

Northeast Aquatic Biologists Conference



February 5-7, 2025

• Grand Summit Hotel at Attitash

• Bartlett, NH

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

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Updated 12.10.2024

WEDNESDAY, FEBRUARY 5

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

THURSDAY, FEBRUARY 6

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

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THURSDAY, FEBRUARY 6

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

FRIDAY, FEBRUARY 7

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

POSTER PRESENTATIONS

Ansel Aarestad, CT DEEP

Evaluating the SNEP Low Gradient Macroinvertebrate IBI with Data from Connecticut Streams

Lev Becker, CT DEEP

Dissolved Greenhouse Gases and Water Quality above and below Dams at Thirty Beaver-Created Ecosystems in Southern New England

**Mary Becker, CT DEEP
Ava DiMauro, Northeastern University**

Exploring Cyanotoxin Conditions in Connecticut Lakes

Mary Becker & Gabrielle Anderson, CT DEEP

Exploring Littoral Benthic Macroinvertebrate Assemblage Data as a Bioindicator in Connecticut's Lakes

Georgia Bunnell, University of New Hampshire

Monitoring the Impact of Aluminum Sulfate Treatment on Phosphorus Fractionation and Ecological Dynamics in the Lake Kanasatka Watershed, NH

Ryan Bottoff & Allen Lyon, USGS

Dissolved Oxygen trends in Long Island Sound: Hypoxia in Major Tributaries and Embayments

Carriel Cataldi, CT DEEP

Exploring Surface Water Data in Support of a Groundwater Chloride Investigation in Tolland, CT

Alyssa Daigle, University of New Hampshire

A Nutrient Solution or Health Hazard? Implications of Toxic Cyanobacteria in Green Manure Microbiomes

Chloe Edwards & Mary Becker, CT DEEP

Developing Connecticut's Web-Based Lakes Mapping Application to Communicate Water Monitoring Information to the Public

**Matt Farragher & Danielle Wain,
7 Lakes Alliance**

Characterizing Phytoplankton Community and Phosphorus Cycling in a Eutrophic Lake through a Cyanobacteria Bloom

Ben Fisher, USGS

Hydraulic Geometry of Tidal River Channels in Coastal Massachusetts

Shannon Fisher, USGS

Lake Champlain Environmental Sensitivity Index Mapping

Keith Fritschie, VT DEC

Modeled Brook Trout Emergence Timing Reduces Offspring Exposure to Ice Cover and High Streamflow Events

WEDNESDAY, FEBRUARY 5

POSTER PRESENTATIONS

Maura Gould, US EPA	<u>Monitoring Harmful Algal Blooms Through The Cyanobacteria Monitoring Collaborative</u>
Paul Hanbury, Neponset River Watershed Association	<u>Science for All: Volunteer Driven Science in Environmental Justice Communities</u>
Junyi He Wu & Derin Gezgin, Connecticut College	<u>Machine Learning Image Based Instream Water Flow Classification</u>
Valeria Izeppi, Interstate Environmental Commission	<u>A Comprehensive Network of Water Quality Monitoring in the New York-New Jersey Harbor</u>
Ryan O'Donnell & Melissa Langley, Connecticut River Conservancy	<u>Understanding the Impacts of Combined Sewer Overflows (CSOs) on Water Quality in the Connecticut River</u>
Kayla Pacheco, UMass Amherst	<u>Using Morphometrics to Identify Freshwater Mussel Glochidia on Host Fishes</u>
Rhett Parsons, NYS DEC	<u>Long Term Biomonitoring in Screening Networks: Essential Indicators for Water Quality Programs</u>
Lauren Roberts, NYS DEC	<u>2023 Lake Reports - a Redesigned CSLAP Report Format to Support all NYS Lakes</u>
Rachel Sheppard, USGS	<u>Synoptic Water Quality Monitoring in Buzzards Bay, Massachusetts</u>
Quin Shingai, Dartmouth College	<u>Investigating Pigment Production of Green Algae and Cyanobacteria under Salinization</u>
Paige Vichiola & Ciara Kilkenny, Farmington River Watershed Association	<u>Utilizing Continuous Conductivity Loggers to Evaluate Chloride Pollution Frequency and Severity.</u>
Samantha Wilder, Interstate Environmental Commission	<u>Coordinated Volunteer Water Quality Monitoring Program Within the New York-New Jersey Harbor Estuary.</u>
Chris Yoder, Midwest Biodiversity Institute	<u>Twenty-Three Years on the Lower Kennebec River, Maine 2002-2023: Fish Assemblage Composition and Responses to Diadromous Fish Management</u>

WEDNESDAY, FEBRUARY 5