



## Conference Agenda

Last Updated: December 8, 2025

# 2026 Lake Champlain Research Conference

January 26-27, 2026

University of Vermont – Dudley H. Davis Center

590 Main St, Burlington, VT 05401

<https://www.uvm.edu/seagrant/programs/events/lake-champlain-research-conference>

## **Thank you to the Conference Sponsors and Co-Hosts!**

Staff from the following organizations helped plan, organize, and fund the 2026 Lake Champlain Research Conference.



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## Agenda at a Glance

### Day 1: Monday 1/26/2026

8:00am – 4pm: **Registration**

*Livak Fireplace Lounge*

8:00am – 8:45am: **Breakfast Buffet**

*Grand Maple Ballroom*

9:00am – 10:30am: **Welcoming Remarks & Keynote Address**

*Grand Maple Ballroom*

**Welcoming Remarks**

**Keynote Address: Why History Matters: The Baroness and the Ranger in the Northern Campaign of 1777**– Dr. John Krueger

10:30am – 11:00am: **Break & Networking**

11:00am – 12:15pm: **Concurrent Session #1**

Track 1A <b>Nutrients</b> <i>Grand Maple Ballroom</i>	Track 1B <b>Fish, Fisheries, and Ecosystem Changes</b> <i>Jost Foundation Room</i>	Track 1C <b>Meteorological Monitoring</b> <i>Chittenden Bank Room</i>	Track 1D <b>History and Cultural Heritage</b> <i>Williams Family Room</i>
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12:15pm – 1:15pm: **Lunch Buffet**

*Grand Maple Ballroom*

1:15pm – 2:30pm: **Concurrent Session #2**

Track 2A <b>Winter Nutrient Dynamics</b> <i>Grand Maple Ballroom</i>	Track 2B <b>Assessment and Monitoring for AIS</b> <i>Jost Foundation Room</i>	Track 2C <b>Wetlands</b> <i>Chittenden Bank Room</i>	Track 2D <b>Community Engagement Pt 1</b> <i>Williams Family Room</i>
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2:30pm-2:45pm: **Break & Networking**

2:45pm – 4:00pm: **Concurrent Session #3**

Track 3A <b>Impacts of De-icing Salt</b> <i>Grand Maple Ballroom</i>	Track 3B <b>AIS: Round Goby</b> <i>Jost Foundation Room</i>	Track 3C <b>Developed Lands</b> <i>Chittenden Bank Room</i>	Track 3D <b>Community Engagement Pt 2</b> <i>Williams Family Room</i>
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4:00pm – 5:00pm: **Poster Session 1 & Conference Reception**

*Livak Fireplace Lounge*

5pm – 6:30pm: **Film Screening**

*Grand Maple Ballroom*

- ***The Fish Thief: A Great Lakes Mystery Documentary***

**Day 2: Tuesday 1/27/2026****8:00am – 1pm: Registration***Livak Fireplace Lounge***8:30 – 9:30am: Breakfast Buffet***Grand Maple Ballroom***9:00am – 10:30am: Welcoming Remarks & Keynote Address***Grand Maple Ballroom*

- **Welcoming Remarks**
- **Keynote Address:** Cynthia Barnett, Senior Lecturer and Director of Climate and Environment Reporting Initiatives – University of Florida

**10:30am – 11:00am: Break & Networking****11:00am – 12:15pm: Concurrent Session #4**

Track 4A <b>Technologies and Forecasting</b> <i>Adirondack AB Theatre</i>	Track 4B <b>AIS: Monitoring and Data</b> <i>Montpelier BC Classroom</i>	Track 4C <b>Agriculture Pt 1</b> <i>Adirondack C Classroom</i>	Track 4D <b>Flood Resilience</b> <i>Adirondack D Classroom</i>
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**12:15pm – 1:15pm: Lunch Buffet***Grand Maple Ballroom***1:15pm – 2:30pm: Concurrent Session #5**

Track 5A <b>Contaminants of Emerging Concern</b> <i>Adirondack AB Theatre</i>	Track 5B <b>Lakes, Ponds, and Shorelines</b> <i>Montpelier BC Classroom</i>	Track 5C <b>Agriculture Pt 2</b> <i>Adirondack C Classroom</i>	Track 5D <b>Panel: Mutual Aid for Flood Resilience</b> <i>Adirondack D Classroom</i>
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**2:30pm-2:45pm: Break & Networking****2:45pm – 4:00pm: Concurrent Session #6**

Track 3A <b>Lake and Watershed Ecology</b> <i>Grand Maple Ballroom</i>	Track 3B <b>Streams, Rivers, and Floodplains</b> <i>Jost Foundation Room</i>	Track 3C <b>CIROH</b> <i>Chittenden Bank Room</i>	Track 3D <b>Panel: Lake Champlain “Unfiltered”</b> <i>Williams Family Room</i>
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**4:00pm – 5:00pm: Poster Session 2 & Conference Reception***Livak Fireplace Lounge*

## Agenda in Full

### Day 1: Monday 1/26/2026

8:00am – 4pm: **Registration**

*Livak Fireplace Lounge*

9:00am – 10:30am: **Welcoming Remarks & Keynote Address**

*Grand Maple Ballroom*

#### **Welcoming Remarks**

**Keynote Address: Why History Matters: The Baroness and the Ranger in the Northern Campaign of 1777** – Dr. John Kreuger

10:30am – 11:00am: **Break & Networking**

### 11:00am – 12:15pm: **Concurrent Session #1**

#### **Track 1A: Nutrients**

*Grand Maple Ballroom*

##### **Moderator:**

- Phosphorus conditions and trends for Missisquoi Bay and its watershed
  - *Dr. Matthew C.H. Vaughan, Lake Champlain Basin Program/NEIWPCC. Additional Author: Dr. Peter Isles*
- Development of a Comprehensive Binational Phosphorus Mass Balance Analysis Toolkit for the Missisquoi Bay Watershed
  - *Michael Winchell, Stone Environmental, Inc. Additional Authors: Aubert Michaud, Andrew Schroth, Eric Roy, Bernard Conrad, Joshua Faulkner, Patrick Clemens.*
- Loads of Confusion: Why the nutrient load paradigm can get in the way of understanding lake-watershed connections
  - *Dr. Peter Isles. Additional Author: Dr. Matthew C.H. Vaughan*

#### **Track 1B: Fish, Fisheries, and Ecosystem Change**

*Jost Foundation Room*

##### **Moderator:**

- Sex-specific Atlantic salmon upstream passage and fallback at a natural cascade after dam removal
  - *Kurt Heim, US Fish and Wildlife Service. Additional Authors: Jonah Withers, William Arden, Laurie Earley, David Minkhoff, Theodore Castro-Santos*
- Lightning Talk: Experimental net pen rearing of Atlantic salmon in the Saranac River
  - *Nicole Balk, NY Department of Environmental Conservation. Additional Author: Kurt Heim*
- Examining the Ecological Impacts of Atlantic Salmon Fry Stocking in Headwater Tributaries of Lake Champlain
  - *Taher Fletcher, US Fish and Wildlife Service. Additional Authors: Heim, K. C., Ross, B. D., Balk, N. M., Earley, L. A.*
- Predation Risk for a Migrating Macroinvertebrate in Benthic and Pelagic Habitats
  - *Eden Forbes, Rubenstein Ecosystem Science Laboratory, University of Vermont. Additional Author: Dr. Jason Stockwell*
- Investigation into the diversity, distribution and prevalence of emerging Heterosporis parasites in Lake Champlain yellow perch (*Perca flavescens*)
  - *Dr. Ellen Martinsen, University of Vermont. Additional Author: Joshua Benes*

**Track 1C: Advanced Meteorological Monitoring in the Lake Champlain Basin****Chittenden Bank Room****Moderator:**

- Vermont Mesonet - A Statewide, Meteorological Monitoring Network
  - *Samantha Koehler, University of Vermont Water Resources Institute. Additional Author: Joshua Benes*
- Monitoring Mountain Meteorology and Snow Across Elevational Gradients in the Northeast Appalachians and Adirondacks
  - *Joshua Benes, University of Vermont. Additional Authors: See abstract for full list.*
- 50 years of Environmental Monitoring at Whiteface Mountain
  - *Scott McKim, University at Albany, Whiteface Mountain Observatory*

**Track 1D: History and Cultural Heritage****Williams Family Room****Moderator:**

- Local Untold Stories for the 250<sup>th</sup>
  - *Angie Grove, Ethan Allen Homestead Museum. Additional Authors: Glenn Fay, Daniel Cole, Zachary Bennett, Andrew Chesnut, Maddie Baum, Rich Rushlow, Carol Harris-Shapiro*
- Underwater Archaeology of the American Revolution on Lake Champlain
  - *Christopher Sabick, Lake Champlain Maritime Museum.*
- Underwater Cultural Resource Management: Preservation Practices and Marine Energy Infrastructure Development
  - *Paul Willard Gates, Lake Champlain Maritime Museum*

**12:15pm – 1:15pm: Lunch Buffet****Grand Maple Ballroom****1:15pm – 2:30pm: Concurrent Session #2****Track 2A: Winter Nutrient Dynamics****Grand Maple Ballroom****Moderator: Sonya Vogel**

- Winter's influence on seasonal nutrient cycling in agricultural and forested sites
  - *Madeline Winer, University of Vermont. Additional Authors: Carol Adair, Andrew Schroth, Max Landsman-Gerjoi, Megan Duffy*
- A comparative analysis of nutrient export dynamics during winter high flow events in characteristic watersheds of the Lake Champlain Basin
  - *Sonya Vogel, Lake Champlain Basin Program/NEIWPC. Additional Authors: Megan Duffy, Andrew Schroth, E. Carol Adair, Meghan Taylor*
- Event-level end member mixing analysis reveals divergent patterns of soil-stream connectivity during mid-winter runoff events between three catchments in the Lake Champlain Basin
  - *Megan Duffy, University of Vermont. Additional Authors: Sonya Vogel, Andrew Schroth, E. Carol Adair*
- Winter nutrient and suspended solid transport in the LaPlatte River
  - *Clayton J. Williams, Saint Michael's College. Additional Authors: Alexi Roux, Jarret Muzzy, Zoe Devine*

**Track 2B: Assessment and Monitoring for AIS Impacts****Jost Foundation Room****Moderator: Meg Modley**

- Hydroacoustic assessment of pelagic forage fishes in Lake Champlain during and after alewife invasion
  - *Amelia McReynolds, University of Vermont. Additional Authors: Bernie Pientka, Lars Rudstam, Ellen Marsden, Jason Stockwell*
- Forecasting Aquatic Invasions in the Lake Champlain Basin: Integrating eDNA with Spatial Risk Models for Early Detection and Management
  - *Richard Ross Shaker, SUNY College of Environmental Science and Forestry*
- AIS Early Detection Monitoring - Annual Environmental DNA (eDNA) Monitoring in Lake Champlain and its Gateways
  - *Laurie Earley, US Fish and Wildlife Service. Additional Authors: Steve Smith, Dylan Jennison, Aaron Maloy*

**Track 2C: Wetlands***Chittenden Bank Room***Moderator:**

- Field-based estimates of net phosphorus balance in restored, riparian wetlands on former agricultural land
  - *Tiffany Chin, University of Vermont. Additional Authors: Rebecca Diehl, Kristen Underwood, Xia Gillespie, Laura O'Brien, Eric Roy*
- Relative contributions of different size flood events to modeled net phosphorus balance on restored, riparian wetlands
  - *Eric Roy, University of Vermont. Additional Authors: Tiffany Chin, Rebecca Diehl, Kristen Underwood, Adrian Wiegman, Harrison Myers, Julianne Scamardo, Xia Gillespie, Laura O'Brien*

**Track 2D: Community Engagement – Part 1***Williams Family Room***Moderator: Aude Lochet**

- Late Night for the Planet! The power of comedy and entertainment in community engagement around Lake Champlain
  - *Curt Gervich, SUNY Plattsburgh Center for Earth and Environmental Science. Additional Authors: Kaiser Beckford, Alexandra Baker, Lillian Gilroy, Taygin Jump, Eli Lincoln-Robbins, Dean Parmelee, Madelynne Solan*
- Wool and Water: Communicating Science through the Arts
  - *Michale Glennon, Paul Smith's College Adirondack Watershed Institute*
- R/V Marcelle Melosira: A Platform for Research and Outreach on Lake Champlain
  - *Eleanor Duva, University of Vermont. Additional Authors: Ashley Eaton, Taylor Resnick*
- Uniting for Clean Waters: A Community Coalition Approach to a Foam-Free Lake Champlain Basin
  - *Aude Lochet, Lake Champlain Sea Grant at SUNY Plattsburgh. Additional Authors: Kris Stepenuck, Julie Silverman, Ashley Sullivan, Lindsey Cookson, Nicole Chochrek, Mike O'Brien, Chris Navitsky, Anne Jefferson*

**2:30pm-2:45pm: Break & Networking****2:45pm – 4:00pm: Concurrent Session #3****Track 3A: Impacts of De-Icing Salt***Grand Maple Ballroom***Moderator: Kris Stepenuck**

- Investigating landscape-level drivers of road salt pollution on lakes within the Lake Champlain Basin
  - *Mikala L'Hote, Dartmouth College. Additional Author: Brendan Wiltse*
- Chloride Concentrations and Loads in Lake Champlain Basin Streams Across an Urbanization Gradient
  - *Molly Costanza-Robinson, Middlebury College. Additional Authors: Isabella Infosino, Eric Moody*
- Understanding Chittenden County Road Salting to Inform Future Outreach
  - *Kris Stepenuck, University of Vermont and Lake Champlain Sea Grant. Additional Author: Dana Allen*
- Stormwater improvements and salt reduction alter chloride dynamics and mixing in Mirror Lake, NY
  - *Lija Treibergs, Paul Smith's College Adirondack Watershed Institute. Additional Authors: Bobby Clark, Joline Hall, Connor Vara, Brendan Wiltse, Hanna Wood, Elizabeth Yerger*



**Track 3B: AIS: Round Goby***Jost Foundation Room***Moderator: Meg Modley**

- Modeling the Predicted Distribution of the Invasive Round Goby in Lake Champlain
  - Kyle Grasso, University of Vermont, Vermont Cooperative Fish and Wildlife Research Unit. Additional Authors: Peter Esselman, Ellen Marsden, Mark Henderson
- The Marathon to Prevent Round Goby Introduction and Spread
  - Meg Modley, Lake Champlain Basin Program/NEIWPC. Additional Authors: QC MENV, VTFWD, VTDEC, NYSDEC, NYPA/Canals, USFWS, USGS
- Triggering Action with eDNA: Early Detection and Management of Invasive Round Goby in the Champlain Canal
  - Steven H. Pearson, New York State Department of Environmental Conservation. Additional Authors: Hannah Fiebboll, Kate Littreal
- Status of Round Goby in Eastern North America: Implications for Lake Champlain
  - Scott George, U.S. Geological Survey, New York Water Science Center

**Track 3C: Developed Lands***Chittenden Bank Room***Moderator:**

- Video: Building Resilience, A Rain Garden's Post-Flood Story
  - Jill Sarazen, Lake Champlain Sea Grant
- Lightning Talk: Rain Barrel Water Reuse: Summary of Research and Recommendations
  - Morgan McKean, Lake Champlain Sea Grant. Additional author: Jill Sarazen
- The Vermont Green Infrastructure Collaborative: Highlights from the past four years and developing new initiatives
  - Jill Sarazen, Lake Champlain Sea Grant
- Green Schools: Slowing the Flow
  - Ashley Eaton, University of Vermont/Lake Champlain Sea Grant

**Track 3D: Community Engagement – Part 2***Williams Family Room***Moderator:**

- Lightning Talk: Extending our Reach into the Community: Benefitting from Regional Partners
  - Karen Bates, Vermont ANR DEC WID Watershed Planning Program
- Lightning Talk: Assessing and Educating about Flood Risks and Building Resilience: Empowering Vermont's Refugee and New American Community
  - Alison Spasyk, University of Vermont. Additional authors: Dr. Mona Tolba, Dr. Lesley-Ann Dupigny-Giroux, Dr. Kyungsun Lee, Dr. Kathryn Semmens, Dr. Kristine Stepenuck, Samantha Grant
- Lightning Talk: Engaging Real Estate Professionals in Conservation Topics
  - Michelle Lockhart, Lake Champlain Sea Grant
- Lightning Talk: Sketching Science: Using Student Drawings to Measure Watershed Literacy
  - Alison Spasyk, University of Vermont. Additional Author: Dr. Kristine Stepenuck
- Activity: Climate Collages
  - Jasmine Perez, University of Vermont

**4:00pm – 5:00pm: Poster Session 1 & Conference Reception***Livak Fireplace Lounge***Posters:**

- Evaluating Volunteer Retention in a Vermont State Water Monitoring Program
  - Henry Motes, University of Vermont Rubenstein School of Environment and Natural Resources. Additional Author: Dr. Kristine Stepenuck



- Salty Water Sampling: Creating Place-Based Learning Opportunities for K12 Classrooms in the Lake Champlain Basin
  - *Leif Goldie, Center for Earth and Environmental Science, SUNY Plattsburgh. Additional Authors: Nancy Price, Haylee Crowle, Mary Alldred*
- BLUE BTV On-the-Ground Survey and Flyer Campaign
  - *Michelle Lockhart, Lake Champlain Sea Grant*
- UVM FieldLabs Core
  - *Joshua Benes, University of Vermont Water Resources Institute. Additional Authors: Dr. Brendan Fisher, Lori Anderson*
- Evaluating Habitat Potential and Climate Change Impacts on Salmonids Using the Ecosystem Diagnosis & Treatment (EDT) Model
  - *Dr. Kim Brewitt, ICF. Additional Author: Laura McMullen*
- Investigating the impacts of increasingly dynamic winter hydrology and spatially variable deicing product application on winter chloride loading
  - *Savia Berlucchi, University of Vermont. Additional Authors: Kristine Stepenuck, Carol Adair, Matthew Vaughan, James Shanley, Megan Duffy, Andrew Schroth*
- Winter as a contributor to the annual nitrate budget in forested Vermont watersheds
  - *Addie Hedges, University of Vermont. Additional Authors: James, Shanley; Megan, Duffy; Donna M., Rizzo; Kevin, Ryan; Carol, Adair; Andrew, Schroth*
- Development of a Thiamine Deficiency Complex-Tolerant Atlantic Salmon Broodstock and Implementation of Parentage-Based Tagging in Lake Champlain
  - *Bryan Ross, U.S. Fish & Wildlife Service - Lake Champlain FWCO. Additional Authors: Taher Fletcher, Paul Boynton, Kurt Heim, Laurie Earley*
- Automatic detection and categorization of behavior of the slimy sculpin *Cottus cognatus*
  - *Jonah Ballard, University of Vermont, Department of Computer Science. Additional Authors: Eden Forbes, Brian O'Malley, Jason Stockwell*
- Evaluating the Success of Released Atlantic Salmon Broodstock in Producing Viable Offspring in Wild Spawning Habitat
  - *Simone Boutelle, University of Vermont*
- Integrating eDNA and Electrofishing to Capture a Pre-Invasion Fish Community Baseline in the Upper Hudson River
  - *Hannah Diebboll, NYSDEC/NYS Water Resources Institute. Additional Authors: James Stone, Steven Pearson*
- Road salt major ion effects on thermal tolerance of copepod *Leptodiaptomus* species
  - *Sydney Sharp, University of Vermont. Additional Authors: Matthew Sasaki, Chiara Cohen, Katie Anthony, Anna McPeak, Melissa Pespeni*
- Nutrient Loading from Headwater Streams in the Lake Champlain Basin: Quantifying High-Flow Events
  - *Alexander Amann, SUNY Plattsburgh. Additional Author: Dr. Colin Fuss*
- Advancing Water Quality Monitoring: Ion-Selective Sensors for Key Nutrients Detection in Water
  - *Monireh Dehabadi, Department of Civil and Environmental Engineering, University of Vermont. Additional Authors: Parmida Amngostar, Tian Xia, Appala Raju Badireddy*
- Climate-driven shifts in Lake Champlain physical and chemical phenology over the last three decades
  - *Kelsey Colbert, Lake Champlain Basin Program/NEIWPCC. Additional Author: Dr. Ana M Morales*
- Machine Learning reveals Environmental Drivers of Distinct Wetland Natural Communities in Floodplain Ecosystems
  - *Ijaz Ul Haq, Water Resources Institute. Additional Authors: Rebecca M. Diehl, Kristen L. Underwood, Elizabeth Doran*
- Shifts in cyanobacteria bloom phenology and phytoplankton community structure in response to two phosphorus immobilization strategies in Lake Carmi, VT
  - *Audrey Manning, University of Vermont. Additional Authors: Andrew Schroth, Ana M. Morales*
- The Effects of Starvation on the Thermal Limits of Lake Champlain Copepods

- Chanchal Saratkar, University of Vermont. Additional Authors: Matthew Sasaki, Victoria Marie Glynn, Sydeny Sharp, Melissa Pespeni
- Effects of Hydrologic Disturbance on Cyanobacteria Bloom Dynamics in a Shallow Eutrophic Lake
  - Jo Delahunt, University of Vermont. Additional Author: Ana M Morales

5pm – 6:30pm: **Film Screening**

**Grand Maple Ballroom**

- **The Fish Thief: A Great Lakes Mystery Documentary**
  - *In the early twentieth century, a mysterious ecological crisis nearly wiped out the fish that most people cared about in the largest freshwater ecosystem on earth—the Great Lakes. The impact reverberated across the region, ruining local industries, damaging small town economies and indigenous communities, and destroying the livelihoods of people in the United States and Canada. With little reason for hope, a dedicated group of scientists, policymakers, and conservationists tackled the mystery.*

**Day 2: Tuesday 1/27/2026**9:00am – 10:30am: **Welcoming Remarks & Keynote Address****Grand Maple Ballroom****Welcoming Remarks**

**Keynote Address:** Cynthia Barnett, Senior Lecturer and Director of Climate and Environment Reporting Initiatives – University of Florida

10:30am – 11:00am: **Break & Networking**11:00am – 12:15pm: **Concurrent Session #4****Track 4A: Innovative Technologies and Forecasting****Grand Maple Ballroom**

- Drones & Deep Learning: The Future of Mapping Invasive Aquatic Plant Species
  - Daniel Jarrad & Maxwell Solter, *University of Vermont Spatial Analysis Lab*. Additional Authors: Lauren Cresanti, Adam Zylka, Terry Barrett, Malia MacLeod, Eli Stein, Bennett Corteville, Maeve Naumann
- Enhanced IoT-Based Optical Fluorometer–Nephelometer with Dual-Power Operation and Field Validation for Algae Monitoring in Lake Champlain
  - Parmida Amngostar, *University of Vermont*. Additional Authors: Soheyl Faghir Hagh, Clayton J Williams, Ana M Morales, Tian Xia
- Internet of Drones System with Onboard Machine Learning for 2-D and 3-D Water Quality Mapping, Chlorophyll-a Forecasting, and Adaptive Nutrient Sampling
  - Soheyl Faghir Hagh, *University of Vermont*. Additional Authors: Tian Xia, Parmida Amngostar
- First Demonstration of Nitrate Reduction Using Woodchip Bioreactor Technology at a Small Community Wastewater Treatment Plant
  - Jim Sutherland, *Scientific Adviser - Lake George Waterkeeper, Lake George Association*. Additional Authors: Kathleen Suozzo, Chris Navitsky

**Track 4B: Aquatic Invasive Species – Monitoring and Data****Jost Foundation Room****Moderator:** Lauren Jenness Kneen

- New York State Watercraft Inspection Steward program; Is it making a difference?
  - Scott Jamieson, *New York State Department of Environmental Conservation*
- Reducing the risk of AIS infestations and spread through watercraft inspection surveys and decontamination on Lake Champlain
  - Meg Modley Gilbertson, *Lake Champlain Basin Program/NEIWPCC*. Additional Author: Lauren Jenness Kneen
- Using Aquatic Invasive Species Data to Inform Management Decisions
  - Mitchell O'Neill, *New York Natural Heritage Program, SUNY-ESF*.

**Track 4C: Agriculture – Part 1****Chittenden Bank Room****Moderator:**

- Soil health diagnosis of Quebec portion of the Missisquoi Bay Basin following a remote sensing approach
  - Aubert Michaud, *Organisme de bassin versant de la baie Missisquoi (OBVBM)*. Additional Authors: Mohamed Abou Niang, Marc-Olivier Gasser
- Challenges facing Québec's efforts to reduce phosphorus losses to the Missisquoi bay Watershed
  - Louis Robert, *Organisme de bassin versant de la baie Missisquoi (OBVBM)*
- Restoring Degraded Riparian Forested Buffers into Multi-Functional Habitats for Socio-Ecological Resilience
  - Jess Rubin, *University of Vermont ALE and MycoEvolve*. Additional Authors: Josef Gorres, Carol McGranaghan, Luca Kolba
- Management effects on surface and subsurface nutrient runoff from heavy clay soils in Vermont dairy production systems
  - Claire Benning, *University of Vermont Extension*. Additional Authors: Joshua Faulkner, Heather Darby

**Track 4D: Flood Resilience***Williams Family Room***Moderator:**

- Exploring the water quality impacts of flooding and drought in the Lake Champlain Basin
  - *Matthew C.H. Vaughan, Lake Champlain Basin Program / NEIWPC*
- Improved Representation of Floodplains in Broad-Scale Hydrologic Models Supports Flood Resilience Assessments in Vermont
  - *Rebecca Diehl, University of Vermont. Additional Authors: David Baude, Ijaz Ul Haq, Kristen Underwood, Julianne Scamardo, Beverley Wemple*
- Data-driven models support erosion hazard mapping in Vermont
  - *Kristen Underwood, University of Vermont. Additional Authors: Alexander Prescott, Amelia Bohling, Nat Robtoy, Henry Leister, Rebecca Diehl*
- Floodlines: cultivating resilience in a transboundary waterway. Building capacity for resilience through transformative play
  - *Curt Gervich, SUNY Plattsburgh Center for Earth and Environmental Science. Additional Authors: Grace Calvelli, Taygin Jump*

12:15pm – 1:15pm: **Lunch Buffet***Grand Maple Ballroom*1:15pm – 2:30pm: **Concurrent Session #5****Track 5A: Contaminants of Emerging Concern***Grand Maple Ballroom***Moderator:**

- Lake Champlain Basin Emerging Contaminants Study
  - *Dave Braun, Stone Environmental*
- Implementing a nanobubble-assisted foam fractionation process to capture PFAS molecules from landfill leachate
  - *Sajjad Eftekhari, Department of Civil and Environmental Engineering, University of Vermont*
- Beneath the Surface: Assessing the Spatio-Temporal Distribution of Microplastics in Lake Champlain and its Tributaries
  - *Allison Morrow, SUNY Plattsburgh. Additional Authors: Timothy Lloyd, Grace Calvelli, Taygin Jump, Timothy Mihuc, Danielle Garneau, Nurjahan Begum, Andrea Stumpf, Anne Jefferson*
- Caffeine monitoring in Vermont lakes as a tool for motivating maintenance of septic systems
  - *Mark Mitchell, Lake Champlain Sea Grant and VT DEC Lakes Program*

**Track 5B: Lakes, Ponds, and Shorelines***Jost Foundation Room***Moderator:**

- Lightning Talk: Volunteer Lake Monitors' Role and Communication Behaviors
  - *Sabrina Koetter, University of Vermont and Lake Champlain Sea Grant*
- Protecting Headwater Streams to Build Long Term Resilience of Vermont's Lakes
  - *Kellie Merrell, Vermont Department of Environmental Conservation*
- Lakeshore Biodiversity: Informing a Lake Wise Approach in the Adirondacks
  - *Michale Glennon, Paul Smith's College - Adirondack Watershed Institute. Additional Authors: Alec Cimini, Jesse Rock*
- The Adirondack Lake Assessment Program: Over two decades of water quality participatory science
  - *Sara Kelly, Paul Smith's College Adirondack Watershed Institute. Additional Authors: Elizabeth Yerger, Claudia Braymer, Michale Glennon, Maureen Cunningham*
- New York State's Drinking Water Source Protection Program (DWSP2) in the Lake Champlain Basin
  - *Madeline Silecchia, New York State Department of Health/NEIWPC. Additional Author: Alyssa Bement*

**Track 5C: Agriculture – Part 2****Chittenden Bank Room****Moderator:**

- Investigating the environmental impact of an increased adoption of plant-based protein production in the Northeast U.S.: Assessment of Water Quality and Greenhouse Gas Emissions
  - *Liliana Bettolo, University of Vermont. Additional Authors: Sabrina Mehzabin, Zachary Easton, Joshua Faulkner*
- A Blueprint for Performance-Based Conservation: Lessons from Vermont's Pay-for-Performance Program
  - *Sumner LeBaron-Brien, Vermont Agency of Agriculture, Food, & Markets. Additional Authors: Nina Gage, Sonia Howlett, Judson Peck, Jamie Cohen, Jody Stryker, Andrew Gerlicz*
- Enhancement of Farm-PREP with Greenhouse Gas, Carbon, Nitrogen, and Soil Health Outcomes
  - *Jody Stryker, Stone Environmental. Additional Authors: Jens Kiesel, Hannah Rubin, Vermont Agency of Agriculture, Food & Markets (VAAFM)*

**Track 5D: Panel – Mutual Aid for Flood Resilience****Williams Family Room****Moderator: Sarita Croce**

The goal of this session is to increase awareness and discuss opportunities for helping water and wastewater utilities develop proactive strategies for extreme weather events. The event will begin with a 20-minute presentation, followed by a 20-minute panel discussion. Attendees will then participate in a workgroup session to brainstorm creative, unconventional ideas for how water utilities can address the impact of extreme weather.

New York and Vermont WARN State Coordinators, and the NY/VT Emergency Management Assistance Compact Coordinator will be in attendance.

2:30pm – 2:45pm: **Break & Networking**

**2:45pm – 4:00pm: Concurrent Session #6****Track 6A: Lake and Watershed Ecology****Grand Maple Ballroom****Moderator:**

- 30 Years of Plankton Monitoring in Lake Champlain: What have we learned?
  - *Tim Mihuc, SUNY Plattsburgh. Additional Authors: Luke Myers, Zach Cutter, Marshall Arnwine, Lily Delmarsh*
- Long-Term Zooplankton Monitoring Data: Putting Lake Champlain into a Global Context
  - *Jason Stockwell, University of Vermont. Additional Authors: Stephanie Figary, Tim Mihuc, Hannah Nygaard*
- The Monitoring and Management of Cyanobacteria HABs in Shallow, Nearshore Ecosystems such as Missisquoi Bay
  - *Fred Lubnow, Princeton Hydro, LLC*
- Spatial and temporal variation of tick-borne disease incidence in Vermont
  - *Carlos Amissah, University of Vermont. Additional Authors: Nicholas Gotelli, Ellen Martinsen*

**Track 6B: Streams, Rivers, and Floodplains****Jost Foundation Room****Moderator:**

- Prioritizing Floodplain Reconnection to Improve Ecohydrological River Corridor Function
  - *Elizabeth Doran, University of Vermont. Additional Authors: Roy Schiff, Jody Stryker, Mike Kline*
- Urban Land Use Controls on Bedload and Suspended Sediment Transport: A Nested Monitoring Approach
  - *Suffiyan Safdar, University of Vermont. Additional Authors: Anne J. Jefferson, Andrea Stumpf, Kristen Underwood, Kayleigh Leary, Abbey Morse*
- The Compliance Bridge: Helping Conservation Projects Move from Vision to Action
  - *Arianna Porter, SWCA Environmental Consultants*

**Track 6C: Cooperative Institute for Research to Operations in Hydrology****Chittenden Bank Room****Moderator:**

- Enhancing Vermont Flood Inundation Mapping through Process-Based Classification
  - David Baude, University of Vermont. Additional Authors: Rebecca Diehl, Ijaz Ul Haq, Kristen Underwood, Alexander Prescott, Beverley Wemple, Belize Lane, Colin Phillips
- Drivers of National Water Model Performance in the northeastern US and implications for Lake Champlain basin communities
  - Mirce Morales Velazquez, University of Vermont. Additional Authors: Beverley C. Wemple, Kristen L. Underwood, Donna M. Rizzo, Zachary Suriano, Patrick Clemens, Noah B. Beckage, Andrew W. Schroth
- AURA: A Low-Power Embedded IoT System for Real-Time Acoustic Precipitation Phase Partitioning and Hydrological Monitoring via Machine Learning on the Edge
  - Soheyl Faghir Hagh, University of Vermont. Additional Authors: Jordan Bourdeau, Julia Sober, Rachael Chertok, Christopher Jepsen, Parmida Amngostar, Lucas Levine, Casey Forey, Tian Xia, Christian Skalka

**Track 6D: Panel – Lake Champlain “Unfiltered”****Williams Family Room****Moderator: Mae Kate Campbell**

Late career and newly retired environmental professionals share their experiences and guidance with students and early career professionals.

**4:00pm – 5:00pm: Poster Session 2 & Conference Reception****Livak Fireplace Lounge****Posters:**

- Modeling the Future of Dreissenid Mussels in Lake Champlain: A Bioenergetics Framework for Predicting Invasion Trends
  - Emily Dombrowski, University of Vermont. Additional Author: Brent Lockwood.
- The Lake Champlain Aquatic Nonindigenous Species Information System
  - Noelle Hasan, Lake Champlain Sea Grant. Additional Authors: Kris Stepenuck, Emma Janson, Henry Motes, and Cayden Marrow
- Degraded Plastic Distribution and Morphology along Lake Champlain Beaches
  - Grace Massa, University of Vermont. Additional Authors: Nurjahan Begum, Anne Jefferson, Andrea Stumpf
- Sustainable Protocol for Efficient Extraction and Comprehensive Characterization of Microplastics in Organic-Rich Urban Stormwater Runoff
  - Kehinde Ojasanya, University of Vermont. Additional Authors: Appala Raju Badireddy, Liesel Greseth, James O'Connor
- Shoreline Plastic Pollution in Lake Champlain: Abundance and Characteristics
  - Nurjahan Begum, Rubenstein School of Environment and Natural Resources, University of Vermont. Additional Authors: Anne Jefferson, Andrea C Stumpf, Arden Degrenier, Grace Massa, Alyssa J. Warbeck, Allison Morrow, Timothy B. Mihuc, Danielle Garneau
- Distribution and drivers of PFAS and mercury in Lake Champlain fish
  - Vivien Taylor, Dartmouth College. Additional Authors: Jana Kraft, Celia Chen, Caroline Gillespie, Callie Carter.
- Analyzing the Equity of Flood Impacts and Recovery in Vermont Communities
  - Nat Robtoy, University of Vermont Transportation Research Center. Additional Authors: Dana Rowangould, Sarah Grajdura, Kristen Underwood
- Habitat factors associated with river otter (*Lontra canadensis*) occurrence in the Lewis Creek Watershed
  - Lydia Emry, University of Vermont. Additional Authors: Dr. James Murdoch, Dr. Brittany Mosher, Dr. Elizabeth Doran, Lilo Schultz, and Margreta Grady
- An Preliminary Analysis of Distribution and Ecological Preferences of Vermont Stoneflies
  - Maria Jankowski, SUNY Plattsburgh. Additional Authors: Dr. Scott Grubbs, Dr. Timothy Mihuc, Luke Myers

- Storms Under Water: Impacts of Wind-Driven Events on Deep Lake Thermal Dynamics
  - *Miranda Rummell, Lake Champlain Research Institute. Additional Authors: Dr. Timothy Mihuc, Dr. Eric Leibensperger*
- Do lakemounts influence zooplankton biomass, density, and community composition in large lake system(s)?
  - *Samantha Gonsalves, University of Vermont. Additional Authors: Bianca Possamai, Jason Stockwell*
- Seasonal Shifts, Microbial Drifts: Changing Phenology impacts on Lake Champlain Microbial Communities
  - *Katie Bruno, Cate Kreutzen, and Kate Shroeder, Middlebury College. Additional Author: Erin Eggleston*
- Erosion and Deposition of Sediment in Vermont Rivers Following the 2023 and 2024 Floods
  - *Amelia Bohling, University of Vermont. Additional Authors: Nat Robtoy, Henry Leister, Kristen Underwood, Alexander Prescott, Ken Johnston, Rebecca Diehl*
- Trash movement in Potash Brook, South Burlington, Vermont
  - *Andrea Stumpf, University of Vermont. Additional Authors: Abbey Morse, Arden Clarke-Degrenier, Casey Benderoth, Hope Lagemann, Morgan Fletcher, Anne Jefferson*
- Geographic Information System for Fluvial Erosion Quantification of Great Brook Vermont
  - *Henry Leister, University of Vermont. Additional Authors: Kristen Underwood, Rebecca Manners Diehl, Nat Robtoy, Amelia Boehling*
- Evaluating Floodplain Habitat Function Using Ecogeomorphic Indicators in the Lewis Creek Watershed
  - *Lilo Schultz, University of Vermont. Additional Authors: Elizabeth Doran, Margreta Grady, James Murdoch, Elias Rosenblatt, Lydia Emery, Brittany Mosher, Kristen Underwood, Rebecca Diehl, Rose Watts, Kenneth Johnston*
- Assessing eco-geomorphic habitat factors associated with amphibian diversity in riparian floodplains of the Lewis Creek watershed
  - *Margreta Grady, University of Vermont. Additional Authors: Lilo Schultz, Dr. Elizabeth Doran, Lydia Emry, Dr. Brittany Mosher, Dr. James Murdoch, Dr. Kristen Underwood, Dr. Rebecca Diehl, Rose Watts, Kenneth Johnston*
- Advanced Methodologies for Microplastic Detection Across Diverse Environmental Matrices from the Arctic to the Lake Champlain Basin
  - *Olivia Rutkowski, Vermont State University, Castleton. Additional Author: Andy Vermilyea*
- Keeping our farms in the green: Using a nutrient mass balance assessment to prioritize sustainable dairy practices
  - *Luke Trombley, SUNY Plattsburgh. Additional Authors: Laura Klaiber, Quirine Ketterings*