Stanford

Anna M. Michalak

Professor (By Courtesy), Earth System Science

Bio

BIO

Dr. Anna M. Michalak is the Founding Director of the Carnegie Climate and Resilience Hub at the Carnegie Institution for Science, where she has been a Faculty Member since 2011 and served as Director of the Department of Global Ecology for 2020-2023. Michalak also holds appointments as Professor (by courtesy) in the Department of Earth System Science at the Stanford Doerr School of Sustainability and the Department of Biology at Stanford University. Prior to joining Carnegie, she was the Frank and Brooke Transue Faculty Scholar and Associate Professor at the University of Michigan. She holds a Ph.D. and M.S. in Civil and Environmental Engineering from Stanford University, and a B.Sc.(Eng.) in Environmental Engineering from the University of Guelph, Canada.

Dr. Michalak studies the cycling and emissions of greenhouse gases at the Earth surface at urban to global scales – scales directly relevant to informing climate and policy – primarily through the use of atmospheric observations that provide the clearest constraints at these critical scales. She also explores climate change impacts on freshwater and coastal water quality via influences on nutrient delivery to, and on conditions within, water bodies. Her approach is highly data-driven, with a common methodological thread being the development and application of spatiotemporal statistical data fusion methods for optimizing the use of limited in situ and remote sensing environmental data.

She is the lead author of the U.S. Carbon Cycle Science Plan, Co-Chair of the National Academies committee for the midterm assessment of the NASA decadal survey for Earth system observations from space, Co-Chair of the carbon and water advisory boards for Schmidt Sciences, Scientific Member of the Max Planck Society, and Visiting Faculty Researcher at Google Research. Previously, she was Editor of the journal Water Resources Research and Chair of the scientific advisory board for the European Integrated Carbon Observation System. She is the recipient of the Presidential Early Career Award for Scientists and Engineers (nominated by NASA), the NSF CAREER award, the Leopold Fellowship in environmental leadership, and the American Geophysical Union’s Simpson Medal.