

## Biographical Sketches for Science Advisory Team Member Recommendations

**Richard F. Ambrose**, Professor/Director  
University of California, Los Angeles/Environmental Science and Engineering

Dr. Richard F. Ambrose is a Professor in the Department of Environmental Health Sciences and Director of the Environmental Science and Engineering Program at UCLA. Dr. Ambrose's research focuses on ways to protect and maintain the ecology of coastal areas; much of his work is conducted at the interface between environmental biology and resource management policy. Current research focuses on (1) restoration of degraded habitats, especially for coastal marine environments, and (2) assessment of the health of coastal ecosystems. He is currently working on several tidal wetland restoration projects in California. He and his students have studied the cumulative effects of impacts to riparian systems and the success of wetland/riparian mitigation required under Sections 404 and 401 of the Clean Water Act. Dr. Ambrose's research on ecosystem health includes a program to monitor rocky intertidal habitats (with a particular focus on being able to detect short-term effects, such as caused by oil spills, as well as long-term effects of global climate change) using a network of sites throughout southern California. Dr. Ambrose's research in coastal watersheds focuses on establishing a link between land use and aquatic community health. Additional research projects focus on assessing the impacts of contaminants on coastal wetland species, developing performance standards for determining the success of habitat restoration projects, and evaluating how coastal wetlands influence the delivery of fecal indicator bacteria to the ocean. All of these projects provide information on the status of important coastal ecological communities, including the nature and extent of anthropogenic impacts to them, which serves as the foundation for their management and protection.

**Alexandria B. Boehm**, Assistant Professor  
Stanford University

Dr. Alexandria Boehm's research interests encompass different aspects of coastal water quality. Her work focuses on understanding environmental and anthropogenic variables that influence the presence of pathogens and fecal indicator bacteria in bathing waters. Current projects include studies to understand the spatial extent of pollution from point and non-point pollution sources to the surf zone, the relationship between coastal upwelling and surf zone water quality, *Vibrio cholerae* diversity and ecology in California waters, nitrogen pollution and transformation in coastal oceans and aquifers, submarine groundwater discharge from septic influenced watersheds and its influence on coastal water quality, the effect of land use on coastal stream quality, fate of pathogen nucleic acids in ambient waters, and development of new microbial risk models. She teaches graduate and undergraduate classes in environmental microbiology and coastal water quality including a class she team-teaches with lawyers "The California Coast: Science, Policy, and Law". She has been at Stanford since 2002. Prior to her appointment at Stanford, she was a faculty fellow at University of California, Irvine.

**Mark Carr**, Professor  
University of California, Santa Cruz

Dr. Mark Carr is a professor of marine ecology in the Department of Ecology and Evolutionary Biology at UC Santa Cruz. He studies the relationships between reef fishes and shallow reef ecosystems (coral reefs, temperate kelp forests) and the application of this information for conservation and management. He is a co-principal investigator with the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO), overseeing a large-scale, long-term kelp forest monitoring program along central California. He is the co-chair of the Science Advisory Team to California's Marine Life Protection Act (MLPA), enacted to establish a state-wide network of marine protected areas. He currently oversees the monitoring of kelp forest ecosystems in MPAs recently established along central California by the MLPA. Dr. Carr and his colleagues conduct collaborative research with coastal fishermen and he sits on the board of directors of the Pacific Marine Conservation Council (PMCC), an NGO that promotes community-based, sustainable fisheries along the coasts of California, Oregon and Washington states.

**Daniel R. Cayan**, Meteorologist  
Scripps Institution of Oceanography

Dr. Daniel R. Cayan is a research meteorologist in the Climate, Atmospheric Science and Physical Oceanography Research Division of Scripps Institution of Oceanography, University of California, San Diego. Dr. Cayan is also a researcher with the Water Resources Discipline of the U.S. Geological Survey. He studies how climate affects hydrological processes over western North America, and also how natural climate fluctuations and projected climate changes may impact water, coastal health and other sectors in California. Dr. Cayan heads two regional climate study activities, the California Applications Program and the California Climate Change Center, a set of applied climate activities carried out by scientists at Scripps, the USGS and several other collaborating institutions and agencies. Dr. Cayan received a BSc (1971) from the University of Michigan, an MSc (1972) in Physical Oceanography from the University of Michigan, a second MSc (1977) in Atmospheric Sciences from the University of California, Davis, and a PhD (1990) in Oceanography from the Scripps Institution of Oceanography, University of California San Diego. He is a member of the American Meteorological Society and the American Geophysical Union.

**Francisco Chavez**, Senior Scientist  
Monterey Bay Aquarium Research Institute

Dr. Francisco Chavez is a biological oceanographer with interests in how climate change and variability regulate ocean ecosystems on local and basic scales. He was born and raised in Peru where he attended Markham College in Lima. Dr. Chavez has a BS from Humboldt State and a PhD from Duke University. He was one of the first members of the Monterey Bay Aquarium Research Institute (MBARI) where he has been for twenty years and reached the level of Senior Scientist. At MBARI he pioneered time series research and the development of new instruments and systems to make this type of research sustainable. Dr. Chavez has authored or co-authored over 100 peer reviewed papers with 10 in Nature and Science. He is past member of the NSF Geosciences Advisory Committee. He has been heavily involved in the development of the US Integrated Ocean Observing System (IOOS) and been on the Governing Boards of the Central and Northern California Coastal Ocean Observing System (CeNCOOS), the Pacific Coastal Ocean Observing System (PaCOOS) and the Center for Integrated Marine Technologies (CIMT). Dr. Chavez is a Fellow of American Association for the Advancement of the Sciences; honored for distinguished research on the impact of climate variability on oceanic ecosystems and global carbon cycling. He was recently honored as Doctor *Honoris Causa* by the Universidad Pedro Ruiz Gallo in Peru in recognition of his distinguished scientific career and for contributing to elevate academic and cultural levels of university communities in particular and society in general.

**Kenneth Coale**, Director  
Moss Landing Marine Laboratories, San Jose State University

Dr. Kenneth Coale teaches courses in Chemical Oceanography and is the Director of Moss Landing Marine Laboratories. Research in the Coale group involves several different aspects of trace element, carbon and nutrient cycling in aquatic systems and the use of naturally and bomb-produced radionuclides to trace marine rate processes. 1) The lab has identified iron as a key factor controlling phytoplankton growth over much of world's oceans. They are currently investigating the role of iron in controlling phytoplankton growth and the carbon/climate connection using mesoscale enrichment experiments (funded by NSF and DOE). 2) The production of methyl mercury and its concentration in fish has become a major problem. Dr. Coale is studying the historical deposition of mercury and the processes that control the methylation and flux of mercury from the sediments into the overlying water column and tropic levels in the San Francisco Bay Delta Complex. 3) Little is known about the longevity of deep dwelling fish. Together with the Ichthyology Lab, the Coale group is using naturally-occurring and bomb-produced radionuclides to investigate the growth and longevity of rockfish, sharks and corals. 4) Time series of coastal conditions is key to understanding factors that force change in the coastal environment. Dr. Coale

is working with other marine scientists and resource managers to establish a network of integrated coastal observatories throughout California.

**Christopher Costello**, Associate Professor  
University of California, Santa Barbara

Dr. Christopher Costello is Associate Professor of Resource Economics at the University of California, Santa Barbara. While there is broad agreement that resources are valuable and need to be used wisely and sustainably, there is less agreement on the definitions of such terms as “wisely” and “sustainable,” meanings that evolve within the context of identifying society’s objectives and creating the mechanisms and policies to achieve them. Dr. Costello works in this realm, focusing on the economics of environmental regulation and natural resource management under conditions of uncertainty (inaccurate, unavailable, or contradictory information), with a particular emphasis on the value and effect of information on management decisions. Correlate to this is his interest in adaptive management programs that have a learning component intended to resolve uncertainty. He has applied this perspective to studies in biological diversity, introduced species, regulation of polluting industries, and marine policy.

**John Field**, Fisheries Scientist  
NOAA Southwest Fisheries Science Center

Dr. John C. Field has been a fisheries biologist with the Fisheries Ecology Division, Southwest Fisheries Science Center (NOAA Fisheries) in Santa Cruz, California since 2004. Dr. Field grew up in Santa Cruz, California, where he earned a Bachelor of Arts degree in Environmental Studies and Biology from the University of California Santa Cruz in 1994. He then earned a Masters in Marine Affairs from the University of Washington in 1997, and spent a year as a Sea Grant Fellow for the House Resources Committee in Washington D.C. In 2004 he earned a Doctor of Philosophy from the University of Washington in Fisheries and Aquatic Sciences, where his dissertation research focused on ecosystem modeling and ecosystem-based fisheries management in the California Current. From 2005 through 2007 he served on the Groundfish Management Team of the Pacific Fisheries Management Council, and he has also participated in a working group to integrate NOAA Working Group to integrate the science of MPAs and fishery management and an NCEAS working group on ecosystem modeling in North Pacific marine ecosystems. Current research efforts include conducting West Coast groundfish stock assessments, ongoing surveys of pelagic juvenile rockfish abundance and ecology, researching jumbo squid ecology and trophic interactions, and continuing work with a range of multispecies modeling efforts.

**Steve Gaines**, Professor/Director  
University of California, Santa Barbara/Marine Science Institute

Dr. Steve Gaines is Director of the Marine Science Institute and Professor of Ecology, Evolution, and Marine Biology at the University of California at Santa Barbara. He is a marine ecologist who studies marine conservation, the design of marine reserves, the impact of climate change on oceans, and sustainable fisheries. He is a lead investigator of PISCO (Partnership for Interdisciplinary Studies of Coastal Oceans), a consortium studying marine ecosystems of the west coast of the US, the Santa Barbara Coastal LTER (Long Term Ecological Research), studying connections between coastal watersheds and the ecology of kelp forests, the Sustainable Fisheries Group, which uses market based approaches to enhance the sustainability of fisheries, and Flow, Fish and Fishing, a biocomplexity project examining connections between ocean physics, fish, and fishing. He was awarded a Pew Fellowship in 2003 to extend the conceptual framework for networks of marine reserves. He has been using the findings of this work to aid the ongoing Marine Life Protection Act efforts to establish a state-wide network of marine protected areas. Dr. Gaines received his Ph.D. in zoology in 1983 from Oregon State University. For the next four years, he was a postdoctoral fellow and research scientist at Stanford University. In 1987, he joined the faculty of Brown University. In 1994, he left to join the faculty at UC

Santa Barbara. He became Director of the Marine Science Institute at UCSB in 1997. Dr. Gaines has served as Acting Vice Chancellor for Research at UCSB and Acting Dean of Science.

**Gary Griggs**, Professor/Director  
University of California, Santa Cruz/Institute of Marine Sciences

Dr. Gary Griggs received his B.A. in Geology in 1965 from the University of California, Santa Barbara and a Ph.D. in Oceanography from Oregon State University in 1968. He has been a Professor of Earth Sciences at the University of California, Santa Cruz since 1968 and has served as Chairman of the Department of Earth Sciences, Associate Dean of Natural Sciences, and has been the Director of the Institute of Marine Sciences and Long Marine Laboratory since 1991. He has served as Chair of the University of California Marine Council since its inception in 1999. He also serves on the California Sea Grant Advisory Board. In 1998 he was given the Outstanding Faculty Award in the Division of Physical and Biological Sciences at UC Santa Cruz. In 2003 he was awarded the CSBPA Joe Johnson Coastal Research Award. The UCSC Alumni Association honored him with a Distinguished Teaching Award in 2006. In 2007 he was honored with being asked to give the Ed Ricketts Memorial Lecture for lifetime achievement in marine research and education. His research and teaching have been focused on the coast of California and include coastal processes, hazards, and coastal engineering. Dr. Griggs has written over 145 articles for professional journals as well as co-authored several books.

**Frances Gulland**, Director of Veterinary Science  
The Marine Mammal Center

Dr. Frances Gulland is the Director of Veterinary Science at the Marine Mammal Center in Sausalito, CA. Dr. Gulland has been actively involved in the veterinary care of stranded marine mammals and research into marine mammal diseases since 1994. Frances received her veterinary degree and PhD from the University of Cambridge in 1984 and 1991 respectively. She has co-authored over 100 papers on wild animal health, and co-edited the "CRC Handbook of Marine Mammal Medicine". Her recent work has focused on the impact of harmful algal blooms on marine mammal health, after first documenting domoic acid as a cause of marine mammal mortality in 1998. Currently she is Chair of the Southern Sea Otter Recovery Implementation Team, member of the Hawaiian Monk Seal Recovery Team, Scientific Advisor to the Marine Mammal Commission, an emeritus member of the Working Group on Unusual Marine Mammal Mortality Events for the National Marine Fisheries Service after having chaired the group from 1998-2004, and a committee member for graduate students at the University of California at Davis and Santa Cruz, the Medical University of South Carolina and St Andrews University in the U.K. Her professional affiliations include the International Association for Aquatic Animal Health, the Wildlife Disease Association, the Society for Marine Mammalogy, and the American Association of Zoo Veterinarians.

**Madeleine Hall-Arber**, Professor  
Massachusetts Institute of Technology

Dr. Madeleine Hall-Arber, MIT Sea Grant College Program's marine anthropologist, has over 25 years of experience working with fishermen in New England. Following up on research that profiled eleven subregions in New England including details on 38 fishing communities, Dr. Hall-Arber worked on two collaborative projects to help fishermen and fishing communities take the next step in assuring an on-going collection of socio-economic information. Dr. Hall-Arber continues to assess the socio-economic impacts of regulatory change on fishing communities and collects oral histories of fishermen to identify essential fish habitat and of other fishing community members to record highlights about their experiences. Currently, Dr. Hall-Arber is also active in organizing and promoting safety training for commercial fishermen. Dr. Hall-Arber has written extensively for the fishermen's trade newspaper Commercial Fisheries News.

**Tony Haymet**, Director/Vice Chancellor

Scripps Institution of Oceanography/University of California, San Diego

Dr. Tony Haymet is the tenth director of Scripps Institution of Oceanography at the University of California, San Diego. Haymet also serves as UC San Diego's vice chancellor for marine sciences and dean of the Graduate School of Marine Sciences, and is a professor of oceanography at Scripps. He joined Scripps in 2006. Dr. Haymet is a highly distinguished researcher with more than 160 peer-reviewed scientific articles. His personal scientific interests include Antarctic fish antifreeze proteins and nucleation. Dr. Haymet chaired Australia's "Ocean Policy Science Advisory Group" (OPSAG) and was a member of the National Ocean Advisory Group (NOAG) which includes all maritime industry sectors. Between 1981 and 1991 Dr. Haymet worked in the USA at Harvard University, Berkeley University and University of Utah. He returned to Australia in 1991 and worked as Professor and Chair of Theoretical Chemistry at the University of Sydney. In 1998, Dr. Haymet became Distinguished University Professor of Chemistry at the University of Houston, and two years later founded the University of Houston Environmental Modeling Institute. In January 2003, Dr. Haymet became Chief of CSIRO Marine Research, and in July 2005, became Chief of the newly-merged CSIRO Marine and Atmospheric Research. He is also the Founding Director of the Wealth from Oceans Flagship. In 2006, Dr. Haymet was appointed director of Scripps Institution of Oceanography at UC San Diego.

**Sam Johnson**, Chief Scientist  
U.S. Geological Survey

Dr. Sam Johnson is Chief Scientist of the Western Coastal and Marine Geology Team (WCMG). Dr. Johnson leads approximately 110 research and support staff personnel based in Santa Cruz and Menlo Park, CA. He organizes WCMG multidisciplinary geological research in marine and coastal environments in the US Western Region (California, Oregon, Washington, Hawaii, and Alaska). Dr. Johnson designs and coordinates research projects that focus on geologic framework, seafloor and benthic habitat mapping, ecosystem function and restoration, sediment and contaminant budgets and transport, coastal evolution, coastal erosion, earthquake and tsunami hazards, coral reef health, coastal and marine climate-change impacts, coastal groundwater, marine energy and mineral resources, and related topics. He serves on the Program Council for USGS Coastal and Marine Geology Program (CMGP) to prioritize and guide similar work along the US East and Gulf Coasts and in the Great Lakes. He also serves as a principal USGS Western Region spokesman, liaison, and advisor on coastal and marine geologic issues to other federal agencies, state and local agencies, NGO's, the private sector, academia, international entities, and various consortia (e.g., ocean observing systems). He coordinates WCMG and CMGP work, strategic planning, reviews, and funding with other parts of the USGS and the external community to maximize WCMG impact. Dr. Johnson earned a B.A. in Earth Sciences from the University of California, Santa Cruz, and M.S. and Ph.D. in Geological Sciences from the University of Washington. He joined the USGS in 1984 after serving as Assistant Professor at Washington State University.

**Karen McLeod**, Director of Science  
Communication Partnership for Science and the Sea, Oregon State University

Dr. Karen McLeod is a marine ecologist and the Director of Science for COMPASS (Communication Partnership for Science and the Sea) and based at Oregon State University. Her current research interests include the conceptual underpinnings of management in marine systems, bridging the gap between these concepts and the practice of marine ecosystem-based management (EBM), coupled social-ecological systems, resilience theory, ecosystem services, and the interface between science and policy. She is actively involved in numerous projects and publications related to EBM, including co-editing a forthcoming book entitled *Ecosystem-Based Management for the Oceans* (Island Press). An experimental field ecologist by training, she has worked in the greater Caribbean region, Florida Keys, and French Polynesia. She holds a B.A. in Biology from Franklin and Marshall College, an M.S. in Zoology from the University of South Florida, and a Ph.D. in Zoology from Oregon State University.

**Mark Moline**, Associate Professor

California State Polytechnic University, San Luis Obispo

Dr. Moline is the Director of the Center for Marine and Coastal Sciences and Professor of Biology at California Polytechnic State University. His general research areas of interest include biological oceanography, phytoplankton ecology, phytoplankton physiology, photobiology, bio-optics, remote sensing, and biogeochemistry, coastal oceanography, harmful algae, polar ecosystems, and climate change. Dr. Moline is an expert in emerging in situ and remote sensing techniques including: autonomous underwater vehicles (AUVs), high frequency radar (HFR) surface current mapping, profiler-based studies of phytoplankton bioluminescence, and hyperspectral remote sensing of coastal and shallow benthic environments. Dr. Moline is an active member of the two California regional observation systems, SCCOOS and CeNCOOS, CICOORE and COCOMP. Dr. Moline received his Ph.D. in biology in 1996 from UC Santa Barbara, and followed with a postdoctoral fellow at Rutgers University. In 1998, he joined the faculty of California Polytechnic State University and became Director of the Center for Marine and Coastal Sciences in 2004. Dr. Moline was recently named a fellow of the California Council of Science and Technology.

**Steven N. Murray**, Professor/Dean

California State University Fullerton/College of Natural Sciences and Mathematics

Dr. Steve Murray, an internationally renowned marine biologist, currently serves as Dean of the College of Natural Sciences and Mathematics at California State University Fullerton. He received his doctorate from UC Irvine in 1971. Dr. Murray's research interests include coastal marine ecology, marine herbivory and physiological ecology and reproductive biology of seaweeds. His research addresses human impacts on coastal ecosystems, long-term change assessment, and effectiveness of marine life refuges. In addition to teaching, Dr. Murray has served in a variety of academic administrative positions over the years. He was selected as the university's 2002-2003 Outstanding Professor and became Dean in 2005. He has written numerous scientific papers, reviews, book chapters and technical reports. He serves on several regional, state, and national panels and committees that have been influential in shaping public policy on marine coastal environments and marine protected area systems.

**Karina J. Nielsen**, Assistant Professor

Sonoma State University

Dr. Karina Nielsen's research focuses on the ecological functioning and conservation biology of temperate marine communities. She uses ecological, physiological and oceanographic tools to investigate how environmental context influences marine communities. She has extensive experience with intertidal field experiments and environmental monitoring in California, Oregon, Chile and New Zealand. Her work has explored how differences in nutrient loading and coastal oceanography influence marine plant-herbivore interactions and the diversity and abundance of seaweeds. She has also investigated the causes and consequences of a newly identified nearshore hypoxic zone along the Oregon coast. She is currently working with her graduate students on a variety of research projects including: conservation and management of commercially collected seaweed, *Postelsia palmaeformis* (funding from California SeaGrant), influence of oceanographic variation on the recruitment and reproductive output of intertidal invertebrates (*Pisaster ochraceous*, *Mytilus californianus*, *Balanus glandula* and *Chthamalus dalli*) (EPA STAR Fellowship to MS student); and the influence of oceanographic subsidies on benthic community structure in the northern California Current Large Marine Ecosystem (funding from NSF). Dr. Nielsen is interested in the interface of science and policy, and currently serves as a member of the Science Advisory Team for the Marine Life Protection Act Initiative (phase 2).

**Jeffrey D. Paduan**, Associate Professor

Naval Postgraduate School

Dr. Jeffrey D. Paduan received his Ph.D. in Physical Oceanography from Oregon State University (OSU) in December, 1987. While at OSU, he specialized in the analysis of data from field measurements in the upper ocean including data from subsurface temperature chains and current meters and surface anemometers and radiometers. His thesis dealt with the balances of heat, energy, and momentum in the upper ocean and the role played by horizontal advection in those balances. Since leaving OSU, Dr. Paduan has worked at the Scripps Institution of Oceanography analyzing Lagrangian data from surface drifters. He has served as manager of the Global Drifter Center at Scripps Institution whose function is to coordinate drifter construction and deployments for the WOCE/TOGA Surface Velocity Program which is a worldwide attempt to seed the oceans with surface drifters involving scientists from over a dozen countries. As of June 1991, he has been assistant, and now associate, professor of oceanography at the Naval Postgraduate School where he has continued work with surface drifters in the northeast Atlantic Ocean and in the California Current System as a principal investigator on two projects funded by the Office of Naval Research. He initiated a program using direction-finding (CODAR- type) HF radar systems around Monterey Bay to remotely measure coastal ocean surface currents out to distances of ~50 km. He helped to organize the Monterey Bay HF Radar Consortium, which brings together radar owners, operators, manufacturers, and scientists around the Bay to coordinate uses of the HF radar array. His focus has been on the dual goals of characterizing and improving HF radar performance and describing the dominant current processes in Monterey Bay. He served as principal investigator for the ICON project, which was a Monterey Bay area component of the National Ocean Partnership Program . Today, he is a PI on the NOAA/COTS Center for Integrated Marine Technology program based at UC Santa Cruz (CIMT) and a PI on the state-funded Coastal Ocean Currents Monitoring Program (COCMP).

**Scott Quackenbush**, Associate Dean/Director  
Humboldt State University/HSU Marine Laboratory

Dr. Quackenbush is the Director of Humboldt State University's Marine Lab in northern California, where he is also Associate Dean for Marine Science Programs at HSU. His research interests are in the control of growth and reproduction of crustaceans, particularly those involved in fisheries. While in Florida, he worked on the reproduction of spiny lobsters and the regulation of that commercial fishery. While in North Carolina he worked on the growth rates of Blue Crabs and the regulation of that commercial fishery. He has worked on the both the growth and reproduction of marine shrimp and the impacts if marine shrimp farms in Central America. He has served on several marine policy boards for the states of Florida and North Carolina, focusing his efforts on marine invertebrate fisheries. His previous professional experience includes chair of the biological science departments at the University of North Carolina at Wilmington and Florida International University. He earned his undergraduate degree at the University of Minnesota, his master's degree at the University of West Florida, and his doctorate at Florida State University.

**Harry N. Scheiber**, Professor  
University of California, Berkeley, Boalt Hall School of Law

Dr. Harry N. Scheiber is the Stefan A. Riesenfeld Professor of Law and History, Director of the Institute for Legal Research, Co-director of the Law of the Sea Institute, and Director of the Sho Sato Program in Japanese and U.S. Law at the School of Law (Boalt Hall), University of California, Berkeley. He received his A.B. (1955) from Columbia University, and his M.A. (1957) and Ph.D. (1961) from Cornell University. Over the past four decades, Harry Scheiber's publications, teaching and mentorship have helped shape and enrich many of the leading sub-fields of U.S. history and of socio-legal studies. In addition to his many influential contributions to the historical examination of law, economy and government policy in the U.S., he also has written prolifically on topics outside U.S. history, including major studies of modern oceans law and policy such as: the Law of the Sea; historic fisheries and whaling policy; privatization of coastal fisheries management; history of the Magnuson-Stevens Act; overcapacity in the Pacific fisheries; and on the interplay of science, economics, and biological studies in fisheries management, theory, and policy. He has been a consultant on two National Research Council studies of fisheries management, and for the Pew Oceans Commission. Currently he serves as a member of: the scientific advisory board of the

Joint Ocean Commission Initiative and the National Sea Grant Law Center; the UC Marine Council; the California Sea Grant Program advisory board; and the IUCN High Seas Governance Specialists Group.

**Jerry Schubel**, President and CEO  
Aquarium of the Pacific

Dr. Jerry Schubel joined the Aquarium of the Pacific as President and CEO in June 2002. He is President and CEO emeritus of the New England Aquarium where he served from 1994 to 2001. An accomplished and respected administrator and scientist, Dr. Schubel was Dean and Director of the State University of New York at Stony Brook's Marine Sciences Research Center from 1974 to November 1994. The Center is a world-renowned coastal oceanographic institution. For three years in the mid-1980s, Dr. Schubel served as Provost at the University and created a number of research institutes focusing on a variety of issues including regional policy studies, the mathematical sciences, the humanities, game theory, and social analysis. Prior to 1994, Dr. Schubel was an adjunct professor, research scientist and Associate Director of The Johns Hopkins University's Chesapeake Bay Institute. Dr. Schubel has written extensively for both academic and scientific journals as well as for general audiences. He has published over 200 scientific papers and is the author or editor of several books including *The Life and Death of the Chesapeake Bay*. An accomplished photographer, Schubel's work illustrates *The Living Chesapeake*, a book he also wrote. Dr. Schubel is a member of the National Research Council's Marine Board and the former chair. He is past chair of the National Sea Grant Review Panel, and past President of the Estuarine Research Federation. He chairs the Ocean Research and Resources Advisory Panel (ORRAP). He served on the Census of Marine Life U.S. National Committee and the National Science Foundation Education and Human Resources Advisory Committee. Dr. Schubel holds a Bachelor of Science degree from Alma College, Alma, Michigan; a Masters degree from Harvard University; and a Ph.D. in oceanography from The Johns Hopkins University in Baltimore, Maryland. He received an honorary doctorate from the Massachusetts Maritime Academy in 1998, and in 2004 was selected as a National Associate of the National Academies of Sciences and Engineering.

**John J. Stachowicz**, Associate Professor  
University of California, Davis

Dr. John J. Stachowicz is a marine ecologist interested in the maintenance and origins of marine biodiversity as well as the consequences of this diversity for the stability and functioning of ecosystems. He received his B.A. in Biology from Dartmouth College in 1993 and a Ph.D in Marine Sciences from University of North Carolina at Chapel Hill in 1998. After a postdoctoral fellowship at the University of Connecticut, he took a faculty position at the University of California, Davis where he is now an Associate Professor of Evolution and Ecology. He is a UC Davis Chancellor's Fellow and the 2004 winner of the George Mercer Award given by the Ecological Society of America for an outstanding ecological research paper published by a younger researcher. His experimental work spans levels of diversity from genes to species and includes a wide range of experimental subjects including seaweeds, seagrasses, a wide variety of invertebrates and fishes. The unifying theme of this work is the role that biodiversity at all levels plays in enhancing the resistance of communities to various types of natural and anthropogenic disturbances including eutrophication and invasion by introduced species. He also is involved in curriculum development in the biological and marine sciences and teaches undergraduate courses in Ecology, Marine Biology, and Invertebrate Zoology.

**William Sydeman**, President  
Farallon Institute for Advanced Ecosystem Research

William J. Sydeman is a veteran marine ecologist, having 25+ years of experience, working in the California Current and related North Pacific large marine ecosystems. Recently, Bill established the Farallon Institute for Advanced Ecosystem Research, a not-for-profit organization dedicated to integrated ecological marine studies for management and conservation. Dr. Sydeman is widely-regarded as one of

the leading experts on California's central-north coastal ecosystem. He has published extensively on seabird and marine mammal ecology, climate change, ecosystem change, predator-prey dynamics, and fisheries in the Gulf of the Farallones and elsewhere. In his current research, he is investigating how climate change is altering upwelling dynamics and the seasonal cycle of productivity in the California Current, with concurrent and cascading effects through the food web to top predators. Specifically, he is testing the hypothesis that climate change is causing greater mis-matching in predator needs and prey availability. Bill is also actively working on projects involving ocean wave energy and its potential ecological consequences, integrated ecosystem assessments, and large-scale macro-ecological studies of plankton and predators in the sub-arctic North Pacific (Gulf of Alaska to Japan). Bill has served on a variety of state marine science panels, and is a Contributing Editor for the newly formed journal *Aquatic Biology*.

**Stephen Weisberg**, Executive Director  
Southern California Coastal Water Research Project

Dr. Stephen B. Weisberg is Executive Director of the Southern California Coastal Water Research Project (SCCWRP) where he specializes in the design and implementation of environmental monitoring programs. He is Chair of the Southern California Bight Regional Monitoring Steering Committee and is on the Governing Boards of the California Ocean Science Trust and the Southern California Coastal Ocean Observing System. He serves on advisory committees for numerous programs, including the University of Southern California Sea Grant Program, the State of California's Clean Beach Task Force, the Alliance for Coastal Technology and the Hollings Laboratory Oceans and Human Health Program. Dr. Weisberg received his undergraduate degree from the University of Michigan and his Ph.D. from the University of Delaware.