

# Northeast Aquatic Biologists Conference



February 5-7, 2025

• Grand Summit Hotel at Attitash

• Bartlett, NH

<b>Owl's Nest</b>			
9:00 - 11:30	<b>Aquatic Resource Monitoring: Design, Analysis and Communication Using EPA Tools</b> <b>*Pre-Registration Required*</b> Garrett Stillings, US EPA		
12:00	<b>Registration</b>		<i>Grand Summit Hotel Lobby</i>
	<b>Cyanobacteria &amp; Harmful Algae Blooms</b> <i>Summit Ballroom</i> moderator: TBD	<b>Freshwater Bioassessment</b> <i>Deer Ballroom</i> moderator: TBD	<b>eDNA</b> <i>Bear Ballroom</i> moderator: TBD
1:00	The Mount Washington of HABs: Documentation and Possible Contributing Factors to the 2024 Lake Winnepesaukee Cyanobacteria Blooms  David Neils, NH DES	Freshwater Mussel and Habitat Rapid Assessment Monitoring Protocol for Wadeable Streams  Alexa Hershberger, UMass Amherst	eDNA Application to Endangered Dragonfly Conservation  Christiana Korkor Teye, University of Maine
1:30	Evaluation of Cyanobacterial Populations and Cyanotoxins in a Public Water Supply and Treatment Train Removal Efficiency  Nancy Leland, University of New Hampshire	Northeastern USA Status Assessment of Stonefly (Insecta, Plecoptera) Regional Species of Greatest Conservation Need  Luke Myers, SUNY Plattsburgh, Lake Champlain Research Institute	From Large Lakes to Small Streams: Utilizing eDNA to Monitor Rare and Invasive Species and Factors Influencing Detection Probability  Jake Riley, Stantec Consulting
2:00	Comprehensive HAB Monitoring: A Tiered Approach to Monitoring Harmful Cyanobacteria Blooms in New England and Beyond  Corey Conville, US EPA	Bioassessment in Tribal Lands in Montana; Macroinvertebrates and Fish in the Blackfeet Nation and the Fort Peck Tribes  Ben Jessup, Tetra Tech	Incorporating eDNA into Coastal Monitoring Networks: Lessons from the National Estuarine Research Reserves  Alison Watts, University of New Hampshire
2:30	<b>Break</b>		<i>Summit Ballroom Foyer</i>

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Updated 11.13.2024

# WEDNESDAY, FEBRUARY 5

	<b>Long-Term Monitoring Networks</b> <i>Summit Ballroom</i> moderator: TBD	<b>Coastal Monitoring &amp; Data</b> <i>Deer Ballroom</i> moderator: TBD	<b>Lakes I</b> <i>Bear Ballroom</i> moderator: TBD
3:00	Monitoring Water Quality in the Connecticut River Watershed Headwaters to Long Island Sound Denise Argue, USGS	Design of Marine Benthic Sampling Plans to Support TMDL Development Timothy Fox, MassDEP	Lake Bathymetry: Changes Over Time Maxwell Maynard, NH DES
3:30	Updating Water Quality Trends in New Hampshire's Rivers: A Decade of Monitoring Data Josh Buonpane, NH DES	Coastal Monitoring in Southern New England Brittney Izbicki, USGS Kaitlin Laabs, USGS	Development and Evaluation of Potential Numeric Nutrient Criteria for Massachusetts Lakes and Reservoirs Danielle Mucciarone, MassDEP Anna Mayor, MassDEP
4:00	The NYS Groundwater Ambient Monitoring Program 20-Year Review: Identifying Data Users and Generating Meaningful Data Giancarlo Coppola, NEIWPC / NYS DEC	Technology & Tradition: Working Together to Examine a Plankton Bloom in Long Island Sound Katie O'Brien-Clayton, CT DEEP	Exploring Anthropogenic Land Use Change and Legacy Effects on Connecticut Lakes Mary Becker, CT DEEP
4:30	Tips and Tricks Learned Deploying and Retrieving Sensor Arrays for the Lake Regional Monitoring Network Tracy Lizotte, CT DEEP Ansel Aarestad, CT DEEP	Maine Healthy Beaches: Advancements in Data and Public Notification Access, and Future Goals and Challenges for Expansion Alexandra Dyer, ME DEP Sarah Gensel, ME DEP	Septic Systems: The State of the Science, Water Quality Impacts, and the Need for Research in New England. Evan Ma, FB Environmental Associates
5:00 - 8:00	<b>Exhibitor &amp; Poster Session</b> <i>Summit Ballroom Foyer</i>		
6:00 - 7:00	<b>NEAEB Meeting</b> <i>Fox Den</i>		

# THURSDAY, FEBRUARY 6

7:00	<b>Breakfast</b>			<i>Summit Ballroom Foyer</i>	
8:45	<b>Words of Welcome</b> <b>TBD</b> <b>Summit Ballroom</b>				
9:15	<b>Plenary Session</b> <b>TBD</b> <b>Summit Ballroom</b>				
10:15	<b>Break</b>			<i>Summit Ballroom Foyer</i>	
	<b>Chloride Impacts in Streams</b> <b>Summit Ballroom</b> moderator: TBD	<b>Innovative Use of Technology</b> <b>Deer Ballroom</b> moderator: TBD	<b>Panel Discussion</b> <b>Bear Ballroom</b> moderator: TBD		
10:45	Identifying Macroinvertebrate Genera that Indicate Chloride Contamination in Streams of the Northeastern United States  Eric Moody, Middlebury College	Automating New York State Water Quality Assessments, Reporting, and Communication  Zachary Smith, NYS DEC	TBD		
11:15	Chloride Concentrations in Massachusetts Rivers and Streams: MassDEP Monitoring Strategy, Assessment Approaches, and Mitigation Efforts for Water Quality Protection  Mason Saleeba, MassDEP	Statewide Analysis of Ambient Toxicity Testing of Surface Waters: Evaluation of Causes, Sources and Patterns, and Creation of an Updated Database and Analysis Tool  Rosemary Gatter-Evarts, Grace Hoeckele, & Alaine Zhang; CT DEEP			
12:00	<b>Lunch</b>				<i>Lakeside Dining Room</i>

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# THURSDAY, FEBRUARY 15

	<b>Lakes II Summit Ballroom</b> moderator: TBD	<b>Climate Change Deer Ballroom</b> moderator: TBD	<b>Restoration Bear Ballroom</b> moderator: TBD
1:30	Progress on Biological Index Development: A “Three-legged Assessment Stool” for Lakes within the Lake Champlain Basin  Benjamin Block, Tetra Tech Kellie Merrell, VT DEC	Patterns of Greenhouse Gases and Microbial Community Dynamics in Headwater Streams Along a Land Use Gradient  Ashley Bulseco, University of New Hampshire	A Cold-Water Stream Restoration Plan for the Upper Wood River and Beaver River Subwatersheds: Improving Cold-Water Stream Connectivity and Habitat in Rhode Island  Shawna Little, Fuss & O’Neill Sarah Hayden, Fuss & O’Neill
2:00	Spiny Water Flea monitoring on Lake Winnepesaukee, NH  Kirsten Hugger, NH DES	Contribution of Climate Drivers to the Eutrophication of Lake Champlain’s Northeast Arm  Peter Isles, VT DEC	A Long-Term Case Study on Stream Habitat Restoration through Dam Removal in the Paulins Kill River, New Jersey  Chloe Pearson, The Nature Conservancy
2:30	How is My Lake Doing? An Interactive Scorecard for Maine Lakes  Jeremy Deeds, ME DEP	The Shift of Asian Clams amid Climate Change: Efficacy and Toxicity of Chemical Treatments  David Wong, MassDEP	Lessons Learned from Monitoring Past Floodplain Restoration Projects in the Connecticut River Watershed  Fritz Gerhardt, Connecticut River Conservancy
3:00	TBD	Lessons learned on River Bank Stabilization in the Face of Climate Change and High Flood Events  Amanda Barker-Jobin, NHD DES Mary Ann Tilton, NH DES	Delisting the Rochester Embayment: A Success Story in Great Lakes Ecosystem Restoration  Alexis Davis, NYS DEC
3:30	<b>Social</b> <i>TBD</i>		
6:00	<b>Annual NAB Banquet &amp; Awards</b> <i>Moose Ballroom</i>		

# FRIDAY, FEBRUARY 7

7:00	<b>Breakfast</b> <span style="float: right;"><i>Summit Ballroom Foyer</i></span>		
	<b>Macroinvertebrate Monitoring</b> <i>Summit Ballroom</i> moderator: TBD	<b>Lake Restoration: Alum &amp; Aeration</b> <i>Deer Ballroom</i> moderator: TBD	<b>Emerging Contaminants</b> <i>Bear Ballroom</i> moderator: TBD
9:00	A Comparison of Benthic Populations Across Temperature Regimes  Peter Mitchell, MassDEP	CyanoHAB Remediation of Two New Hampshire Lakes Using Aluminum Compounds  David Neils, NH DES	PFAS in Fish and Water following Maine's Largest Release of Toxic Firefighting Foam  Tom Danielson, ME DEP
9:30	Stream Temperature and Stream Flow Effects on Macroinvertebrate Communities in Maine  Adam Pepi, ME DEP	A Tale of Two Alum Treatments in Vermont: Ticklenaked Pond (2014) and Lake Morey (2024)  Mark Mitchell, VT DEC	Plastic Spiraling in River Networks (PSIReN): Riverine Transport and Storage of Plastic Waste across Size Classes  Shan Zuidema, University of New Hampshire
10:00	Long-Term Monitoring of Benthic Macroinvertebrate Communities in Freshwater Streams; Insights from the Regional Monitoring Network in Massachusetts (2012-2020)  Steven Bittner, MassDEP	Long-Term Aeration Management of a HAB-Prone Water Supply Reservoir  Benjamin Burpee, GZA Benjamin Rach, GZA	Toxic Tire Dust: Monitoring of 6PPD-Quinone in Maine Streams  Tom Danielson, ME DEP
10:30	<b>Break</b> <span style="float: right;"><i>Terrace Ballroom</i></span>		
	<b>Policy &amp; Management</b> <i>Summit Ballroom</i> moderator: TBD	<b>Community Science</b> <i>Deer Ballroom</i> moderator: TBD	<b>Nutrient Dynamics in River Ecosystems</b> <i>Bear Ballroom</i> moderator: TBD
11:00	A Lake Management Framework for Global Application: Monitoring, Restoring, and Protecting Lakes through Community Engagement  Kellie Merrell, VT DEC	Citizen Scientists Unite: Benthic Cyanobacteria Monitoring in the Lake Champlain Basin  Ismar Biberovic, Tetra Tech	Indicators, Drivers, and Effects of Eutrophication in a Sudbury River Tributary, Massachusetts  Benjamen Wetherill, OARS for the Sudbury, Assabet, and Concord Rivers
11:30	The Clean Water Act is in Jeopardy: Are We Sufficiently Aware and What Can We Do to Defend It? An Update  Chris Yoder, Midwest Biodiversity Institute	Celebrating 30 Years of Citizen Science: The Impact of Charles River Watershed Association's Volunteer Monthly Monitoring Program  Ryan Smith, Charles River Watershed Association	Climbing the Trophic Ladder: From Nutrients to Macroinvertebrates  Emily Zimmermann, ME DEP Douglas Suitor, ME DEP

## POSTER PRESENTATIONS

<b>Ansel Aarestad, CT DEEP</b>	Evaluating the SNEP Low Gradient Macroinvertebrate IBI with Data from Connecticut Streams
<b>Lev Becker, CT DEEP</b>	Dissolved Greenhouse Gases and Water Quality above and below Dams at Thirty Beaver-Created Ecosystems in Southern New England
<b>Mary Becker, CT DEEP Ava DiMauro, Northeastern University</b>	Exploring Cyanotoxin Conditions in Connecticut Lakes
<b>Mary Becker &amp; Gabrielle Anderson, CT DEEP</b>	Exploring Littoral Benthic Macroinvertebrate Assemblage Data as a Bioindicator in Connecticut's Lakes
<b>Georgia Bunnell, University of New Hampshire</b>	Monitoring the Impact of Aluminum Sulfate Treatment on Phosphorus Fractionation and Ecological Dynamics in the Lake Kanasatka Watershed, NH
<b>Ryan Bottoff &amp; Allen Lyon, USGS</b>	Dissolved Oxygen trends in Long Island Sound: Hypoxia in Major Tributaries and Embayments
<b>Carriel Cataldi, CT DEEP</b>	Exploring Surface Water Data in Support of a Groundwater Chloride Investigation in Tolland, CT
<b>Alyssa Daigle, University of New Hampshire</b>	A Nutrient Solution or Health Hazard? Implications of Toxic Cyanobacteria in Green Manure Microbiomes
<b>Chloe Edwards &amp; Mary Becker, CT DEEP</b>	Developing Connecticut's Web-Based Lakes Mapping Application to Communicate Water Monitoring Information to the Public
<b>Matt Farragher &amp; Danielle Wain, 7 Lakes Alliance</b>	Characterizing Phytoplankton Community and Phosphorus Cycling in a Eutrophic Lake through a Cyanobacteria Bloom
<b>Ben Fisher, USGS</b>	Hydraulic Geometry of Tidal River Channels in Coastal Massachusetts
<b>Shannon Fisher, USGS</b>	Lake Champlain Environmental Sensitivity Index Mapping
<b>Keith Fritschie, VT DEC</b>	Modeled Brook Trout Emergence Timing Reduces Offspring Exposure to Ice Cover and High Streamflow Events

**WEDNESDAY, FEBRUARY 5**

## POSTER PRESENTATIONS

<b>Maura Gould, US EPA</b>	Monitoring Harmful Algal Blooms Through The Cyanobacteria Monitoring Collaborative
<b>Paul Hanbury, Neponset River Watershed Association</b>	Science for All: Volunteer Driven Science in Environmental Justice Communities
<b>Junyi He Wu &amp; Derin Gezgin, Connecticut College</b>	Machine Learning Image Based Instream Water Flow Classification
<b>Valeria Izeppi, Interstate Environmental Commission</b>	A Comprehensive Network of Water Quality Monitoring in the New York-New Jersey Harbor
<b>Ryan O'Donnell &amp; Melissa Langley, Connecticut River Conservancy</b>	Understanding the Impacts of Combined Sewer Overflows (CSOs) on Water Quality in the Connecticut River
<b>Kayla Pacheco, UMass Amherst</b>	Using Morphometrics to Identify Freshwater Mussel Glochidia on Host Fishes
<b>Rhett Parsons, NYS DEC</b>	Long Term Biomonitoring in Screening Networks: Essential Indicators for Water Quality Programs
<b>Lauren Roberts, NYS DEC</b>	2023 Lake Reports - a Redesigned CSLAP Report Format to Support all NYS Lakes
<b>Rachel Sheppard, USGS</b>	Synoptic Water Quality Monitoring in Buzzards Bay, Massachusetts
<b>Quin Shingai, Dartmouth College</b>	Investigating Pigment Production of Green Algae and Cyanobacteria under Salinization
<b>Paige Vichiola &amp; Ciara Kilkenny, Farmington River Watershed Association</b>	Utilizing Continuous Conductivity Loggers to Evaluate Chloride Pollution Frequency and Severity
<b>Samantha Wilder, Interstate Environmental Commission</b>	Coordinated Volunteer Water Quality Monitoring Program Within the New York-New Jersey Harbor Estuary

**WEDNESDAY, FEBRUARY 5**