



The Gloucester Marine Station and Cape Ann Climate Coalition present

## Climate Conversations: Building Resiliency within our Coastal Community

January 19, 2022 at 9:00am (remote event)

This “Climate Conversation” is intended to be a remote information session that encourages dialogue around the potential impacts of climate change and solutions (both mitigation and adaptation) for Cape Ann communities.

### Presenters

Paul Kirshen, Professor School for the Environment, University of Massachusetts Boston, and Director, Stone Living Lab

Michelle Rowden, Northeast Regional Coordinator, Municipal Vulnerability Preparedness Program, Massachusetts Executive Office of Energy and Environmental Affairs

Marta Vicarelli, Assistant Professor, Department of Economics and School of Public Policy, University of Massachusetts Amherst

### Moderator

Adrian Jordaan, Associate Professor, Director of the Gloucester Marine Station, Department of Environmental Conservation, University of Massachusetts Amherst

Opening remarks by Darci Maresca, Assistant Director, School of Earth & Sustainability, introducing the Northeast Center for Coastal Resilience (NCCR)

To register for the conversation, follow [this link](#).

Please provide us with your perspective!

During registration, you are provided an opportunity to share your thoughts on climate change challenges, mitigation, and adaptation, share a story, and provide suggestions for this or future events.

## Bios

Paul Kirshen is a Professor in the School for the Environment at the University of Massachusetts Boston. He is also Director of the Stone Living Lab – a partnership of the university, Boston Harbor Now, the National Park Service, the City of Boston, the Massachusetts Executive Office of Energy and Environmental Affairs, and the Massachusetts Department of Conservation and Recreation focused on research on nature-based solutions for coastal resiliency and flood risk reduction. He is a Principal investigator and serves on the Executive Committee for the Northeast Center for Coastal Resilience. He has considerable experience serving as Principal Investigator of complex, interdisciplinary, participatory research related to water resources, coastal zone, and infrastructure management, and climate variability and change. He was a Lead Author for the IPCC Assessment Report and the US National Climate Assessment. He works at scales ranging from local to international. He has been conducting research on the integrated vulnerability of metro Boston and Massachusetts to present and future climates and adaptation/management strategies since 1990. He received his ScB in Engineering from Brown University and his MS and PhD in Civil Engineering from the Massachusetts Institute of Technology.



Michelle Rowden is the Northeast Regional Coordinator for the Municipal Vulnerability Preparedness (MVP) Program at the Massachusetts Executive Office of Energy and Environmental Affairs. In this role, she assists cities and towns in this region to join the MVP program and successfully obtain funding for and manage grant projects that will increase climate resilience for the community and region. Michelle has more than 20 years of experience, most of that time serving as the Conservation Agent for the Town of Salisbury. Before that, she worked in various roles at the Southwest Florida Water Management District supporting regulatory and research programs. She holds a B.S. in Marine Biology from the University of West Florida.

Marta Vicarelli is Assistant Professor of Economics and Public Policy at the University of Massachusetts, Amherst. She is a Principal investigator and serves on the Executive Committee for the Northeast Center for Coastal Resilience. Her research focuses on: (i) the risks and the socio-economic impacts of climate variability and climate change; (ii) renewable energy economics and policy analysis; (iii) the economics of green infrastructure, nature-based solutions and ecosystem-based disaster risk-reduction. From 2004 to 2010, she worked as a research fellow at NASA Goddard Institute for Space Studies investigating observed impacts and responses to climate change. She is a contributing author to the Intergovernmental Panel for Climate Change (IPCC) Fourth Assessment Report, Working Group II, on impacts, adaptation and vulnerability. She is the recipient of the Peccei Fellowship (2007) awarded by the International Institute for Applied Systems Analysis (IIASA) in Vienna for her work on integrating inter annual climate variability forecasts into weather-indexed crop insurance. In 2009 she was awarded the Giorgio Ruffolo Fellowship by the Harvard University Sustainability Science Program and she worked as a research fellow at the Harvard University's Center for International Development from 2009 to 2011. She joined the Yale University Climate and Energy Institute as a postdoctoral fellow in 2011 until 2013, investigating the impacts of climate change and weather extremes on human capital formation.



She holds a B.S. in Earth and Atmospheric Sciences from the École Normale Supérieure in Paris, a Master of Environmental Economics from the École Polytechnique, as well as a Master of International Affairs and a Ph.D. in Sustainable Development from Columbia University.



Adrian Jordaan

I took on the role as Gloucester Marine Station Director in 2015, inheriting a location with a long history of high-quality science but facing an uncertain future. I have been honored to serve the University of Massachusetts in developing partnerships with the Cape Ann community and stakeholders across the Commonwealth.

Decades living on islands from Newfoundland to the Caribbean has exposed me the wonders of the ocean, but also the socioeconomic and ecosystem upheavals brought on by extreme weather and ecosystem collapse. Experiencing these dual aspects of living on the coast shaped my career pathway, my approach to research, and my values as the Director, by providing me an understanding of how linked we and our livelihoods are to the health of coastal ecosystems and aquatic communities.

Trained as a Marine Biologist and Quantitative Fisheries Ecologist, I have studied and researched organisms inhabiting a variety of water types over the past two decades. Currently my research focusses on river herring and winter flounder ecology, ecosystem functioning and effects of climate of phenology, all in search of solutions to improve populations under management. Central to my approach is finding “sweet spots” where science can help guide management strategies that improve or increase ecosystem services. This often includes aspects of climate-organism interactions, ecosystem connections and organismal biology. Experiences along the way, including living in different cultures, and currently as the GMS Director and as an appointed member of the New England Fishery Management Council Scientific and Statistical Committee, have provided me exposure to a diversity of philosophies, cultures, and approaches to problem-solving.

## Acknowledgments and Statements

The Gloucester Marine Station is committed to fostering dialogue around complex issues by leveraging the State University system for knowledge and solutions. We would like to recognize the partnerships among UMass Amherst, Boston, Dartmouth and Lowell and other institutions such as GMGI and Tufts University for working towards common goals of economic growth and sustainable resource use.

UMass Amherst Gloucester Marine Station is committed to the success and well-being of every individual in our community regardless of group identity and to the development of a community that recognizes and encourages inclusion, the power of diverse perspectives, and mutual respect.

The [University of Massachusetts](#) and the Gloucester Marine Station gratefully acknowledge the Native Peoples on whose Indigenous homelands and waters on which our faculty and students conduct research and engagement, as well as where our community live and work. We also invite you to deepen your relationship to these living lands and waters.