

Hans Paerl, Ph.D.

William R. Kenan Professor of Marine and Environmental Sciences, Institute of Marine Sciences at UNC-Chapel Hill

Morehead City, NC, US

Hans W. Paerl is Kenan Professor of Marine and Environmental Sciences, at the UNC-Chapel Hill Institute of Marine Sciences.

Hans W. Paerl is Kenan Professor of Marine and Environmental Sciences at the UNC-Chapel Hill Institute of Marine Sciences in Morehead City. He studies phytoplankton and nutrients, important factors that dictate water quality, in coastal waters, estuaries, and lakes. His research includes microbially-mediated nutrient cycling and primary production dynamics of aquatic ecosystems, environmental controls of harmful algal blooms and assessing the causes and consequences of man-made and climatic (storms, floods) nutrient enrichment and hydrologic alterations of inland, estuarine and coastal waters. His studies have identified the importance and ecological impacts of land-based and atmospheric nitrogen inputs on estuarine and coastal eutrophication and harmful algal blooms. He is examining the impacts of increasing frequencies and intensities of tropical cyclones and extra-tropical storms and their floodwaters on the resiliency and sustainability of coastal ecosystems using microbial and biogeochemical indicators of aquatic ecosystem condition and change. Paerl leads the Neuse River Estuary Modeling and Monitoring Program, ModMon, and ferry-based water quality monitoring program, FerryMon, which employs environmental sensors and various microbial indicators to assess near real-time ecological condition of the Pamlico Sound System, the second-largest estuarine complex in the U.S. and key southeast fisheries nursery.

Maritime, Research, Education/Learning

Marine Biology, Marine Ecology, Microbial Ecology, Environmental Science, Coastal Ecology, Biogeochemistry, Nutrient Pollution, Aquatic Ecology, Water Quality, Cyanobacteria, Harmful Algal Blooms, Phytoplankton, Estuaries, Eutrophication, Tropical Cyclones, Flooding , Hurricanes

American Association for the Advancement of Science, American Society Limnology and Oceanography, Phycological Society of America, Ecological Society of America

University of California
Ph.D. Ecology-Limnology

University of California
B.S. Biological Sciences

College of San Mateo
B.A. Biology-Biochemistry

Fellow of the American Geophysical Union

The Fellows program recognizes AGU members annually who have made exceptional contributions to Earth and space sciences as valued by their peers and vetted by a committee of Fellows. The Fellows program serves to meet the need for identified authorities who could advise, upon request, the various government agencies and other organizations outside the Earth and space sciences.

Odum Award

Awarded by the Coastal and Estuarine Research Federation, the Odum Award recognizes the lifetime achievements of an outstanding estuarine scientist whose sustained accomplishments have made important contributions to the understanding of estuaries and coastal ecosystems.

G. Evelyn Hutchinson Award

Awarded by the Association for the Sciences of Limnology and Oceanography, the G. Evelyn Hutchinson Award has been presented annually since 1982 to recognize excellence in any aspect of limnology or oceanography.

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