

# RESEARCH AT THE RESERVE

## WEDNESDAY EVENINGS IN MARCH

## IN-PERSON & VIRTUAL

Join us for an informal evening learning about innovative research happening around Waquoit Bay. Each week you will learn from a different scientist about how they do their research, what they are discovering, and how it applies to today's issues.

To register for one or all of our programs please visit [www.waquoitbayreserve.org](http://www.waquoitbayreserve.org)



### RESPONDING TO THE ARRIVAL OF SOUTHERN PINE BEETLE

Wednesday, March 4 - In-person & Virtual

6:30PM - 7:30PM

Join representatives from MassWildlife and Massachusetts Department of Conservation and Recreation's (DCR) Waquoit Bay Reserve to learn about a newly arrived pest impacting pitch pine forests in southeastern Massachusetts, the Southern Pine Beetle (SPB). We will discuss the current status of SPB in the region, the impact risk, influence of climate change, and most importantly, what can be done to improve resiliency in our pine forests. You will hear about the work that MassWildlife and DCR have undertaken with their partners and next steps.

*Nicole Keleher, Habitat Restoration & Management Program Manager, MassWildlife and Ryan Clark, Stewardship Coordinator, Waquoit Bay Reserve*



### GROUNDWATER FLOW IN SALT MARSHES: IMPLICATIONS FOR CARBON CYCLING

Wednesday, March 11 - Virtual Only

6:30PM - 7:30PM

Salt marshes take in carbon dioxide from the air and store it in the soil, often referred to as blue carbon. However, there is emerging evidence that another portion of dissolved carbon is leaving the marsh with the tides, in a process called outwelling, in rates that may rival or exceed that of blue carbon burial. This carbon movement is influenced by tides and groundwater, but the specifics are not well known. Join us to learn about the research exploring the relationship of carbon in salt marshes and the coastal ocean.

*Joe Tamborski, Ph.D., Assistant Professor, Ocean & Earth Sciences, Old Dominion University*



### ZOOPLANKTON IN WAQUOIT BAY

Wednesday, March 18 - In-person & Virtual

6:30PM - 7:30PM

Zooplankton are tiny animals that drift with the currents and help to form the base of the food chain. Zooplankton are essential prey items for fish and other predators, and changes in the zooplankton community can indicate broader ecological change. We are tracking how the zooplankton community changes seasonally and spatially in Waquoit Bay and comparing the zooplankton composition with historical records. Come and learn more about these diverse but often overlooked animals!

*Ann Tarrant, Ph.D., Senior Scientist, Woods Hole Oceanographic Institution*



### EVALUATING SEPTIC SYSTEM EFFECTS ON MUSSEL SEX: HOW DO WE PROTECT COASTAL SPECIES?

Wednesday, March 25 - In-person & Virtual

6:30PM - 7:30PM

Blue and ribbed mussels are keystone species of rocky intertidal and salt marsh ecosystems, respectively. Both species are affected by Contaminants of Emerging Concern (CECs) coming from septic systems. Our research is focused on understanding what these effects are, and whether changes in septic system design can prevent these changes and preserve these species in coastal New England.

*Jed Goldstone, Ph.D., Research Specialist in Biology, Woods Hole Oceanographic Institution and Helen Poynton, Ph.D., Professor of Ecotoxicology, UMass Boston*



### REGISTER

[www.waquoitbayreserve.org](http://www.waquoitbayreserve.org)

### WAQUOIT BAY RESERVE VISITOR CENTER

### IN-PERSON PRESENTATIONS

131 Waquoit Highway, Waquoit

Doors open at 6:00PM.

Light refreshments

### VIRTUAL PRESENTATIONS

A Zoom link will be sent to you prior to the webinar.

Questions? Contact

[Sonia.Ahrabi-Nejad@mass.gov](mailto:Sonia.Ahrabi-Nejad@mass.gov)

### Sponsors

Waquoit Bay National Estuarine Research Reserve, MA Department of Conservation & Recreation, National Oceanic and Atmospheric Administration, and Friends of the Waquoit Bay Reserve