

# LAKES Letter

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*Lakes Letter* is published quarterly by the International Association for Great Lakes Research, a scientific organization made up of researchers studying the Laurentian Great Lakes, other large lakes of the world, and their watersheds, as well as those with an interest in such research.

Edited by Paula McIntyre  
 Communications Director

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## Lakes Letter Redux: A note from IAGLR President Michael Twiss



Some who were IAGLR members a few decades ago might recall regularly receiving in the mail a newsletter on ivory-colored paper IAGLR used before the Internet to communicate *en masse* with its members by means other than the annual conference or the journal. Bringing back *Lakes Letter* was your idea. Let me explain.

In 2018, we conducted a member survey where you told us that you wanted to be more engaged. *Lakes Letter* is just one way for our members' voices be heard. In this new quarterly publication, we'll celebrate your good news and mourn your loss. We'll feature member profiles so we can better get to know one another. We'll also share news from the board and committees that help make IAGLR tick.

Since I've been on the board, IAGLR has made several changes to better support our members and constituents of great lakes across the globe, as our name suggests. We are now a member of the Consortium of Aquatic Science Societies, speaking with a unified voice to protect fresh waters by providing scientific advice to governments. On behalf of our members' desire to be a more proactive force, we've responded to the U.S. federal government's efforts to redefine *waters of the United States*, encouraged the Russian government to reconsider its desire to relax nutrient loading into Lake Baikal, and requested reconsideration of changes to the NSERC Strategic Grant program in Canada. We now have an international (non-Canada, non-U.S.) board member position to better reflect other nations, here on this continent and beyond, that are rights holders and stakeholders in great lake ecosystems.

When I was elected to the board in 2016 we had one conference per year; last year we had three and will do so again in

2021. Our annual State of Lake conferences enjoy participation by those who don't normally attend the annual IAGLR research conference, connecting to policymakers and business leaders across the Laurentian Great Lakes basin. In 2020, we will partner with the International Institute for Sustainable Development-Experimental Lakes Area in Winnipeg for our annual research conference. Based in an area rich in social linkages to water resources, IISD-ELA has a strong scientific connection to past and present issues confronting the Great Lakes. We look forward to stepping again outside of the LGL basin to reflect on where we are as an association of great lake researchers and establish new partnerships.

Our association faces important issues. As our activity to serve our constituents grows, we need to find better ways to make connections amongst them and still maintain our mission to advance understanding of the world's great lake ecosystems. To this end we are seeking input on a strategic plan for IAGLR. We are also living in a world experiencing rapid technological, environmental, and social changes. People worldwide rely on great lake ecosystems for their livelihood, and we must be able to reply to those who warn of impending strife due to climate change, burgeoning human population, and unsustainable attitudes toward the natural ecosystem. Great lake researchers are needed now and in the future. ■

# KUDOS

We extend our congratulations to the following members!

**JEAN ADAMS** (USGS Great Lakes Science Center) for winning a seat on the 2019 IAGLR Board of Directors.

**MARTY AUER** (Michigan Technological University) for receiving IAGLR's 2019 Lifetime Achievement Award.

**GEORGE BULLERJAHN** and colleagues on their award from the National Institute for Environmental Health Sciences and the National Science Foundation to form the Great Lakes Center for Fresh Waters and Human Health at Bowling Green State University, one of four Centers for Oceans and Human Health supported throughout the U.S.

**JAN CIBOROWSKI** on his new NSERC Industrial Research Chair in Wetland Reclamation at the University of Calgary.

**CATHERINE FEBRIA** for her new position as assistant professor of freshwater restoration ecology and the launch of her Healthy Headwaters Lab at the Great Lakes Institute for Environmental Research, University of Windsor.

**JASON FISCHER** (University of Toledo) for receiving a 2019 IAGLR Scholarship.

**THIJS FRENKEN** on joining the Great Lakes Institute for Environmental Research at the University of Windsor as a postdoctoral fellow.

**ELLEN GEORGE** (Cornell University) for receiving a 2019 Norman S. Baldwin Fishery Science Scholarship.

**JOHN HARTIG** on his appointment as visiting scholar with the Great Lakes Institute for Environmental Research at the University of Windsor.

**ROBERT HEATH** (Kent State University) for receiving the 2019 Anderson-Everett Award for outstanding contributions to IAGLR.

**TEJ HEER** (University of Toronto) for IAGLR's 2018 Best Student Paper Award for "Using a hydrodynamic model to predict Asian carp spawning success."

FLUID IMAGING  
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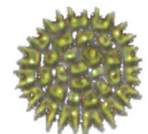
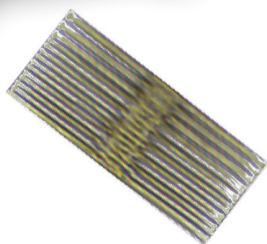
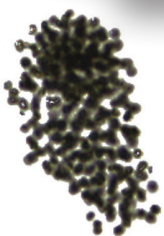
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# KUDOS

**YUAN HUI** (University at Buffalo, SUNY) for being selected as the winner of the 2019 David M. Dolan Scholarship.

**DONNA KASHIAN** for being promoted to full professor in the Department of Biological Sciences and for being awarded the Presidential Teaching Award through Wayne State University.

**MEGHAN KLASIC** (University of California-Davis) for receiving a 2019 IAGLR Scholarship.

**COREY KRABBENHOFT** for successfully defending her dissertation “Drivers and impacts of the invasive Round Goby (*Neogobius Melanostomus*) in Michigan tributaries to the Great Lakes” from Wayne State University and starting a post doc in the College of Arts and Sciences and the RENEW Institute at the University at Buffalo.

**SARAH LAROCQUE** (Great Lakes Institute for Environmental Research, University of Windsor) for winning a seat on the 2019 IAGLR Board of Directors.

**FREDDY LIU** (Trent University) for IAGLR’s 2018 Best Student Poster Award for “Urban Land Cover Effects on Groundwater Chloride and Sodium Concentrations.”

**MIKE MCKAY** for being appointed as executive director at the Great Lakes Institute for Environmental Research at the University of Windsor.

**FIELDING MONTGOMERY** (University of Toronto) for IAGLR’s 2018 Best Student Paper Award for “Identifying extinction debt in Great Lakes wetland fishes.”

**BENARD MUCHOLWA SIMIYU** (University of Innsbruck) for being selected as the winner of IAGLR’s 2019 International Student Travel Award.

**MOHIUDDIN MUNAWAR** (Aquatic Ecosystem Health & Management Society) for receiving the 2019 John R. (Jack) Vallentyne Award for important and sustained efforts to inform and educate the public and policymakers on large lakes issues.

**RICHARD OGUTU-OHWAYO** (National Fisheries Resources Research Institute in Uganda) for receiving the Best Reviewer 2018 Award for outstanding support of the review process for the *Journal of Great Lakes Research*.

**TREVOR PITCHER** (Great Lakes Institute for Environmental Research, University of Windsor) for winning a seat on the 2019 IAGLR Board of Directors.

**REBECCA ROONEY** for being promoted to associate professor in wetland ecology in the Department of Biology at the University of Waterloo.

**TAYLOR SENEGAL** (Purdue University) for IAGLR’s 2018 Best Student Poster Award for “Morphological variation in Yellow Perch in Lake Michigan and Drowned River Mouth Lakes.”

**ROBERT SHEFFER** (University of Wisconsin-Stevens Point) for receiving a 2019 Norman S. Baldwin Fishery Science Scholarship.

**CRAIG STOW** (NOAA Great Lakes Environmental Research Laboratory) for receiving the Best Associate Editor 2018 Award for outstanding support of the review process for the *Journal of Great Lakes Research*.


**YONGLI ZHANG** (Wayne State University) for being awarded a research grant “Smart Management of Microplastic Pollution in the Great Lakes” by the Great Lakes Protection Fund.

## Editors’ Note

The next issue of the *Journal of Great Lakes Research* features a special section titled “Remote sensing of harmful algal blooms (HABs) in Lake Erie and other surrounding inland waters.” Guest editors for 45(3) are Robert Shuchman, Caren Binding, George Leshkevish, and Joseph Ortiz.

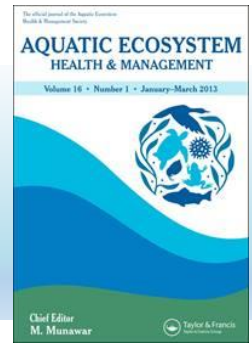
We’d also like to remind you there are no page charges for articles published in the JGLR (for both regular or special sections). Open access is available for all articles, with a reduced fee if any author is an IAGLR member.

Bob Hecky & Stephanie Guilford

 Submit kudos to [lakesletter@iaglr.org](mailto:lakesletter@iaglr.org)

A cordial invitation from

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# Welcome New Members

The following members joined the association between January and April 2019. If you see them at IAGLR19, make sure to say hello!

Amanda Ackiss	Erin Giese	Robert Mooney
Camille Akemann	Katherine Grosh	Jennifer Nalbone
Matthew Anderson	Emily Ham	Lucas Nathan
Kara Andres	Anna Harrison	Kaela Natwora
Carlos Alberto Arnillas	Autumn Heyde	Bryan Neff
Ian Arturo	Tara Hohman	Harry Nelson
Sara Belontz	James Hood	Halle Nienhaus
Thais Bernos	Sonia Huang	James Outa
Danielle Blumstein	Obot Ibanga	Nicole Pesse
Matthew Bootsma	Lyn Ickes	Polly Peterson
Patrick Boynton	Friday Idehen	Helena Pound
Ben Breaker	Silviya Ivanova	Lilian Pukk
Taylor Brown	Otero Torres Jason	Heather Reid
Anthony Budrick	Justin Jendza	Freya Rowland
Briana Burt	Yuanyuan Jia	David Ruck
Erik Carlson	Catriona Jones	Sarah Schaefer
Marc Chalupnicki	Michael Kausch	Megan Schall
Xuexiu Chang	Janice Kerns	Grant Scholten
Douglas Chase	Meghan Klasic	Tiffany Schriever
Wei Chen	Jeremy Kraus	Rachel Schultz
Mark Cheng	Beth Lawrence	Yueling Shi
Aaron Christiansen	Gregory Lawrence	C.K. Shum
Kaitlyn Cisz	Liguang Li	Sean Simmons
Patricia Corcoran	Mauri Liberati	Judy Smith
Sarah Costlow	Roselynd Lin	Megan Smith
Jack Cotrone	Josephine Lindsey-Robbins	Shelby Smith
Timothy Crandle	Colleen Linn	Rebecca Snider
Susan Cushman	Julian Lum	Nicole Stewart
Dario Del Giudice	Ceilidh Mackie	Jordyn Stoll
Candy Donaldson	Gregory Madejski	Archana Tamang
Margaret Duffy	Nadya Mamoozadeh	Martina Tepavcevic
Katie Edwards	Audrey Manuel	Jennifer Thum
Nima Ehsani	Jordan Matley	Liz Tristano
Mary Ensich	Matthew McCandless	Sydney VanWinkle
Shiqi Fang	Kyle McCarrel	Angelica Vazquez Ortega
Catherine Febria	Courtney McDaniel	Starr Walker
Adam Frankiewicz	Leigh McGaughey	Arnie West
Matthew Franks	Jasmin McInerney	Roy Widrig
Christopher Frazier	Amelia McReynolds	Jacob Ziegler
Benjamin Gallo	Taylor Michael	Dave Zilkoski
Pauline Gerrard	Josie Mielhausen	

# IN MEMORIAM



In December, the Great Lakes community lost a quiet but committed champion of the Great Lakes, **NORINE DOBIESZ**. She cared deeply about their water quality, fisheries, riparian peoples, and their future. Norine was an active member of IAGLR, including her role as technical editor of the *Journal of Great Lakes Research*. She was a dedicated and talented environmental and fishery researcher who sought to make a difference. Since 2013, she worked at Michigan State

University's Quantitative Fisheries Center, with duties both to research and to provide high-end computing and programming support on multi-disciplinary projects. For more on Norine, please visit [bit.ly/2VC6ua9](http://bit.ly/2VC6ua9).

The Great Lakes community lost a well-respected scientist and dear colleague, **DAVID RATHKE**, in February. Throughout his career, David worked for The Ohio State University's Center for Lake Erie Area Research; Canada Centre for Inland Waters in Burlington, Ontario; and the International Joint Commission. He particularly loved working at OSU's Stone Laboratory, researching and teaching. In his 17 years working on the Great Lakes, David authored over 20 scientific publications on Lake Erie, numerous IJC reports, and many peer-reviewed scientific publications. He also helped organize a number of special sessions at IAGLR's annual conferences and many IJC workshops, and gave many scientific presentations at professional conferences. David



took this knowledge to EPA's Region 8 in Denver, where he worked until his retirement in 2016. More about David can be found at [bit.ly/2Uovq8u](http://bit.ly/2Uovq8u).

It is with great sadness that I share that Dr. **AL BEETON** passed away on April 24. Dr. Beeton was the director of NOAA's Great Lakes Environmental Research Laboratory from 1986 to 1996. Over the course of his career, he was a leading researcher of Great Lakes limnology and aquatic zoology. A three-time graduate of the University of Michigan (B.S. '52, M.S. '54, Ph.D. '58), he became a professor and administrator at the university's School of Natural Resources and College of Engineering from 1976 to 1986. In the late '60s, Dr. Beeton served

on IAGLR's steering committee and first board of directors. He also served as co-chair of the International Joint Commission's Great Lakes Science Advisory Board from 1986 to 1991, and as NOAA's chief scientist in the mid '90s.

I know many of us have fond memories of Dr. Beeton. He was a great mentor who invested in and developed people; he promoted diversity and valued people as individuals long before that rose to our national consciousness. He remained interested in GLERL and its people long after his retirement,



continuing to attend our holiday parties and retirement ceremonies. We will miss him and the example he set for us.

Deborah Lee  
Director and Regional Team Lead  
NOAA GLERL

# Tips for a successful IAGLR 2019

By Jennifer Boehme, IAGLR Board Member, jennifer.boehme@gmail.com

## THE ANNUAL CONFERENCE

on Great Lakes Research in Brockport, New York, is fast approaching and provides an opportunity to kick start a conversation around professional development and mentoring within the community.

In our recent survey, IAGLR members identified mentorship as a key need. In response, the IAGLR board has developed a Professional Development Subcommittee to identify actions that IAGLR can take to improve on its current activities. Part of the aim of this subcommittee will be to develop opportunities that benefit folks across multiple stages of their career, so stay tuned. We also hope to use this column for advice and shared experiences. In the meanwhile, feel free to reach out to me with your questions and ideas.

If this is your first scientific meeting, welcome to IAGLR. Here are a few things to keep in mind for a productive meeting experience.

### Effective communication

This is a great opportunity to practice sharing your research in a 30-second to two-minute version (without acronyms). IAGLR attendees hail from a variety of science and communications backgrounds, so it's good to keep things broad. You can always delve into details once you know their expertise.

### Follow up

Make new connections? Reach out after the meeting as a way to build your network; perhaps you promised to share a paper? Follow new connections on ResearchGate, Academia.edu, or their science-related social media. Congratulate them on their new paper and get the scoop on their latest findings. LinkedIn can also be a great resource, so consider starting or updating your profile.

### Meet new people

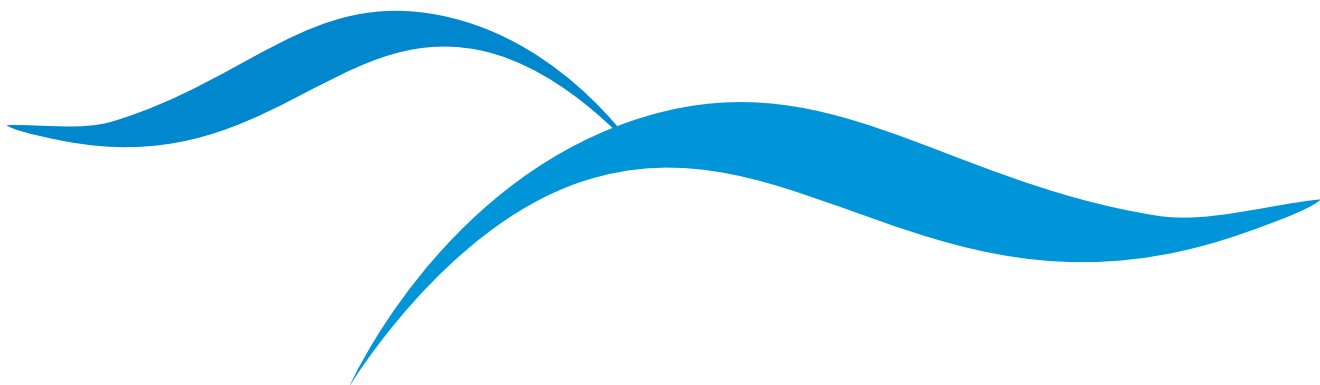
Sit next to people you don't know at dinner. Attend the student mixer and build relationships with other early career scientists. Ask your adviser (or other senior lab members) to introduce you to their colleagues, who may in turn be your mentors and colleagues one day. Say hello to the IAGLR board members too; we are a friendly bunch.

### Take a break

Meetings can be like summer camp for scientists (here, with hockey and soccer). The “all in, all the time” nature of the week requires stamina. Be sure to recharge, so you can take best advantage.



IAGLR 2018 Student Mixer  
PHOTO BY CHAI CHEN



# MEET A MEMBER

We drew names randomly from members who had already registered to attend the IAGLR 2019 conference and asked them to share a bit about themselves and their research. We netted early-career and established scientists, an exhibitor, and both long-time and brand new members. Make sure to say hello and welcome the new folks to IAGLR!



## SARA BELONTZ

Ph.D. Candidate in Geology, University of Western Ontario

*My Ph.D. research will investigate factors controlling the distribution and accumulation of microplastics in benthic sediment of nearshore and offshore depositional environments of Lake Huron, to ascertain potential causes and sources of pollution. I have also been working with Dr. Patricia Corcoran from the University of Western Ontario on a project regarding microplastics in bottom sediments of the Thames River, along with a Pan-Great Lakes plastic pellet study.*



### What inspired you to get into this work?

After receiving my master's in environment and sustainability at the University of Western Ontario, I had the opportunity to work with Dr. Corcoran on multiple microplastic projects. I learned a great deal about microplastic pollution and its adverse environmental and biological consequences. I was equally intrigued and disturbed by the amount of data describing the prevalence of microplastics in both marine and terrestrial environments. As a strong environmental advocate and dedicated researcher, this inspired me to pursue my Ph.D. with Dr. Corcoran and work on projects concerning microplastics in sediment.

### What body of knowledge would you like to build on?

I would like to advance my understanding of the biological and chemical impacts of

ingested microplastics by aquatic organisms. I am fascinated by potential pathways and bioaccumulation threats to higher trophic levels. It would be very interesting to be involved in the sample collection and biochemical analysis firsthand. This being said, I enjoy learning about all subjects and encourage informative conversations with individuals from different specializations.

### If you could change one thing about the way science is done, what would it be?

Science is a powerful mechanism for change, but like any field, it has its challenges. Many single-discipline researchers struggle to collaborate with others. I strongly urge more successful interdisciplinary work amongst stakeholders, connecting scientists, artists, industry leaders, and policymakers. Complex issues like plastic pollution cannot be solved without the cooperation and support from all parties.

### How long have you been an IAGLR member and why did you join?

I recently became an IAGLR member; however, after attending two IAGLR conferences in the past and networking with incredible professionals, it was long overdue. I became an IAGLR member to keep updated about current and profound research, as the membership includes an electronic subscription to the *Journal of Great Lakes Research*.

### Where will we find you at the conference?

I will be presenting my research titled "Basin-wide Analysis of Microplastics in Nearshore and Offshore Benthic Sediments of Lake Huron" on Tuesday morning in the session *Microplastics in Freshwater Systems: Advances in Chemistry, Biology and Physics*. I will also be attending the session *Microplastics in the Environment: Source, Fate, Impact, Detection, and Mitigation* on Wednesday. **1**

## LYUBOV BURLAKOVA

Great Lakes Center, SUNY Buffalo State

*I am a freshwater biologist studying ecology and diversity of benthic communities, and aquatic invasive species for the last 30 years in Europe and the U.S. I've worked at Buffalo State College since 2007 studying the impacts of Dreissena invasion on Great Lakes benthic communities and native freshwater mussel diversity. Since 2012, together with Cornell University, our team participates in U.S. EPA GLNPO's monitoring of Great Lakes lower food webs.*



### What inspired you to get into this work?

*Dreissena* is an unusual beast in aquatic ecosystems. When choosing a topic for my Ph.D., I was told the incredible story of how zebra mussels changed the whole ecosystem structure and functioning in Lake Lukomskoe, Belarus. This was the first lake where the effect was tracked at all levels: water chemistry, structure, and productivity of all communities, benthic and pelagic. Plus, for me, a physicist by training, it was astounding and scary to study biological systems with their huge intrinsic variability. Wiens et al. (1986) note that studying ecology is comparable to what it would be like to study chemistry if the chemist were only a few angstroms long and lived only a few microseconds; the overall course of chemical reactions would be difficult to distinguish from the random collision of molecules! The attempt to separate ecosystem trends over time from natural variability and random changes is a fascinating journey.

### What body of knowledge would you like to build on?

During my Ph.D. I studied growth, reproduction, population dynamics, spread, and effect of *Dreissena* on lake ecosystems. Almost three decades later, I continue this research, but on a different continent, in much larger lakes, and with two species of dreissenids. This makes it more challenging, but also more interesting. Not every scientist has the opportunity to study the same subject over several decades, but the investment and expertise pay off, providing a broad, unique perspective. It also makes you humble and persistent since right after you get the feeling “I finally got it,” nature proves otherwise!

### If you could change one thing about the way science is done, what would it be?

Integration of different disciplines can further inform and enrich ecological research and monitoring; for example, a better understanding of the role of physical and chemical processes in community and species dynamics. We also always need historical data for our analyses of long-term community trends; creating regional repositories of samples and primary data will be a crucial investment in the future.

### How long have you been an IAGLR member and why did you join?

I attended my first conference in 2008, soon after I joined the Great Lakes Center, to get a quick but comprehensive introduction to contemporary research on the Great Lakes. That conference exceeded my expectations, and I have never skipped a meeting since, first chairing sessions on aquatic invasive species and, later, on benthos and long-term monitoring. We always bring students to the conference since this is the best way to inform them on recent advances in Great Lakes research and integrate them into our wonderful community.

### Where will we find you at the conference?

I am usually hard to find since my method is to select many different talks and jump between sessions to cover as much as possible. However, since I will co-chair the session *Mud, Macrofauna and Microbes: Benthic Organism-Abiotic Interactions at Varying Scales* (Thursday and Friday), I'll surely be there! We also will present a photo exhibition and poster at the *State of Lake Ontario* session about our broad benthic survey activities on Lake Ontario in 2018. ■

## PIERRE-YVES CAUX

International Joint Commission

*My work is to ensure decisions made at the International Joint Commission in my areas of responsibility are based on a credible and defensible science and engineering foundation. My team advises on several scientific and engineering projects throughout transboundary watersheds including the Great Lakes. The work focuses on transboundary water levels and flows and on water quality.*



### **What inspired you to get into this work?**

Many environmental issues that we are faced with today require problem solving that is multidisciplinary in nature. I enjoy making the linkages between the science and policy.

### **What body of knowledge would you like to build on?**

This is a tough question for a scientist. Currently I feel climate change and adaptive management are worth building on as that knowledge will help us make the most sensible choices for the future of our waters, however daunting that may be.

### **If you could change one thing about the way science is done, what would it be?**

We are fortunate in our organizations to conduct scientific investigations that our society believes in and are supported by our governments. Many will say more resources are needed to do a better job and in some cases they are correct. The scientific method we are utilizing is solid but needs to be more inclusive; that is, more of the population needs to take part in the science to empower them. For example, with all these apps being developed, think of the breadth of applicability these could have in water quantity and quality monitoring.

### **How long have you been an IAGLR member and why did you join?**

I've been a member on and off for five years. I'm making an effort to stay connected despite my busy schedule.

### **Where will we find you at the conference?**

I'm co-chairing a session with a colleague of mine, Jesse Feyen from NOAA, called *Hydraulics, Hydrology, and Human Interactions in the Lake Champlain/Richelieu River Basin*. The session is Wednesday afternoon in Seymour Union, Room 220. **I**

## MICHAEL CHISLOCK

The College at Brockport SUNY

*The work in my research lab focuses on several major themes: 1) We are interested in understanding the role of adaptation and evolution in modulating the response of lake ecosystems to eutrophication; 2) We study the prevalence and ecological consequences of emerging contaminants (e.g., microplastics); and 3) We assess the effects of restoration and management practices on water quality.*



### What inspired you to get into this work?

I grew up in central Pennsylvania and spent most of my childhood near rivers and lakes. I was also always interested in chemistry. As a graduate student, I learned how much I loved teaching, especially at the undergraduate level. My current position lets me combine all of my passions: aquatic environments and teaching/mentoring students, and is a blend of field- and lab-based activities.

### What body of knowledge would you like to build on?

I would like to build on the rapidly growing body of knowledge demonstrating important feedbacks between ecology and evolution. I think the implications of this line of work for lake management are currently underappreciated, but important.

### If you could change one thing about the way science is done, what would it be?

Most introductory science courses that I've seen are very large lectures seemingly designed to filter out students. I would like to see more funding and opportunities for immersive experiences in science for a larger proportion of students prior to the start of their undergraduate education.

### How long have you been an IAGLR member and why did you join?

I joined IAGLR in 2011. I was interested in harmful algal blooms in the Great Lakes region, and I wanted to present the results of my research at the meeting.

### Where will we find you at the conference?

Finger Lakes, HABs, watersheds, and wetland-related sessions. **I**

## MEMBER PROFILE

# EMILY HAM

Master of Earth Sciences Program, Brock University



*My research investigates the concentration of microplastics in freshwater systems, wastewater treatment, and agricultural soils in the Niagara Region (Ontario, Canada).*

### What inspired you to get into this work?

I love to problem solve, and I wanted to investigate an environmental problem close to home. Microplastic pollution is widespread in all urban environments, and it has been incredibly rewarding working within my community to better understand this problem.

### What body of knowledge would you like to build on?

Following my research on microplastics, I would love to continue investigating other emerging environmental contaminants in the Great Lakes basin. I find tracing environmental contaminants in freshwater environments to be fascinating and would enjoy playing a role in understanding their environmental impact, tracing them

back to their source, and investigating novel ways to mitigate against these contaminants. I think this would be a great fit for my research goals and personal growth.

### If you could change one thing about the way science is done, what would it be?

Collaboration should be fostered and emphasized to a greater extent. In emerging fields such as microplastic studies, standardized methods haven't been agreed upon yet. One of the biggest struggles of my study was determining the best method for isolating microplastics from water/soil, as well as visually identifying what is actually a "microplastic." More collaboration from the beginning of my research process would have helped me tackle these challenges more effectively.

### How long have you been an IAGLR member and why did you join?

I have been an IAGLR member since March 2019.

### Where will we find you at the conference?

You can find me at the session *Microplastics in the Environment: Source, Fate, Impact, Detection, and Mitigation* where I will be presenting my work titled "The occurrence of microplastics and microfibrils in municipal water systems of the Niagara Region, ON" on Wednesday morning in Seymour Union, Room 220! **I**

## JOSIE LINDSEY-ROBBINS

Master of Biology Program, Bowling Green State University

*I am studying the effects of increased detritivore abundance on nutrient cycling in agricultural soil, and how we might be able to incorporate detritivore abundance into best management practices for farmers. My work has found that increased detritivore abundance was able to reduce the volume of leachate from agricultural soil by about 31 mL per invertebrate, which can have drastic impacts on freshwater eutrophication processes. Detritivores were also able to significantly increase corn biomass and decrease weed growth, which are two main goals of farmers everywhere.*



### What inspired you to get into this work?

I originally wanted to study climate change and biological processes under different warming or rainfall scenarios, but living in Northwest Ohio, the community is so connected to Lake Erie. They use it for fishing, boating, drinking water, and industrial businesses. I wanted my research to help not only the ecosystems around me, but the communities that are impacted by the degradation of those ecosystems.

### What body of knowledge would you like to build on?

Broadly, I would like to build on the body of knowledge surrounding global change biology and how changes in temperature and precipitation might alter natural processes, ecosystem functioning, and organismal biology. I would like my career to unite research and on-the-ground monitoring or conservation techniques to make a real difference in ecosystem health.

### If you could change one thing about the way science is done, what would it be?

I would change the stigma placed around data sharing. There is a huge wealth of data, information, and knowledge that scientists seem to be scared of sharing, especially prior to publication. But these data are usually the most

up to date and accurate, so we need to be sharing them worldwide to have greater impacts on environmental policy and management. This really comes into play for species management when we take into consideration species rarity, distribution, range, habitat preference, and more.

### How long have you been an IAGLR member and why did you join?

I joined a couple months ago because I was looking for an organization that fit with my thesis research and overall career goals. While IAGLR is focused on the health of the Great Lakes, it also is broadly interested in both aquatic and terrestrial ecology, and how they work together to impact the health of the lakes. I wanted to present my research to an audience that would understand my goals, and possibly be able to incorporate my research into future work.

### Where will we find you at the conference?

I am giving a talk on June 12 in the session *Soil Health: Role of Nutrient Losses from Agricultural Sites*. I also plan on attending *Linking Human Well-being, Quality of Life, and Ecosystem Services to Conservation Efforts* on June 11 and *Beyond the Edge of the Field: Mitigating the Impacts of Nutrient Pollution on HABs* on June 13. You can also find me at the student social and the banquet! **I**

## HARRY NELSON

Fluid Imaging Technologies

*I work for Fluid Imaging Technologies, a small technology company that makes the FlowCam®, an imaging flow cytometer that many aquatic scientists, including IAGLR members, use to study phytoplankton and zooplankton. In addition to working with scientists to help them understand the capabilities of FlowCam, I also teach our users how to run the FlowCam, and am involved in many aspects of managing our company.*

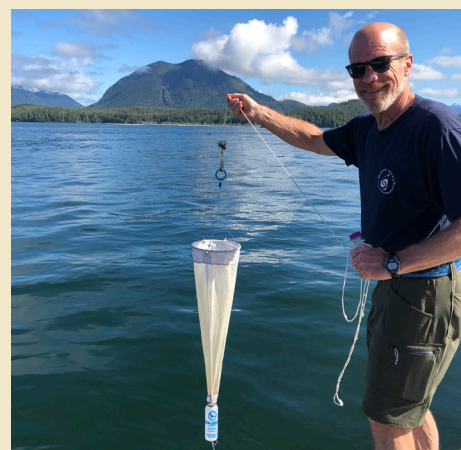


PHOTO BY DANA STEPHENS

### What inspired you to get into this work?

I have always loved and been inspired by nature. As a kid, I fell in love with Maine during summer vacations. That love brought me to Maine, where I graduated from Colby College, being one of the first students to receive a degree in environmental studies (1976). I went to grad school for an MBA, and when, in 2005, I learned about an opportunity to join an exciting start-up company, Fluid Imaging, I thought how much fun and rewarding it could be to apply my business acumen in the world of aquatic science. That was the inspiration, but the joy in my job is working with the scientists who use our products.

### What body of knowledge would you like to build on?

Although I studied the natural sciences in college, I did not get back into science until 2005. To sell a sophisticated instrument to world-

class scientists requires a thorough understanding of our users' science. Attending conferences like IAGLR (I attend 7 to 10 conferences each year) provides me with the opportunity to hear scientists talk their science, to learn what they are doing, and to meet wonderful people.

### If you could change one thing about the way science is done, what would it be?

There needs to be more science! For there to be more science, there needs to be more funding! In early 2017, I became a member of the Union of Concerned Scientists, and a group of us in Maine, under the guidance and support of the UCS, began meeting with the Maine congressional delegation here in Maine and in Washington to promote the need to expand funding for science. Scientists need to practice more activism and to do more to communicate the wonderful work they do.

### How long have you been an IAGLR member and why did you join?

I have attended most of the IAGLR meetings going back to 2006 (Windsor, ON), but I am not sure when I actually joined. I joined to receive mailings and the journal, and to support the organization.

### Where will we find you at the conference?

I will be demonstrating the FlowCam at the booth (bring a sample!) and I will have cool phytoplankton temporary tattoos to pass out. I will also be giving a talk on how the FlowCam can be used to characterize zooplankton on Thursday afternoon in the *Spatial Dynamics in the Pelagia of Large Lakes* session. But most importantly, come see me at the IAGLR Hockey Challenge as I will be coach of IAGLR Team USA! Face-off is Wednesday, 8:15 p.m., at Lakeshore Hockey Arena & Sports Center in Rochester. **I**

# CONFERENCES

*We hope you'll join us!*

JUNE  
2019



IAGLR's 62nd annual Conference on Great Lakes Research heads to Brockport, New York, and the Erie Canal  
**#IAGLR19**

OCTOBER  
2019



We'll gather October 8-11 on the campus of Saginaw Valley State University in Saginaw, Michigan  
**#SOLH19**

JUNE  
2020



IAGLR's 63rd annual Conference on Great Lakes Research heads to Manitoba, with a focus on the future  
**#IAGLR20**

SEPTEMBER  
2021



IAGLR and the European Large Lakes Symposium will co-sponsor an international conference in Petrozavodsk, Russia  
**#ELLS-IAGLR21**