



CREATING GREAT LAKES RESILIENCE

International Association for Great Lakes Research
68th Conference on Great Lakes Research
June 2 - 6, 2025, Milwaukee, WI

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PROGRAM

68th Annual Conference on Great Lakes Research



#IAGLR25

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International Association for Great Lakes Research
4840 South State Road, Ann Arbor, MI 48108

iaglr.org

Cover design and conference logo by Jenifer Thomas

SCHEDULE AT A GLANCE

	Event	Time	Location
MON	Exhibits	6–9 p.m.	Baird, N200 Level
	Welcome Mixer	6–9 p.m.	Baird, N200 Level
TUE	Exhibits	8 a.m.–8 p.m.	Baird, N200 Level
	Concurrent Sessions	8–11 a.m.	Baird, N200 Level, <i>see p. 12</i>
	Welcome/Openings	11–11:30 a.m.	Baird, Rooftop Ballroom
	Plenary: Steve Carpenter, UW–Madison <i>Resilience of lake ecosystems</i>	11:30 a.m.–12:30 p.m.	Baird, Rooftop Ballroom
	IAGLR Business Lunch & Presentation of Appreciation Awards	12:30–1:30 p.m.	Baird, Rooftop Ballroom
	Concurrent Sessions	1:40–6 p.m.	Baird, N200 Level, <i>see p. 16</i>
	Editors' Reception	5:30–7 p.m.	Baird, N208 Lounge
	Poster Session & Social	6–8 p.m.	Baird, N204B/N204C
	All Too Clear Documentary Screening + Panel	8–10 p.m.	Baird, Rooftop Ballroom
	Student Social	8–10 p.m.	Beer Garden at Central Waters Brewing Co.
WED	Exhibits	8 a.m.–12:30 p.m.	Baird, N200 Level
	Concurrent Sessions	8–11 a.m.	Baird, N200 Level, <i>see p. 22</i>
	Openings & Presentation of Student Awards	11–11:30 a.m.	Baird, Rooftop Ballroom
	Plenary: Susan Chiblow, IJC / University of Guelph <i>Water Resiliency in the Great Lakes: Standing with Indigenous Science</i>	11:30 a.m.–12:30 p.m.	Baird, Rooftop Ballroom
	Lunch on your own		
	Field Trips & Workshops	1–5:45 p.m.	<i>See p. 6 for locations</i>
	Social: Share how you benefit the Great Lakes	5:30–7:30 p.m.	Beer Garden at Central Waters Brewing Co.
THU	Exhibits	8 a.m.–6 p.m.	Baird, N200 Level
	Concurrent Sessions	8–11 a.m.	Baird, N200 Level, <i>see p. 26</i>
	Openings & Presentation of Journal Awards	11–11:30 a.m.	Baird, Rooftop Ballroom
	Plenary: Ismael Kimierei, Tanzania Fisheries Research Institute <i>Fisheries research in the African Great Lakes: A call to action</i>	11:30 a.m.–12:30 p.m.	Baird, Rooftop Ballroom
	Lunch on your own / Workshop on Publishing in Peer-Reviewed Journals	12:30–1:40 p.m.	Workshop in N207A
	Concurrent Sessions	1:40–6 p.m.	Baird, N200 Level, <i>see p. 30</i>
	Banquet & Presentation of IAGLR Lifetime Achievement Award, Vallentyne Award, Large Lake Champion Awards & Anderson-Everett Award, Featuring the band Cold Soda Club	6–9 p.m.	Baird, Rooftop Ballroom
FRI	Exhibits	8 a.m.–12:30 p.m.	Baird Center, N200 Level
	Concurrent Sessions	8 a.m.–12:40 p.m.	Baird, N200 Level, <i>see p. 36</i>

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Check out the Online Program

Browse and search sessions,
authors, and abstracts.

Bookmark your favorites or
use convenient filters.

Upvote or ask questions on
presentations.

Contact other attendees.



event.fourwaves.com/iaglr2025

REGISTRATION DESK HOURS

Monday
5:30–8:30 p.m.

Tuesday
7:30 a.m.–6:00 p.m.

Wednesday:
7:30 a.m.–1:30 p.m.

Thursday
7:30 a.m.–5:00 p.m.

Friday
7:45 a.m.–10:30 a.m.

Baird Center has
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Sensory Room
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and controlled
environment
for people who
are feeling over
stimulated.*



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Thanks also to all onsite volunteers.

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Communication Coordinator

Journal of Great Lakes Research

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Lead Editor

Jessica Ives
Technical Editor

IAGLR 2025 Land Acknowledgment

We acknowledge in Milwaukee that we are on traditional Potawatomi, Ho-Chunk and Menominee homeland along the southwest shores of Michigami, North America's largest system of freshwater lakes, where the Milwaukee, Menominee and Kinnickinnic rivers meet and the people of Wisconsin's sovereign Anishinaabe, Ho-Chunk, Menominee, Oneida, and Mohican nations remain present.

We acknowledge that this is a living statement and invite your comments to ensure healthy relationships and a welcoming space within the IAGLR community.

EXHIBITORS

Exhibits are open daily throughout the second floor hallways outside the session rooms. Stop by and say hello!

African Center for Aquatic Research and Education

Ann Arbor, Michigan
agl-acare.org

Cooperative Institute for Great Lakes Research

Ann Arbor, Michigan
cigl.rseas.umich.edu

Dune Technologies, LLC

Holland, Michigan
dunetechnologies.com

Freshwater Research & Innovation Center

Traverse City, Michigan
discoverypier.org/freshwater-center

Gold Standard Diagnostics

Horsham, Pennsylvania
goldstandarddiagnostics.us

Great Lakes Observing System

Ann Arbor, Michigan
glos.org

Great Lakes Research Center, Michigan Technological University

Houghton, Michigan
mtu.edu/greatlakes

Great Lakes Sea Grant Network

Ann Arbor, Michigan
michiganseagrant.org

GT Molecular

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gtmolecular.com

In-Situ, Inc.

Fort Collins, Colorado
in-situ.com

Inspired Planet Productions

Miller Lake, Ontario
inspiredplanet.ca/alltooclear

International Joint Commission

Windsor, Ontario
ijc.org

IISD Experimental Lake Area

Winnipeg, Manitoba
iisd.org/ela/

LimnoTech

Ann Arbor, Michigan
limno.com

NOAA Great Lakes Environmental Research Laboratory

Ann Arbor, Michigan
glrl.noaa.gov

NV5

Sheboygan Falls, Wisconsin
nv5.com

Ramboll

Milwaukee, Wisconsin
ramboll.com

Reformar

Rimouski, Quebec
reformar.ca

River Institute

Cornwall, Ontario
riverinstitute.ca

Sewer Sentry

Austin, Texas
sewersentry.com

University of Wisconsin–Milwaukee

School of Freshwater Sciences
Milwaukee, Wisconsin
uwm.edu/freshwater

IAGLR Code of Conduct

IAGLR is committed to healthy, safe, and inclusive meetings for all attendees. We expect all attendees to abide by the IAGLR Code of Conduct.

Reporting Code of Conduct Violations

If you are the subject of unacceptable behavior or have witnessed any such behavior, please do one of the following:

- If you witness or experience behavior that constitutes an immediate and serious threat, please call 911 and/or locate Baird security personnel stationed throughout. You also can reach the Baird Public Safety Department at (414) 908-6165, or dial 6165 from any wall phone.
- Notify an IAGLR staff member.
- Call or email IAGLR Conference Coordinator Brianna Ellis at (703) 801-3137 or bellis@iaglr.org, or Executive Director Jérôme Marty at (613) 355-6843 or jmarty@iaglr.org.



bit.ly/43cNltO

FIELD TRIPS & WORKSHOPS

Wednesday Field Trip Logistics

Lake Sturgeon Rehabilitation Project Field Trip

1–4:30 p.m. *(full)*

Riveredge Nature Center in Newburg & Kletzsch Park in Glendale

Van transportation to and from the Baird Center.

Kayak Tour: Paddle the Milwaukee River

1:30–4:30 p.m.

Walk along the Milwaukee RiverWalk and meet up at the Milwaukee Kayak Company at 318 S. Water Street (5-minute drive from Baird) at 1:30 p.m. to fill out waivers, listen to a brief safety talk, and then enjoy a 2-2.5 hour guided paddle. No lunch provided, but there are a lot of options to eat along the RiverWalk.

Riverwalk Boat Tours

2:30–5:45 p.m.

Pere Marquette Park, 950 N Dr Martin Luther King Jr. Drive (0.3 miles/0.5 kilometers from Baird Center)

Food and drinks may be brought onboard, no glass containers. Guests are responsible for taking all trash with them after their cruise; trash may not be left or disposed of in Pere Marquette Park. *Check availability online: iaglr.org/iaglr2025/program/fieldtrips/*

Workshops

All workshops take place in Baird Center and require registration.

Developing a Decadal Science Plan

Wednesday, 1:30–4:30

N206B

Sci-Comedy Workshop

Wednesday, 1:30–3:30 p.m.

N205

Workshop on Publishing in Peer-Reviewed Journals

Thursday, 12:30–1:45 p.m.

N207A

Things To Do in Milwaukee

Milwaukee features a lively energy and close-knit creative community, with a variety of opportunities to enjoy art, culture, sport, and recreation. Visit our Thing to Do web page for links.



bit.ly/i25todo

Explore on your own

- Pirates' Cove Diving- LEN-DER Shipwreck Charters
- Great Lakes Marine Collection at the Milwaukee Public Library
- The Milwaukee Riverwalk
- Bronzeville Center for the Arts
- Grohmann Museum
- Harley-Davidson Museum
- Milwaukee Art Museum

Drinks & Dining

Coffee/Breakfast

- Stone Creek Coffee
- Uncle Wolfie's
- HoneyPie Cafe

Lunch/Dinner

- 3rd St Market Hall
- Birch
- Bavette
- Swinging Door Exchange

Bars

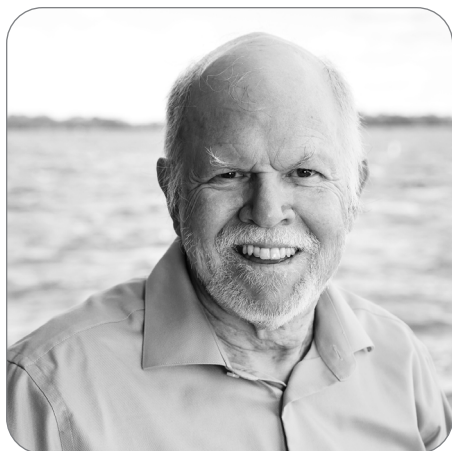
- Boone + Crockett (great patio)
- Bryant's Cocktail Lounge
- At Random (Milkshake cocktails)
- Saint Kate (art/live music)
- Caroline's Jazz Club

Bikes & Scooters

BublR Bikes is a nonprofit bikeshare in the Greater Milwaukee area. They offer bike rentals with per minute pricing at kiosks and have over 100 bike stations around Milwaukee.

Veo, Lime, and Spin have electric scooters available to rent around the city.

SPEAKERS



Resilience of Lake Ecosystems

TUESDAY, JUNE 3
11:30–2:30
Rooftop Ballroom

Steve Carpenter

Emeritus Director of the Center for Limnology and Emeritus Professor of Integrative Biology, University of Wisconsin–Madison

Carpenter has led whole-ecosystem experiments to address questions about trophic cascades and their effects on production and nutrient cycling, contaminant cycles, recreational fisheries, eutrophication, nonpoint pollution, ecological economics of freshwater, and resilience of ecosystems and social-ecological systems. He is an experienced organizer of collaborations among scientists, managers and the public to improve ecosystem services of working landscapes and the freshwaters that drain them.



Water Resiliency in the Great Lakes: Standing with Indigenous Science

WEDNESDAY, JUNE 4
11:30–12:30
Rooftop Ballroom

Susan (Sue) Bell Chiblow

Canadian Commissioner, International Joint Commission; Vanier Scholar and Assistant Professor, School of Environmental Sciences at the University of Guelph

Chiblow is Anishinaabe kwe, born and raised in Garden River First Nation, Ontario. She has worked extensively with First Nation communities for the last 30 years in environmental fields. Chiblow has worked with the Chiefs of Ontario as the environmental coordinator of the Environment Unit. Through her company, Ogamaugh annag, she continues to work with First Nation communities and Elders as an Anishinaabe advisor on environmental projects and policy analysis.



Fisheries Research in the African Great Lakes: A Call to Action

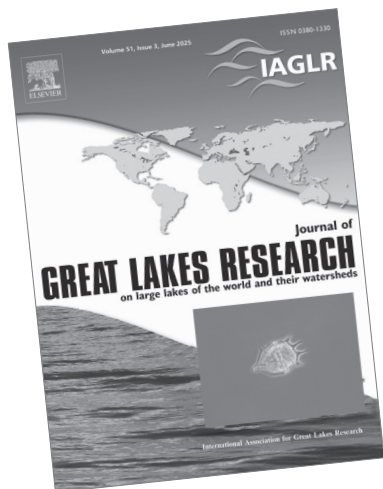
THURSDAY, JUNE 5
11:30–12:30
Rooftop Ballroom

Ismael Kimirei

Director General, Tanzania Fisheries Research Institute

Kimirei is an aquatic ecologist with an interest in aquatic resources management, fish biology and ecology, limnology, and climate change issues. He studies connectivity among marine coastal ecosystems (mangroves, seagrass, and coral reefs) and the anthropogenic and climate related disturbances to these ecosystems. While he continues to study the marine environment on how anthropogenic activities and ocean acidification are impacting the environment and fishes, he also works in the Great Lakes of East Africa focusing mainly on how lakes ecosystems respond to climate change/warming and how that relates to fisheries productivity.

To reach the Rooftop Ballroom, take the escalators near the registration desk up two flights.



Journal Highlights

No page charges

Open access at reduced rates for IAGLR members

7–8 weeks average time from submission to first decision

6 issues each year

Organize a special section in the *Journal of Great Lakes Research*

Highlight presentations from a conference session. Solicit contributions around a topic of interest. The possibilities are endless! Submit your proposal for a special section or contact Margaret Docker, lead editor of the journal, at editor@iaglr.org to discuss your ideas.

Special sections coming soon

- Great Lakes Coastal Processes
- Great Lakes Connecting Waters

Special sections recently published

- Lake Superior: Current Conditions, Trends, and Emerging Threats (February 2025)
- Aquatic Resources and Blue Economy Conference (October 2024)
- Speciation in Ancient Lakes 9 (June 2024)

Find the submission form and more info at iaglr.org/journal



Have you heard an especially compelling presentation at the conference? Let us know!

We're planning to feature research from favorite presentations at the conference in an upcoming issue of *Lakes Letter*. We need your help in identifying them. Scan the QR code to easily submit your recommendation. Also look for *Lakes Letter* Editor Paula McIntyre to share your ideas and suggestions for future issues of the magazine!



bit.ly/llartrec

Learn more at iaglr.org/lakesletter



SHARE YOUR STORY



Help us document the impact of recent U.S. federal government actions on the Great Lakes science community. Visit our questionnaire today to share your story.



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Intellectual Property

We encourage the sharing of science on social media, and many attendees post items of interest during the conference. However, **presentations and posters are the property of the presenter.**

Please respect the presenter's choice about sharing their work.

- If you see the “social” icon shown here, presenters have already signaled their approval to share their work on social media.
- If you don't see it, ask permission of the presenter to record and share images.
- Always provide due credit when sharing images.



Presenters, if you do NOT want your presentation shared on social media or recorded, please verbally indicate at the start of your presentation or on your poster. If you're okay with sharing your work on social media, please share your social media accounts to facilitate attributing your work.

Share the excellent work of people who have opted in with the hashtag #IAGLR25.

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TUESDAY, JUNE 3

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	Tropical Aquatic Ecosystems: Dynamics and Perturbations <i>Chairs: Val Klump, Jerry Kaster, Hector Hernandez</i>	Charting the Future of Great Lakes Participatory Science <i>Chairs: Max Herzog, Gabrielle Parent-Doliner, Megan McLaughlin, Tori Agnew-Camiener</i>	Great Lakes Observing: Advances in Technologies and Applications <i>Chairs: Shelby Brunner, Timothy Calappi, Hayden Henderson, Andrea Vander Woude, Steve Ruberg</i>	Advancing Resilience through Bridging Knowledges and Indigenous-led Research <i>Chairs: Barbara Wall, Alex Duncan, Janessa Esquible, Mary-Claire Buell</i>	All Rivers, Great and Small: Riverine Loading of Nutrients and More into Large Lakes <i>Chairs: Douglas Kane, Nathan Manning, Colleen Cosgrove</i>
8:00		R. Sturtevant Connecting Communities and Research: Participatory Science for Great Lakes Mystery Snails		Opening ceremony	
8:20	T. Grundl The Hydrologic and Geochemical Conditions of Laguna Bacalar, Quintana Roo, Mexico	G. Ford Using crowdsourced coastal observations to define a "nuisance" condition for washup algae in Lake Erie			N. Manning Lake Erie Tribs: Loading Updates from the Heidelberg Tributary Loading Program
8:40	V. Klump A budget for net ecosystem production in an oligotrophic, tropical lake: Laguna Bacalar, Mexico	E. Smith Completing the loop: Building community-based science capacity in the Upper St. Lawrence River to inform community-driven ecosystem health reports	I. Peter Advancing Lake Ice and Surface Dynamics Observations using ICESat-2		C. Cosgrove Meeting the Target? Examining Conservation Practice effectiveness and discharge impacts on nutrient loads
9:00	H. Hernandez Arana Freshwater dwarf mangroves: Environmental constraints and its implications for carbon stocks	G. Parent-Doliner Engaging Communities in Winter Road Salt Monitoring: Lessons from the Lake Erie Water Rangers Program	J. McNinch Integrated Radar Monitoring System (IRaMS): automated nearshore observations around the Great Lakes	T. Tran Climate-Related Changes Impact Forest Relationships: A Tribal-Led Comparative Community Assessment	A. Okoli Characterizing Current and Future Spatiotemporal Trends in Phosphorus Concentrations in Northern Lake Erie Basin
9:20	Break				

TUESDAY, JUNE 3

N207A	N208A	N208B	N208C	
Creating Resilience in Science Communication in the Age of Misinformation <i>Chairs: Anna Boegehold, Nicole Wood, Allison Devereaux</i>	Enhancing Quality in Great Lakes Restoration: From Project Design to System Response <i>Chairs: Craig Palmer, Timothy Lewis, Zeph Migeni, Andrew Bahrou</i>	Advancing Ecosystem and Community Resilience to Oil Spills <i>Chairs: Kelsey Prihoda, Kenneth Lee, Aude Lochet, Jérôme Marty</i>	Advances in Hydroclimate Modeling and Data to Support Great Lakes Adaptive Management <i>Chairs: Deanna Fielder, Lauren Fry, Dani Jones, Frank Seglenieks, Scott Steinschneider, David Cannon</i>	
N. Wood How to use science communication to address a new era of science misinformation	J. Hartig Detroit River becoming a crucible for boundary organization experimentation	A. Moerke ICOR-OWN: Advancing Great Lakes oil spill research, infrastructure, and expertise in cold, freshwater ecosystems	S. Steinschneider Enhancing the Research-to-Operations Pipeline in Great Lakes Hydroclimate Data and Modeling	8:00
S. Bath What Ryanair, Addison Rae and Viral Cat Videos Can Teach Us About Effective Science Communication	A. Bahrou St. Clair-Detroit River System Initiative: Lessons learned from 10 years of collective impact	K. Kapuscinski An experimental approach to observe multi-trophic level effects of oil on coastal wetlands	N. O'Brien Historical datasets (1950-2022) of monthly water balance components for the Laurentian Great Lakes	8:20
T. Seilheimer Make it fun and make them laugh: effective science communication with pictures and stories	M. Montenero Collecting and Maintaining Data for a 50+ Year Water Quality Monitoring Program	P. Jobin Investigating the response of Great Lakes near shore & wetland sediment microbial biofilms to simulated hydrocarbon exposure	S. Steinschneider Pooling local climate and donor gauges with deep learning for improved daily streamflow reconstructions	8:40
K. O'Reilly Fish-Information, not Misinformation: Understanding resilience in science communication through the social media campaign #25DaysofFishmas	D. Kraft The Opportunities of Combined Hydrologic Restoration and Recreation Projects	Z. Yang Occurrence, characterization, and ecological risk analysis of petroleum hydrocarbons in water and sediments following large-scale field simulated oil spills at the Experimental Lakes Area, Northwestern Ontario, Canada	S. Shin Long-term hydroclimate trends in the Great Lakes basin: Are there hotspots of regional change?	9:00
Break				9:20

TUESDAY, JUNE 3

	N204A	N205	N206A	N206B	N206C
	Tropical Aquatic Ecosystems: Dynamics and Perturbations <i>Chairs: Val Klump, Jerry Kaster, Hector Hernandez</i>	Charting the Future of Great Lakes Participatory Science <i>Chairs: Max Herzog, Gabrielle Parent-Doliner, Megan McLaughlin, Tori Agnew-Camiener</i>	Great Lakes Observing: Advances in Technologies and Applications <i>Chairs: Shelby Brunner, Timothy Calappi, Hayden Henderson, Andrea Vander Woude, Steve Ruberg</i>	Advancing Resilience through Bridging Knowledges and Indigenous-led Research <i>Chairs: Barbara Wall, Alex Duncan, Janessa Esquible, Mary-Claire Buell</i>	All Rivers, Great and Small: Riverine Loading of Nutrients and More into Large Lakes <i>Chairs: Douglas Kane, Nathan Manning, Colleen Cosgrove</i>
9:40	M. Garcia Escobar Evaluation of Water Quality and Source Tracking for <i>Escherichia coli</i> in Laguna Bacalar, Mexico	M. Herzog Lake Erie Volunteer Science Network: Building a Great Lake Participatory Science Hub	E. Lucas High Frequency Radar in the Straits of Mackinac: a unique system, what it offers, and how we're working with it	T. Bernos Getting our Species-At-Risk Act together: aligning species listing with Indigenized models of conservation	F. Fitzpatrick Sediment and sediment-bound phosphorus source tracking in a forested sub-watershed of Lake of the Woods
10:00	M. Cudworth Stakeholder Perspectives in Bacalar, Mexico: Insights on Tourism Development	Panel: Uplifting Great Lakes Participatory Science - How Can Institutions and Local Data Collectors Support One Another and Collaborate for Greater Collective Impact?	J. Pu Integrating In-Situ and Remote Sensing Water Level Data in Lake Erie: Status Update	E. DeRochie A framework for connecting community for a beautiful and healthy St Lawrence River: The River Strategy	D. Robertson Combining monitoring and modeling information to quantify loading from the entire binational Great Lakes watershed
10:20	J. Kaster Climate Impact on Global and Local Tropical Ecosystems: Community Resilience in a Tropical Oxygen Oasis		R. Watkins Optical Water Property monitoring using flow-through and pySAS systems across the Great Lakes	S. Nolan Towards Indigenous-led freshwater assessments in the Great Lakes	A. Elsayed Leveraging Machine Learning Models for Water Quality Prediction in an Agricultural Watershed
10:40	A. Kahsay Understanding Human Impacts on Tropical Wetlands: Insights from Lake Tana, Ethiopia		S. Brunner Primary productivity rates across Lake Michigan	J. Grimm Challenges and solutions for academics co-producing knowledge with Indigenous communities	A. Neumann C-Q relationships and power analysis of tributary water quality data in the Canadian side of Lake Erie basin
11:00	Welcome / Openings Rooftop Ballroom				
11:30	Plenary by Dr. Steve Carpenter Rooftop Ballroom				
12:30	IAGLR Business Lunch & Presentation of Appreciation Awards (ticket required)				

N207A	N208A	N208B	N208C	
Creating Resilience in Science Communication in the Age of Misinformation <i>Chairs: Anna Boegehold, Nicole Wood, Allison Devereaux</i>	Enhancing Quality in Great Lakes Restoration: From Project Design to System Response <i>Chairs: Craig Palmer, Timothy Lewis, Zeph Migeni, Andrew Bahrou</i>	Advancing Ecosystem and Community Resilience to Oil Spills <i>Chairs: Kelsey Prihoda, Kenneth Lee, Aude Lochet, Jérôme Marty</i>	Advances in Hydroclimate Modeling and Data to Support Great Lakes Adaptive Management <i>Chairs: Deanna Fielder, Lauren Fry, Dani Jones, Frank Seglenieks, Scott Steinschneider, David Cannon</i>	
M. Twiss Into the breach - Talking with polarized communities: Assessing attitudes towards Rights of Nature	Z. Migeni Advisory Groups: A Diagnostic Approach for Strengthening Collaborative Management of the African Great Lakes Resources	D. Orihel Simulating Freshwater Oil Spills in Salmon-Bearing Rivers of the Laurentian Great Lakes WITHDRAWN	Y. Hong A Harmonized Hydrometeorological Dataset and Artificial Intelligence Hydrologic Modeling for the Great Lakes Basin	9:40
H. Ahmad Equitable Engagement and Environmental Justice Storytelling in the Great Lakes Basin	B. Davis Engineering with Nature + Landscape Architecture as a method for natural infrastructure.	J. Rogers A mesocosm experiment to simulate an oil spill in a Chinook salmon spawning stream	D. Cannon Historical air temperature observations and ice cover simulations (1897 - 2023) highlight long-term climate trends in the Laurentian Great Lakes	10:00
L. Guzman Enhancing Ice Safety and Climate Change Awareness Among Ice Anglers in the Great Lakes Community	T. Denbow Comparing Design-Build vs Design-Bid-Build Project Delivery Approaches for Ecological Restoration	Q. Xin Aquatic Weathering and Toxicity Analyses of Transportation Fuels Under Simulated Freshwater Mesocosm Conditions	H. Abdelhady Long-term trends in Lake Michigan waves and ice: a machine learning approach	10:20
K. Grosh Sacred Waters: Connecting Faith Communities to Great Lakes Research	D. Warners Reconciliation Ecology: Connecting Upstream and Downstream Communities through Watershed Restoration	M. Boufadel Oil-Particle Aggregates (OPA): Their formation and disintegration by empirical and mechanistic models	T. Herron International Great Lakes Datum: An Overview	10:40
Welcome / Openings Rooftop Ballroom				11:00
Plenary by Dr. Steve Carpenter Rooftop Ballroom				11:30
IAGLR Business Lunch & Presentation of Appreciation Awards (ticket required)				12:30

TUESDAY, JUNE 3

	N204A	N205	N206A	N206B	N206C
	Tropical Aquatic Ecosystems: Dynamics and Perturbations <i>Chairs: Val Klump, Jerry Kaster, Hector Hernandez</i>	Charting the Future of Great Lakes Participatory Science <i>Chairs: Max Herzog, Gabrielle Parent-Doliner, Megan McLaughlin, Tori Agnew-Camiener</i>	Great Lakes Observing: Advances in Technologies and Applications <i>Chairs: Shelby Brunner, Timothy Calappi, Hayden Henderson, Andrea Vander Woude, Steve Ruberg</i>	Advancing Resilience through Bridging Knowledges and Indigenous-led Research <i>Chairs: Barbara Wall, Alex Duncan, Janessa Esquible, Mary-Claire Buell</i>	All Rivers, Great and Small: Riverine Loading of Nutrients and More into Large Lakes <i>Chairs: Douglas Kane, Nathan Manning, Colleen Cosgrove</i>
1:40	S. Shaban Phytoplankton Status in Lake Victoria, Tanzania	E. Millar A framework for integrating automated sensing technologies into participatory science to co-create real-time environmental monitoring networks	M. Zorn LoRaWAN Sensor Network for Environmental Monitoring and Hypoxia Detection in Green Bay, Lake Michigan	B. Maracle Lasting Effects of Dams and Reservoirs on Indigenous Nations in New York State	M. Diebel Detroit River total phosphorus load estimation: Progress toward an improved method
2:00	S. Miniga Macroinvertebrates population in relation to water quality: A study of Kisumu Bay, Lake Victoria, Kenya.	M. Baumann Bringing Community Capacity into Conversation with Ecosystem Services and Equity in Great Lakes Coastal Communities	P. Birschbach How well does artificial intelligence (AI) identify phytoplankters in cyanobacteria-dominated freshwater samples?	Panel	C. Buelo Evaluating change in the face of discharge variability: flow-normalized nutrient loads to Lake Erie
2:20	C. Mukuka Assessment of Ichthyofaunal Status and Sustainability in the Kafue River.	C. Nyamweya The Future of African Inland Fisheries	L. Rudstam Daytime acoustics reveal diel migrations but require new operating procedures for use in fisheries assessment		V. Shedekar Modeling effects of current and future water management strategies at field to watershed scales in Western Lake Erie Basin
2:40	S. Jueya Diets of Alestidae (Teleostei: Characiformes) in two rivers (Boumba and Kadei) in Eastern Cameroon	S. Larrick Expanding Partnership & Participatory Science Engagement with the H2Ohio Wetland Monitoring Program	S. Qian Analyzing Telemetry Data for Understanding Population Distribution		B. Saint Louis Integrating Hydrodynamic Modeling to Understand Nutrient Transport and Harmful Algal Blooms Dynamics in Great Lakes Tributaries
3:00	J. Obuya Knowledge Attitude and Practices (KAP) on Biosecurity and Best Management Practices in Cage Aquaculture in Lake Victoria, Kenya	P. van Zwieten Participation of local fishers for scientific data collection in Lake Turkana, Kenya: Research and Policy Implications	R. Gossett Adding to the Map: Large-scale Charting efforts of Lake Michigan Contribute to Lakebed 2030 Initiatives		D. Kane Beyond the Algal Loading Hypothesis: Potamoplankton Monitoring as part of the Heidelberg Tributary Loading Program
3:20	Break				

TUESDAY, JUNE 3

N207A	N208A	N208B	N208C	
Creating Resilience in Science Communication in the Age of Misinformation <i>Chairs: Anna Boegehold, Nicole Wood, Allison Devereaux</i>	Enhancing Quality in Great Lakes Restoration: From Project Design to System Response <i>Chairs: Craig Palmer, Timothy Lewis</i>	Advancing Ecosystem and Community Resilience to Oil Spills <i>Chairs: Kelsey Prihoda, Kenneth Lee, Aude Lochet, Jérôme Marty</i>	Advances in Hydroclimate Modeling and Data to Support Great Lakes Adaptive Management <i>Chairs: Deanna Fielder, Lauren Fry, Dani Jones, Frank Seglenieks, Scott Steinschneider, David Cannon</i>	
A. Benitez Gonzalez Harmful Algal Bloom risk perception and community engagement <div>WITHDRAWN</div>	J. Houghton UWM- School of Freshwater Science Coastal Wisconsin Harbor Habitat Mapping	F. Fitzpatrick Representing oil-particle aggregate formation, transport, and fate in river oil spill tools	A. Hutson Great Lakes Cold-Season Extratropical Cyclones: Historical Trends and Correlation with Teleconnections	1:40
O. Schloegel Fostering Adaptive and Transparent Communication in Wetland Restoration and Management	M. Wick Waterfront Reconnection: Linking Ecosystem Restoration to Community Revitalization	F. Cui Transport and fate of oil slick and droplets in rivers	J. Ward How do teleconnections affect extratropical cyclone activity and resulting changes in Great Lakes water supply?	2:00
D. Henshel Addressing the climate resilience planning gap in the Great Lakes Watershed		Y. Song Validating surface currents for driving oil spill models in the Great Lakes	L. Fry Subseasonal to Annual Water Supply Forecasts: Recent advancements and planned research to operations	2:20
A. Boegehold Sci-Comedy: Laughter as a Common Language		W. Ji Impact of below-freezing air temperatures on the formation and stability of seawater-crude oil emulsion	L. Fitzpatrick Developing a Machine Learning Tool to Predict Net Basin Supply Components in the Great Lakes	2:40
		D. Heckman Performance of low-cost in situ oil sensors for detecting oil spills in fresh waters	Y. Chen Dual-Transformer Deep Learning Framework for Seasonal Forecasting of Great Lakes Water Levels	3:00
Break				3:20

TUESDAY, JUNE 3

	N204A	N205	N206A	N206B	N206C
	Response of Great Lakes Coastal Wetlands to Climate-Induced Changes in Hydrology <i>Chair: Patricia Chow-Fraser</i>	Charting the Future of Great Lakes Participatory Science <i>Chairs: Max Herzog, Gabrielle Parent-Doliner, Megan McLaughlin, Tori Agnew-Camiener</i>	Great Lakes Observing: Advances in Technologies and Applications <i>Chairs: Shelby Brunner, Timothy Calappi, Hayden Henderson, Andrea Vander Woude, Steve Ruberg</i>	Advancing Resilience through Bridging Knowledges and Indigenous-led Research <i>Chairs: Barbara Wall, Alex Duncan, Janessa Esquible, Mary-Claire Buell</i>	All Rivers, Great and Small: Riverine Loading of Nutrients and More into Large Lakes <i>Chairs: Douglas Kane, Nathan Manning, Colleen Cosgrove</i>
3:40	P. Chow-Fraser Validating the use of the Resilience Index to classify the ecological resilience of coastal marshes in Georgian Bay to climate-induced extremes in water-level fluctuations	L. Gunther Recruitment Strategies for Engaging Recreational Anglers and Indigenous Fishers in Great Lakes Water Quality Data Collection	C. Houghton Quantification of shoaling alewife in Lake Michigan's littoral zone	Closing ceremony	E. Minor A comparison of photochemical reactions in river plume vs non-plume water in western Lake Superior
4:00	J. Stevens Atypical pattern of water-level fluctuations affects fish species diversity and the dominant Lepomis species in Severn Sound coastal marshes.	S. McMurray Expanding the reach of water quality monitoring via participatory science	A. Gatch Into the deep: identifying spawning habitat of Bloater (<i>Coregonus hoyi</i>), a deepwater coregonine in Lake Michigan		A. Happel Insights into Chicago River Bluegill thanks to Acoustic Telemetry
4:20	M. Cooper Exploring Dynamic Hydrologic Connections Between Lake Superior and Apostle Islands Coastal Wetlands	A. Potts Assessing an Educational Approach to Mitigating Stormwater Debris Pollution in the Great Lakes Basin			
4:40	N. Agostini Relating macrophyte leaf trait variation to turbidity and nutrient concentrations in Great Lakes Coastal Marshes	C. Nenn Keeping Freshwater Fresh: 14 years of Community Based Road Salt Monitoring, Education, and Advocacy			

TUESDAY, JUNE 3

N207A	N208A	N208B	N208C	
Atmospheric Interactions with Large Lakes <i>Chairs: Abby Hutson, David Wright</i>		Advancing Ecosystem and Community Resilience to Oil Spills <i>Chairs: Kelsey Prihoda, Kenneth Lee, Aude Lochet, Jérôme Marty</i>	Advances in Hydroclimate Modeling and Data to Support Great Lakes Adaptive Management <i>Chairs: Deanna Fielder, Lauren Fry, Dani Jones, Frank Seglenieks, Scott Steinschneider, David Cannon</i>	
R. Kelly Objective Evaluation of Lake-Effect Zones in Climate Models		M. Sayers Uncrewed Detection of Submerged Oil Using UV Fluorometry	J. Olszewski Evaluation of a range of plausible future lake levels to inform the prioritization of coastal climate adaptation investments in the Great Lakes.	3:40
A. Hutson The Microphysics of Lake-effect Snow Events: Comparing Model Estimates with Observations of Snow Particles		V. Palace Expanding the Use of Oil Detection Canines (ODCs) to Detect Oils Submerged Under Freshwater	M. Najafi Changing Hydrometeorological Drivers of Floods in the Great Lakes Basin Under Future Climate Conditions	4:00
G. Luko Impact of Spatial Wind Variability on Shallow Lake's Temperature Dynamics			M. Raju Advancing Climate Projections with a Great Lakes Earth System Model	4:20
			E. Gnegy Charting Future Great Lakes Levels for Climate Resilience	4:40

TUESDAY, JUNE 3

	N204A	N205	N206A	N206B	N206C
	Response of Great Lakes Coastal Wetlands to Climate-Induced Changes in Hydrology <i>Chair: Patricia Chow-Fraser</i>	Charting the Future of Great Lakes Participatory Science <i>Chairs: Max Herzog, Gabrielle Parent-Doliner, Megan McLaughlin, Tori Agnew-Camiener</i>			
5:00	H. Nicklay Adapting to extremes: decadal plant community dynamics in a Lake Superior coastal wetland	N. Szklaruk Developing and Enhancing a Crayfish Monitoring Program for Great Lakes Educators			
5:20	M. Magee Assessing the sensitivity and resiliency of Lake Superior coastal wetland habitats to a changing climate	R. Gauthier Coastal Monitoring Initiatives by Riparians Along Lakes Michigan-Huron			
5:40	W. Bickford A decision support and prioritization framework for invasive plant management under fluctuating lake levels				
6:00	Poster Session N204B/N204C				
8:00	All Too Clear: Film Screening and Panel, Rooftop Ballroom or Student Social, Beer Garden at Central Waters Brewing Co.				

TUESDAY, JUNE 3

N207A	N208A	N208B	N208C	
			Advances in Hydroclimate Modeling and Data to Support Great Lakes Adaptive Management <i>Chairs: Deanna Fielder, Lauren Fry, Dani Jones, Frank Seglenieks, Scott Steinschneider, David Cannon</i>	
			S. Mukhopadhyay A Stochastic Weather Generator-informed Static Lake Level development to support climate adaptation and infrastructure design along the shorelines of the Laurentian Great Lakes	5:00
			M. Owensby A Summary of Storm Surge and Wave Hazards Modeling and Statistics Within the Framework for Resilient Great Lakes Restoration Initiative (GLRI) Investments Study	5:20
			M. Sigler Creating New Aquifer Property Estimates to Improve Michigan's Water Withdrawal Assessment Tool (WWAT)	5:40
Poster Session N204B/N204C				6:00
All Too Clear: Film Screening and Panel, Rooftop Ballroom or Student Social, Beer Garden at Central Waters Brewing Co.				8:00

WEDNESDAY, JUNE 4

	N204A	N205	N206A	N206B	N206C
	Well-Rounded Portfolios: Intraspecific Variation Promotes Ecosystem Resiliency <i>Chairs: Peter Euclide, Max Moran, Amanda Ackiss</i>	The Importance of Ecological Knowledge in Great Lakes Research <i>Chairs: Yolanda López-Maldonado, Merrie Beth Neely, Jérôme Marty, Anham Salyani, Matthew Dellinger, Marc Habash</i>	Agricultural Water Use and Water Efficiency in a Time of Climate Change <i>Chairs: Peter Johnson, Shaili Pfeiffer</i>	Fish & Fisheries <i>Chair: Jacques Rinchard</i>	2023 Lake Ontario Cooperative Science and Monitoring Initiative (CSMI) <i>Chairs: Stacy Furgal, Paris Collingsworth, David Depew, Daniel Gurdak</i>
8:00	H. Nyaboke Ecological drivers of fish communities in a Great Lake: Insights into Diversity, Distribution, and Fisheries Management in Lake Victoria	I. Stone Lessons learned from relationship building and listening to rights-holders in the Great Lakes basin		S. Shaban The Status of Haplochromine Species of Lake Victoria, Tanzania	A. Gatch Identifying Lake Trout spawning sites using a whole-lake acoustic telemetry array in Lake Ontario
8:20	A. Ackiss Exploring genetic diversity in historic Lake Michigan Cisco (<i>Coregonus artedii</i>) populations	D. Martin-Hill Working with Indigenous ecological knowledge to develop a Haudenosaunee Science Guide	W. Dougherty Understanding Wisconsin's Water Use - Trends and Insights	J. Rinchard Challenges in Lake Trout Restoration: Insights from the Great Lakes Thiamine Monitoring Program	S. Furgal Overview of the 2023 Lake Ontario CSMI activities
8:40	F. Goetz Assessing heritable phenotypic variation in lake charr ecomorphs of Lake Superior	E. Giese Oneida Bird Monitoring Program: Connecting Community Science, Oneida Knowledge, and Management	P. Johnson Setting Stage--The Importance of Agricultural Water Use and Efficiency	D. Monhollon Abiotic correlates to fine-scale spawning site selection by lake whitefish: Evidence from high-resolution acoustic telemetry	M. Munawar Phytoplankton biomass, composition and primary productivity in Lake Ontario, 2023: lake-wide vs. frequently-sampled transect data
9:00		S. Seneca Imagining the Future From Fish to The Dish	G. Chigamba Development of a Malawi Blue Economy Strategy	K. King Comparing habitat suitability models for historical and contemporary periods to evaluate areas for conservation and restoration of <i>Coregonus artedii</i> in Lake Ontario	E. Brahmstedt Sources of bioavailable mercury along the southern shoreline of Lake Ontario
9:20	Break				

WEDNESDAY, JUNE 4

N207A	N208A	N208B	N208C	
Tracking Human Health Consequences of Climate Change in the Great Lakes <i>Chairs: Seth Foldy, Raj Bejankiwar</i>	Turning Research into Hands-On Learning Experiences <i>Chairs: Kristin TePas, Nate Drag, Ginny Carlton, Kelsey Pihoda</i>	Advancing Ecosystem and Community Resilience to Oil Spills <i>Chairs: Kelsey Pihoda, Kenneth Lee, Aude Lochet, Jérôme Marty</i>	Advances in Hydroclimate Modeling and Data to Support Great Lakes Adaptive Management <i>Chairs: Deanna Fielder, Lauren Fry, Dani Jones, Frank Seglenieks, Scott Steinschneider, David Cannon</i>	
S. Foldy Tracking human health consequences of climate effects on the Great Lakes aquatic environment	I. Paulsen Crayfish in the Classroom: Learning Without Invading	F. Rashid Hydrodynamic Modeling and Environmental Risk Assessment of Oil Spills in Lakes Huron and Michigan	A. Hakim Lake Superior Compensating Works Operation and Potential Adaptation for Changing Hydroclimatic Conditions	8:00
J. Ashby CRASID: A new community-based tool for risk, resilience, and evacuation planning	N. Drag Microplastics, Robots, and Classrooms: a partnership between researchers, teachers, and a bio-inspired microplastic collecting robot called MOLLUSCA	A. Davenport Great Lakes Oil Spill Response Capabilities Evaluation	H. Petzold Operational hydrological forecasting in the Lake Ontario-St. Lawrence River Basin	8:20
A. Mark Evaluating Climate Change, COVID-19 and Inflation Impacts on Foodbank Efficacy of Client Service	K. Stoss Community Action for Stormwater Clean-up and Debris Elimination (CASCADE) in Western New York	H. Bi Exploration of green responsive separation techniques for the treatment of washing effluents	N. Shrestha Climate Change Impact Analysis of the Great Lakes, Ottawa River and Lower St. Lawrence River using High-Resolution Future Climate Data	8:40
Panel: A Great Lakes Climate-Health Monitoring System: Opportunities and Obstacles	M. Ghosh Lake Ontario MicroPlastic Center: a data-driven approach to community engagement in the Great Lakes	V. Palace Canadian Great Lakes Shoreline-Oil Spill Response Viability Analysis (S-OSRVA) Decision Support Tool	F. Seglenieks Recent progress and future plans of the GLAM hydroclimate team	9:00
Break				9:20

WEDNESDAY, JUNE 4

	N204A	N205	N206A	N206B	N206C
	Well-Rounded Portfolios: Intraspecific Variation Promotes Ecosystem Resiliency <i>Chairs: Peter Euclide, Max Moran, Amanda Ackiss</i>	The Importance of Ecological Knowledge in Great Lakes Research <i>Chairs: Yolanda López-Maldonado, Merrie Beth Neely, Jérôme Marty, Anham Salyani, Matthew Dellinger, Marc Habash</i>	Agricultural Water Use and Water Efficiency in a Time of Climate Change <i>Chairs: Peter Johnson, Shaili Pfeiffer</i>	Fish & Fisheries <i>Chair: Jacques Rinchar</i>	2023 Lake Ontario Cooperative Science and Monitoring Initiative (CSMI) <i>Chairs: Stacy Furgal, Paris Collingsworth, David Depew, Daniel Gurdak</i>
9:40	P. Euclide Using adaptive genetic variation to conduct genetic stock identification in Lake Erie	J. Dellinger Digital sovereignty: Using AI learning tools to promote traditional knowledge	J. Polidori Assessing Agricultural Water Use Trends in the Great Lakes Basin Under Changing Climate Conditions	J. Egan An assessment of threats to Lake Erie Cisco (<i>Coregonus artedii</i>) restoration	A. Kowalczyk Daily Estimates of Productivity in Two Lake Ontario Embayments
10:00	M. Moran Ecomorphological Diversity of Lake Charr (<i>Salvelinus namaycush</i>) Morphology and Visual Sensory System	C. Zuccarino-Crowe Wild Rice Resilience - Recent collaborative efforts in the Great Lakes	S. Zamaria Using irrigation scheduling models to assess the impact of different irrigation practices on water balance and water quantity under normal and drought conditions in the Lake Erie Basin	P. Flood Using the past to inform the future of bloater restoration in Lake Ontario	J. Trevino The 2023 Lake Ontario Nearshore Nutrient Survey: Biological, organic, and inorganic results from the shoreline
10:20	M. Pauers Variation of Labeotrophs felleborni and L. trevassae at their type localities	J. Wanke Effects of Water and Competition Stress on the Growth of Two Wild Rice (Manoomin) Varieties			
10:40	T. Bernos Widespread admixture blurs population structure and compounds Lake Trout (<i>Salvelinus namaycush</i>) conservation even in the genomic era	J. Place Predicting the Presence, Abundance, and Growth of Southern Wild Rice (<i>Zizania aquatica</i>) in Western Michigan			
11:00	Openings & Presentation of Student Awards Rooftop Ballroom				
11:30	Plenary by Dr. Susan Chiblow Rooftop Ballroom				
12:30	Lunch (on your own) / Field Trips / Workshops				
5:30	Social: Share how you benefit the Great Lakes , Beer Garden at Central Waters Brewing Co.				

WEDNESDAY, JUNE 4

N207A	N208A	N208B	N208C	
What Ten Years Has Shown Us: The 2014 Lake Erie Harmful Algae Blooms and Drinking Water Crisis <i>Chair: Patrick Lawrence</i>	Turning Research into Hands-On Learning Experiences <i>Chairs: Kristin TePas, Nate Drag, Ginny Carlton, Kelsey Prihoda</i>	Advancing Ecosystem and Community Resilience to Oil Spills <i>Chairs: Kelsey Prihoda, Kenneth Lee, Aude Locket, Jérôme Marty</i>	Advances in Hydroclimate Modeling and Data to Support Great Lakes Adaptive Management <i>Chairs: Deanna Fielder, Lauren Fry, Dani Jones, Frank Seglenieks, Scott Steinschneider, David Cannon</i>	
P. Lawrence What Ten Years has shown Us: The 2014 Lake Erie Harmful Algae Blooms and Drinking Water Crisis: Introduction and Overview	S. Dege Practical Great Lakes Science: Turning Research Into Student Learning Opportunities	B. Liu Behavior and Predicted Ecotoxicity of Marine Diesel in Freshwater Environments	W. Werick What GLAM needs from Climate Research	9:40
K. Panozzo Supporting Nutrient Modeling with High-Resolution Mapping of Agricultural Practices in the Maumee Watershed	K. Prihoda From Locks to Lakes: Bringing Great Lakes Shipping to the Classroom	L. Isaacman Advancing Indigenous Engagement in Oil Spill Response Research	Panel/Discussion: Integrating hydroclimate research into Great Lakes adaptive management: challenges and opportunities	10:00
M. Siddiquee Machine Learning with Omics Data: A Novel Approach for Early Warning of CyanoHABs	G. Carlton Coastal Engineering Education: People, Place and Practice			10:20
U. Kober Sustained and Targeted Algaecide Release for Early Control of Harmful Algal Blooms via Hydrogel-Functionalized Buoys	P. Gerrard Thinking Big: Inspiring the Next Generation of Whole Ecosystem Scientists			10:40
Openings & Presentation of Student Awards Rooftop Ballroom				11:00
Plenary by Dr. Susan Chiblow Rooftop Ballroom				11:30
Lunch (on your own) / Field Trips / Workshops				12:30
Social: Share how you benefit the Great Lakes , Beer Garden at Central Waters Brewing Co.				5:30

THURSDAY, JUNE 5

	N204A	N205	N206A	N206B	N206C
	Great Lakes Harmful Algal Bloom Resilience Through Informed Science, Policy, and Management <i>Chairs: Ryan J. Sorichetti, Mary Anne Evans, Nicole Zacharda, Jenan Kharbush</i>	General Contributions <i>Chairs: Harvey Bootsma, Mary Kishe</i>	Wetland Connectivity Impacts on Water Quality Across Great Lakes Watersheds <i>Chairs: Kenneth Anderson, Michael Back, Olivia Schloegel, Lauren Brown</i>	Fate and Transport of Microplastics, PFAS, and other Emerging Contaminant <i>Chairs: Laodong Guo, John Lenhart, Elizabeth Minor</i>	Working Toward Climate-Resilient Fisheries in the Laurentian Great Lakes <i>Chairs: Les Warren, Spencer Gardner, Joseph Langan, Riley Ravary, Peter Alsip, Meena Raju</i>
8:00		L. Parry-Gillis Diverse Waters: How Location and Fishing Method Help Define Wisconsin's Angler Diversity			
8:20		H. Ferris People, Place & Critical Partnerships: Native Prairie Plants as Superheroes Beyond Water Quality	H. Esber Wetland Waters in Motion: Remote Sensing Approach to Flooding Dynamics and Surface Water Variability	C. Remucal Trends in PFAS Concentrations and Distribution in Wet Deposition near Lake Superior	J. Langan The NOAA Climate, Ecosystems, and Fisheries Initiative: Collaborative Opportunities in Pursuit of Climate-Ready Fisheries
8:40	J. Bratton A quick synthesis of harmful algal bloom knowledge in the Great Lakes	J. Ives Benefits and challenges of transboundary science - exploring the value of of interactive IAGLR sessions	M. Miller Mapping wetlands, wetland change, and hydrological connectivity in the Laurentian Great Lakes for Coastal Resiliency	A. Frie Atmospheric Deposition of Per- and Polyfluoroalkyl Substances (PFAS): Connecting PFAS in Precipitation to PFAS in Lake Sediments	L. Xu Seasonal and Spatial Warming Trends in Lake Erie: Impacts on Yellow Perch Optimal Thermal Habitats
9:00	A. Bramburger Beyond nutrients: The role of community and perturbation dynamics in harmful algal bloom ecology.	M. Dusabe Coexistence and Sustainability in the African Great Lakes Fisheries of Victoria and Albert, East Africa.	S. Abolmaali Nutrients pathway and exchange to Great Lake Huron Coastal Wetlands	O. Stefaniak PFAS occurrence and potential biological implications in Lake Michigan tributaries near Milwaukee, WI	J. Janssen Novel Deepwater Clay Habitats
9:20	Break				

THURSDAY, JUNE 5

N207A	N208A	N208B	N208C	
Empowering Next Generation Leaders to Meet Transdisciplinary Water Challenges <i>Chair: Nancy Goucher</i>	Spatial and Temporal Variability in Plankton and Benthic Communities <i>Chairs: James Watkins, Nik Barulin, Lyubov Burlakova, Lars Rudstam</i>	Microbiology of Earth's Large Lakes <i>Chairs: Cody Sheik, Ryan Newton</i>	Physical Processes in Lakes <i>Chairs: David Cannon, Shuqi Lin, Yi Hong, Hazem Abdelhady</i>	
M. Freeland Manaaji'endamang Ezhi-naanaagadawendamang Aki / Honoring Ojibwe Earth Science: Enriching P-12 STEM Education Through Ojibwe Language	H. Niblock Bottom up and top down influences on the Plankton of Hamilton Harbour	M. Hernández Limón Physical controls on prokaryotic communities in the Laurentian Great Lakes and implications for a warming climate	M. Mattwig Demonstrating the Next-Generation Great Lakes Operational Forecasting System (GLOFS)	8:00
M. Shriberg Great Lakes Leadership Education & Training through Cohort-Based Masters Projects	M. Lightfoot Assessing the Relationship Between Algal Composition and Benthic Communities in Lake Michigan	M. Coleman Winter Microbial Assemblages Across the Laurentian Great Lakes	D. Cannon Fully-coupled two-way ice-wave interactions in the Great Lakes using unstructured-grid FVCOM-CICE-SWAN model	8:20
J. Hauxwell Adaptable University-Agency Early-Career Fellowship Program Creates a Win-Win-Win for Wisconsin's Waters	C. Marshall Long-Term Rotifer Populations in the Great Lakes: Patterns, Drivers, and Ecological Implications	A. Mughal Biogeography of Sediment and Fish Gut Microbiomes in the Great Lakes	M. Sahvelet Towards Faithful Numerical Simulations of Wave Interactions with Offshore Breakwaters for Great Lakes Coastal Protection	8:40
C. Johns Applied, Policy-focused, Next Generation Research: The Bruce Fellowships in Canadian Freshwater Policy	L. Burlakova The disappearance of benthic nepheloid layer in the Laurentian Great Lakes invaded by dreissenids	M. Schmidt The interplay between hydrodynamics and ecological processes in tuning Lake Ontario's microbial communities	J. Bricker Development of a probabilistic compound flood hazard assessment tool for Milwaukee, WI and Berrien County, MI	9:00
Break				9:20

THURSDAY, JUNE 5

	N204A	N205	N206A	N206B	N206C
	Great Lakes Harmful Algal Bloom Resilience Through Informed Science, Policy, and Management <i>Chairs: Ryan Sorichetti, Mary Anne Evans, Nicole Zacharda, Jenan Kharbush</i>	General Contributions <i>Chairs: Harvey Bootsma, Mary Kishe</i>	Wetland Connectivity Impacts on Water Quality Across Great Lakes Watersheds <i>Chairs: Kenneth Anderson, Michael Back, Olivia Schloegel, Lauren Brown</i>	Fate and Transport of Microplastics, PFAS, and other Emerging Contaminant <i>Chairs: Laodong Guo, John Lenhart, Elizabeth Minor</i>	Working Toward Climate-Resilient Fisheries in the Laurentian Great Lakes <i>Chairs: Les Warren, Spencer Gardner, Joseph Langan, Riley Ravary, Peter Alsip, Meena Raju</i>
9:40	M. McCarthy Phosphate and ammonium releases from Maumee River sediments	R. Dushimimana Gender roles in Riverine Fisheries: Insights from the Upper Victoria Nile, Uganda	J. Cianci-Gaskill Nutrient limitation in wetland phytoplankton: Is nitrogen limitation more common than previously thought?	A. Ruthenbeck An Initial Microplastic Budget for Lake Superior	B. Tillotson Assessing Projected Riverine and Lakeshore Heatwaves: Examining Rates of Change and Ecological Consequences
10:00	J. Chaffin Tracking microcystin production rates in western Lake Erie	S. Manduwa Developing eDNA-based Strategies for the Monitoring of Lake Malawi Fish Species	M. Back Sediment nutrient retention across varying hydrologic conditions at Old Woman Creek-NERR	M. Jamison Nanoplastics in Lake Erie Sourced Drinking Water	D. Bunnell A novel method to inform source population decisions for reintroduction efforts
10:20	A. Shakoor Using Hydroacoustics to Analyze Microcystis and Fish Distribution During Harmful Algal Blooms in Lake Erie	E. Nininahazwe Substitution of fish meal by snail meal (<i>Achatina fulica</i>) in fish feed in Burundi	K. Anderson We know less about phosphorus retention in constructed wetlands than we think we do	S. Kteeba Impacts of Leaching Methods on the Chemical Properties of Dissolved Organic Matter released from PVC Microplastics	E. Anderson Assessment of Habitat Suitability in Maumee and Sandusky Rivers for Sauger (<i>Sander canadensis</i>) Reintroduction
10:40	E. Reavie HABs in the St. Louis River Estuary: integrating new understanding into a long-term monitoring program	T. Temenu Silicon use in freshwater ecosystems, from diatoms to cyanobacteria	D. Kelsey Will soil phosphorus storage capacity (SPSC) hold up? Comparing SPSC predictions over time.	O. Sadik Atmospheric Behavior of Organophosphate Esters in Urban, Rural and Remote Great Lakes Locations	M. Kindler Reviving a Lake Erie Icon: Tracking Reintroduced Lake Sturgeon in Western Lake Erie
11:00	Openings & Presentation of Journal Awards Rooftop Ballroom				
11:30	Plenary by Dr. Ismael Kimerei Rooftop Ballroom				
12:30	Lunch (on your own) / Workshop on Publishing in Peer-Reviewed Journals N207A				

THURSDAY, JUNE 5

N207A	N208A	N208B	N208C	
Empowering Next Generation Leaders to Meet Transdisciplinary Water Challenges <i>Chair: Nancy Goucher</i>	Spatial and Temporal Variability in Plankton and Benthic Communities <i>Chairs: James Watkins, Nik Barulin, Lyubov Burlakova, Lars Rudstam</i>	Microbiology of Earth's Large Lakes <i>Chairs: Cody Sheik, Ryan Newton</i>	Physical Processes in Lakes <i>Chairs: David Cannon, Shuqi Lin, Yi Hong, Hazem Abdelhady</i>	
T. Lawrence Strengthening tropical freshwater training: The need and plan for an African-based education program	C. Aguilar Distribution of Phytoplankton in Response to Human-induced Nutrient Perturbations Milwaukee Harbor and Coastal Lake Michigan.	A. Pendleton Unraveling the Ripple Effects of Cyanobacterial Blooms on Microbial Communities Across Lake Erie	A. Kheiri Mazraeh Nested hydrodynamic and sediment transport modeling for sustainable fisheries management in the Great Lakes	9:40
D. Umutoni Bridging Waters, Building Futures: Women, Science, and the African Great Lakes	J. Connolly Meiobenthic Copepod (Harpacticoida) survey of Lake Erie with basin wide analyses of community composition	M. Fitzpatrick Phytoplankton and Bacterial Primary Productivity across a trophic gradient in Lake Erie	L. Zhu Impact of Harbor Jetties on Sediment Transport and Budget During Storm Events	10:00
	S. Lawhun Disappearing Shrimp? Ponars confirm Mysis decline in Lake Michigan, benthic videos assess bottom behavior	C. Weisener Connecting western Lake Ontario watershed nutrient dynamics, source identification and ecological function using advanced genomics	Y. Deng Integrating Remote Sensing and Machine Learning for Lake Water Quality Management: A Comprehensive Review	10:20
	S. Peterson Crustacean zooplankton trends in nearshore waters of southwestern Lake Michigan, 1999 - 2021	S. Mueller-Spitz Rare Taxa of Lake Superior Periphyton Microbial Community under Threat by an Invasive Diatom	J. Austin A diversity of winter stratification across the Laurentian Great Lakes	10:40
Openings & Presentation of Journal Awards Rooftop Ballroom				11:00
Plenary by Dr. Ismael Kimerei Rooftop Ballroom				11:30
Lunch (on your own) / Workshop on Publishing in Peer-Reviewed Journals N207A				12:30

THURSDAY, JUNE 5

	204A	N205	N206A	N206B	N206C
	Great Lakes Harmful Algal Bloom Resilience Through Informed Science, Policy, and Management <i>Chairs: Ryan Sorichetti, Mary Anne Evans, Nicole Zacharda, Jenan Kharbush</i>	General Contributions <i>Chairs: Harvey Bootsma, Mary Kische</i>	Wetland Connectivity Impacts on Water Quality Across Great Lakes Watersheds <i>Chairs: Kenneth Anderson, Michael Back, Olivia Schloegel, Lauren Brown</i>	Fate and Transport of Microplastics, PFAS, and other Emerging Contaminant <i>Chairs: Laodong Guo, John Lenhart, Elizabeth Minor</i>	Working Toward Climate-Resilient Fisheries in the Laurentian Great Lakes <i>Chairs: Les Warren, Spencer Gardner, Joseph Langan, Riley Ravary, Peter Alsip, Meena Raju</i>
1:40	C. Sheik Are Dolichospermum blooms in Lake Superior strain dependent?	B. Mongane Evaluation of the method of preservation of <i>Limnothrissa miodon</i> fish caught in Lake Kivu/DRC: Biochemical, nutritional and micro-biological aspect	L. Kinsman-Costello Evaluating Nutrient Function of Wetland Restoration Projects: The H2Ohio Wetland Monitoring Program, Ohio, USA	R. Eifert Assessing PFAS in the Lake Michigan food web along the Wisconsin Coastline	T. Kisekelwa Insight into Lake Kivu' fish extinction: need for establishing a baseline of the fish community using classical and eDNA approaches
2:00	H. Olds Characterization and real-time detection of algal blooms along the Lake Winnebago-Fox River-Green Bay continuum	A. Javed Designing an Adaptive Modelling-Management-Monitoring Framework in the Bay of Quinte, Lake Ontario, Canada	H. Hoehn 2023 Nutrient Concentration and Load Reductions Associated with Burntwood-Langenkamp Restored Wetland in Grand Lake Watershed (Ohio)	M. Pronschinske Partitioning of PFAS within Compartments of the Aquatic Environment in Great Lakes Watersheds	A. Hill Investigating Lake Wide Distribution and Growth Rates of Larval Alewife in Lake Michigan
2:20	G. Boyer Harmful Algal Blooms in Lake Ontario - a 20 year review	R. Saha Exploring the implication of food production systems on greenhouse gas emissions in Lake Erie regions of Ontario, Canada	S. Newell Assessing nutrient load reduction in an H2Ohio constructed wetland: A case study from Brooks Park at Buckeye Lake	C. Xia Revisiting trifluoroacetic acid (TFA) in Great Lakes aquatic ecosystem	A. Koeberle Understanding ecosystem impacts of Cisco restoration: Analysis of food web structures in Lake Ontario
2:40	E. MacNeill Temporal Changes in Phytoplankton Communities in Lake Huron: Insights from Watershed Influences	K. Nawanzi Contamination of Selected Heavy Metals in <i>Limnothrissa miodon</i> (Boulenger, 1906) in the Four Strata of Lake Kariba, Zambia: Are the Consumers at Risk?	L. Brown Nutrient Capture by Vegetative Species within Wetland Restorations	N. Kuria Tracking Per- and Polyfluoroalkyl Substances (PFAS) in Fish: a Community-Based Approach to Understanding PFAS Contamination in Traditional Food Sources	D. Turney Oxythermal habitat conditions of Indiana cisco in southern limits of distribution
3:00	M. Siddiquee Microbial Biomarker-Based Early Warning of CyanoHABs: an Implication towards Safe Drinking Water and Water Security	M. Kische Paradoxes and Pathways: Science-Based Solutions for Sustainable Fisheries in Lake Victoria	W. Midden Temporal Dynamics of Phosphorus and Nitrogen In Soil of GIW, FINFO, and Floodplain Wetland Pools	W. Zhang Partitioning of PFAS between dissolved and colloidal phases in freshwater environments	B. Gerig Intraspecific variation in stable isotopes provides insight into adfluvial migrations and ecology of brook trout in Lake Superior tributaries
3:20	Break				

THURSDAY, JUNE 5

N207A	N208A	N208B	N208C	
Plastic Debris in the Great Lakes: Advancements, Gaps, and Paths Forward <i>Chairs: Haley Dalian, Brittany Welsh, Madelyne Cosme</i>	Spatial and Temporal Variability in Plankton and Benthic Communities <i>Chairs: James Watkins, Nik Barulin, Lyubov Burlakova, Lars Rudstam</i>	Ecological Modeling and Physical-Biological Interactions in Large Lakes and Their Watersheds <i>Chairs: Mark Rowe, Valipour Reza, Casey Godwin, Josef Ackerman, Alain Isabwe</i>	Physical Processes in Lakes <i>Chairs: David Cannon, Shuqi Lin, Yi Hong, Hazem Abdelhady</i>	
	E. Alexson Protozoa in the Laurentian Great Lakes; a look at two years	A. Isabwe Predicting microcystin in western Lake Erie using abiotic parameters: model accuracy and power improvement with individual and joint addition of chlorophyll and phycocyanin	S. Memari Uncovering the Impact of Groundwater on Ice Processes in the Great Lakes	1:40
M. Hoffman Input, Transport, Storage, and Transformation of Plastic Debris in the Watershed of the Rochester Embayment	K. Kovalenko Unraveling Phytoplankton Interactions: Insights from Network Co-Occurrence Analysis in the Great Lakes	S. Bocaniov New phosphorus budget for lake Erie implies major input from coastal erosion	A. Fujisaki-Manome Improving winter thermal structure modeling in large freshwater lakes	2:00
J. Kucharek Targeted Interception of Stormwater Debris in Monroe County, NY	A. Karatayev Benthos of Laurentian Great Lakes: Past, present, and a look into the future	T. Redder Long-Term Water Column and Sediment Simulations using 3-Dimensional Lake Erie Ecosystem Model (LEEM)	S. Török Changes in the thermal structure of a shallow lake until the end of the century	2:20
D. De Silva The Implications of Macroplastic Abundances and Types in Stormwater Ponds	N. Barulin Comparing Traditional and Video Methods for Dreissena Long-term Monitoring in Lakes Ontario and Erie	R. Valipour High-Resolution modelling of mussel-driven nutrient recycling and Cladophora growth in Lake Erie	H. Abdelhady Historical Climate Change Impact on Extreme Temperatures in the Great Lakes	2:40
G. Kleinheinz A regional approach to marine debris interception and removal in northern Lake Michigan	R. Cuhe Winter SW Lake Michigan Profiling Provides Endpoints for Fundamental Ecosystem Characteristics 1998-Present	M. Rowe Processes Controlling Harmful Algal Bloom Formation in Two Models Supporting Lake Erie Nutrient Adaptive Management	S. Jaffe Great Lakes Ice Phenology is Changing	3:00
Break				3:20

THURSDAY, JUNE 5

	N204A	N205	N206A	N206B	N206C
	Great Lakes Harmful Algal Bloom Resilience Through Informed Science, Policy, and Management <i>Chairs: Ryan Sorichetti, Mary Anne Evans, Nicole Zacharda, Jenan Kharbush</i>	Leveraging Nature-Based Solutions for Strengthening Great Lakes Resilience <i>Chairs: Jérôme Marty, Scott Parker</i>	Genetic Control in the Great Lakes: The Future of Sea Lamprey Control <i>Chairs: Noah Gauthier, Margaret Docker, Jill Furgurson</i>	Fate and Transport of Microplastics, PFAS, and other Emerging Contaminant <i>Chairs: Laodong Guo, John Lenhart, Elizabeth Minor</i>	Working Toward Climate-Resilient Fisheries in the Laurentian Great Lakes <i>Chairs: Les Warren, Spencer Gardner, Joseph Langan, Riley Ravary, Peter Alsip, Meena Raju</i>
3:40	J. Ludwig Unusual mortalities of waterbirds on a western Lake Erie basin island: are HABs involved?	A. Vincent Understanding the role of urban green spaces in mitigating climate change across an urban landscape	M. Docker Overview of the Great Lakes Fishery Commission Sea Lamprey Genetic Control Theme	E. Shapiro Scale-up of β -cyclodextrin Polymer Adsorbents: Predicting Pilot-Scale Performance from Laboratory Data	Panel: Discussing Great Lakes Fisheries Needs for a Climate-Resilient Future in Great Lakes Fisheries
4:00		M. Danz Rapid Assessment of Green Infrastructure to Inform Future Implementation in Great Lakes States	N. Gauthier The Divided Governance Problem: Sea Lamprey and Genetic Control	L. Guo Variations of PFAS in Milwaukee estuary sediments: insights into contamination history and sources	
4:20		Z. Kuntze Enhancing Great Lakes coastal resiliency through local capacity building and nature-based solutions	J. Furgurson Bridging Knowledges to Learn from Tribal Perspectives on Genetic Biocontrol in the Great Lakes		
4:40		T. Denbow Sandusky Bay Restoration Initiative Landscape Scale Restoration For Water Quality Improvementlity	S. Brunner Estimating the number of spawning sea lamprey (<i>Petromyzon marinus</i>) using genetic pedigree reconstruction		

THURSDAY, JUNE 5

N207A	N208A	N208B	N208C	
Plastic Debris in the Great Lakes: Advancements, Gaps, and Paths Forward <i>Chairs: Haley Dalian, Brittany Welsh, Madelyne Cosme</i>	Spatial and Temporal Variability in Plankton and Benthic Communities <i>Chairs: James Watkins, Nik Barulin, Lyubov Burlakova, Lars Rudstam</i>	Ecological Modeling and Physical-Biological Interactions in Large Lakes and Their Watersheds <i>Chairs: Mark Rowe, Valipour Reza, Casey Godwin, Josef Ackerman, Alain Isabwe</i>	Physical Processes in Lakes <i>Chairs: David Cannon, Shuqi Lin, Yi Hong, Hazem Abdelhady</i>	
N. Minda Urban Land-Use Influences Atmospherically Deposited Microplastics and Anthropogenic Particles.	L. Denecke Shift in chironomid community assemblages of Lake Huron 2017-2022	J. Ackerman Estimating algal biovolume using imaging flow cytometry	E. Safarov Decreasing Caspian Sea level under changing climate	3:40
M. Jagodkin Environmentally Relevant Concentrations of Paint Microplastics Have Significant Adverse Effects on Tubifex tubifex	J. Watkins Metabarcoding as a zooplankton monitoring tool in the Great Lakes	Q. Liu Ten-year Hindcast Assessment of a Probabilistic Forecast System for Microcystins Risk Level in Lake Erie	E. Yang 20 years of hypolimnetic dissolved oxygen trends in the central basin of Lake Erie	4:00
A. Thomas Matrix Issues and Instrumental Difficulties in the Identification of Microplastics	K. Nasworthy Dark Habitat May Limit Mysid Abundance in the Great Lakes	D. Pan Dissolved Oxygen Forecasting for Lake Erie's Central Basin Using Hybrid Long Short-Term Memory and Gated Recurrent Unit Networks	P. Torma Sudden seasonal turnovers and circulation patterns in a large geothermal lake in Europe	4:20
D. Ssempijja An Assessment of Legislative, Regulatory and Policy Gaps in the Management of Abandoned, Lost, and Otherwise Discarded Fishing Gear in Lake Victoria, East Africa		F. Yuan A multi-dataset analysis on the vertical dynamics of hypoxia in the central basin of Lake Erie	N. Pham Seasonality of river inflow dynamics enhances stratification and thermal stability of large, shallow run-of-a-river reservoir	4:40

THURSDAY, JUNE 5

	N204A	N205	N206A	N206B	N206C
		Leveraging Nature-Based Solutions for Strengthening Great Lakes Resilience <i>Chairs: Jérôme Marty, Scott Parker</i>	Genetic Control in the Great Lakes: The Future of Sea Lamprey Control <i>Chairs: Noah Gauthier, Margaret Docker, Jill Furgurson</i>		
5:00		M. Ward Great Lakes coastal wetland biodiversity increases following treatment of invasive <i>Phragmites australis</i> at Point Pelee National Park	S. Good Identifying targets for genetic control of sea lamprey: the search begins		
5:20		J. Marty Reassessing Carbon Dynamics in the Laurentian Great Lakes: The Overlooked Role of Invasive Mussels in Carbon Sequestration			
5:40		E. Ogello Climate-Resilient Fisheries Management Options for a Tropical Desert Lake: Insights from Lake Turkana, Kenya			
6:00	Banquet & Presentation of Awards IAGLR Lifetime Achievement Award, Vallentyne Award, Large Lake Champion Awards & Anderson-Everett Award Featuring the band Cold Soda Club Rooftop Ballroom				

THURSDAY, JUNE 5

N207A	N208A	N208B	N208C	
Plastic Debris in the Great Lakes: Advancements, Gaps, and Paths Forward <i>Chairs: Haley Dalian, Brittany Welsh, Madelyne Cosme</i>				
Great Lakes Plastic Debris Panel: Learnings and Lessons Moving Forward				5:00
				5:20
				5:40
Banquet & Presentation of Awards IAGLR Lifetime Achievement Award, Vallentyne Award, Large Lake Champion Awards & Anderson-Everett Award Featuring the band Cold Soda Club Rooftop Ballroom				6:00

FRIDAY, JUNE 6

	N204A	N205	N206A	N206B
	Invasive Species Research and Communication <i>Chairs: Rochelle Sturtevant, Connor Shelly, El Lower</i>	Managing Great Lakes Shorelines: Access, Resilience, and Conservation <i>Chairs: Melissa Scanlan, Cora Sutherland, Emma Ehrlich</i>	Freshwater Salinization in the Great Lakes: Exploring the Effects on Water Quality and Biota <i>Chairs: Donna R Kashian, Héctor Esparra-Escalera, Margaret R Menso</i>	High-Frequency Water Level Fluctuations Induced Coastal Hazards: Observation, Prediction, and Outreach <i>Chairs: Chin Wu, Eric Anderson, Guy Meadows, Megan Dodson</i>
8:00				S. Brunner Building Capacity to Support Coastal Hazard Observation and Prediction
8:20	J. Berges Composition of invasive mysids (<i>Hemimysis anomala</i>) in Milwaukee Harbor breakwalls: foodweb implications	C. Sutherland Shoreline Armoring Emergency Procedures in U.S. Great Lakes States & Wisconsin Qualitative Case Study	N. Buer Chloride Attenuation in Green Infrastructure and Implications for Receiving Waters in Urban Environments	B. Dukeshner The Role of High-Frequency Water Level Fluctuations in Dangerous Nearshore Currents
8:40	S. Daniel Invasive Oligochaetes: Underreported and Understudied Invaders in the Great Lakes	E. Theuerkauf Monitoring and Research Along Great Lakes Coasts to Inform Resilience Planning	D. Kincaid Trends and drivers of chloride loading in 24 U.S. Great Lakes tributaries for 2011-2023	M. Dodson A History of Current-Related Incidents on the Great Lakes
9:00	L. Chitnapenta Microbiome Analysis of native and non-native Phragmites	R. Norton Planning, Policy, and Legal Challenges in Managing Great Lakes Coastal Shorelands	M. Menso The interactive effects of nitrate and road salt on benthic algal assemblages in artificial streams	A. Bechle A Review of Historic Meteotsunamis on the Great Lakes
9:20	C. Hayer An evaluation of sample collection protocols to maximize environmental DNA metabarcoding detection sensitivity in a large river system	E. Ehrlich Open to the Public: Legal Protections for Public Access on Shifting Shorelines	A. Benedict Salt type and exposure history alter the sub-lethal mechanisms behind salt-induced cascading effects	E. Anderson The Importance of Forecasting High-Frequency Water Level Fluctuation Events for Hazards and Beyond
9:40	S. Carlton What can we learn from decades of AIS social science surveys?	R. Nordstrom Coastal, Climate and Community Resilience in a Built Environment-What Milwaukee Shows Us	Z. MacFarlane Any Port in a Storm: The Impacts of Increasing Salinity on Freshwater Pond Amphibian Communities	C. Wu A recent meteotsunami event in Lake Michigan
10:00	Break			

N206C	N208A	N208B	N208C	
Smarter Lakes Are Better Lakes: Digital Tools, Sensors, and Other Technology to Support Lake Science <i>Chairs: Edward Verhamme, Emily Hamilton, Todd Miller</i>	Geomorphic Drivers and Impacts of Coastal Evolution in the North American Great Lakes <i>Chairs: Chelsea Volpano, Collin Roland, Ethan Theuerkauf, Luke Zoet</i>	Ecological Modeling and Physical-Biological Interactions in Large Lakes and Their Watersheds <i>Chairs: Mark Rowe, Valipour Reza, Casey Godwin, Josef Ackerman, Alain Isabwe</i>	Contaminant Cycling in the Great Lakes: From Biogeochemistry to Bioaccumulation <i>Chairs: Benjamin D. Peterson, Sarah E. Janssen, Ryan F. Lepak, Christopher T. Filstrup</i>	
J. Pu Towards a Smarter Lake Erie: Developments in Data Acquisition, Integrations, and Analysis	L. Zoet Cryogenic wave tank experiments examining the effects of nearshore ice	Y. Fernando Understanding the Nearshore Dynamics of Lake Ontario: Development of a Comprehensive Ecophysiological Model for Phosphorus, Phytoplankton, Dreissenids, and Cladophora Interactions		8:00
E. Verhamme Where is all the phosphorus coming from? - An online, high-density sensor network to track ag runoff in SE Michigan.	C. Troy Quantifying and Understanding the Lake Michigan Shoreline Response Associated with an Extreme Water Level Increase	E. Blukacz-Richards Spatial Delineation of Nutrient Hotspots in the Red-Assiniboine River Basin and the Ecological Consequences	M. Mahon Shifting burdens: 40 years of contaminants in Great Lakes fish	8:20
T. Miller Panther Buoy Electronics for Smart Environmental Monitoring	C. Roland Comprehensive measurements of Lake Michigan coastal change spanning the late 2010's high stand	K. Dennis Long and Short-term Drivers of Carbon Cycling in a Great Lakes Estuary	R. Lepak Looking Back at 40 Years of PFAS in Great Lakes Fish	8:40
M. Padilla Development and Application of GIS-based Tools for Resiliency on the U.S. Great Lakes Coasts	B. Nelson-Mercer Indiana beach erosion due to recent high Lake Michigan water levels	N. Bohl Exploring the Effects of Climate Change on the Temperature of a Cold Water River	T. Hove Non-targeted PFAS Discovery in Selected Fish from the Eastern National Parks	9:00
E. Hamilton Leveraging the Smart Lake: Trialing and Demonstrating IoT Technologies in a Smart Watershed	R. Mitchell Topobathymetric assessment of a shoreline protection project at Illinois Beach State Park, Lake Michigan (2018-2024)	A. Achieng Variation in Body Mass as a Proxy for Fish Species' Response to Energy Transfer Across Trophic Levels in Hamilton Harbor	J. Ludwig Increased frequencies of supernormal clutches of four Great Lakes' waterbirds.	9:20
A. Lemke Underwater Archaeology in the Great Lakes: Making the Ice Age Virtual	S. Peterson Variabilities and Trends of Coastal Property Values at Madeline Island, Wisconsin in Lake Superior	K. Obiero Comprehensive lakewide hydroacoustic assessment in 50 years highlights key findings in fish biomass and distribution in Lake Turkana	C. Bishop Passive Samplers for Assessing Lake Remediation and PCB Variability Across Freshwater Ecosystems	9:40
Break				10:00

FRIDAY, JUNE 6

	N204A	N205	N206A	N206B
	Invasive Species Research and Communication <i>Chairs: Rochelle Sturtevant, Connor Shelly, El Lower</i>	Managing Great Lakes Shorelines: Access, Resilience, and Conservation <i>Chairs: Melissa Scanlan, Cora Sutherland, Emma Ehrlich</i>	Freshwater Salinization in the Great Lakes: Exploring the Effects on Water Quality and Biota <i>Chairs: Donna R Kashian, Héctor Esparra-Escalera, Margaret R Menso</i>	High-Frequency Water Level Fluctuations Induced Coastal Hazards: Observation, Prediction, and Outreach <i>Chairs: Chin Wu, Eric Anderson, Guy Meadows, Megan Dodson</i>
10:20	C. Shelly Restoring Coregonus artedii: Challenges Posed by Aquatic Invasive Species in Lake Erie	S. Martinez Racism in the Water: Access to Blue Space for All	B. Luurtsema Utilizing mesocosms to identify the effects of salt mixtures on freshwater communities.	J. Austin Simple linear models of coastal setup and seicheing across the Great Lakes
10:40	L. Anderson A secondary upstream invasion of Round Goby over 13 years following a dam removal	E. Spitzer Impacts of Breakwaters on Littoral Sand-Transport Patterns and Shoreline Morphodynamics, Illinois Beach State Park	S. Whorley Hold the salt! Effects of winter road salt felt all year by stream periphyton	J. Anderson Evaluation and application of SOFAR SMART mooring for sensing high-frequency water level fluctuations in Green Bay
11:00	A. Shechonge Tilapia Genetic Diversity and Hybridization in Lake Victoria: Implications for Aquaculture and Conservation	C. Sylvester USACE Great Lakes Coastal Resilience Study Basin-Wide Exposure Analysis	B. Serre From Static to Dynamic: Incorporating Variability in the Risk Assessment of Zooplankton Subject to Freshwater Salinization in Ambient Water	A. Yeo Modeling High-Frequency Water Level Events in Green Bay, WI
11:20	R. Smith Temporal shifts in nearshore dreissenid mussels: evidence from a 14-year dataset		H. Esparra-Escalera Effects of Road Salt on Hexagenia as Indicators of Freshwater Ecosystem Health and Food Web Stability	E. Acheampong A Geospatial Model for Advancing Coastal Vulnerability Indices in the Great Lakes
11:40	K. Baumann Effects of mussel removal on offshore sediment chemistry and benthic community composition			R. Williams A Cyberinfrastructure for Visualizing Current-Related Incidents on the Great Lakes
12:00	A. Boegehold Quagga mussels selectively reject multiple strains of Lake Erie Microcystis aeruginosa			
12:20				
12:40	Conference Ends			

N206C	N208A	N208B	N208C	
Smarter Lakes Are Better Lakes: Digital Tools, Sensors, and Other Technology to Support Lake Science <i>Chairs: Edward Verhamme, Emily Hamilton, Todd Miller</i>	Geomorphic Drivers and Impacts of Coastal Evolution in the North American Great Lakes <i>Chairs: Chelsea Volpano, Collin Roland, Ethan Theuerkauf, Luke Zoet</i>	Ecological Modeling and Physical-Biological Interactions in Large Lakes and Their Watersheds <i>Chairs: Mark Rowe, Valipour Reza, Casey Godwin, Josef Ackerman, Alain Isabwe</i>	Contaminant Cycling in the Great Lakes: From Biogeochemistry to Bioaccumulation <i>Chairs: Benjamin D. Peterson, Sarah E. Janssen, Ryan F. Lepak, Christopher T. Filstrup</i>	
I. Rahman Implementation of H2Ohio WMP Data Management System for Heterogeneous Wetland Monitoring	A. Vaughan Effects of river floods and sedimentation on a naturally dynamic Great Lakes estuary	J. Marsden Are lakemounts hotspots of productivity and biodiversity?	C. Filstrup Heavy metals distribution in sediments of the Laurentian Great Lakes track anthropogenic sources	10:20
N. Gagliano Unlocking Real-Time Subsurface Data at Scale with Sofar Ocean's Smart Mooring	K. Gannon Conveying insights into the effectiveness of Great Lakes beach shoreline protection strategies	J. Gorman Resource Extraction and Boreal Aquatic Ecosystems: A Community Approach to detecting and monitoring impacts with Michipicoten First Nation	E. Ujeneza Assessment of heavy metal pollution in the water of the main tributaries of Lake Kivu, Rwanda	10:40
W. Tarpey A New Open Source Three-In-One Sensor for Chlorophyll, Phycocyanin and Turbidity	L. Salus Addressing Great Lakes Coastal Hazards through Regional Communities of Practice	T. Orina Cage Aquaculture: A Threat or an Avenue Towards Africa's Great Lakes Sustainability	G. Armstrong Examining the Role of Hypoxia in Methylmercury Production in Lake Erie	11:00
B. Possamai Assessing Physical-Biological Coupling Processes around Lakemounts using Remote and Realtime Techniques	J. Cacace Lake Ontario South Shore Sediment Budget and Coastal Resilience Assessment	S. Neave The Influence of Turbulence on Fertilization Success and Embryo Development in Dreissenid Mussels	B. Peterson Mercury Methylating Microbes in the Great Lakes	11:20
S. Smith African Lakes Hub: A Digital Platform for Data Sharing, Collaboration & Sustainable Management		M. Gordon The Influence of Hydrodynamics on the Feeding of a Freshwater Zooplankton, <i>Daphnia magna</i>	D. Otieno A comparison of mercury and isotopes in farmed tilapia and lower food-web from Lake Victoria-Kenya	11:40
			Z. Wu Challenges and Opportunities of Detecting Low Micrometer Microplastics and Nanoplastics in the Freshwater Environments	12:00
			V. Massingue Occurrence and abundance of microplastics in fish, surface water and sediments in Lake Niassa	12:20
Conference Ends				12:40



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A world leader in freshwater science, GLERL advances observing, sampling, modeling, and predicting the Great Lakes to promote resilient ecosystems, communities, and economies.

Our research supports those living, working, and recreating across the Great Lakes Basin by sharing knowledge and data to support economies and protect communities.



POSTER SESSION & SOCIAL

Baird Center, N204B/N204C

Tuesday, 6–8 p.m.

Posters are grouped in the following themes:

BPM	Biogeochemistry, Physics, and Modeling	42
COT	Communication, Outreach, and Training	42
CPM	Contaminants, Pathogens, and Microbiology.....	42
FNS	Fish and Non-Indigenous Species.....	43
HAB	Harmful and Nuisance Algae, Human Health.....	44
OST	Observing and Sensor Technology	45
WES	Whole Ecosystem Science and Management.....	45
WWC	Watersheds, Wetlands, and Coastal.....	46
GEN	General	46
	VIRTUAL	47

Posters will remain on display through 10:30 a.m. on Friday, June 6.

POSTERS

BPM: Biogeochemistry, Physics, and Modeling

- BPM-1 Drugorub, Aleksandr
Nonlinear Perspectives on Lacustrine Amplification of Global Climate Change in the Great Lakes Region
- BPM-2 Mwirigi, Christine
The Use of Zooplankton as Biomonitors of the Efficiency of a Sewage Treatment System
- BPM-3 Nguyen, Hong An
Microbial Carbon Biogeochemistry and Vertical Dynamics in the Great Lakes
- BPM-4 Ratcliffe, Aly
Stream Gauging of Laguna Bacalar, Mexico: Insights into Water Balance and Flow Dynamics

COT: Communication, Outreach, and Training

- COT-1 Jetoo, Savitri
Introduction to the CLARS Project

CPM: Contaminants, Pathogens, and Microbiology

- CPM-1 Aworinde, Omowunmi
PFAS Contamination of Smelt from Keweenaw Bay in Lake Superior
- CPM-2 Casey, Maya
Investigating Cyanobacterial Community Abundance Across the Great Lakes
- CPM-3 Casselman, Madelyn
Detrimental effects of road salt accumulation on the Light-Nutrient Hypothesis
- CPM-4 Dennis, Kieyarrah
CTX-M Group 1 Gene Abundance in Sewage and Beach Samples in Milwaukee, WI
- CPM-5 Elliott, Sarah
Evaluating PFAS Prevalence and Potential for Biological Effects in Lake Superior Tributaries

- CPM-6 Gilboe, Morgan
Investigating Microcystis-Heterotroph Interactions in the Western Lake Erie Microbiome
- CPM-7 Hannon, Kristen
WSLH adoption of EPA 1633 and continued PFAS Analysis Challenges
- CPM-8 Hazra, Libia
Spatial Variation in PCB Accumulation in Southern Lake Superior Fish: Role of Food Web Structure
- CPM-9 Hudson, Neve
Record low ice cover on the Great Lakes: Implications for microbial functional and community structure
- CPM-10 Janssen, Sarah
Exploring Changes to Mercury Cycling Across the Great Lakes in Response to Co-Occurring Stressors
- CPM-11 Kazour, Maria
Microplastics in the nearshore region of the Rochester Embayment of Lake Ontario
- CPM-12 Kooij, Tessa
Does the Lower Fox River Basin seed Green Bay Microcystis blooms?
- CPM-13 Krebs, Laura
Biodegradation of Common Post-Consumer Plastic near the Laurentian Great Lakes
- CPM-14 Krueger, Samantha
Pollution history of toxic metals and metalloids in the Bay of Green Bay sediments
- CPM-15 LaFond-Hudson, Sophia
Prevalence of PAHs, Alkylphenols, Bisphenols, and Neonicotinoids in Lake Superior Tributaries
- CPM-16 Leland, Mari E.
A Winter-based Approach to Microbial Community Structure in a Lake Superior Connected Channel
- CPM-17 Milusich, Eve
Evaluating PFAS bioaccumulation in aquatic ecosystems & culturally significant harvestable species

- CPM-18 O'Loughlin, Connor
Seasonal variation in microbial community dynamics and organic matter in the Great Lakes
- CPM-19 Peters, Lisa
Physical Removal of Oil to Validate In-Lake Treatments (The PROVE IT study)
- CPM-20 Price, Nicole
Novel Indicator pBI143 as a Highly Sensitive and Specific Human Marker for Beach Management
- CPM-21 Rogromel, Corneille
Multinational firms and the Spatio-Temporal Distribution of Plastics in the Great Lakes Regions of Africa
- CPM-22 Smason, Abigail
A Metagenomic Approach to Tracking Lake Superior cHABs

- CPM-23 Tate, Michael
Mercury Distribution and Sources to Sediment in the Laurentian Great Lakes
- CPM-24 VanWinkle, Sydney
Characterizing the transformation of plastic under Great Lakes climate change scenarios
- CPM-25 Votava, Lauren
The Influence of Sediments on the Bioaccumulation of PFAS in Great Lakes Benthic Organisms

FNS: Fish and Non-Indigenous Species

- FNS-1 Angus, Quinn
Climate Impacts on Lake Superior Lake Trout Growth: Insights from Otolith Dendrochronology Analysis
- FNS-2 Dlesk, Grant
Assessing genetic population structure among Lake Superior burbot (*Lota lota*)



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POSTERS

- FNS-3 Keen, Avery
Developing Sex-Specific Markers for Sea Lamprey: Lethal and Non-lethal Marker Development
- FNS-4 Kudwa, Francis
An Evaluation of Fish Spawning on Proposed Sites for Nearshore Rocky Reef Construction in Saginaw Bay, Lake Huron
- FNS-5 Lower, El
Piloting a GLANSIS-University Student Writing Partnership
- FNS-6 Martinez, Juan Carlos
Assessing the Attitudes, Perceptions, Trust, and Opinions of the General Population of Indiana on Bowfishing
- FNS-7 Ramsey, Riley
Casting a Wide Net: how educators' attitudes, resources, and online resources influence invasive species education
- FNS-8 Roswell, Charles
Calumet Region Smallmouth Bass: Characterizing Connectivity and Tournament Impacts
- FNS-9 Welsbacher, Amanda
Detecting Aquatic Invasive Species Using Species-Specific Probes and Metabarcoding Protocols
- FNS-10 Wolf, Greyson
Assessing the role of burbot in coupling nearshore and offshore habitats of Lake Superior
- FNS-11 Yarnes, Christopher
A multielement compound-specific stable isotope analysis approach to monitoring Great Lakes fisheries and ecosystem health

HAB: Harmful and Nuisance Algae, Human Health

- HAB-1 Adhikari, Anjana
Exploring the Stoichiometry of Nutrient Disturbances, Harmful Algal Blooms, and Cyanotoxins in Green Bay
- HAB-2 Arrueta, Lourdes
Simulating the water quality benefits of crop diversification under future precipitation scenarios in Northwest, Ohio
- HAB-3 Bragg, Colton
Examining climate change effects on *Microcystis aeruginosa* nitrogen uptake within Western Lake Erie bloom communities
- HAB-4 Chang, Xuexiu
Synergistic Impacts of *Microcystis aeruginosa* and an invasive fish on the Endangered Macrophyte *Ottelia acuminata*
- HAB-5 Durutürk, Berk
Nitrogen and Phosphorus Dynamics at the Sediment-Water Interface in Lakes Erie and Superior
- HAB-6 Hassett, Michael
Glucose Outperforms Peroxide as Mesocosm Algae Bloom Treatment by Promoting Heterotrophic Community
- HAB-7 Link, Brayden
Phytoplankton nutrient limitation and trophic state in Braddock Bay, Lake Ontario, following barrier beach restoration
- HAB-8 Mashhadi Nejad, Sara
Cyanobacterial Transmission from Maumee River to Western Lake Erie Basin; Planktothrix-Driven cHABs
- HAB-9 Reed, Abigail
Winter Nitrogen Uptake and Regeneration in Lake Erie

OST: Observing and Sensor Technology

- OST-1 Gibbons, Ken
Advances in Real-Time Sensing: A decade of progress and counting!
- OST-2 Jones, Dani
Informing Great Lakes Sensor Placement with Convolutional Gaussian Neural Processes
- OST-3 Moradi, Shadi
Mapping Submerged Aquatic Vegetation in the Great Lakes Using Artificial Intelligence
- OST-4 Rousseau, Katie
Smart Great Lakes Initiative's Data and Information Survey

WES: Whole Ecosystem Science and Management

- WES-1 Dagenhart, Olivia
Assessing Cyanobacteria in Lake Erie using a FluoroProbe
- WES-2 Dixon, Krystal
A Larval Fish Community Survey of Lake Ontario: Assessing Bloater
- WES-3 Eberly, Emily
Multi-indicator Assessment of Great Lakes Coastal Wetlands
- WES-4 Larson, Mary
Patterns and Mechanisms of Seasonal and Spatial Diatom Variability in Milwaukee Harbor



Protecting the Great Lakes Fishery

The Great Lakes Fishery Commission is an international organization established by Canada and the United States through the 1954 Convention on Great Lakes Fisheries. The commission has the responsibility to support fisheries research, control the invasive sea lamprey in the Great Lakes, and facilitate implementation of A *Joint Strategic Plan for Management of Great Lakes Fisheries (JSP)*, a non-binding, consensus-based provincial, state, and Indigenous fisheries management agreement.

The Commission has three main responsibilities:



Sea Lamprey Control

Sea lampreys are primitive fish parasites native to the Atlantic Ocean. The control program has been successful, reducing sea lamprey populations by 90% in most areas of the Great Lakes.



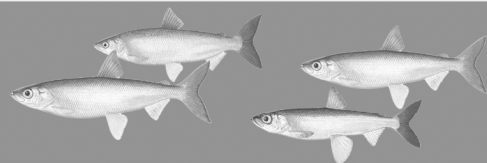
Science & Research

The Commission formulates a coordinated bi-national research program to identify ways to nurture the maximum sustained productivity of Great Lakes fish stocks and, based on that research, to recommend specific management initiatives to the governments.

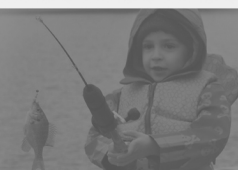


Fishery Management

The Commission facilitates cooperate fishery management through implementation of The Joint Strategic Plan, which calls for development of shared fish community objectives, data sharing, and adherence to ecosystem management.



Everyone benefits from a healthy fishery.
Learn more at glfc.org



POSTERS

WES-5 Maas, Martin
Joint research experience for high school and undergraduate students in Laguna Bacalar, Mexico

WES-6 McFadden, Jaclyn
Littoral Vegetation and Phytoplankton Primary Production in Laguna Bacalar, Mexico

WES-7 Ramos Sánchez, Amaranta
Teacher training in environmental stewardship: From Laguna Bacalar to the New Mexican School 2030 Agenda

WES-8 Schatzberg, Sam
Benthic Community Metabolism of Microbialites, Microbial Mats, and their Communities in Laguna Bacalar, Mexico

WES-9 Schmidt, Amber
A comparative approach to quantifying the effectiveness of nearshore reefs in the Great Lakes

WES-10 Sepulveda-Martinez, Diego
Assessing Prop Roots Growth of Dwarf Mangroves Under Varying Flooding Conditions in Laguna Bacalar, Mexico

WES-11 Tennes, Nathan
A Comparison of Survey Methods to Evaluate Dwarf Mangroves around Laguna Bacalar, Mexico

WWC: Watersheds, Wetlands, and Coastal

WWC-1 Fieweger, Lauren
Modelling and Analyzing Lake Michigan Shoreline Changes Between 2013 and 2020

WWC-2 Hejl, Kendahl
Characterizing Shoreline Changes of Lake Huron with Small-Sat Imagery

WWC-3 Lau, Rachel Yu San
Linking lakebed morphology and vegetation changes in Great Lakes coastal wetlands under fluctuating water levels

WWC-4 Moss, Taylor
Increase in a Wastewater Indicator Chemical in the Root River Following the Waukesha Water Diversion

WWC-5 Nunez Ferreira, Francisca
Post-Nourishment Morphodynamic Evolution of a Sandy Lake Michigan Beach: Oval Beach, Saugatuck, MI

WWC-6 Spiese, Christopher
Disentangling Lake Erie dissolved reactive phosphorus loadings 1980 - 2024

WWC-7 Volpano, Chelsea
Lake Michigan Sediment Supply from Eroding Feeder Bluffs and Corresponding Nearshore Transport

WWC-8 Wilson, Orion
Field measurements of a nearshore sand placement in southern Lake Michigan

GEN: General

GEN-1 Abedrabo, Emma
Turbidity as a surrogate for TP and TSS measurements in the Saginaw Bay Watershed

GEN-2 Bowen, Rebecca
The Saginaw Bay Monitoring Consortium: Initial tributary results

GEN-3 Cameron, Kat
Launching a Great Lakes Coastal Resilience Community of Practice for Sea Grant Extension Professionals

GEN-4 Deephouse, Alexis
Macroinvertebrate Beta Diversity Across Wetlands in a Lake Michigan Freshwater Estuary

GEN-5 Ferguson, Alexandra
Algal Responses to Nitrogen and Phosphorus Inputs in Wetlands of a Large River Mouth Ecosystem

GEN-6 Gargas III, John
Macroinvertebrate Community Development in Newly Constructed Interdunal Wetlands of Lake Michigan

GEN-7 Houghton, Erin
Alternate Compliance Adaptive Management: Implementation & Progress

- GEN-8 Lawrence, John
Diel Dissolved Oxygen Fluxes in Littoral and Open-Water Habitats of Muskegon Lake
- GEN-9 McGillis, Clare
Advancing Phosphorus Recovery: Optimizing PEARL Membrane Performance for Wastewater Applications
- GEN-10 Omach, Zadock
Environmental Impacts of Cage Culture in Lake
- GEN-11 Shmagin, Boris
Notes on Study Great Lakes Watershed Hydrology in Scale Including the Solar System
- GEN-12 Smith, Alyssa
Investigating Great Lakes Coastal Wetland Food Web Dynamics Using a Novel Stable Isotope Tracer Approach

Virtual Posters

The following posters will be available online for viewing throughout the week. Just access the online program from the QR code below, open the *Scientific Program* menu at the top, and select *Presentations*. Then filter by Type (*Poster*) and Method of Delivery (*Virtual*). Visit and leave comments or questions for the authors. You can also search for the presenter's name.

Chimanuka Ahana, Maria Nancy
Characterization of rill and gully erosion

Dimitrijevic, Milena
Towards the implementation of the Canadian small lake model in GEM for numerical weather prediction

Farhani, Mona
Using Machine Learning to Calculate Mass Balance Changes Pre- and Post-Restoration in the Detroit River.


Okeyo, Harriet Atieno
Bio-Conversion of Fish Waste to Economic Products through Value Addition Techniques

Sakubu, Daxelle
Initial Design of a Lake-Based Offshore Wind Turbine Microgrid Rural Electrification for Microgrid Applications in Southeast Burundi

Smith, Katelyn
Three-Year Bioassessment of Upper Maumee Watershed Tributaries





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River/Lakefront Cruise + Great Lakes Research Facility Tour

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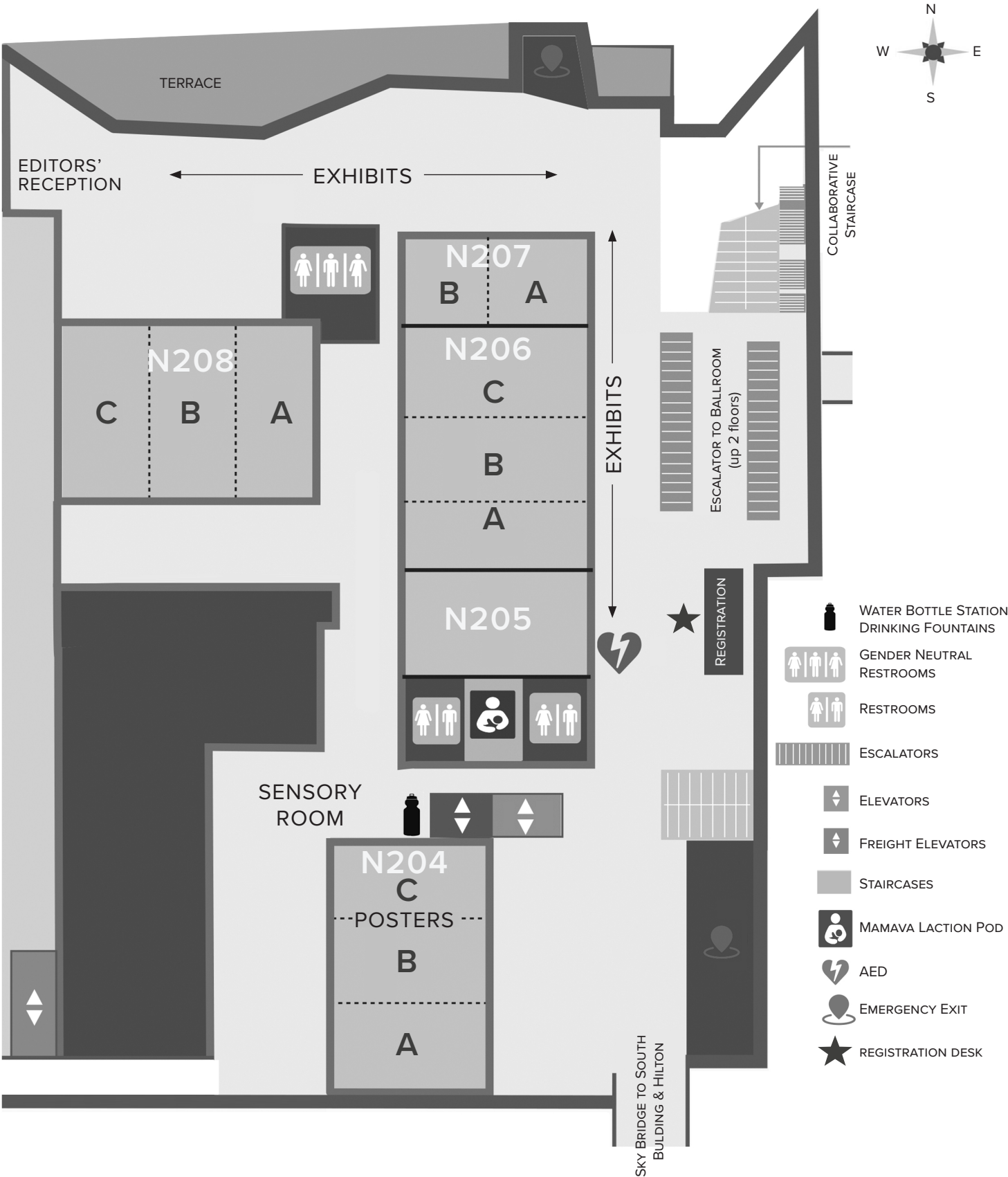
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