

## 5<sup>TH</sup> ANNUAL CAPE COASTAL CONFERENCE

### RESILIENT CAPE?

December 5-6, 2017

#### SPEAKER BIOS

##### **KEYNOTE - SEA LEVEL RISE – LATEST RESEARCH FINDINGS AND IMPLICATIONS FOR CAPE COD**

**JERRY MITROVICA** is a Professor of Geophysics at Harvard University. He received a B.A.Sc. (Hons.) in Engineering Science, a M.Sc. (Physics) and Ph.D. (Physics), all from the University of Toronto, in 1983, 1985 and 1991 respectively. He spent two years as a Post-Doctoral Visiting Scientist in the Radio and Geoastronomy Division of the Harvard-Smithsonian Center for Astrophysics, before joining the faculty of the Department of Physics, University of Toronto in 1993. He moved to the Department of Earth and Planetary Sciences at Harvard University as a Professor of Geophysics in 2009, and was named the Frank B. Baird, Jr., Professor of Science at Harvard, in 2015. His research focuses on sea level changes over time scales ranging from the last decade to the age of the Earth. He is the recipient of the Rutherford Memorial Medal from the Royal Society of Canada, The Steacie Prize from the National Research Council and the Augustus Love Medal from the European Geosciences Union. He is a Fellow of the American Geophysical Union and, in 2007, was awarded a Guggenheim Fellowship. He is a former J. Tuzo Wilson Professor at the University of Toronto, and was a Visiting Miller Professor at the University of California, Berkeley.

**RYAN BENNETT** is a land use planner with more than 13 years of planning experience, including 10 years on Cape Cod. As a former Planner with the Cape Cod Commission, Ryan was responsible for hazard mitigation planning, conducting climate risk and vulnerability assessments, and developing energy policies for Developments of Regional Impact. She is a Certified Floodplain Manager (CFM), has expertise in local permitting processes, and with developing land use regulations (i.e zoning) in floodplains. She lives with her husband and two young children in Brewster.

**PHILIP BURT** has worked for Barnstable County for 15 years and has served in his current role as Emergency Preparedness Project Assistant since 2013. Mr. Burt's primary function under the Barnstable County Regional Emergency Planning Committee is to coordinate the Regional Emergency Shelter Plan on behalf of the County and local municipalities. He is also an active member of the Barnstable County Type 4 Incident Management Team where he serves as a Situation Unit Leader and Incident Meteorologist.

**BRUCE CARLISLE** is the Director of the Massachusetts Office of Coastal Zone Management (CZM) and has worked for the agency in several capacities since 1993 when he began as an intern. Following his graduate program at Tufts University, his internship ended and he moved on to work on water quality, wetlands policy and technical issues for CZM in 1994. From 2003 to 2005, he managed the wetlands restoration program, moving to Assistant Director of the agency in 2005. In 2008, he was awarded the Susan Snow-Cotter Leadership Award by the Gulf of Maine Council on the Marine Environment.

As agency head Carlisle directs policy efforts and technical approaches for CZM program areas, including ocean planning, shoreline and floodplain management, habitat protection and restoration, port and harbor planning, water quality, seafloor and tidal habitat mapping, and GIS/data management. In addition to being a member of the Gulf of Maine Council on the Marine Environment, Carlisle serves on the Northeast Regional Ocean Council - the U.S. National Ocean Policy's arm for the region.

**PATTY DOERR** joined the New Jersey Chapter of the Nature Conservancy in 2010, and has been the Director of the Coastal and Marine Program since its establishment in 2012. The Conservancy in New Jersey is focused on maximizing nature's role in building a resilient New Jersey coastline and helping communities adapt to a changing climate. Prior to joining the Conservancy, Ms. Doerr was Director of Ocean Resource Policy for the American Sportfishing Association (ASA) in Alexandria, VA. At ASA, she represented the sportfishing industry to Congress, the Administration, and state government regarding a variety of coastal and marine issues, including fisheries management and marine protected areas. Prior to ASA, she worked for the National Governors Association (NGA) as Legislative Director for its Natural Resources Committee, as well as the United States Senate Committee on Environment and Public Works on a variety of environmental policy issues. Ms. Doerr holds a Master's of Arts in Environmental Resource Policy from The George Washington University and Bachelor's of Science in both Natural Resource Management and Environmental Policies, Institutes, and Behaviors from Rutgers, The State University of New Jersey.

**ROBERT DUNCANSON**, is Director of Health and Environment, and Director of the Water Quality Laboratory, for the Town of Chatham, Massachusetts. Dr. Duncanson has a BS degree in Biology from the University of Miami and a Doctorate in Microbiology from the University of Rhode Island. While at the Univ. of Rhode Island, Dr. Duncanson worked on the development and application of various microbial water quality indicators, including the current national Enterococci standards for bathing beaches. As Director of Health & Environment for Chatham, Dr. Duncanson oversees staff and programs in the areas of public health, conservation, environmental protection, coastal resources, and shellfish. Dr. Duncanson managed the Town's 12 year Comprehensive Wastewater Management Planning program (CWMP) completed in 2009, including integration of the Massachusetts Estuaries Project and other scientific and engineering studies into the planning process. Dr. Duncanson managed the \$59.5M in construction activities related to Phase 1A implementation of the CWMP, consisting of a new 1.2 mgd ENR wastewater treatment facility, 5 pump stations, and approximately 11 miles of gravity, force main and low pressure sewers. Dr. Duncanson is currently managing construction of Phase 1B including \$5M of sewer extensions and a pump station upgrade in addition to overseeing design and bidding for future construction phases. Dr. Duncanson is also Phase II Stormwater Coordinator for Chatham, responsible for development and implementation of the Town's Phase II Stormwater Program.

**JOY DUPERAULT** is director of the Commonwealth's Flood Hazard Management Program, overseeing the implementation of the National Flood Insurance Program in coordination with Massachusetts' more than 340 NFIP communities. Joy is also the deputy State Hazard Mitigation Officer, working with the Massachusetts Emergency Management Agency to implement federal disaster grant programs, as well as to integrate mitigation planning activities with local floodplain management practices. Joy was formerly the state NFIP coordinator and deputy mitigation officer for the State of Florida, where she resided for 40 years. Her work in emergency management began in the aftermath of Hurricane Charley in 2004, and her background includes government and non-profit work in the fields of environmental education and human services.

**BETSY GLADFELTER** is a coastal ecologist who spent many years in the Virgin Islands doing coral reef research; she was also actively involved in conservation issues in the territory. Presently she is an advisor on a major NSF grant to the University of the Virgin Islands. She has been on the Falmouth Conservation Commission for more than 12 years and also serves as Falmouth's representative to the Steamship Authority. She coordinates all activities undertaken with partners of the Town of Falmouth on the Coonamessett River Restoration Project as well as the Coonamessett Greenway Heritage Trail project.

**HEATHER HARPER** joined the Cape Cod Commission as its Community Design/Affordable Housing Specialist in 2016. Prior to her appointment to the Commission staff, Ms. Harper served as the Assistant Town Manager for the Town of Falmouth. While there, Ms. Harper worked on various executive level programs, including serving as project manager for the Main Street Revitalization Program, the Falmouth Public Library Historic Renovation and Expansion, and Golf Course and Related Open Space Acquisition and Operations. She also facilitated several affordable housing projects among other projects. While in service, Ms. Harper was elected as Vice President of the International City and County Manager's Association, serving from 2009-2012. As a result, Ms. Harper has traveled widely across the United States and to Slovakia representing her municipal colleagues. Heather has been married to her husband Martin for more than 20 years. Together they are raising two teenage sons.

**CHUCK HODGKINSON** is the Chilmark Administrator for Town Zoning, Conservation Commission, Conservation Agent, Site Review, Community Preservation Committee, Human Resources Board, Historical Commission, Park & Recreation Committee, Harbor Advisory Committee and oversee major Town projects. Volunteer on West Tisbury Finance Advisory Committee; Chair West Tisbury Mill Brook Watershed Management Committee; West Tisbury Community Preservation Committee; Past Chairman West Tisbury Space Needs Committee; Past Chairman Martha's Vineyard Striped Bass and Bluefish Derby Committee.

**PAT HUGHES** chairs the Town of Brewster's Coastal Committee, charged with developing a coastal resource management plan for the town. While serving as a member of the Brewster Select Board, she collaborated with others to obtain state funding to develop a consensus-based Coastal Adaptation Strategy. She is the Marine Policy Director at the Center for Coastal Studies, and a member of the Cape Coastal Conference Steering Committee.

**STEVE KIRK** is the Coastal Program Manager for The Nature Conservancy in Massachusetts. His responsibilities include development, implementation, and monitoring of statewide and regional coastal conservation strategies. His focus is on coastal resilience and nearshore habitat restoration, particularly shellfish. Steve grew up sailing in Buzzards Bay, is a former oyster farmer in Falmouth, and holds a Masters in Marine Affairs from the University of Rhode Island and a B.A. in Geography from the University of Vermont.

**KEVIN KROEGER** is a coastal biogeochemist at the USGS Woods Hole Coastal & Marine Science Center. He has studied coastal ecosystems for more than 20 years, specializing in fluxes and biogeochemistry of nitrogen, carbon and greenhouse gases in coastal groundwater and in wetlands. Within the Wetlands Carbon Collaborative he is responsible in part for experimental design, participation in project coordination, and measurements of lateral greenhouse gas, carbon and nitrogen fluxes. Dr. Kroeger is also a key science investigator on the *Bringing Wetlands to Market* – an innovative blue carbon research project being conducted locally aimed at better understanding carbon storage and greenhouse gas fluxes in tidal wetlands and developing science-based tools for coastal managers and policymakers working on wetlands conservation and restoration.

**DAVID M. KUTNER, NJPP/AICP**, is the Planning Manager, New Jersey Future. David manages New Jersey Future's planning initiatives and is responsible for the organization's outreach and assistance to municipalities, with a special focus on coastal communities vulnerable to sea-level rise. For the past 4 years David has managed New Jersey Future's Local Recovery Planning Manager program, providing ongoing and direct assistance to municipalities seeking to rebuild from the devastating damage of Hurricane Sandy. His work has focused on helping communities recover from extensive storm damage but also encouraging them to consider the implications of projected sea-level rise and how they might plan for and respond to the challenges of impending flood inundation risks due to a changing climate. He is a licensed professional planner with more than 30 years of land use and environmental planning experience. He has worked as a private planning consultant and held positions in local, county, and state planning agencies in New Jersey, Massachusetts, New York, Pennsylvania, and Florida.

**ELISE LEDUC** is a coastal scientist with experience in coastal environmental management, geospatial analysis, wetland delineation and restoration, living shoreline design, and climate change planning. Ms. Leduc earned a Master's in Environmental Management from Duke University's Nicholas School of the Environment, and she is certified as a Professional Wetland Scientist. She was integral to the development of the *Living Shorelines in New England: State of the Practice* report prepared for The Nature Conservancy, and she has provided guidance for various living shoreline and wetland restoration projects, including local beach nourishment, dune restoration, and coastal bank stabilization projects, as well as the development of an adaptive management plan for the Herring River Restoration.

**ERIKA E. LENTZ** is a Research Geologist with the U.S. Geological Survey stationed at the Woods Hole Coastal and Marine Science Center. She received her PhD in Geology from the University of Rhode Island in 2010, and from 2012 to 2014 was a USGS Mendenhall Research Fellow. Her research focuses on coastal change and the processes that drive it over a range of spatial (barrier island to regional) and temporal (storms to sea level rise) scales in both natural and built environments. Most recently, Dr. Lentz has been exploring how coastal change varies among different ecosystems and across landscapes, and what makes certain locations more resilient than others. She is also interested in the meaningful communication of scientific information to support decision-making, and is currently serving as a chapter co-author on the Northeast regional chapter of the fourth National Climate Assessment, where her role is to help document the region's future risk to climate-induced coastal hazards.

**HEATHER MCELROY** has served as the Cape Cod Commission's Natural Resources Specialist for the last 17 years, developing natural resource and land use policy for the Cape, and applying those policies to the Commission's planning and regulatory work. Her work includes natural resources management policy, green infrastructure planning, and coastal resiliency and ocean planning. Heather has supported the development of the Section 208 Water Quality Plan for Cape Cod, including facilitating the science advisory panel convened to examine alternative nitrogen management technologies, and overseeing the maintenance of the Technologies Matrix. She is part of the Resilient Cape Cod Project team working to improve communication, knowledge and action on coastal resiliency issues on Cape Cod.

**LESLIE ANN MCGEE:** Through her consulting practice, Full Sail Consulting, Leslie-Ann McGee is the program manager for the Cape Cod Chamber of Commerce's Blue Economy Project. Leslie-Ann is also the Program Manager for the Center for Marine Robotics at Woods Hole Oceanographic Institution. Ms. McGee, among other projects, manages the Robots to the Sea project – a partnership to drive innovation in marine robotics between WHOI and the Commonwealth of Massachusetts. She is an expert in ocean and coastal issues in both the domestic and international arena and has a diverse background working with and for state, regional, national, business and environmental entities globally. She has direct experience working as regulatory staff within the U.S. Government and state government and has contributed to protecting marine ecosystems through innovative applications of law and policy. She has successfully partnered with interest groups, industry members, private non-profits and other stakeholders to form cohesive management strategies by communicating regularly with a wide variety of people with often conflicting perspectives.

Ms McGee served as the Director of Coastal Zone Management for the Commonwealth of Massachusetts. In addition, McGee was the Director of Programs for the World Ocean Council, Director of Ocean and Coastal Solutions at Battelle Memorial Institute and held state and federal positions with NOAA, the New England Fishery Management Council and the MA Department of Fish and Game. She is a graduate of the University of Colorado at Boulder and Duke University's Nicholas School of the Environment. She conducted her graduate research on Bluefin Tuna at the New England Aquarium.

**STEPHEN MCKENNA** is a Cape Cod native who grew up in Harwich. He studied Environmental Science and Marine Transportation at Massachusetts Maritime Academy, and became a licensed officer in the US Merchant Marine. After working as a professional mariner for a number of years, Steve sought to combine his maritime experience and interest in environmental protection. In 1996 he began working for the Massachusetts Coastal Zone Management Program. He has held a variety of positions over the past twenty years, including Assistant Regional Coordinator, Coastal Pollution Remediation Grant Coordinator, and Cape & Islands Regional Coordinator. In addition to his work with CZM, he has served on the Brewster Conservation Commission for many years; has served on the Mass Association of Conservation Commissions Board of Directors; co-chairs the Barnstable County Coastal Resource Committee, and the Barnstable County Dredge Advisory Board.

**JOHN MILLER** is the founding Executive Director of the Marine Renewable Energy Collaborative (MRECo) of New England. Prior to that, he led development of ocean renewable energy for the University of Massachusetts. He has 25 years of experience in technology commercialization in a variety of high technology businesses including Polaroid and GTE, has been President of two companies, and led a startup, Micro Magnetics, that transitioned an advanced materials sensor from university demonstration to Beta ready tool in 11 months while raising \$3 million. He has a BS degree in Engineering from the United States Military Academy, West Point, an MS in engineering degree from the University of Washington; and an MBA degree from Worcester Polytechnic Institute. John is a Commissioner on the Massachusetts Ocean Advisory Commission, on the Advisory Board of SeaPlan, and sits on the boards of several nonprofit organizations. He actively employs his own renewable energy rowing whale boats.

**JO ANN MURAMOTO** is the Director of Science Programs at the Association to Preserve Cape Cod. She has served as the Massachusetts Bays National Estuary Program Regional Coordinator for the Cape Cod region since 2006. She holds a Ph.D. in geological sciences from Cornell University and a B.S. in biology from the California Institute of Technology. Jo Ann's work experience includes scientific research in chemical oceanography, conservation administrator for the Town of Falmouth, and environmental consulting in marine disposal and coastal and wetland science. Her broad-ranging experience in science, consulting and the non-profit sector enables her to work effectively with many stakeholders on a variety of coastal issues including restoration, stormwater management, citizen monitoring and water resources.

**OWEN NICHOLS** has been Director of Marine Fisheries Research at the Center for Coastal Studies since 2008, where he conducts research in collaboration with Cape Cod fishermen and shellfish farmers. His primary interests include distributional ecology, fisheries oceanography, marine mammal/fishery interactions, and ecosystem-based fishery management. Owen is a Ph.D. candidate at the University of Massachusetts - Dartmouth (UMassD) School for Marine Science and Technology, a guest investigator at the Woods Hole Oceanographic Institution, and an adjunct professor at the Massachusetts Maritime Academy. Owen holds a B.A. in Marine Affairs from the University of Rhode Island and a M.Sc. in Marine Science and Technology from UMassD. Owen was the 2016 recipient of the John H. Annala Fishery Leadership Award presented by the Gulf of Maine Research Institute.

**WENDY NORTHCROSS** is Chief Executive Officer of the Cape Cod (MA) Chamber of Commerce. She has been with the organization since 1997 and a chamber executive since 1988. She is a Certified Chamber Executive (CCE) and completed a Ford Foundation Fellowship for Regional Sustainable Development through the Association of Chamber of Commerce Executives (ACCE). She joined the board of directors of ACCE in 2013 and its executive committee in August 2015. In 2015, Northcross was elected to the national Destinations Council of the U.S. Travel Association, and serves the local boards of The Cooperative Bank of Cape Cod, the Cape & Islands Workforce Investment Board, and the Job Training & Employment Corp. She is a member of the Town of Barnstable's Affordable Housing Growth & Development Trust Fund Board. In 2012, Northcross threw the opening pitch at the Boston Red Sox game on Cape Cod Day. In 2014 she was listed as one of the Cape's 12 most powerful women by Cape Cod Magazine. In 2015, she was awarded the inaugural Founders Community Leadership Award by the JFK Hyannis Museum. Northcross was born in Michigan and was raised in the greater Boston area and on Cape Cod where she lives with her husband, Van, who is retired from Cape Cod Healthcare. She and her husband enjoy the Cape's rich cultural offerings as well as traveling to see the world and spending time with family.

**JENNIE RHEUBAN** is a Research Associate III at the Woods Hole Oceanographic Institution. She has a BS in Mathematics and an MS in Environmental Sciences from the University of Virginia. She has been at WHOI for 5 years and her work focuses on the impacts of climate change and human populations on coastal ecosystems. This includes research focusing on water quality, ocean acidification, and climate impacts on coastal fisheries. Her research also touches on how changes to coastal ecosystems in turn affect communities and populations that rely on a healthy marine environment.

**ROBERT STEEN** is the Assistant Director of Public Works for the Town of Barnstable and has served in this capacity since 2013. Prior to this he worked as a wastewater consultant for twelve years with Wright Pierce. He is a licensed engineer and holds Masters Degrees in Ocean Engineering and Civil Engineering from the University of New Hampshire, as well as, a BS in Mathematics and Economics also from the University of New Hampshire.

**MEGAN TYRRELL** is the Research Coordinator at Waquoit Bay National Estuarine Research Reserve. Her previous work includes the Coastal Resilience Coordinator at the North Atlantic Landscape Conservation Cooperative and Research and Monitoring Coordinator at Cape Cod National Seashore. The Landscape Conservation Cooperatives are partnership based programs, hosted through the US Fish and Wildlife Service that seek to support landscape scale conservation initiatives. With the NA LCC, she was responsible for overseeing approximately \$5 million worth of research, modeling and science delivery projects that were made possible through Hurricane Sandy disaster mitigation funds. Currently, most of her research efforts are focused on enhancing the resilience of salt marshes.

**APRIL WOBST** is a Restoration Ecologist at the Association to Preserve Cape Cod. She has 10 years of experience in environmental protection including project management, long-term ecological monitoring, restoration, and invasive species management. She has particular expertise and training in adaptive management and planning as well as grant writing. April is manager of APCC's Restoration Coordination Center established to help towns and communities with restoring impaired salt marshes, fish runs, and shellfish beds as well as improving water quality through stormwater remediation and improving coastal resiliency across the Cape. As the restoration ecologist April supports the Center providing technical, planning, permitting and project management support to communities interested in completing restoration projects. Key partners in this effort include the Cape Cod Commission, Cape Cod Conservation District, Cape Cod Cooperative Extension, Massachusetts Division of Ecological Restoration, the Massachusetts Division of Marine Fisheries, and the 15 Cape towns. She holds a M.S. in Sustainable Development and Conservation Biology from the University of Maryland and a B.S. in Biology and Psychology from the University of Pittsburgh.

**DAVID VALLEE** is the Hydrologist-in-Charge of the National Weather Service's Northeast River Forecast Center. The center provides detailed water resource and life-saving flood forecasting services to National Weather Service Forecast Offices and the hundreds of federal, state and local water resource entities throughout the Northeast and New York.

David has worked for the National Weather Service for 25 years, serving in a variety of positions including Senior Service Hydrologist at the Taunton Weather Forecast Office from 1993-2000 and as Science and Operations Officer from 2001-2006. David has extensive experience leading hydrometeorological forecast and warning operations and directing weather research and training programs. David's research activities span a variety of topics including flooding, severe weather forecasting and orographically enhanced heavy rainfall in southern New England. David has served as the NWS lead investigator with the State University of New York, at Albany, on a multi-year project addressing Land Falling Tropical Cyclones in the Northeastern United States. This has improved the forecasting of heavy precipitation associated with these land falling tropical cyclones as well as developing a better understanding the mechanisms which lead to the recurvature and rapid acceleration of tropical cyclones as they approach the Northeast. David has been leading an effort at the Northeast River Forecast Center to examine changes in precipitation and temperature patterns across New England and its impact on flood behavior. Most recently, David led the NOAA National Service Assessment on the devastating floods of September 9-16, 2013.

David is most known locally for his outreach and education work on the behavior of New England Hurricanes, including many appearances on local radio and T.V. networks as well as the Weather Channel, the History Channel and the Discovery Channel. David has been the recipient of numerous regional and national awards including the prestigious National Isaac Cline Award for Leadership. David is a graduate of Lyndon State College. He is a life-long resident of the Rhode Island, living in the northeast part of Cumberland, with his wife and two sets of now teenage twins! He considers it a tremendous privilege to be serving the people of the very region he calls home.

**JOHN VOKEY** began working for Murray and McDonald Insurance in 1985 and is currently the Vice President of Agency Services and a Risk Management Specialist. He earned his Certified Insurance Counselor designation in 2003 and has focused on personal lines insurance for 32 years. He has worked with clients in settling both Hurricane Bob property and flood claims. John grew up in Falmouth and is a past board member of The Falmouth Housing Trust.

**SETH WILKINSON** is considered one of the regional experts and a frequent instructor in the field of bioengineering and ecological restoration, Seth Wilkinson has been a leader in hundreds of ecological restoration projects for land trusts, conservation commissions and private individuals over nearly two decades. Whether through the use of innovative equipment to manage invasive species or the inspired blending of bioengineering products with native plants, Seth and his team at Wilkinson Ecological Design continue to improve the practice and integrity of ecological restoration.

**MEGAN WINTON'S** research interests are centered on the development and application of statistical methods to improve understanding of the spatial ecology and population dynamics of highly migratory marine species. Her Ph.D. research is focused on developing frameworks to integrate electronic tagging data into population assessments for protected or prohibited species, with focus on geostatistical methods applied to loggerhead sea turtles in the Mid-Atlantic, and to white sharks off the coast of Cape Cod, Massachusetts. Megan earned her M.S. in Marine Science at California State University Monterey Bay's Moss Landing Marine Laboratory, and received her B.S. in Biology from Emory University. Megan has applied her quantitative analytical skills in positions at several research institutions, including Connamessett Farm Foundation and the NOAA Fisheries Northeast Fisheries Science Center. (*Main collaborators: Dr. Heather Haas, NOAA NEFSC, Dr. Greg Skomal, Mass DMF*)

**RICHARD YORK** is the Director of Natural Resources for the Town of Mashpee, MA. Management of the shellfish resources includes aquaculture of shellfish seed for fisheries. He designed and directs an oyster aquaculture project with support from AmeriCorps Cape Cod and the Barnstable County Cooperative Extension that restored a lost oyster fishery and mitigated eutrophication from anthropogenic nitrogen loading. While operating the Mashpee Water Quality Laboratory, he monitors water quality in collaboration with the Mashpee Wampanoag Tribe, the University of Massachusetts Dartmouth SMAST, and volunteers from the Mashpee Environmental Coalition and the Mashpee Waterways Commission. Data from monitoring showed water quality improvement from the oyster project in the estuary, and in another project from the installation of solar water circulators to control algae blooms a fresh water pond. Previous work in the aquaculture industry was at shellfish hatcheries and farms. At Aquatic Farms in Hawaii, he started the first commercial oyster/shrimp polyculture system for improved production and water quality in shrimp ponds. As a Research Associate at the University of Hawaii, he was an algae specialist on projects including ciguatera fish toxin, coral reef ecology, and biological control of mosquitoes as well as aquaculture for biofuels, food and pharmaceuticals. Richard has a Bachelor of Science in Marine Biology from the University of Massachusetts Dartmouth.