



# Great Lakes HABs Collaboratory

Linking Science and Management to Reduce Harmful Algal Blooms

## Spring 2019 Update

### What's happened since 2017?

It has been awhile since our last update and there are a lot of exciting activities to share! Since the last update, the Collaboratory has:

- Formed a [Steering Committee and elected Co-Chairs](#).
- Approved a [Charter](#) and [Work Plan](#).
- Hosted a session and HABy (happy) hour at IAGLR in Detroit and Toronto.
- Facilitated town halls the summer 2018 and winter ASLO meetings.
- Published two fact sheets ([Phosphorus \(P\) and HABs](#) and [How Does Nitrogen Affect Harmful Algal Blooms?](#)).
- Disbursed \$10,000 in funding.
- Hosted [4 webinars](#).
- Submitted three Mini Challenges to Erie Hack.
- Created a Twitter ([@GLHABsCollab](#)).

More detail for each activity can be found below under Detailed Updates.

### What's happening next?

#### Lakewide Action and Management Plans (LAMPs) webinar

The HABs Collaboratory Steering Committee is working with LAMP leads to organize a webinar or series of webinars that will highlight the LAMP process. Webinars covering the LAMPs are tentatively scheduled for the spring or summer of 2019.

#### 2019 RFP

The Steering Committee is reviewing proposals submitted to the 2019 Request of Proposals and intends to make a funding decision by May of 2019. This year's RFP made \$15,000 of funding available to facilitate collaboration on projects relating to Great Lakes HABs. Projects could range from research focusing on knowledge gaps to outreach products designed to communicate the latest HABs science to a broader audience. The minimum request for each proposal was \$5,000 and maximum request was \$15,000. Proposals were due on March 22<sup>nd</sup>.

## IAGLR 2019

This year IAGLR 2019 is being hosted at The College of Brockport in Brockport, New York. The conference will be held from June 10<sup>th</sup> to the 14<sup>th</sup>. Many great sessions are being hosted this year, including some hosted by our members. Stay tuned to the Collaboratory list-serv and [iaglr.org/iaglr2019](http://iaglr.org/iaglr2019) for more details about registration and the program schedule.

## Detailed Updates

### Charter

At the beginning of 2018, a [Charter](#) was drafted and approved. The charter defines the Mission and Objectives, Operating Principles, and Organization Structure and Roles. The Charter was the first step in encouraging member-driven priorities and activities for the group.

### Steering Committee and Co-chairs

Appointed in the spring of 2018, the Steering Committee serves as a governing board for the collaborative. During quarterly meetings, the Steering Committee sets priorities and determines what activities the Collaboratory will pursue. The Steering Committee is led by Co-Chairs Silvia Newell and Michelle Selzer. The Steering Committee and Co-Chairs were appointed in the spring of 2018 and will serve for 2 years.

- Silvia Newell, *Wright State University*
- Reagan Errera, *NOAA-GLERL*
- Jan Ciborowski, *University of Windsor*
- Mary Anne Evans, *U.S. Geological Survey*
- Gina LaLiberte, *Wisconsin Department of Natural Resources*
- Brannon Walsh, *U.S. EPA*
- Michelle Selzer, *Michigan Office of the Great Lakes*
- Raj Bejankiwar, *International Joint Commission*
- Timothy Davis, *Bowling Green State University*
- Donna Hill, *U.S. EPA*
- Dale Robertson, *U.S. Geological Survey*
- Todd Miller, *University of Wisconsin-Milwaukee*

### Work Plan

Shortly after formation, the Steering Committee drafted and approved the 2018-2019 [Work Plan](#), which outlines what activities will be conducted to support the Mission and Objectives outlined in the Charter. The Steering Committee will be drafting the 2019-2020 Work Plan in the coming months, so please feel free to share any activities or ideas you have for the Work Plan.

### IAGLR Sessions and HABy hour

In 2017, the HABs Collaboratory members hosted a session to IAGLR titled “Harmful Algal Blooms (HABs) from Watershed influence to Ecosystem Effects” that had 19 oral presentations. The session was facilitated by Mary Anne Evans, Timothy Davis, George Bullerjahn, and Ken Gibbons. After a day of talks, the Collaboratory hosted a HABy hour where members could network and have informal discussion.



*Collaboratory members enjoying appetizers, refreshments, and conversation at the HABy hour in Detroit, MI.*

In 2018 at Toronto’s IAGLR conference, the Collaboratory aimed to create a larger, multi-day session all about HABs. In total, 19 members helped develop a session description that would encompass a broad array of topics around HABs. The session was titled “Great Lakes

Harmful Algal Blooms research and technology from watershed influence to ecosystem effects” and hosted 29 oral presentations over two days. The Collaboratory also hosted a HABy hour at the University of Toronto, Scarborough campus in which ~30 members met to network.



*Timothy Davis, Ken Gibbons, and Mary Anne Evans moderate the Friday afternoon session at IAGLR 2018.*

### HABs Collaboratory at ASLO

The HABs Collaboratory hosted town halls at the summer 2018 and winter ASLO meetings. These town halls invited all ASLO attendees in a facilitated discussion style event to share their experiences and learn about Strategies for Transboundary HABs Management. Kateri Salk (University of Waterloo), Mary Anne Evans (UGS) and Victoria Pebbles (GLC) helped organize these town hall events. HABs Collaboratory scientists were represented in scientific sessions at each meeting. The ASLO winter 2019 also featured a [presentation by Victoria Pebbles](#) highlighting the HABs Collaboratory as a boundary organization and model for collective impact.

## Funding

Through a competitive proposal process in 2018, Ohio Sea Grant and the State University of New York won funding from the HABs Collaboratory to pursue outreach activities related to HABs. Ohio Sea Grant completed work on an [interactive website](#) in December of 2018. This website contains an Overview of HABs, a brief video series, Q & A function to ask questions to an expert, and more! State University of New York is working to disseminate information about HABs using a targeted social media campaign on Facebook. Work is expected to be completed by summer 2019.

## Fact Sheets



*Silvia Newell displaying the outreach products at an algal bloom conference in Toledo, OH.*

Throughout 2017, subgroups were formed to create informational materials around important HABs topics. Originally, four subgroups were formed to focus on Toxicity, Sources of Phosphorus, Role of Nitrogen, and Cures to HABs. As the subgroups worked to develop content, the Sources of Phosphorus and Role of Nitrogen subgroups identified a target audience and format, which helped them produce products.

The Role of Nitrogen subgroup produced a short white paper titled [How Does Nitrogen Affect Harmful Algal Blooms?](#) to inform managers about the current understanding of the effect of nitrogen on Lake Erie HABs. Silvia Newell, Laura Johnson, Mark McCarthy, Justin

Chaffin, Kateri Salk, Mary Skopec, Austin Brian, Victoria Pebbles, and Ken Gibbons contributed to the success of this outreach piece.

The Sources of Phosphorus subgroup decided to tailor their outreach product to the public and create a one-page fact sheet explaining the sources of phosphorus to Lake Erie. Titled [Phosphorus \(P\) and HABs: Sources of P from the Maumee River](#), the first page of the fact sheet displays a large infographic depicting the relative contribution of P from agricultural fertilizers, manure from CAFOS, and urban sources. The rest of the fact sheet discusses the importance of P, different fractions of P, and gives a brief introduction to P loading. Rebecca Logsdon Muenich, Laura Johnson, John Bratton, Kristen DeVanna Fussell, Douglas Kane, Margret Kalcic, Dale Robertson, Sandra Eberts, Mary Anne Evans, and Ken Gibbons contributed to this fact sheet.

Since the creation of these fact sheets, they have been advertised through the HABs Collaboratory list-serv and Collaboratory Twitter, used as a handout at in-person meetings, and published on the GLC website.

Do you have an idea for a subgroup? If so, contact Ken Gibbons ([kgibbons@glc.org](mailto:kgibbons@glc.org)) to discuss creating a subgroup around a new topic.

## Webinars

Great Lakes Observing System (GLOS): On January 23<sup>rd</sup>, 2019 Kelli Paige, Executive Director of GLOS, presented an overview of GLOS, highlighted current work being done in Lake Erie, and shared future plans for GLOS. Links to: a [copy of the slides](#) and [recording](#).

Current and Emerging Technology in the Great Lakes: On November 14<sup>th</sup>, 2018, presenters highlighted technology that is currently being used and/or developed to measure water quality and harmful algal blooms in the Great Lakes. Links to: a [copy of the slides](#) and [recording](#).

2017 Field Season Webinar: On July 24<sup>th</sup>, 2017, seven presenters from a variety of institutions across the Great Lakes discussed upcoming field work for 2017. Links to: a [copy of the slides](#) and [recording](#).

Great Lakes HABs modelling webinar: On March 7<sup>th</sup>, 2017 Ed Verhamme and Serghei Bocaniov presented on models currently used for HABs and also discussed other process-based models that are suitable for HABs. Links to: a [copy of the slides](#) and [recording](#).

## Erie Hack Mini Challenge

Erie Hack is an innovation challenge that connects researchers, designers, engineers, developers and creatives around the region to build teams to accelerate technology solutions to Lake Erie's most pressing problems. Problems are presented to teams in the form of "challenges". In February 2019, the Collaboratory submitted a few mini-challenges focused around HABs:

- Develop sorbent technologies for removal of dissolved phosphorus.
- Develop new probes to measure algal toxins and SRP.
- Develop improved forecast models for HABs and toxins, including environmental fate and transport of toxins.

These challenges were chosen since they are pertinent issues surrounding HABs that could be solved with technological advances. While you won't read about these specific mini-challenges on the [ErieHack](#) web site, the HABs Collaboratory team has been paired to help mentor David and Andrew Burgess--a father son duo investigating the ability to use zebra mussel shells as a sorbent technology to remove phosphorus from runoff. If you are interested in learning more about our mini-challenges or mentoring David and Andrew, please contact Ken Gibbons at [kgibbons@glc.org](mailto:kgibbons@glc.org). Erie Hack will culminate on June 20<sup>th</sup> in Cleveland, Ohio where finalists will present their ideas and judges will identify winners.

## Twitter

The Collaboratory is now active on Twitter! Follow us to get up-to-date information about the group and to view HABs related content.



## Join our List-serv!

To join our list-serv and receive announcements from the HABs Collaboratory, please email Ken Gibbons ([kgibbons@glc.org](mailto:kgibbons@glc.org)) and he will add you to the list.