About the 2009 Mines Medal Recipient

Cindy Lee Van Dover, Ph.D. —

was named the 2009 recipient of the South Dakota School of Mines and Technology's Mines Medal. Since 2006, Van Dover has served as chair and professor of Duke University's Division of Marine Sciences and Conservation in the Nicholas School of the Environment and director of the Duke University Marine Laboratory. Prior to joining Duke University, she held positions at the College of William & Mary, the University of Oregon's Institute of Marine Biology, West Coast National Undersea Research Center, the University of Alaska Fairbanks Institute of Marine Science, and Woods Hole Oceanographic Institution. She also was a Fulbright Research Scholar at the French Research Institute for Exploitation of the Sea Centre located in de Brest, France.
Van Dover has conducted seminal research leading to the discovery and characterization of a geothermal source of light at deep-sea hydrothermal vents and the isolation of obligate photosynthetic organisms living on the seafloor. These discoveries have led to a new view of the potential for life elsewhere in the universe, as well as a new appreciation for previously unrecognized modes of photosynthetic life in both the deep sea and midwaters on this planet. Recently, she has contributed to the understanding of environmental consequences of potential offsets with respect to the mining of deep-sea minerals around hydrothermal vent sites in Southeast Asian waters. Van Dover also has the distinction of being the first and only woman to complete the rigorous training necessary to be an Alvin submarine pilot, diving to depths of more than 3,600 meters.

"The deep ocean is a frontier of biological and geological exploration even as it is being evaluated for its potential to provide solutions to environmental problems such as sequestration of excess CO2 and to meet sociopolitical needs for metals and other resources," Van Dover said. "A single career can span the boundaries of exploration and discovery, and of discovery and application at the seabed. I am convinced that the deep sea will be an even more compelling place to study for the next generation of ocean explorers and scientists, as increasing technological capabilities expand our access to and understanding of this alien world."

Van Dover has authored more than 100 peer-reviewed publications and has also communicated her discoveries to the non-scientific population through magazine articles, radio, television, a podcast series detailing an ocean-borne expedition to Antarctica, and her autobiographical book, The Octopus's Garden. She is a Fellow of the American Association for the Advancement of Science and a member of the American Geophysical Union, the Oceanographic Society, and co-founder and international steering committee member of the Chemosynthetic Ecosystems component (ChEss) of the Census of Marine Life.