

Frontiers in Understanding Climate Change and Polar Ecosystems: A Workshop

Committee

Jacqueline M. Grebmeier

Co-Chair

Jacqueline Grebmeier (Co-chair) is a research professor at the Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science. Her research interests include: pelagic-benthic coupling, benthic carbon cycling, and benthic faunal population structure in the marine environment; understanding how water column processes influence biological productivity in Arctic waters and sediments, how materials are exchanged between the sea bed and overlying waters, and documenting longer-term trends in ecosystem health of Arctic continental shelves. Some of her research includes analyses of the importance of benthic organisms to higher levels of the Arctic food web, including walrus, gray whale, and diving sea ducks, and studies of radionuclide distributions of sediments and within the water column in the Arctic as a whole. Dr. Grebmeier earned her Ph.D. in biological oceanography in 1987 from the University of Alaska, Fairbanks.

John C. Priscu

Co-Chair

John C. Priscu (Co-chair) is a professor of ecology at Montana State University at Bozeman. His research interests are microbial biogeochemistry in polar aquatic systems emphasizing the roles of nitrogen and phosphorus in microbial growth, as well as life associated with Antarctic ice and its relationship to global change and astrobiology. He studies the biogeophysics of ice-covered lakes and ice cores in northern and southern polar regions. He is a former US representative to the Scientific Committee on Antarctic Research (SCAR) and convenes the Scientific Research Program on Sub-glacial Antarctic Lake Environments (SALE). Dr. Priscu earned his Ph.D. in microbial ecology in 1982 from the University of California at Davis.

Rosanne D'Arrigo

Member

Rosanne D'Arrigo is a Senior Research Scientist at the Tree-Ring Laboratory of the Lamont-Doherty Earth Observatory (LDEO) in Palisades, New York. She is also the Associate Director of the Biology and Paleoenvironment Division at LDEO. Her field of study is dendrochronology, specifically the development and analysis of paleoclimatic reconstructions based on tree-ring data. Her research interests include the generation of large-scale reconstructions of Northern Hemisphere temperatures, analysis of the "divergence problem" in tree-ring records from northern latitudes, and the reconstruction of the climate dynamics of Monsoon Asia. Ph.D. in Geological Sciences, Columbia University, 1989.

Hugh W. Ducklow

Member

Hugh Ducklow is the Director of the Ecosystems Center at the Marine Biological Laboratory. Dr. Ducklow is a biological oceanographer and has been studying the dynamics of plankton foodwebs in estuaries, the coastal ocean and the open sea since 1980. He and his students have worked principally on microbial foodwebs and the role of heterotrophic bacteria in the marine carbon cycle. Dr. Ducklow has participated in oceanographic cruises in Chesapeake Bay, the western North Atlantic Ocean, the Bermuda and Hawaii Time Series stations, the Black Sea, the Arabian Sea, the Ross Sea, the Southern Ocean, the Equatorial Pacific and the Great Barrier Reef. Much of the work was done in the decade-long Joint Global Ocean Flux Study (JGOFS), which he led in the late 1990s. He has been working on various projects in Antarctica since 1994. Currently, Dr. Ducklow leads the Palmer Antarctica Long Term Ecological Research Project on the west Antarctic Peninsula, where he is investigating the responses of the marine ecosystem to rapid climate warming. Although his research is primarily experimental and observational, he utilizes mathematical models and collaborate with modelers to gain deeper understanding and derive maximum benefit from the data we collect. Dr. Ducklow received his PhD from Harvard University in 1977.

Craig Fleener

Member

Craig Fleener is the Director of the Division of Subsistence in the Alaska Department of Fish and Game and a lifelong Alaskan from Fort Yukon. He has worked as an environmental manager, project coordinator, wildlife biologist, natural resources director and Executive Director of the Council of Athabaskan Tribal Governments. Fleener has served in the military for more than 21 years and is currently an Intelligence Officer in the Alaska Air National Guard. He has served on numerous boards and committees, including Gwich'in Council International, the Alaska Native Health Board and the Eastern Interior Subsistence Federal Regional Advisory Committee. He served as deputy mayor of Fort Yukon, and is a member of the Alaska Board of Game. Fleener holds a Bachelor of Science degree in natural resource management from the University of Alaska Fairbanks, and has completed substantial graduate work in resource management at the University of Calgary. Mr. Fleener recently received an MS from the Resources and Environment Program at the University of Calgary.

Karen Frey

Member

Karen Frey is an Assistant Professor in the Graduate School of Geography at Clark University (Worcester, MA). Karen earned a B.A. (1998) in Geological Sciences from Cornell University, as well as an M.A. (2000) and a Ph.D. (2005) from the Department of Geography at the University of California, Los Angeles. Her research interests involve the combined use of field measurements, satellite remote sensing, and GIS to study large-scale linkages between land, atmosphere, ocean, and ice in polar environments. Over the past decade, she has conducted field-based research in West Siberia and East Siberia, as well as in the Bering, Chukchi, and Beaufort Seas. Her most recent work focuses on impacts of permafrost thaw on river biogeochemistry and impacts of sea ice decline on biological productivity in polar shelf environments.

Cheryl Rosa

Member

Cheryl Rosa currently serves as Deputy Director and Anchorage-based Alaska Director of the US Arctic Research Commission. In this position, she assists the seven-member, presidentially appointed Commission in its efforts to strengthen Arctic research, ties to the State of Alaska and international partners. Dr. Rosa received a Doctorate in Veterinary Medicine from Tufts University and a Doctorate in Biology from the University of Alaska Fairbanks. She is a Research Biologist and Wildlife Veterinarian for the North Slope Borough (NSB) Department of Wildlife Management in Barrow, Alaska. Dr. Rosa has been active on the North Slope in a wide range of studies, including wildlife health and zoonotic disease, marine mammal stranding response, subsistence food safety and oil spill/offshore discharge research. Her fieldwork includes marine and terrestrial mammal research in both the United States and Russia. Dr. Rosa has been active on many different local, state and federal committees. She has served as an advisor to the North Slope Borough Fish and Game Management Committee, the Joint Commissions of the Inuvialuit Game Commission and the North Slope Borough and the Alaska Eskimo Whaling Commission. She is also a member of the International Whaling Commission's Scientific Committee, the Science Advisory Panel of the North Pacific Research Board and the Polar Bear Technical Committee (past). Dr. Rosa has worked and lived in the Arctic for almost a decade. Her background and experience provide a strong connection between the people of the North and arctic researchers.