

Session Descriptions
Teach at the Beach 2017

<p><i>Coastal Resiliency in New Jersey</i></p>	<p>In the years since Superstorm Sandy, the term “resilience” has taken on new meaning. Along the Jersey Shore, there is heightened awareness of flooding and coastal hazards, and a new appreciation for science-based information regarding future coastal threats. Whether you call it nuisance flooding, sea level rise or inundation, the Jersey Shore is changing. Over the past 100 years, gauges all around the Mid-Atlantic region have documented at least a one foot increase in tidal levels. A 2016 Rutgers University report provides strong scientific evidence that sea level rise will continue into the future and will continue to accelerate. Considerable local effort has been put into communicating about these risks and the types of actions that coastal communities will have to consider when mitigating for or adopting to the associated vulnerabilities. As communication professionals, coastal leaders and formal and informal educators, we all have a role to play in providing sound science to our audiences so that they can make informed decisions about their own preparedness – both for current and future coastal hazards. The keynote presentation will review the latest science around the Shore’s changing coastal hazards and provide risk communication insights and best practices for engaging with a variety of audiences.</p>
<p><i>Ocean Hazards: Sharks vs. Rip Currents</i></p>	<p>In this session, the audience will learn how to teach about the topics of sharks and rip currents in order to bring awareness and safety strategies to their students. While many people have the perception that sharks are the most dangerous aspect of being in the ocean, in 2015 only 6 deaths occurred from sharks world-wide. However, nearly 100 people die each year due to rip currents. Through visualizations, interactive trivia and hands-on activities in a wave tank, this session will demonstrate how to engage students in learning about these exciting, but hazardous, aspects of the ocean.</p>
<p><i>Sandy Hook Light House</i></p>	<p>Participants will learn about the history of Sandy Hook in this National Park Service ranger-led presentation. As the nation’s oldest continually-lit lighthouse, it has been a beacon to commercial and passenger ships since 1764. Participants will be given the opportunity to ascend the 103 foot tall structure to get a birds-eye view of Sandy Hook and beyond.</p>
<p><i>Salt Marsh Ecology (Part 1)</i></p>	<p>This outdoor session will focus on salt marshes as coastal wetlands habitat. Salt marshes serve many functions, and participants will examine zonation and function, chemical parameters, tidal influence and adaptations. Feel free to stay for Part 2 or return to NJSGC Headquarters Building 22 for Session 2.</p>
<p><i>Communicating Climate Change</i></p>	<p>The need to communicate climate change science is greater than ever. Learn how to counter misunderstanding and skepticism by using strategic framing and easily-relatable metaphors to help your audience understand the causes and consequences of climate change. Note: This session was replaced with the following. The presenter is the same.</p>

<p><i>Coastal Resiliency and Storm Surge</i></p>	<p>With a changing global climate, scientists predict that the intensity of coastal storms in the East will increase. Communities must work towards safeguarding its residents and resources, and understanding the climatic changes occurring is key. This session will explore some basic meteorological principles that generate storms and create storm surge, as well as how local communities are dealing with resiliency through Monmouth County's High Water Mark Initiative. Hands-on activities help make this interactive presentation classroom-ready.</p>
<p><i>Habitat Restoration Projects in the Face of a Changing Climate</i></p>	<p>In this session, participants will learn about some of the coastal resiliency and habitat restoration work being done by the American Littoral Society in NJ. In particular, we will provide an overview of a fish passage project at Wreck Pond in Monmouth County, and beach restoration and oyster reef breakwater construction along the Delaware Bayshore. Within the presentation, we will highlight examples of educational outreach and learning opportunities that we have included in our restoration work.</p>
<p><i>Salt Marsh Ecology (Part II)</i></p>	<p>This outdoor session picks up where Part 1 leaves off. Participants will examine species diversity of the near-shore and benthic communities in the coast's most productive ecosystem.</p>
<p><i>The Climate Hot Seat</i></p>	<p>Learn the basics about climate change and coastal resiliency, the difference between weather and climate, proxies and identifiers of climate change, and real-world strategies in uncertain times. Note: This session has been cancelled and replaced by the one below.</p>
<p><i>Climate Change and the Web of Life</i></p>	<p>Climate change is a global issue that affects us all. Educating students on this topic can be a daunting task that is made easier by using local "place-based" examples. Using a variation of the classic "Web of Life" activity, students can start to understand how a changing climate, as well as their own behaviors, are affecting familiar plants and animals that live in and around an estuary.</p>
<p><i>James J. Howard Marine Sciences Laboratory</i></p>	<p>This laboratory is one of only 2 of its kind in the northeast and is an instrumental component of NOAA's research in coastal and estuarine ecology. Led by resident scientists, participants will tour the facilities to learn more about groundbreaking research in ocean acidification and other significant discoveries.</p>
<p><i>Ocean Beach Ecology (Part I)</i></p>	<p>In this outdoor session, participants will hike North Beach, one of Sandy Hook's natural ocean beaches, as they explore the structure and function of sand dunes, beach zonation, importance of dune plants, composition of sand, and organisms that can be found on NJ's beaches. Feel free to stay for Part 2 or return to NJSJC Headquarters Building 22 for Session 4.</p>

<p><i>"Was a white shark the 'right' shark?"</i></p>	<p>Sharks are common in NJ waters, and after the Centennial of the Shark Terror of 1916 across Sandy Hook Bay at Matawan Creek, we will review the different species found here, some educational activities available for students, and review how to use SRI's Online Global Shark Attack File and other resources.</p>
<p><i>Rising Water Realities</i></p>	<p>This session will share ideas and activities you can use in the classroom that demonstrate real-world flooding scenarios and how these events impact the environment and our communities.</p>
<p><i>Ocean Beach Ecology (Part II)</i></p>	<p>This outdoor session picks up where Part 1 leaves off and will focus on the dynamic natural processes that shape NJ's coastline. Participants will explore waves, examine long-shore current, and measure the beach profile to determine the increases and decreases in slope that are important in management efforts.</p>