Northeast Aquatic Biologists Conference

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

12:00	Registration		*Grand Summit Hotel Lobby*

	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	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	The Mount Washington of HABs: Documentation and Possible Contributing Factors to the 2024 Lake Winnipesaukee Cyanobacteria Blooms David Neils, NH DES
1:30	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	Evaluation of Cyanobacterial Populations and Cyanotoxins in a Public Water Supply and Treatment Train Removal Efficiency Nancy Leland, University of New Hampshire
2:00	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 Estaurine Research Reserves Alison Watts, University of New Hampshire	Comprehensive HAB Monitoring: A Tiered Approach to Monitoring Harmful Cyanobacteria Blooms in New England and Beyond Corey Conville, US EPA

2:30	Break		*Summit Ballroom Foyer*

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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	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 Water Quality Monitoring in Southern New England Brittney Izbicki, USGS	Development and Evaluation of Potential Numeric Nutrient Criteria for Massachusetts Lakes and Reservoirs Danielle Mucciarone, MassDEP
4:00	Twenty-Three Years on the Lower Kennebec River, Maine 2002-2023: Fish Assemblage Composition and Responses to Diadromous Fish Management Chris Yoder, Midwest Biodiversity Institute	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	**Exhibitor & Poster Session** *Summit Ballroom Foyer*	6:00 - 7:00	**NEAEB Meeting** *Fox Den*

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THURSDAY, FEBRUARY 6

7:30	**Breakfast**		*Summit Ballroom Foyer*

Words of Welcome
Tom Ballestero, NEIWPCC Commissioner, NH
Dave Neils, NH DES
Moose Ballroom

(8:45)

Plenary Session

Dr. Mary Stampone, University of New Hampshire

Moose Ballroom

(9:15)

10:15	**Break**		*Summit Ballroom Foyer*

	Chloride Impacts in Streams *Deer Ballroom* moderator: Maxwell Maynard, NH DES	**Panel Discussion** *Bear Ballroom* moderator: Alexandra Dyer, ME DEP	**Data Interpretation** *Moose Ballroom* moderator: Emily Zimmermann, ME DEP
10:45	Identifying Macroinvertebrate Genera that Indicate Chloride Contamination in Streams of the Northeastern United States Eric Moody, Middlebury College	Issuing Recreational Use Advisories for Cyanobacteria Blooms on Lakes and Ponds: Is it Time to Reassess Risk? James Haney, UNH-CFB Emeritus Nancy Leland, Lim-Tex | UNH-CFB Amanda McQuaid | UNH Kimberley C. Pearson | Town of Brewster, MA Board of Health	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
11:15	Chloride Concentrations in Massachusetts Rivers and Streams: MassDEP Monitoring Strategy, Assessment Approaches, and Mitigation Efforts for Water Quality Protection Mason Saleeba, MassDEP		(cancellation)

12:00	**Lunch** *Summit Ballroom*

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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	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 Winnipesaukee, NH Kirsten Hugger, NH DES	Contribution of Shifting Weather Patterns 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 Long-Term Weather Trends: 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	Volunteer Monitoring in Disadvantaged Communities Alene Onion, NYS DEC	Lessons learned on River Bank Stabilization in the Face of Extreme Weather and High Flood Events Amanda Barker-Jobin, NH DES Mary Ann Tilton, NH DES	Delisting the Rochester Embayment: A Success Story in Great Lakes Ecosystem Restoration Brian Duffy,, NYS DEC
3:30 - 5:30	**Networking** *Summit Ballroom Foyer*		
6:00	**Annual NAB Banquet & Awards** *Summit Ballroom*		

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FRIDAY, FEBRUARY 7

7:30	Breakfast		*Summit Ballroom Foyer*

	Lake Restoration: Alum & Aeration *Deer Ballroom* moderator: Jeremy Deeds, ME DEP	**Emerging Contaminants** *Bear Ballroom* moderator: Christiana Teye, UMaine	**Macroinvertebrate Monitoring** *Moose Ballroom* moderator: Ansel Aarrestad, CT DEEP
9:00	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	Evaluating the SNEP Low Gradient Macroinvertebrate IBI with Data from Connecticut Streams Ansel Aarrestad, CT DEEP
9:30	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	Stream Temperature and Stream Flow Effects on Macroinvertebrate Communities in Maine Adam Pepi, ME DEP
10:00	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	Long-Term Monitoring of Benthic Macroinvertebrate Communities in Freshwater Streams; Insights from the Regional Monitoring Network in Massachusetts (2012-2020) Steven Bittner, MassDEP

10:30	Break		*Summit Ballroom Foyer*

	Policy & Management *Deer Ballroom* moderator: Alexandra Dyer, ME DEP	**Community Science** *Bear Ballroom* moderator: David Neils, NH DES	**Nutrient Dynamics in River Ecosystems** *Moose Ballroom* moderator: Shan Zuidema, UNH
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

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

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POSTER PRESENTATIONS

Gabrielle Anderson, CT DEEP	Exploring Littoral Benthic Macroinvertebrate Assemblage Data as a Bioindicator in Connecticut's Lakes
Lev Becker, University of Connecticut	Dissolved Greenhouse Gases and Water Quality above and below Dams at Thirty Beaver-Created Ecosystems in Southern New England
Mary Becker, CT DEEP	Developing Connecticut's Web-Based Lakes Mapping Application to Communicate Water Monitoring Information to the Public
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
Ava DiMauro, Northeastern University **Mary Becker, CT DEEP**	Exploring Cyanotoxin Conditions in Connecticut Lakes
Matt Farragher & Danielle Wain, **7 Lakes Alliance**	Characterizing Phytoplankton Community and Phosphorus Cycling in a Eutrophic Lake through a Cyanobacteria Bloom
Ben Fisher, USGS	Lake Champlain Environmental Sensitivity Index Mapping
Shannon Fisher, USGS	Hydraulic Geometry of Tidal River Channels in Coastal Massachusetts
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	Monitoring Harmful Algal Blooms Through The Cyanobacteria Monitoring Collaborative
Paul Hanbury, Neponset River Watershed Association	Science for All: Volunteer Driven Science in Environmental Justice Communities
Junyi He Wu & Derin Gezgin, Connecticut College	Machine Learning Image Based Instream Water Flow Classification
Valeria Izeppi, Insterstate Environmental Commission	A Comprehensive Network of Water Quality Monitoring in the New York-New Jersey Harbor
Ryan O'Donnell & Melissa Langley, Connecticut River Conservancy	Understanding the Impacts of Combined Sewer Overflows (CSOs) on Water Quality in the Connecticut River
Kayla Pacheco, UMass Amherst	Using Morphometrics to Identify Freshwater Mussel Glochidia on Host Fishes
Rhett Parsons, NYS DEC	Long Term Biomonitoring in Screening Networks: Essential Indicators for Water Quality Programs
Lauren Roberts, NYS DEC	2023 Lake Reports – a Redesigned CSLAP Report Format to Support all NYS Lakes
Rachel Sheppard, USGS	Synoptic Water Quality Monitoring in Buzzards Bay, Massachusetts
Quin Shingai, Dartmouth College	Investigating Pigment Production of Green Algae and Cyanobacteria under Salinization
Paige Vichiola & Ciara Kilkenny, Farmington River Watershed Association	Utilizing Continuous Conductivity Loggers to Evaluate Chloride Pollution Frequency and Severity
Samantha Wilder, Interstate Environmental Commission	Coordinated Volunteer Water Quality Monitoring Program Within the New York-New Jersey Harbor Estuary

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WEDNESDAY, FEBRUARY 5

VENUE FLOORPLAN

SUMMIT

SUMMIT FOYER

DEER

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MOOSE