

Northeast Aquatic Biologists Conference



February 5-7, 2025 • Grand Summit Hotel at Attitash • Bartlett, NH

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

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Updated 02.04.2025

WEDNESDAY, FEBRUARY 5

	Long-Term Monitoring Networks Deer Ballroom moderator: Corey Conville, US EPA	Coastal Monitoring & Data Bear Ballroom moderator: David Neils, NH DES	Lakes I Moose Ballroom moderator: Jeremy Deeds, ME DEP
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 Water Quality Monitoring in Southern New England</u> Brittney Izbicki, USGS	<u>Development and Evaluation of Potential Numeric Nutrient Criteria for Massachusetts Lakes and Reservoirs</u> Danielle Mucciarone, MassDEP
4:00	<u>Twenty-Three Years on the Lower Kennebec River, Maine 2002-2023: Fish Assemblage Composition and Responses to Diadromous Fish Management</u> Chris Yoder, Midwest Biodiversity Institute	<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 Summit Ballroom Foyer		6:00 - 7:00 NEAEB Meeting Fox Den

THURSDAY, FEBRUARY 6

7:30	Breakfast			<i>Summit Ballroom Foyer</i>
8:45	<p>Words of Welcome Tom Ballestero, NEIWPCC Commissioner, NH Dave Neils, NH DES Moose Ballroom</p>			
9:15	<p>Plenary Session Dr. Mary Stampone, University of New Hampshire Moose Ballroom</p>			
10:15	Break			<i>Summit Ballroom Foyer</i>
	<p>Chloride Impacts in Streams Deer Ballroom moderator: Maxwell Maynard, NH DES</p>	<p>Panel Discussion Bear Ballroom moderator: Alexandra Dyer, ME DEP</p>	<p>Data Interpretation Moose Ballroom moderator: Emily Zimmermann, ME DEP</p>	
10:45	<p><u>Identifying Macroinvertebrate Genera that Indicate Chloride Contamination in Streams of the Northeastern United States</u> <u>Eric Moody, Middlebury College</u></p>	<p><u>Issuing Recreational Use Advisories for Cyanobacteria Blooms on Lakes and Ponds: Is it Time to Reassess Risk?</u> <u>James Haney, UNH-CFB Emeritus</u> <u>Nancy Leland, Lim-Tex UNH-CFB</u> <u>Amanda McQuaid UNH</u> <u>Kimberley C. Pearson Town of Brewster, MA</u> <u>Board of Health</u></p>	<p><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></p>	
11:15	<p><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></p>		(cancellation)	
12:00	Lunch <i>Summit Ballroom</i>			

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THURSDAY, FEBRUARY 6

	Lakes II Deer Ballroom moderator: Mary Becker, CT DEEP	Weather Variability Bear Ballroom moderator: Steven Bittner, MassDEP	Restoration Moose Ballroom moderator: Quin Shingai, Dartmouth College
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 Shifting Weather Patterns 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 Long-Term Weather Trends: 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	<u>Volunteer Monitoring in Disadvantaged Communities</u> <u>Alene Onion, NYS DEC</u>	<u>Lessons learned on River Bank Stabilization in the Face of Extreme Weather and High Flood Events</u> <u>Amanda Barker-Jobin, NH DES</u> <u>Mary Ann Tilton, NH DES</u>	<u>Delisting the Rochester Embayment: A Success Story in Great Lakes Ecosystem Restoration</u> <u>Brian Duffy,, NYS DEC</u>
3:30 - 5:30	Networking <i>Summit Ballroom Foyer</i>		
6:00	Annual NAB Banquet & Awards <i>Summit Ballroom</i>		

FRIDAY, FEBRUARY 7

7:30	Breakfast Summit Ballroom Foyer		
	Lake Restoration: Alum & Aeration <i>Deer Ballroom</i> moderator: Jeremy Deeds, ME DEP	Emerging Contaminants <i>Bear Ballroom</i> moderator: Christiana Teye, UMaine	Macroinvertebrate Monitoring <i>Moose Ballroom</i> moderator: Ansel Aarrestad, CT DEEP
9:00	<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>	<u>Evaluating the SNEP Low Gradient Macroinvertebrate IBI with Data from Connecticut Streams</u> <u>Ansel Aarrestad, CT DEEP</u>
9:30	<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>	<u>Stream Temperature and Stream Flow Effects on Macroinvertebrate Communities in Maine</u> <u>Adam Pepi, ME DEP</u>
10:00	<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>	<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>
10:30	Break Summit Ballroom Foyer		
	Policy & Management <i>Deer Ballroom</i> moderator: Alexandra Dyer, ME DEP	Community Science <i>Bear Ballroom</i> moderator: David Neils, NH DES	Nutrient Dynamics in River Ecosystems <i>Moose Ballroom</i> moderator: Shan Zuidema, UNH
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>

Thank you for attending NAB 2025! We wish you safe travels home, and we hope to see you in 2026!

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TETRA TECH

POSTER PRESENTATIONS

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

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>

WEDNESDAY, FEBRUARY 5

VENUE FLOORPLAN

