
PANELIST BIOGRAPHIES

ERPP SCIENTIFIC REVIEW PANEL

Paul Angermeier is Unit Scientist at the Virginia Cooperative Fish & Wildlife Research Unit and Associate Professor in the Department of Fisheries and Wildlife Sciences at Virginia Tech. His expertise lies in the areas of geographical ecology of freshwater fishes, conservation of aquatic ecosystems, and the use of biotic communities to assess environmental quality.

Dr. Angermeier completed his doctoral work in Ecology at the University of Illinois in 1983. He is currently conducting research in the following areas: 1) multi-scale habitat models for stream fishes; 2) roles of biological integrity and diversity in managing biotic resources; 3) landscape-scale conservation; and 4) biotic assessment.

Dr. Angermeier has applied his scientific knowledge to the regional policy-making arena by participating in Water Quality 2000 Congress, the Virginia General Assembly Technical Task Force on Stormwater Management, the Ohio River Sanitation Commission Biotic Assessment Panel, and the Great Lakes Fishery Commission Workshop on Biodiversity and Sustainability in Aquatic Ecosystems.

Michael Barbour is a Professor of Environmental Horticulture at the University of California, Davis. His expertise lies in plant ecology, the vegetation of California, and the measurement of plant communities.

Dr. Barbour completed his doctoral work in Botany at Duke University. His recent research addresses plant autecology and synecology of maritime strand, salt marsh, desert scrub, and montane conifers forests in Alta and Baja California, along the Pacific and Gulf of Mexico coasts, and in Argentina, Australia, and Israel.

Dr. Barbour was one of 18 core scientists who participated in writing a four-volume assessment of the health of the Sierra Nevada ecosystem for the USDA Forest Service and Congress. He has been a founding and active member of several panels which developed standards for vegetation sampling and classification that have been adopted by state and federal land management agencies.

Ken Cummins, Panel Chair is currently a Distinguished Scientist in the Ecosystem Restoration Department of the South Florida Water Management District. Prior to this position, Dr. Cummins held academic appointments at the universities of Pittsburgh and Maryland, Oregon State University and Michigan State University. His areas of expertise are stream and river ecology and riparian ecosystems.

Dr. Cummins completed his doctoral work in Zoology at the University of Michigan. He has since published extensively in the following areas: stream/river ecosystem structure and function; general stream/river ecosystem theory with special emphasis on land-water interactions, especially sources and the fates of organic matter from the riparian zone; functional group

analysis of stream organisms and factors that regulate their growth and mortality; and the restoration of large river-floodplain ecosystems, invertebrate food webs of wetland ecosystems, ecosystem metabolism in littoral and floodplain ecosystems.

Dr. Cummins has had a strong influence on many of the nation's largest restoration projects. He is currently guiding the Kissimmee River Restoration project, a joint effort of the U.S. Army Corps of Engineers and the South Florida Water Management District. He is also a member of several restoration advisory boards, including the Everglades Restoration Technical Oversight Committee, the State of Oregon Timber-Salmon Panel, and the Riparian Monitoring Panel for the State of Washington's Olympic Peninsula.

Christopher D'Elia is a Professor at Chesapeake Biological Laboratory, Center for Environmental and Estuarine Studies, in Solomons, Maryland, and Director of the Maryland Sea Grant College Program in College Park, Maryland. He brings expertise in estuarine ecology and nutrient dynamics to the ERPP scientific review panel.

Dr. D'Elia completed his doctoral work in Zoology from at the University of Georgia. He conducted post-doctoral research at the University of California, Los Angeles and at Woods Hole Oceanographic Institution. He has received numerous research grants and is the author of over fifty scientific publications and published reviews. His academic interests include the nutrient dynamics of aquatic ecosystems and science-policy relationships.

Since joining the University of Maryland in 1977, he has taken two leaves of absence: in 1983, he was appointed as Ruth Patrick Distinguished Scholar in Aquatic Science at the Academy of Natural Science (Philadelphia), and from 1987-1989, he was the Director of the Biological Oceanographic Program at the National Science Foundation in Washington, DC.

Thomas Dunne is a Professor in the School of Environmental Science and Management at the University of California, Santa Barbara. His expertise lies in drainage-basin, hillslope, and fluvial geomorphology, and in the application of hydrology and geomorphology to landscape management and hazard analysis.

Dr. Dunne was educated at Cambridge University and completed his doctoral work in geography at Johns Hopkins University. He is the co-author of two text books, *Water in Environmental Planning* and *Rapid Evaluation of Sediment Budgets*, and has published extensively in professional journals.

He has gained experience of geomorphic and hydrologic processes related to resource development and habitat management through consultancies on erosion, sedimentation, and river behavior in East Africa, South America, the Pacific Northwest, and the Lake Tahoe basin. He has participated in scientific advisory panels for the U.S. National Research Council, the United Nations, the governments of Brazil, Taiwan and Kenya, the states of Washington and Oregon, and several U.S. federal agencies. He now leads an Interdisciplinary Science Team, participating in the NASA Earth Observing System, that studies hydrology, sedimentation, biogeochemistry, and environmental change in the Amazon River Basin.

Jack McIntyre is a Project Leader of the Aquatic Resources Unit at Yellowstone National Park, Wyoming and an editor of the *North American Journal of Fisheries Management*. His expertise lies in population biology of salmonid fishes including Pacific salmon and steelhead, and inland trout and char.

Dr. McIntyre completed his doctoral work in Zoology at Oregon State University. His publications address genetic structure of salmon and steelhead populations, genetic manipulation of hatchery salmon stocks, population dynamics of sockeye salmon in Alaska, interaction of hatchery and wild fish, habitat characteristics for stream salmonids, and conservation requirements of cutthroat and bull trout.

Dr. McIntyre has served on several advisory panels, including: Technical Advisory Team for the Federal Task Force (Boldt Court); Action Committee of Trinity River Task Force; Technical Advisory Team for ESA Action on Columbia River Chinook Salmon; National Wildlife Federation Committee on the role of national fish hatcheries; Task Force to assess forest management practices in Tongass National Forest, Alaska; Chair of Expert Panel to Advise the National Park Service on the significance of lake trout introduction in Yellowstone Lake.

Dennis Murphy is a Research Professor in Biology at the University of Nevada at Reno. His expertise is in terrestrial ecology and natural community conservation planning. Dr. Murphy has also worked in conflict resolution in land-use planning on private property since the first federal Habitat Conservation Plan was written for San Bruno Mountain.

Dr. Murphy completed his doctoral work at Stanford University, where he later became a Professor and President of the Center for Conservation Biology. He is the author of more than 140 published papers and book chapters on the biology of butterflies and on key issues in the conservation of imperiled species.

Dr. Murphy's service on panels has included the Interagency Spotted Owl Scientific Advisory Committee, chair of the National Park Service's Advisory Committee on Bighorn Sheep, co-chair of the State Department's American Russian Young Investigators Program in Biodiversity and Ecology, co-director of the statewide Nevada Biodiversity Initiative based at the University of Nevada at Reno, and chair of the Scientific Review Panel to the first Natural Community Conservation Planning Program in Southern California's coastal sage scrub ecosystem. He served the National Academy of Sciences on its Committee on Scientific Issues in the Endangered Species Act, and currently serves as a member of both the Applied Science Panel and Interagency Working Group to the federal-state Coastal Salmon Initiative, an ecosystem-based planning approach involving aquatic and terrestrial species on private lands in coastal northern California.

He recently received the California Governor's Leadership Award in Economics and the Environment.

Joy Zedler is a Professor of Biology at San Diego State University and Director of the Pacific Estuarine Research Laboratory in San Diego, California. Her expertise lies in the areas of salt marsh ecology, structure and functioning of coastal wetlands, improving the restoration of wetland ecosystems, reestablishment and management of rare plants, and the effects of rare, extreme events on estuarine ecosystems.

Dr. Zedler completed her doctoral work in Plant Ecology at the University of Wisconsin. She has published more than one hundred papers on California's coastal ecosystems, both natural and restored.

Dr. Zedler has been involved extensively in the integration of scientific information in the management of coastal habitats. She has advised the California Coastal Commission on Developing State-Wide Standards for Mitigation Performance, the Tijuana River National Estuarine Research Reserve on its Research, Education and Restoration programs, the National Parks Service on Exotic Species Invasions in Everglade National Park, and the National Research Council on wetland characterization and the restoration of aquatic ecosystems.

Dr. Zedler has received the National Wetlands Award from the Environmental Law Institute and the Environmental Protection Agency for science research demonstrating "an extraordinary commitment to the conservation and restoration of the nation's wetlands" and the National Oceanic and Atmospheric Administration, Sanctuaries and Reserves Division, special award for outstanding contributions to the understanding of estuarine ecology.