



NEW HAMPSHIRE SEA GRANT RESEARCH SYMPOSIUM

January 28, 2021
9:00 a.m. – 1:30 p.m.
Online via Zoom

- 9:00-9:10** **Welcome**
Erik Chapman, Director of NH Sea Grant
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- 9:10-10:10** **Completed Projects Panel on Research and Engagement Outcomes**
Features short, oral presentations focused on research and extension outcomes, importance of outcomes to NH's ecosystems, communities and economy, and insights on connecting research to state and regional needs. *Presenters may have time for short Q&A following presentations. Moderated by Steve Jones, NH Sea Grant's Associate Director & Assistant Director for Research, and Erik Chapman.*
- 9:10-9:20 Characterizing the genetic stock structure of striped bass to improve marine culture and inform fishery management – **Linas Kenter** (David Berlinsky, PI)
- 9:20-9:30 Evaluating growth and sustainable harvesting practices for Jonah crabs in New England waters – **Joshua Carloni**
- 9:30-9:40 Reducing risk and enhancing benefits of fish consumption: Understanding species, size and age relationships for mercury, arsenic, selenium and omega-3 fatty acid concentrations in Gulf of Maine fisheries species – **Kate Buckman** (Celia Chen, PI)
- 9:40-9:50 Improving the economic sustainability of Northeast aquaculture using a wastes-to-resources approach via integrated farming models – **Todd Guerdat**
- 9:50-10:00 DNA Methods to Monitor Invasive Species and Biodiversity in Estuarine Systems – **Alison Watts**
- 10:00-10:10 Examining the role of viruses on successful invasion by a hypervirulent pathogenic *Vibrio parahaemolyticus* strain and the subsequent impact on native populations – **Cheryl Whistler**
- 10:10-10:20** **Break**
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10:20-11:20 Current Funded Research

Features short, oral presentations focused on outlining each projects' research and extension goals and activities. Presenters will share successes and challenges (identified during initial phase of projects) in connecting research to ecosystems, communities and economy. *Presenters may have time for short Q&A following presentations. Moderated by Steve Jones, NH Sea Grant's Associate Director & Assistant Director for Research, and Erik Chapman.*

- 10:20-10:30 Seabirds as Indicators of New Hampshire's Fisheries – **Elizabeth Craig**
- 10:30-10:40 Role of Sediment Overwash in Barrier Beach and Salt Marsh Change: Understanding how Coastal Resilience is tied to Extreme Events – **Diane Foster**
- 10:40-10:50 Value of estuaries to rainbow smelt in New Hampshire – **Nathan Furey**
- 10:50-11:00 Assessment of Geospatial and Temporal Drivers of Coastal Flooding and Storm Surge at a Tidal Marsh in Hampton, NH to Build Community Resilience and Environmental Literacy – **Gregg Moore**
- 11:00-11:10 Wastewater Treatment Processes Influencing Emerging Contaminant Loads to the Great Bay Estuary – **Paula Mouser**

11:10-11:20 Break

11:20-11:50 Enhancing Research with NH Sea Grant Communications, Education, and Extension
Julia Peterson and **NH Sea Grant Staff**

(Link: [NH Sea Grant Staff e-mail and contact information](#))

11:50-12:50 Poster Session

Featuring student posters, development projects, and extension projects.
*See list on **Agenda pages 3-5** for unique links to view individual posters. You will have to exit the main symposium Zoom link.*

12:50-12:55 Final Remarks

Erik Chapman, Director of NH Sea Grant
Return to main symposium Zoom link after the poster session.

12:55-1:25 RFP-specific Q&A for NH Sea Grant's 2022-2023 Research Funding Cycle
Steve Jones and **Julia Peterson**



POSTER SESSION

Sydney Adams – Fractionation and distribution of per- and polyfluoroalkyl substances in New England, USA wastewater sludge and stabilized biosolids

- Co-authors: Paula Mouser (UNH Department of Civil and Environmental Engineering), Jim Malley (UNH CEE), Cassidy Yates (UNH CEE)

Mina Aghababaei – Accessing Removal Efficacy of SARS-CoV-2 Biomarkers in Coastal New England Wastewater Treatment Facilities

- Co-authors: Paula Mouser (UNH Department of Civil and Environmental Engineering), Fabrizio Colosimo (UNH CEE)

Tori Bamford – Identifying and Addressing Common Themes and Questions of Coastal Landowners

- Co-authors: Alyson Eberhardt (NH Sea Grant Extension), Wells Costello (NH Sea Grant Extension), Kirsten Howard (NH Coastal Program)

Aliya Caldwell – Microplastic ingestion by Northwestern Atlantic breeding terns

- Co-authors: Elizabeth Craig (Shoals Marine Laboratory & NH Sea Grant), John Wiedenmann (Rutgers Univ.)

Savannah DeVoe – Expanding Citizen Science Opportunities through Undergraduate Innovation Scholars Research

- Co-authors: Diane Foster (UNH SMSOE)

Michael Ferguson – Uncharted Waters: Coastal Recreationists' Perceived Impacts, Coping Behaviors, and General Attitudes Towards Offshore Wind Energy Development

- Co-authors: Darrick Evensen (Univ. of Edinburgh), Lauren A. Ferguson (UNH), David Bidwell (URI), Jeremy Firestone (Univ. of Delaware), Tasha L. Dooley (UNH), Clayton R. Mitchell (UNH)

Cam Flanagan – NH Volunteer Beach Profiling Report 2020

- Co-authors: Alyson Eberhardt (NH Sea Grant Extension), Wells Costello (NH Sea Grant Extension), Rachel Morrison (UNH Center for Coastal and Ocean Mapping), Larry Ward (UNH Center for Coastal and Ocean Mapping)

Nathan Hermann – Preparing historical fisheries-independent data for use in predictive modeling with seabird foraging

- Co-authors: Aliya Caldwell (UNH Department of Biological Sciences), Elizabeth Craig (Shoals Marine Laboratory & NH Sea Grant), Jennifer Seavey (Shoals Marine Laboratory), and Nathan Furey (UNH Department of Biological Sciences)



Tracy Mandel – Seasonal changes in salt marsh biophysical properties: Feedback with dune overwash and sedimentation

- Co-authors: Diane Foster (UNH SMSOE)

Melissa Marry – Resolving Vertical Pressure Gradients within a Mobile Sediment Bed

- Co-authors: Diane Foster (UNH SMSOE)

Kelsey Meyer and **Alyssa Stasse** – Evaluation of Oyster Larval Abundance in the Great Bay Estuary

- Co-authors: Lok (Matt) Cheng (UNH Department of Biological Sciences), Bonnie Brown (UNH Department of Biological Sciences, Brown Lab; Hatch Project)

Julia Peterson – Using Applied Theatre to Encourage More Productive Conversations About Managed Retreat

- Co-authors: David Kaye (UNH Department of Theatre and Dance), CJ Lewis (fmr. UNH Department of Theatre and Dance), Cameron Wake (UNH Institute for the Study of Earth, Oceans and Space)

Priya Roy Chowdhury – Effects of Oyster Aquaculture on Bacterial Community Structure and Function

- Co-authors: Joshua Stevens (South Carolina State Univ.), Robinson W. Fulweiler (Boston Univ.), Alia Al Haj (Boston Univ.), Nicholas Ray (Boston Univ.)

Vivien Taylor – Distribution of inorganic arsenic in softshell clams

- Co-authors: Talia Pikounis (Dartmouth), Sarah Rothenberg (Dartmouth)

Wilfred Wollheim – Taking Nitrogen by Storm: Nitrogen Dynamics in a Coastal New England Reservoir

- Co-authors: Eliza Balch (UNH Department of Natural Resources and the Environment), Gopal Mulukutla (UNH Earth Systems Research Center)

Cassidy Yates – Transformation and Degradation of PFAS by UV-Sulfite Advanced Reduction Process for Wastewater Treatment

- Co-authors: Paula Mouser (UNH Department of Civil and Environmental Engineering), Jim Malley (UNH CEE)