlife Service. He recently received a three-year grant from NSF to examine the linkages between arctic watersheds and coastal lagoons along the eastern Alaskan Beaufort Sea coast, with particular emphasis on the lagoon systems of the Arctic National Wildlife Refuge. His work in the Gulf of Mexico has addressed the productivity of seagrass and marsh systems, and the trophic structure of the Flower Gardens coral reef community.

Discipline: Marine Benthic Communities of the Arctic Basin and Gulf of Mexico

Stephen L. Elgar

Parliamentarian

Senior Scientist
National Security Science & Engineering
Faculty Fellow
Applied Ocean Physics & Engineering
Woods Hole Oceanographic Institution
Woods Hole, Massachusetts 02543



Dr. Steve Elgar received his Ph.D. from Scripps Institution of Oceanography in 1985. He worked in an electrical engineering department at Washington State University from 1986 until 1999, when he moved to Woods Hole. At Washington State, his research included developing signal processing techniques to isolate nonlinear interactions important to processes ranging from ocean surface gravity waves to the history of ice ages. His team at Woods Hole Oceanographic specializes in observing waves, currents, sediment transport, and morphological change in surfzones, tidal flats, river mouths, and the inner and outer continental shelves. A long-term goal is to understand wave evolution across the continental shelf to the shoreline, the corresponding breaking-wave-driven circulation, and the subsequent changes to the shoreline. Although the path and landfall of Hurricane Sandy was predicted accurately, the tremendous damage to the shoreline was a surprise. Numerical models have no skill predicting the erosion that collapsed homes in Florida, the breach of a new inlet on Fire Island that resulted in flooding on Long Island at every high tide, and the retreat of 100 m of shoreline on Martha's Vineyard that destroyed structures. Thus, Dr. Elgar's team is investigating the couplings and feedbacks between waves, currents, sediment transport, and morphological evolution that lead to shoreline change (e.g., beach erosion).

Discipline: Physical Oceanography (Waves, Currents, Sediments from the Continental Shelf to the Shoreline)

Jerry A. Galt

Chief Oceanographer
Genwest Systems
170 W. Dayton Street, Suite 106A
Edmonds, Washington 98020



Dr. Jerry Galt received his Ph.D. from the University of Washington in 1969. Areas of interest include Deep Water Horizon and multi-disciplinary scientific program combining theoretical research and real-time computer applications at accidental spill scenes. He directed the computer modeling component at over one thousand oil and chemical spill responses. He has extensive experience in computerized data systems, oil spill response and oceanographic modeling.

Discipline: Physical Oceanography (Oil Spill Modeling)

Richard A. Gould

Professor (Emeritus)
1 Keahole Place, #1618
Honolulu, Hawaii 96825



Dr. Dick Gould received his Ph.D. from the University of California, Berkeley in 1965. He studied human cultural and behavioral adaptations to stress, risk, and uncertainty. Initially these studies looked at living societies – specifically, in NW California, in Australia's Western Desert, and in subarctic Finland and related the findings to archaeological remains. This interest later extended to the study of shipwrecks and losses at sea, with underwater fieldwork in Bermuda and in the Dry Tortugas, Florida. His areas of interest are forensic archaeology, ethnoarchaeology, and maritime archaeology.

Discipline: Social Sciences (Anthropology)

Mark A. Johnson

Professor of Marine Science
Institute of Marine Science
111 O'Neill
P.O. Box 757220
University of Alaska Fairbanks
Fairbanks, Alaska 99775-7220



Dr. Mark Johnson is a physical oceanographer currently focusing on high latitude climate change with an emphasis on sea ice variations in the Arctic Ocean. His approach is to use historical and recent measurements to assess and characterize ice thickness and concentration. He is evaluating the performance of numerical models and assessing the accuracy of model forecasts of future ice conditions. This research is especially important along the ocean margins where marine navigation and access to resources are critical.

Discipline: Physical Oceanography (Arctic Region and Sea Ice)

Willett M. Kempton

Professor
Marine Policy
University of Delaware
Newark, Delaware 19716



Dr. Willett Kempton received his Ph.D. from the University of Texas at Austin, 1977. He is Director of the Center for Carbon-free Power Integration and teaches renewable energy policy at the University of Delaware. Offshore wind is his main research interest. In early April 2010, he published a study in *Proceedings of the National Academy of Sciences* hypothesizing that a chain of offshore wind stations along the Atlantic could provide power to much of the Eastern Seaboard. Other fields of interest include: anthropological studies of policy; environmental and energy policy; offshore wind; vehicle-to grid power; citizens' environmental values and actions; cognitive anthropology; and power systems integration.

Discipline: Social Sciences (Anthropology/alternative Energy)

Gary P. Kofinas

Professor
Department of Humans and Environment
and Institute of Arctic Biology
University of Alaska Fairbanks
PO Box 75700
Fairbanks, Alaska 99775-7000



Dr. Gary Kofinas is Professor of Resource Policy and Management at the University of Alaska Fairbanks. His research has focused on the resilience and adaptation of high latitude social-ecological systems, community-based resource management systems drawing on traditional and local knowledge, subsistence economies of rural indigenous villages of the North, and adaptive co-management institutions. He is co-editor of the text, *Principles of Ecosystem Stewardship: Resilience-Based Resource Management* (Springer 2009) and served as Director of the Resilience and Adaptation Program, a graduate program in sustainability science at the University of Alaska Fairbanks. Dr. Kofinas received his Ph.D. from the University of British Columbia.

Discipline: Interdisciplinary Social-Ecological System Studies (Resource Policy and Stewardship)

Lisa A. Levin

Professor
Integrative Oceanography Division
Scripps Institution of Oceanography
9500 Gilman Drive
La Jolla, California 92093-0218



Dr. Lisa Levin received her Ph.D. from Scripps Institution of Oceanography, University of California, San Diego, in 1982. Research interests are: larval dispersal, population connectivity and its influence on population dynamics; ecology of deep-sea reducing environments (oxygen minimum zones, methane seeps); population and community ecology of soft-sediment habitats; wetlands ecology, species invasion and restoration; animal-sediment-plant-geochemical interactions; and ecosystem-level consequences of species invasion. She also has more than 30 years' experience working in both shallow and deep-sea marine benthic environments.

Discipline: Physical Oceanography (Biological Oceanography)

Milton S. Love

Research Biologist
Marine Science Institute
University of California, Santa
Barbara
Santa Barbara, California 93106



Dr. Milton Love is a research biologist at the Marine Science Institute, University of California, Santa Barbara. He has conducted research on the marine fishes of California for over 40 years and is the author of over 90 publications on the fishes of the Pacific Coast. For the past 15 years, and using a manned research submersible, Dr. Love has carried out surveys of the fish populations living around natural reefs and oil/gas platforms throughout the southern California Bight. In 2007 the American Fisheries Society awarded Dr. Love the Carl R. Sullivan Award for Conservation Resources.

Discipline: Ecology/Biology (Fisheries/Deep Sea)

I. Roderick Mather

Professor
Department of History
University of Rhode Island
80 Upper College Road, Suite 3
Kingston, Rhode Island 02881



Dr. Rod Mather received his Ph.D. from the University of Oxford (United Kingdom), in 1995. His research interests include: Historical and Archaeological Maritime Landscapes (particularly the Outer Continental Shelf, Southern New England, Virginia and Lake Huron); Underwater Geophysical Survey and Mapping; GIS Applications for Underwater Archaeology; Archaeological Method, Theory and Ethics; The Evolution of Shipbuilding Technology; Revolutionary War Shipwrecks in Narragansett Bay; Development and Change in the Atlantic World (15th–19th centuries); and European Maritime Empires.

Discipline: Social Sciences (Archeology)

Richard J. McLaughlin

Professor and Endowed Chair
Harte Research Institute for Gulf of
Mexico Studies
Texas A&M University - Corpus Christi
6300 Ocean Drive, Unit 5869
Corpus Christi, Texas 78412-5869



Dr. Richard McLaughlin received his J.S.D., Doctorate in Law from the Boalt Hall School of Law, University of California at Berkeley, in 1997, and is the Harte Research Institute's Endowed Chair of Marine Policy and Law. He has been actively involved in a variety of leadership positions in the marine policy field, is a former Fulbright Scholar to Japan and has published over 60 articles and monographs on ocean and coastal policy issues. In the classroom, his instruction has included Admiralty, Coastal Management and Ocean Law, and Environment/Marine Policy. He has superior knowledge of marine policy and legal issues including the international law of the sea, ocean energy policies, ocean governance, and marine ecosystem-based management.

Discipline: Social Sciences (Marine Policy and Law)

Lorrie D. Rea

Chair

Research Associate Professor
Water and Environmental Research Center
Institute of Northern Engineering
306 Tanana Loop
University of Alaska Fairbanks
PO Box 755910
Fairbanks, AK 99775-5910



Dr. Lorrie Rea received her Ph.D. from the University of Alaska Fairbanks, in 1995 and her M.Sc. from the University of California Santa Cruz in 1990. Her general research interest encompasses the metabolism and nutritional physiology of terrestrial and marine mammals with a recent focus on contaminants exposure and identifying prey species contributing to the diet through stable isotope analysis. Recent research has addressed health, diet and body condition assessment of Steller sea lions in Alaska as well as environmental contaminants in Alaska pinnipeds and their prey. Dr. Rea is currently a Research Associate Professor in the Institute of Northern Engineering at the University of Alaska Fairbanks where she also serves as a co-investigator with the Wildlife Toxicology Laboratory.

Discipline: Biology (Endangered Species; Arctic Marine Mammal Health)

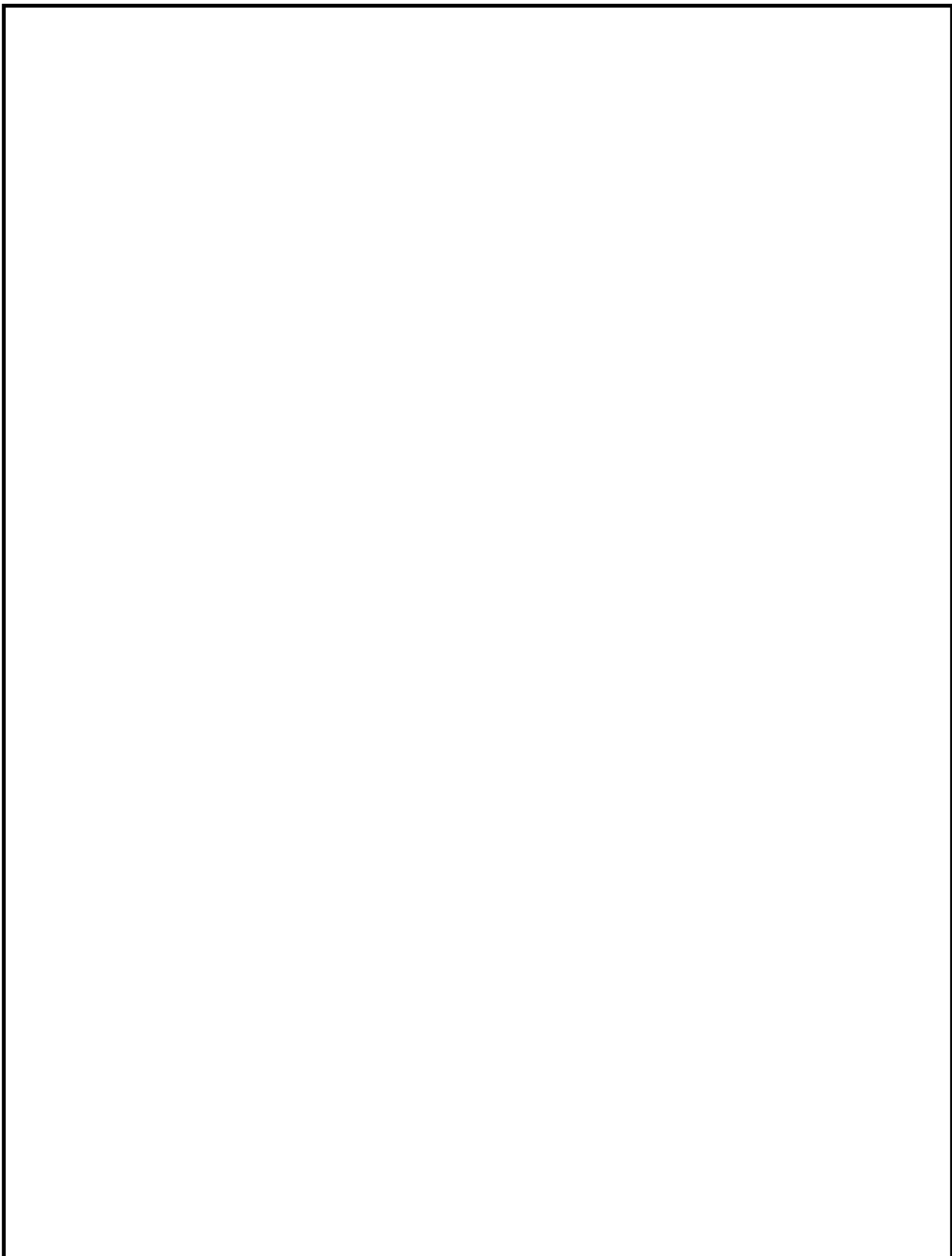
Sandra R. Werner

Research Scientist
ExxonMobil Upstream Research Company
P.O. Box 2189
Houston, Texas 77252-2189



Dr. Sandra Werner received her Ph.D. from the Joint Program in Oceanography/Applied Ocean Science and Engineering, Massachusetts Institute of Technology/Woods Hole Oceanographic Institution, Cambridge/Woods Hole, Massachusetts in 1999. She has developed metocean criteria for the Gulf of Mexico and operations worldwide and has modeled hurricane-induced currents in the Gulf of Mexico. She has also performed comprehensive studies of inter-annual variations of Arctic sea ice and climate, oversaw shoreline erosion and sediment transport studies including scour protection studies for offshore platforms, and managed environmental monitoring program offshore Sakhalin (Sakhalin Gray Whales) comprising field studies (biology, physical oceanography, marine sound), and presentations to regulatory authorities.

Discipline: Physical Oceanography (Engineering/Ocean Modeling)

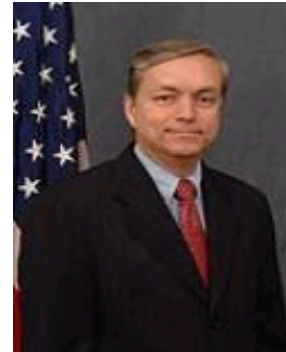


EX-OFFICIO FEDERAL MEMBERS

Walter Cruickshank

Deputy Director
Bureau of Ocean Energy Management
1849 C Street, N.W.
Washington, D.C. 20240

office: (202) 208-3500



As Deputy Director of BOEM, Dr. Walter Cruickshank assists the Director in the administration of programs that manage the development of the Nation's offshore resources in an environmentally and economically responsible way. These programs include leasing, plan administration, environmental studies, *National Environmental Policy Act* analysis, resource evaluation, economic analysis and the Renewable Energy Program.

Prior to becoming the Deputy Director of BOEM upon its establishment in October 2011, he served as Deputy Director of the Bureau of Ocean Energy Management, Regulation and Enforcement and the former Minerals Management Service since 2002.

Dr. Cruickshank previously served as the Bureau's Associate Director for Policy and Management Improvement and has worked in the Department of the Interior for more than 25 years. He earned a Bachelor of Arts in Geological Sciences from Cornell University and a Doctorate in Mineral Economics from the Pennsylvania State University.

Kathryn D. Sullivan

Under Secretary of Commerce for Oceans and
Atmosphere and NOAA Administrator
Assistant and Administrator Office of the Under
Secretary
National Oceanic and Atmospheric Administration
1401 Constitution Avenue, NW, Room 5128
Washington, DC 20230



Dr. Kathryn Sullivan assumed the role of Acting Under Secretary of Commerce for Oceans and Atmosphere and Acting NOAA Administrator on February 28, 2013, where she had been serving as Assistant Secretary of Commerce for Environmental Observation and Prediction and Deputy Administrator for NOAA, as well as performing the duties of NOAA's Chief Scientist, a vacant position. She is a distinguished scientist, renowned astronaut and intrepid explorer.

As assistant secretary, Dr. Sullivan played a central role in directing Administration and NOAA priority work in the areas of weather and water services, climate science and services, integrated mapping services and Earth-observing capabilities. She provided agency-wide direction with regard to satellites, space weather, water, and ocean observations and forecasts to best serve American communities and businesses. As Deputy Administrator, she oversaw the smooth operation of the agency.

Dr. Sullivan's impressive expertise spans the frontiers of space and sea. An accomplished oceanographer, she was appointed NOAA's chief scientist in 1993, where she oversaw a research and technology portfolio that included fisheries biology, climate change, satellite instrumentation and marine biodiversity.

Dr. Sullivan was the inaugural director of the Battelle Center for Mathematics and Science Education Policy in the John Glenn School of Public Affairs at Ohio State University. Prior to joining Ohio State, she served a decade as President and CEO of the Center of Science and Industry (COSI) in Columbus, Ohio, one of the nation's leading science museums. Dr. Sullivan joined COSI after 3 years' service as Chief Scientist.

Dr. Sullivan was one of the first six women selected to join the NASA astronaut corps in 1978 and holds the distinction of being the first American woman to walk in space. She flew on three shuttle missions during her 15-year tenure, including the mission that deployed the Hubble Space Telescope.

Dr. Sullivan holds a bachelor's degree in earth sciences from the University of California at Santa Cruz and a doctorate in geology from Dalhousie University in Canada.

NOAA REPRESENTATIVES

Paul A. Sandifer (NOAA Representative)

c/o Hollings Marine Laboratory
331 Fort Johnson Road
Charleston, South Carolina 29412



Dr. Paul Sandifer is the Senior Science Advisor to the Administrator of the National Oceanic and Atmospheric Administration (NOAA) where he leads a variety of efforts to strengthen the overall NOAA science enterprise, and works on implementation of the President's Ocean Policy, NOAA's health-related activities, development of science policy related to biodiversity and ecosystem services, coastal management, aquaculture, and other areas. He is also Chief Science Advisor for NOAA's National Ocean Service where he handles a diverse science portfolio. Dr. Sandifer is co-chair of the Ocean Science and Technology Interagency Policy Committee of the National Ocean Council (NOC) and a member of the NOC Steering Committee. He also co-chairs the Subcommittee on Integrating Science and Technology for Sustainability of the Committee on the Environment, Natural Resources and Sustainability (CENRS) and is a member of the Institute of Medicine's Roundtable on Environmental Health Sciences, Research and Medicine and also of the National Academies Roundtable on Science and Technology for Sustainability. He was a member of the US Commission on Ocean Policy, the Marine Board of the National Research Council, and he currently serves on a number of other boards and committees. He is an Honorary Life Member of the World Aquaculture Society, a Fellow of the American Association for the Advancement of Science, and a NOAA Research Fellow. Prior to coming to NOAA, he had a distinguished 31-year scientific and management career with the South Carolina Department of Natural Resources, including service as Director of the Marine Resources Division and as Director of the agency. He holds academic appointments at the College of Charleston, the Medical University of South Carolina and University of South Carolina and is author or co-author of numerous scientific and technical publications in aquaculture, marine science, and ocean policy. Dr. Sandifer received a B.S. degree in biology from the College of Charleston and the Ph.D. in Marine Science from the University of Virginia.

Richard L. Merrick (NOAA Representative)

NOAA Fisheries Service
Partnerships & Communications
1315 East West Highway
Silver Spring, Maryland 20910



Dr. Richard Merrick began serving as Director, Scientific Programs and Chief Science Advisor in September 2011. In this capacity, he leads National Oceanographic and Atmospheric Administration (NOAA) Fisheries' efforts to provide the science needed to support sustainable fisheries and ecosystems and to continue our country's progress in ending overfishing, rebuilding fish populations, saving critical species, and preserving vital habitats. As the head of NOAA Fisheries' scientific operations, Dr. Merrick directs NOAA's six regional Fisheries Science Centers, including 30 NOAA Fisheries laboratories. He joined NOAA Fisheries in 1985 as an oceanographer at the Alaska Fisheries Science Center conducting ecological field research from then through 1997 in the Aleutian Islands, Bering Sea and Arctic. In 1997, he transferred to the Northeast Fisheries Science Center, (in Woods Hole, MA) where he initially served as Branch Chief for Protected Species, and then as Chief of the Resource Evaluation and Assessment Division where he directed this Center's assessment, ecological, and social-science research for fish and protected species. He has led various regional and national efforts to improve fishery and protected resources science, and has broad experience in dealing with a wide variety of controversial fishery and protected species.

Dr. Merrick's education includes a Ph.D. in fisheries from the University of Washington, a master's of science degree in biological oceanography as well as a master's degree in marine resource management from Oregon State University, and a master's degree in city and regional planning, and a bachelor of science degree from Clemson University.

BOEM COMMITTEE OFFICIALS

William Y. Brown
Executive Director and
Federal Officer

Chief Environmental Officer
Bureau of Ocean Energy Management
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Dr. Bill Brown served as the Science Advisor to the Secretary of the Interior, Bruce Babbitt, from 1997 to 2001 and worked for the Interior Department earlier in his career. He is a former President and CEO of the Woods Hole Research Center, a leading non-profit research organization that applies science to global environmental challenges. Dr. Brown is a former President and CEO of the Academy of Natural Sciences in Philadelphia, Pennsylvania, the nation's oldest natural history museum, and former President and CEO of the Bishop Museum, the leading cultural and natural history museum of the Pacific. He has served as a volunteer director on many non-profit boards, including chairing the Ocean Conservancy Board. Dr. Brown earned the degrees of Juris Doctor from Harvard Law School in 1977, Doctor of Philosophy in zoology from the University of Hawaii in 1973, Master of Arts in teaching from Johns Hopkins University in 1970, and Bachelor of Arts in biology from the University of Virginia in 1969.

Rodney E. Cluck
Executive Secretary

Chief
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Dr. Rodney Cluck holds a Ph.D. in environmental sociology from Mississippi State University and a Masters Degree in Rural Sociology from the University of Arkansas, Fayetteville. For six years, beginning in 1999, he served as the senior Bureau social scientist where he developed and oversaw scientific studies and conducted National Environmental Policy Act analysis.

In 2005, Dr. Cluck joined the Office of Alternative Energy Programs and became the project manager for the United States' first offshore wind facility. Dr. Cluck is currently the Chief of the Division of Environmental Sciences where he leads the Environmental Studies Program, the scientific backbone that informs policy decisions regarding leasing and development of ocean energy.

