

International Association  
for Great Lakes Research

**57TH ANNUAL  
CONFERENCE ON  
GREAT LAKES  
RESEARCH**

at McMaster University

May 26-30, 2014



**PROGRAM**

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# PROGRAM

57th Annual Conference on Great Lakes Research



May 26–30, 2014  
McMaster University

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

Cover design and conference logo by Jenifer Thomas



OFFICE OF THE MAYOR

BOB BRATINA  
MAYOR OF HAMILTON

August 27, 2013

Dr. Patricia Chow-Fraser  
Director, Life Sciences Program  
McMaster University | 1280 Main St. W.  
Hamilton, ON, Canada L8S 4K1

Dear Dr. Chow-Fraser

On behalf of the City of Hamilton, I extend a sincere and warm welcome to all attending the 57th Annual Meeting of the International Association for Great Lakes Research (IAGLR) which will be held in Hamilton.

It is an honour for our city to host this prestigious event. We are prepared to showcase all Hamilton has to offer to you, colleagues, delegates and presenters from across Ontario, Canada and the United States of America.

I am pleased to know that the attendees will have an opportunity to enjoy some of the local highlights in Hamilton. I hope that you will take advantage of some of your free time to engage with the many entertaining sights and sounds of Hamilton. Savour our many fine restaurants and wineries, explore our beautiful waterfront and waterfalls, and enjoy our cultural treasures and attractions.

Our community has much to offer for all who are attending the 57th Annual IAGLR meeting. We are very proud to welcome this important event to Hamilton.

Best wishes for a successful learning and networking event. We look forward to your next visit.

Sincerely,

*Bob Bratina*

Robert Bratina  
Mayor



## Conference Sponsors

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Monday: 3:30 p.m. - 8:30 p.m.  
*McMaster University Student Centre*

Tuesday-Thursday, 7:30 a.m. - 5:00 p.m.  
*Michael DeGroot Centre for Learning & Discovery*

Friday, 7:30 a.m. - 1 p.m.  
*Michael DeGroot Centre for Learning & Discovery*

---

# EXHIBITORS

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## Welcome Conference Exhibitors!

Exhibits are open daily in the Michael DeGroote Centre for Learning and Discovery.

**EcoAnalysts, Inc**

420 S Blaine Street, Suite 14  
Moscow, ID 83843  
*ecoanalysts.com*

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*enviro-analytical.com*

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*fluidimaging.com*

**Great Lakes Fishery  
Commission**

2100 Commonwealth Boulevard,  
Suite 100  
Ann Arbor, MI 48105  
*glfc.org*

**Hach Hydromet**

5600 Lindbergh Drive  
Loveland, CO 80539  
*hachhydromet.com*

**Hamilton Harbor RAP**

867 Lakeshore Road  
Burlington, ON L7R 4A6  
*hamiltonharbour.ca*

**Hoskin Scientific**

4210 Morris Drive  
Burlington, ON L7L 5L6  
*hoskin.ca*

**Illinois-Indiana Sea Grant**

1101 Peabody Drive  
Urbana, IL 61801  
*iisgcp.org*

**International Joint Commission,  
Great Lakes Regional Office**

100 Ouellette Avenue,  
8th Floor  
Windsor, ON N9A 6T3  
*ijc.org*

**RBR**

95 Hines Road, Unit 5  
Ottawa, ON K2K 2M5  
*rbr-global.com*

**University of Michigan Water  
Center**

214 S. State Street, Suite 200  
Ann Arbor, MI 48104  
*graham.umich.edu/water*

**U.S. Dept. of Commerce, NOAA  
Great Lakes Environmental  
Research Laboratory**

4840 South State Road  
Ann Arbor, MI 48108  
*glerl.noaa.gov*

**Vemco**

20 Angus Morton Drive,  
Bedford, NS B4B 0L9  
*vemco.com*

*A special thanks to the following exhibitors, whose ongoing support is vital in our efforts to advance Great Lakes science.*

**ELSEVIER**

*Publisher of the Journal of Great Lakes Research*

**GREAT LAKES FISHERY COMMISSION**

*Sponsor of the Norman S. Baldwin Fishery Science Scholarship*

**HACH HYDROMET**

*Sponsor of the LAGLR- HydroLab Best Student Paper & Best Student Poster Award*

**U.S. Dept. of Commerce, NOAA, GREAT LAKES  
ENVIRONMENTAL RESEARCH LABORATORY**

*Sponsor of LAGLR's office space*

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## SUSTAINING MEMBERS

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We extend our deepest appreciation to our sustaining members. Their annual contributions over the years provide a valuable source of support for IAGLR. We invite your organization to join their ranks in supporting Great Lakes research.

**Great Lakes Fishery Commission**

Ann Arbor, MI

*Since 1979*

**International Joint Commission,  
Great Lakes Regional Office**

Windsor, ON

*Since 1984*

**U.S. Environmental Protection Agency  
Great Lakes National Program Office**

Chicago, IL

*Since 1991*

**Great Lakes Protection Fund**

Chicago, IL

*Since 1992*

**U.S. Dept. of Commerce, NOAA, Great Lakes  
Environmental Research Laboratory**

Ann Arbor, MI

*Since 1994*

---

### JOIN IAGLR!

---

If you're interested in supporting the scientific community in its work in the exploration, discussion and resolution of Great Lakes issues, consider joining IAGLR! Individual or sustaining memberships are available. Further information may be found on our website, [iaglr.org](http://iaglr.org).

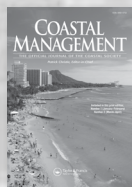
IAGLR members receive the following benefits:

- Online and print subscription to the *Journal of Great Lakes Research*
- Annual Conference on Great Lakes Research registration discount
- IAGLR Notes*, an e-mail news service
- Access to our private *IAGLR Membership Directory*
- Access to and/or volunteer for IAGLR's *Expert Directory*
- Recognition through prestigious peer-reviewed IAGLR awards
- Free Contents Direct email alerting service
- Additional discounts available from Elsevier
- Eligibility for election to serve on the IAGLR Board of Directors
- Opportunities to work on various committees
- Networking resources
- The Job Board to advertise job openings or seek employment
- Keeping abreast or posting news of interest on our website
- Reduced fees, but full benefits, for students, retirees, and young professionals!



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## Lake and Reservoir Management

*An International Journal of  
the North American  
Lake Management Society*

**New  
Editor!**

**Editor-in-Chief: Al Sosiak,**  
*Sosiak Environmental Services*

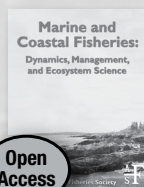
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[www.tandfonline.com/ULRM](http://www.tandfonline.com/ULRM)



## Reviews in Fisheries Science

**Editor:**  
**Sandra E. Shumway,**  
*University of Connecticut*

Volume 22, 2014 • 4 issues per year  
[www.tandfonline.com/BRFS](http://www.tandfonline.com/BRFS)



## Marine and Coastal Fisheries

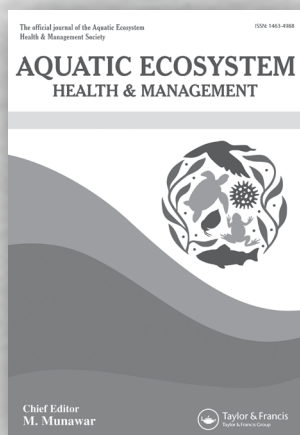
*An International Journal of the  
American Fisheries Society*

**Editor-in-Chief: Don Noakes,**  
*Thompson Rivers University*

Volume 6, 2014 • 1 issue per year  
[www.tandfonline.com/MC](http://www.tandfonline.com/MC)

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## Aquatic Ecosystem Health & Management



*The Official Journal of the  
Aquatic Ecosystem Health  
and Management Society*

**Chief Editor: M. Munawar,**  
*Fisheries & Oceans Canada,  
Canada Centre for Inland Waters*

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# CONFERENCE ORGANIZERS

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## **Conference Site Chair and Program Co-Chair**

Patricia Chow-Fraser, McMaster University

## **Program Co-Chair**

Gail Krantzberg, McMaster University

## **IAGLR Conference Coordinator**

Mary Ginnebaugh

## **IAGLR Business Manager**

Wendy Foster

## **Conference Website & Communications**

Paula McIntyre

## **Student Judging Coordinator**

Theresa Qualls, NEW Water, Green Bay Metropolitan Sewerage District

## **Local Arrangements**

Laurie Ham, McMaster University Conference & Events Services

Hans Biberhofer, Environment Canada

John Paul Leblanc, Graduate Student Volunteer Coordinator, McMaster University

Andrea Kirkwood, University of Ontario Institute of Technology

## **IAGLR Conference Committee**

Jim Bence, Chair

Jerome Marty, Co-Chair

Douglas Kane, Vice President

Christine Meyer, Treasurer

Samantha Oliver, Student Board Member

Wendy Foster, Business Manager

Tomas Hook, 2013 Site Co-Chair

Patricia Chow-Fraser, 2014 Site Chair

Ellen Marsden, 2015 Site Co-Chair

Jason Stockwell, 2015 Site Co-Chair

Rob Letcher, past IAGLR President

Mary Ginnebaugh, IAGLR Conference Coordinator

## **IAGLR Board of Directors**

Jerome Marty, President

Douglas Kane, Vice President

James Bence, Past President

Christine Mayer, Treasurer

Veronique Hiriart-Baer, Secretary

Aaron Fisk, Board Member

Scott Higgins, Board Member

Val Klump, Board Member

Stuart Ludsin, Board Member

Jenilee Gobin, Student Board Member

Samantha Oliver, Student Board Member

## **Win a free IAGLR Membership!**

Show your support for promising young researchers and enter our drawing to win a free 2015 IAGLR membership.

Just make a minimum \$10 donation to our IAGLR scholarship fund and get an IAGLR lapel pin. We'll draw one lucky winner at the banquet on Thursday night. *One entry per person.*

---

## SPECIAL EVENTS

---

### Welcome Reception

Monday, May 26  
6:00 p.m. - 9:00 p.m.  
McMaster University Student Centre,  
Atrium

### Opening Ceremonies

Tuesday, May 27  
10:50 a.m. - 11:50 a.m.  
Michael DeGroote Centre for Learning  
and Discovery, Room 1305/1307

### JGLR Editors Reception

Tuesday, May 27  
6:00 p.m. - 7:00 p.m.  
David Braley Athletic Centre,  
Room WB 113

### Poster Session

Tuesday, May 27  
6:00 p.m. - 9:00 p.m.  
David Braley Athletic Centre

### IAGLR Hockey

Tuesday, May 27  
9:00 p.m. - 11:00 p.m.  
Mohawk 4 Ice Centre

### Plenary featuring John Hartig

Wednesday, May 28  
10:50 a.m. - 11:50 a.m.  
Michael DeGroote Centre for Learning  
and Discovery, Room 1305/1307

### IAGLR Business Lunch

Wednesday, May 28  
Noon - 1:00 p.m.  
David Braley Athletic Centre

### IAGLR Barbecue

Wednesday, May 28  
6:00 p.m. - 8:00 p.m.  
David Braley Athletic Centre

### Plenary featuring Peter Annin

Thursday, May 29  
10:50 a.m. - 11:50 a.m.  
Michael DeGroote Centre for Learning  
and Discovery, Room 1305/1307

## IAGLR Banquet & Awards Ceremony

Thursday, May 29, 6:00 p.m. - 9:00 p.m.  
David Braley Athletic Centre



Featuring Guest Speaker,  
the Honourable Member of  
Parliament, Elizabeth May,  
Leader of Canada's  
Green Party

### IAGLR Awards

IAGLR Lifetime Achievement Award for important and continued  
contributions to Great Lakes research

Jack R. Vallentyne Award for outreach and education

Anderson-Everett Award for outstanding contributions to the Association

Chandler-Misener Award for outstanding article in the *Journal of Great Lake  
Research*

Editor's Award

Elsevier Best Reviewer Award for the *Journal of Great Lakes Research*

Elsevier Young Scientist Award

Elsevier Young Student Award

IAGLR-HydroLab Best Student Paper - 2013

IAGLR-HydroLab Best Student Poster - 2013

IAGLR Appreciation Awards

### IAGLR Scholarships

IAGLR-OMNR Student Travel Award

IAGLR Scholarship

Norman S. Baldwin Fishery Science Scholarship

Paul W. Rodgers Scholarship

Announcement of the David M. Dolan Scholarship

# OVERVIEW OF CONFERENCE ACTIVITIES

## MONDAY, May 26

---

8:30 a.m. - 5:00 p.m.  
**IAGLR Board Meeting**  
Commons Building,  
Skylight Room

3:30 p.m. - 8:30 p.m.  
**Registration**  
McMaster University Student  
Centre, South Entrance

6:00 p.m. - 9:00 p.m.  
**Welcome Mixer**  
McMaster University Student  
Centre, Atrium

## TUESDAY, May 27

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7:30 a.m. - 5:00 p.m.  
**Registration**  
Michael DeGroote Centre for  
Learning and Discovery

8:10 a.m. - 10:30 a.m.  
**Concurrent Sessions**  
Michael DeGroote Centre for  
Learning and Discovery

10:50 a.m. - 11:50 a.m.  
**Welcome and Plenary  
featuring Lenore Fahrig**  
Michael DeGroote Centre for  
Learning and Discovery,  
Room 1305/1307

1:10 p.m. - 5:50 p.m.  
**Concurrent Sessions**  
Michael DeGroote Centre for  
Learning and Discovery

6:00 p.m. - 9:00 p.m.  
**Poster Session**  
David Braley Athletic Centre

9:00 p.m. - 11:00 p.m.  
**IAGLR Hockey**  
Mohawk 4 Ice Centre

## WEDNESDAY, May 28

---

7:30 a.m. - 5:00 p.m.  
**Registration**  
Michael DeGroote Centre for  
Learning and Discovery

8:10 a.m. - 10:30 a.m.  
**Concurrent Sessions**  
Michael DeGroote Centre for  
Learning and Discovery

10:50 a.m. - 11:50 a.m.  
**Plenary featuring  
John Hartig**  
Michael DeGroote Centre for  
Learning and Discovery,  
Room 1305/1307

12:00 p.m. - 1:00 p.m.  
**IAGLR Business Lunch**  
David Braley Athletic Centre

1:10 p.m. - 5:50 p.m.  
**Concurrent Sessions**  
Michael DeGroote Centre for  
Learning and Discovery

6:00 p.m. - 8:00 p.m.  
**IAGLR Barbecue**  
David Braley Athletic Centre

8:00 p.m. - 10:00 p.m.  
**Graduate Student Mixer**  
Phoenix

## THURSDAY, May 29

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7:30 a.m. - 5:00 p.m.  
**Registration**  
Michael DeGroote Centre for  
Learning and Discovery

8:10 a.m. - 10:30 a.m.  
**Concurrent Sessions**  
Michael DeGroote Centre for  
Learning and Discovery

10:50 a.m. - 11:50 a.m.  
**Plenary featuring  
Peter Annin**  
Michael DeGroote Centre for  
Learning and Discovery,  
Room 1305/1307

11:50 a.m. - 1:10 p.m.  
**GEO Great Lakes Annual In-  
Person Meeting**  
Michael DeGroote Centre for  
Learning and Discovery,  
Room 3020

1:10 p.m. - 5:50 p.m.  
**Concurrent Sessions**  
Michael DeGroote Centre for  
Learning and Discovery

6:00 p.m. - 9:00 p.m.  
**Banquet & Awards Ceremo-  
ny featuring the Honourable  
Elizabeth May, Leader of  
Canada's Green Party**  
David Braley Athletic Centre

## FRIDAY, May 30

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7:30 a.m. - 1:00 p.m.  
**Registration**  
Michael DeGroote Centre for  
Learning and Discovery

8:10 a.m. - 12:30 p.m.  
**Concurrent Sessions**  
Michael DeGroote Centre for  
Learning and Discovery

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## PLENARY, TUESDAY, MAY 27

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10:50 a.m. - 11:50 a.m.

Michael DeGroot Centre for Learning and Discovery  
Room 1305/1307



### *Roads & Wildlife: from Mechanism to Mitigation in an Increasingly Urbanized Landscape*

**Featuring Lenore Fahrig**  
Professor, Carleton University

---

One of the biggest recent changes in the Great Lakes basin is the large influx of people into urban centers around the waterfront and the concomitant increase in road networks. This has inevitably led to conflicts with wildlife populations in the vicinity of roads and traffic, and has resulted in even more diminished wildlife populations, including species at risk. Identifying the mechanism(s) that cause these conflicts is necessary for designing effective road mitigation measures within areas that we want to have restored biodiversity. If the mechanism is road mortality then mitigation should aim to keep wildlife off roads. Alternatively, if the mechanism is the movement barrier effect (reduced habitat accessibility) then mitigation should aim to facilitate animal movement across roads. On the other hand, if the mechanism is noise disturbance then mitigation should aim to reduce traffic noise. We have been conducting research on this problem over the past 20 years in Eastern Ontario. I summarize this work and argue that, in the majority of circumstances, traffic mortality is most important mechanism causing negative impacts of roads on wildlife populations. Therefore, road mitigation measures should aim first and foremost at keeping animals off roads.

#### **About Dr. Fahrig**

*Dr. Lenore Fahrig, Professor of Biology at Carleton University in Ottawa, is a leading researcher in landscape ecology and road ecology. Her research approach is to build general theory and test predictions using field studies on a wide range of organisms to develop general principles for conservation. She is best known for having shown that habitat loss is far more important than habitat fragmentation in affecting wildlife populations. In addition, her work on the mechanisms behind population-level effects of roads and her studies showing that landscape context affects populations at very large distances have important implications for regional conservation planning. She has published over 100 papers, and her work has been cited more than 18,000 times.*

10:50 a.m. - 11:50 a.m.

Michael DeGroote Centre for Learning and Discovery  
Room 1305/1307

## *Cleanup and Recovery of the Detroit River: Looking Backward and Forward*

### **Featuring John Hartig**

Refuge Manager, Detroit River International Wildlife Refuge

---

The Detroit River is not a river as most people understand it, but a 51.5-km connecting channel through which the entire upper Great Lakes flow to the lower lakes. It provides 80% of the inflow to Lake Erie. This plethora of freshwater and the exceptional fish, wildlife, and plant resources associated with it provided sustenance to Native Americans for thousands of years. Europeans came in search of furs and established Detroit in 1701, three-quarters of a century before the founding of the United States. Through its history, the Detroit River has experienced a number of “tipping points” as a result of human use and abuse. These tipping points include the fur trade era, water-borne disease epidemics, oil pollution during and after Detroit became the “Arsenal of Democracy,” cultural eutrophication in the 1960s, and the “Mercury Crisis of 1970.” This presentation will document the recovery of the Detroit River from being one of the most polluted rivers in North America to today being part of the Detroit River International Wildlife Refuge. Further, it will look forward at what it will take to avoid the next tipping point and to achieve sustainability.



*Dr. John Hartig is trained as a limnologist with 30 years of experience in environmental science and natural resource management. He currently serves as Refuge Manager for the Detroit River International Wildlife Refuge and serves on the Detroit Riverfront Conservancy Board of Directors. From 1999 to 2004 he served as River Navigator for the Greater Detroit American Heritage River Initiative established by Presidential Executive Order. Prior to becoming River Navigator, he*

*spent 12 years working for the International Joint Commission on the Canada-U.S. Great Lakes Water Quality Agreement. John has been an Adjunct Professor at Wayne State University where he taught Environmental Management and Sustainable Development, and has served as President of the International Association for Great Lakes Research. He has authored or co-authored over 100 publications on the Great Lakes. John has received a number of awards for his work.*

### **About Dr. Hartig**

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## PLENARY, THURSDAY, MAY 29

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10:50 a.m. - 11:50 a.m.

Michael DeGroot Centre for Learning and Discovery

Room 1305/1307



### *Update on the Great Lakes Water Wars*

#### **Featuring Peter Annin**

Author and Environmental Journalist;

Managing Director of Notre Dame Environmental Change Initiative

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This presentation delves into the long history of political maneuvers and water diversion schemes that have proposed sending Great Lakes water everywhere from Akron to Arizona. Through the prism of the past, this talk analyzes the future of Great Lakes water diversion schemes, which now rests on the Great Lakes Compact released by the eight Great Lakes governors in December 2005. The Compact, which lays out how much water can be taken and who can take it, was adopted by the eight state legislatures in the Great Lakes region as well as the U.S. Congress before eventually being signed by the president in 2008. A similar agreement was adopted by the provinces of Ontario and Quebec. The talk analyzes several noteworthy Great Lakes diversions that already exist, and sheds light on potential water diversions of the future, including the water diversion application submitted by Waukesha, Wisconsin in 2010. A decision on the Waukesha water diversion application is expected in 2014.

#### **About Peter Annin**

*Peter Annin is managing director of the University of Notre Dame's Environmental Change Initiative. Prior to joining Notre Dame, he spent many years as a veteran conflict and environment reporter for Newsweek. For much of his career he specialized in coverage of domestic terrorism and the radical right, including the bombing of the federal building in Oklahoma City and the Branch Davidian standoff outside Waco, Texas. He spent many years writing about the environment as well, including droughts in the Southwest, hurricanes in the Southeast, wind power on the Great Plains, forest fires in the mountainous West, recovery efforts on the Great Lakes, and the causes and consequences of the "dead zone" in the Gulf of Mexico. In September 2006 he published his first book, *The Great Lakes Water Wars*, which has been called the definitive work on the Great Lakes water diversion controversy. In 2007 the book received the Great Lakes Book Award for nonfiction.*

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# ORAL & POSTER PRESENTATION GUIDELINES

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## Oral Presentations

All presentation slots are 20 minutes and are strictly enforced. Your presentation should be 15 minutes, leaving five minutes for questions and the transition to the next speaker.

An LCD projector and dedicated computer will be in each of the Michael DeGroot Centre for Learning and Discovery (MDCL) lecture halls where the sessions will be held. All presentations must be loaded on the computer in the MDCL lecture hall/session room where you are to give your presentation prior to the start of your session. These computers run PowerPoint on a Windows environment only and are password-protected. Only the assigned student volunteer can load the presentations. Presenters may not use their own laptops.

Please label your presentation file as follows:

Day\_Room Number\_HH:MM\_Lastname  
(e.g. 27\_1008\_11:50\_Chow-Fraser)

You can verify the day, room number and time of your presentation by visiting the program page on the conference website at [iaglr.org/conference/abstracts/listsession.php](http://iaglr.org/conference/abstracts/listsession.php).

### Options for uploading:

1. Uploading in the lecture hall/session room: Please bring your presentation on a USB flash drive to the lecture hall/room at least half a day before your session starts. Presentations can be uploaded between 7:50 a.m. and 5 min prior to the first talk of the session or during morning and afternoon breaks from Tuesday to Friday.
2. Uploading at the registration desk: A student volunteer will be available to upload your presentation at the Registration Desk in the McMaster University Student Centre Market Place on Monday between 3:30 and 8:30 p.m. If your presentation is on Tuesday morning, this is the best time to upload your presentation. We will make sure your file is loaded ahead of time in the appropriate lecture hall. Otherwise, you will have to upload your talk in the lecture hall/room at 7:50 a.m. on Tuesday morning.

From Tuesday to Friday of the conference, presenters may drop off their USB flash drives with appropriately labeled presentations at the Registration Desk in the MDCL building between 9:30 and 10:30 a.m. and between 2:30 and 4:30 p.m. at least one day prior to your presentation. We will make sure your file is loaded in the appropriate lecture hall.

## Poster Presentations

The poster session will take place on the evening of Tuesday, May 27 in the David Bradley Athletic Centre (DBAC) from 6:00 to 9:00 p.m. Presenters will be allowed to begin mounting their display on their assigned board after lunch on Tuesday afternoon. Assembly and mounting must be completed before 5:30 p.m. Tuesday and removed that evening but no sooner than 8:30 p.m.

### Mounting your poster:

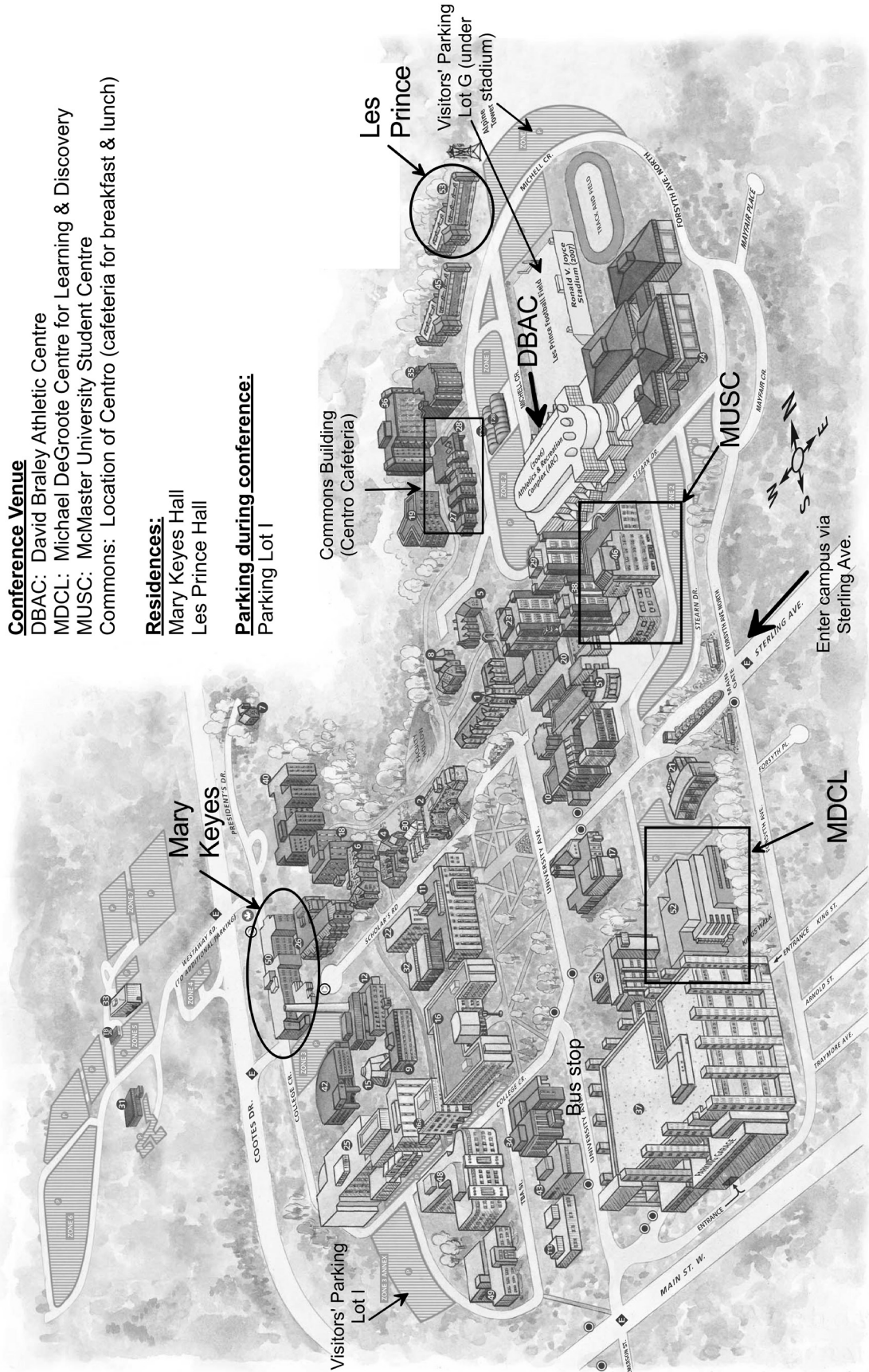
Each poster display will be 4ft tall x 8ft wide (122cm x 244cm) and your poster will be mounted horizontally. This measurement includes a 2-inch metal frame border. All poster material must be confined to the space provided. The poster board surface consists of fabric over cork board. We will provide velcro for you to mount your poster on the board. A program committee member and/or student volunteers will be present in the Poster area and available to provide assistance between 2:30 and 4:30 p.m. on Tuesday. Presenters are expected to attend their poster during the evening poster session to answer questions about your poster. This is especially important for student presenters who are candidates for the Best Poster IAGLR-HydroLab Award.

**Presentations and posters are the property of the presenter. Audio recordings, copying, videotaping or photographing a presentation or poster without the express permission of the presenter is strictly prohibited.**

### Internet Access

The entire McMaster University campus is served with WiFi, including the residence halls. When you pick up your registration materials at the Registration Desk, you will receive a unique password to use to connect to the WiFi network “MacConnect.”

# CAMPUS MAP

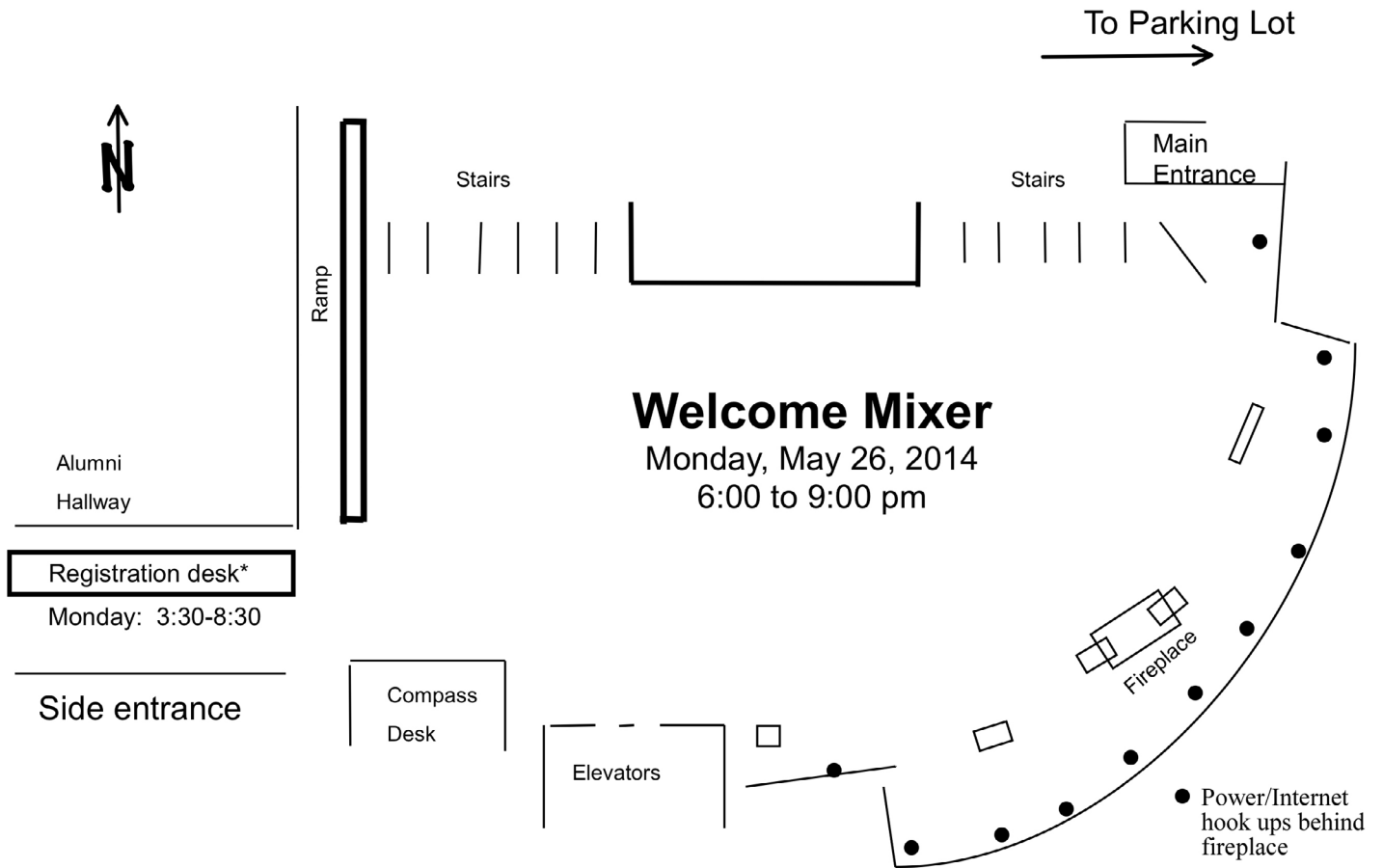




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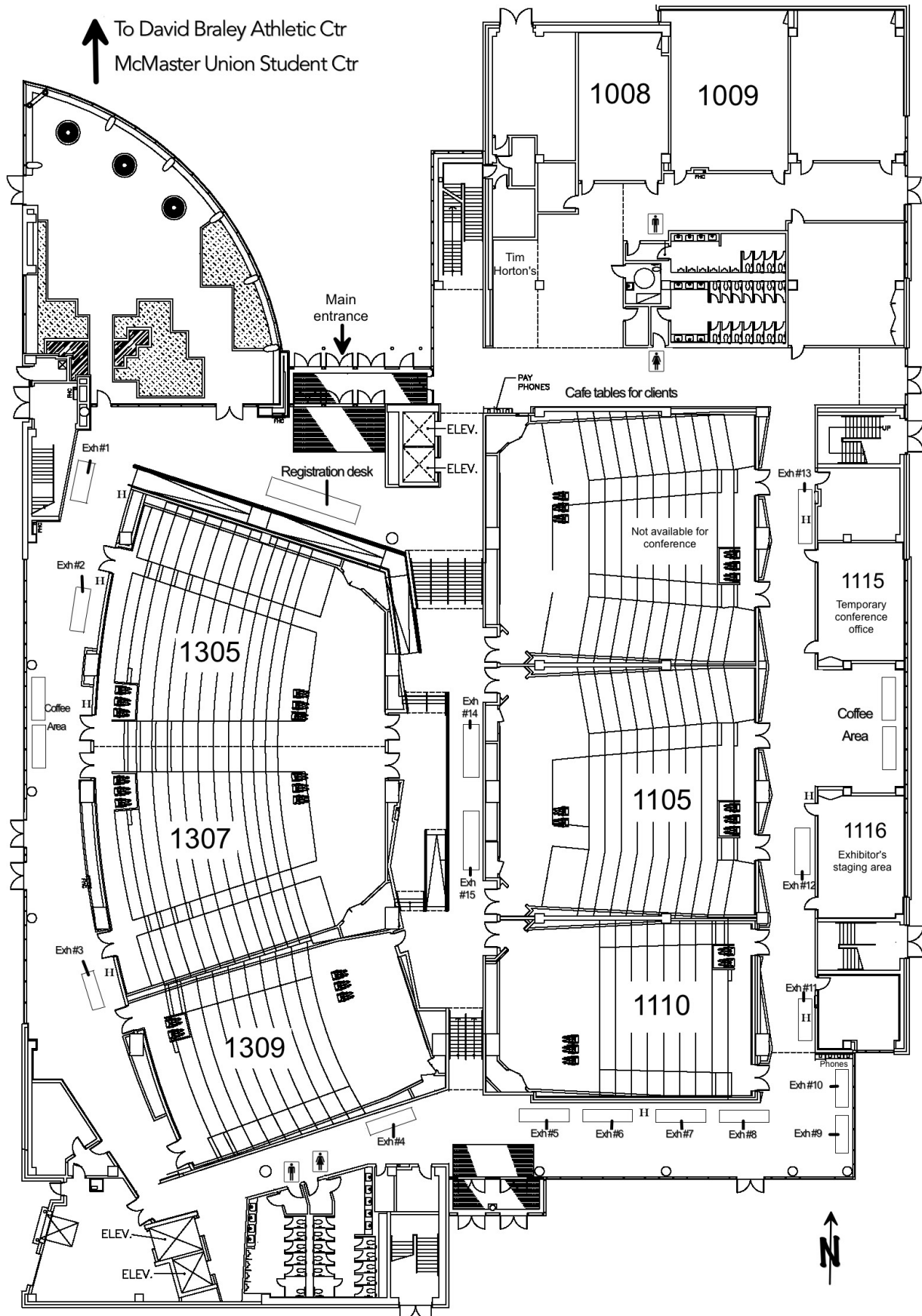
# MCMaster UNIVERSITY STUDENT CENTRE

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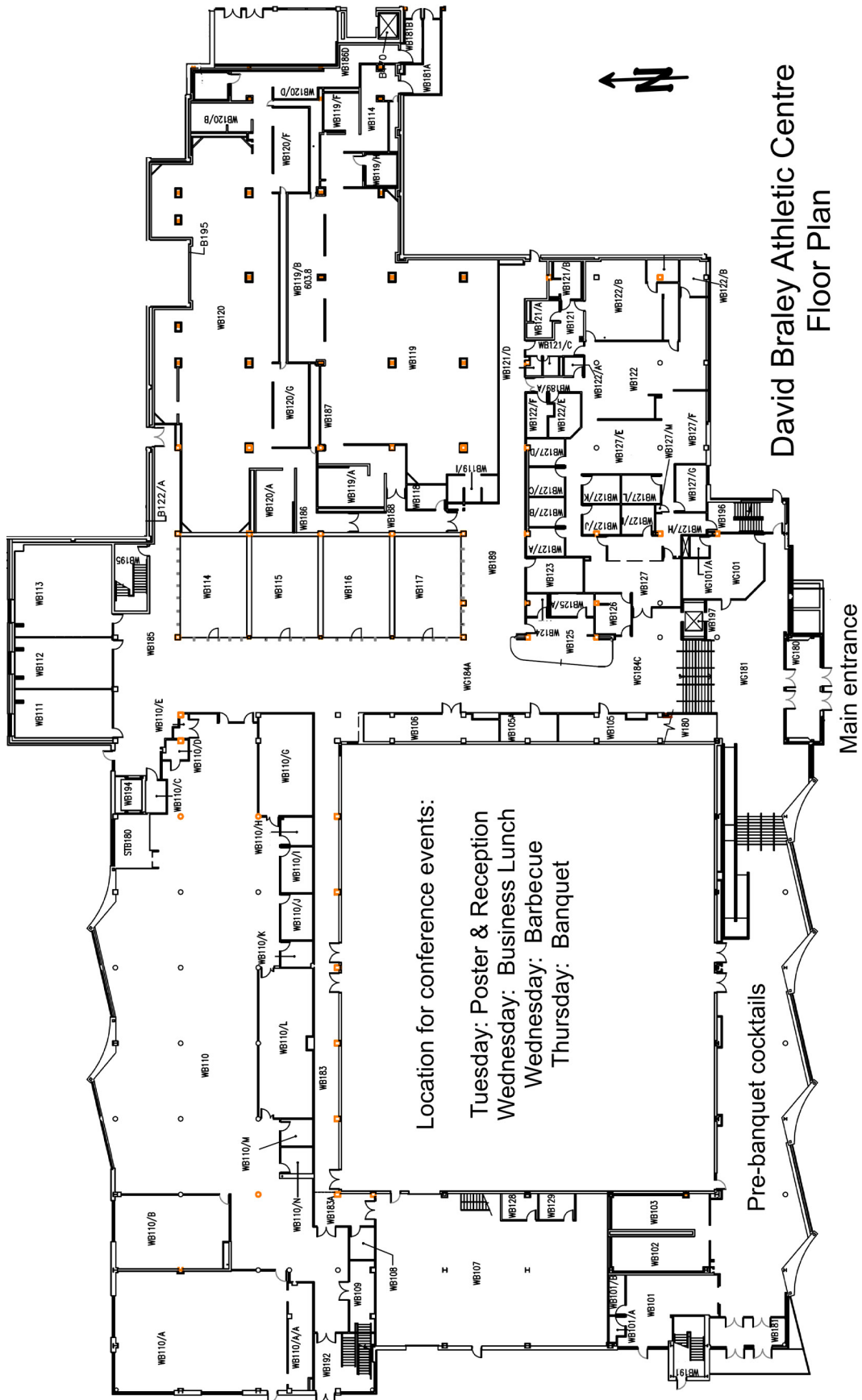


\* Registration desk will only be in this location on Monday, May 26. On all other days, registration will be in the Michael DeGroot Centre for Learning and Discovery.

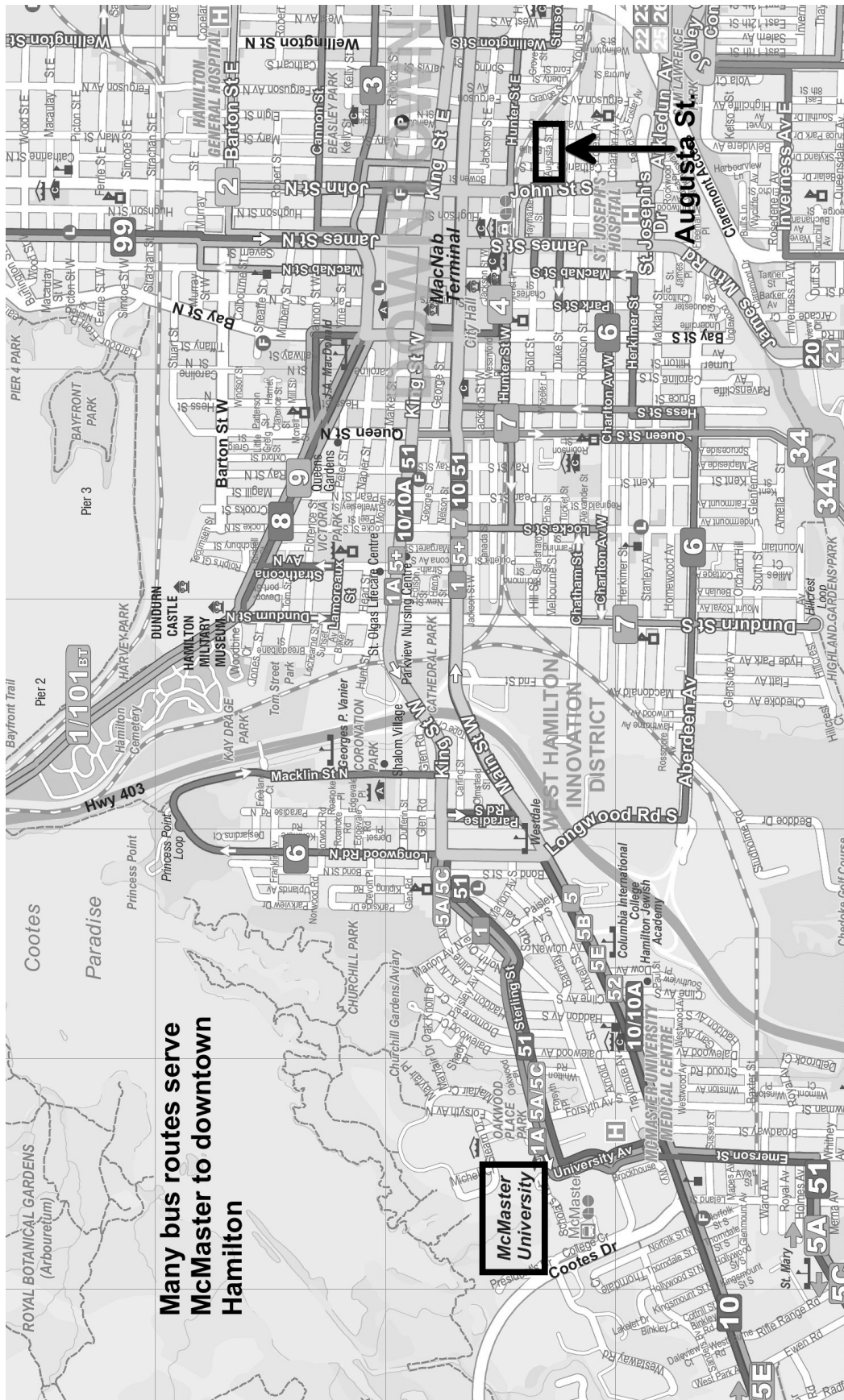
# MICHAEL DEGROOTE CENTRE FOR LEARNING & DISCOVERY



# DAVID BRALEY ATHLETIC CENTRE



# BUS ROUTES FROM DOWNTOWN TO CAMPUS



# EATERIES



- Main St.**
- H = Gino's \$
  - I = Taco Del Mar \$
  - J = Subway \$
  - K = Maple Leaf Pancake House \$\$
  - L = Tally Ho Restaurant \$\$ (Family dining)
  - M = Beijing Hut \$ (Chinese)

- Westdale**
- A = Pita Pit \$
  - B = Koosh \$\$\$ Fine dining (Pasta)
  - C = Saigaon Asian \$\$
  - D = Bean Bar \$\$\$ (Fusion and desserts)
  - E = Snooty Fox \$\$ Pub fare
  - F = Basilique Restaurant \$\$ (Italian)

- On campus:**
- N = Williams Coffee Pub \$\$ (2nd floor of Health Sci library)
  - O = The Phoenix Campus Pub \$\$
  - P = La Piazza Food Court at MUSC
- Westdale Village is < 1.5 km from entrance of Sterling & Forsythe, about 10 min walk*

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# THINGS TO DO

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## Hamilton Harbour

The harbour, also referred to as “Burlington Bay,” is located at the western end of Lake Ontario. To the northwest of the harbour is the City of Burlington, with a population of 175,000; to the west and southwest is the City of Hamilton, with a population of 525,000; and to the east is Hamilton Beach. It is connected to Cootes Paradise Marsh, which is the site of one of the largest freshwater marsh restoration projects in the Great Lakes. Called “Project Paradise,” the restoration is led by the Royal Botanical Gardens, owner and manager of the wetland and surrounding lands. The Bay Area Restoration Council is a community not-for-profit group that assesses and promotes clean-up projects in Hamilton Harbour and its watershed. See a history of the harbour and the Hamilton Harbour Remedial Action Plan.



*Photo courtesy Patricia Chow-Fraser*

## Bayfront Park

This park is located at the western end of Hamilton Harbour, near Bay Street North. Creation of this park reconnected the public with the waterfront in the 1990s. It includes shoreline with integrated fish habitat and natural vegetation, as well as a protected sandy beach. It is a popular destination in the summer where festivals and concerts are held. There are pedestrian and bicycle trails that connect to Pier 4 Park.



*Photo courtesy Wikimedia*

## Pier 4 Park

Pier 4 Park is located close to the Bayfront Park and was re-developed to provide a playground for children. It features a 24-m tugboat and is popular with children of all ages. There are sun shelters, benches and great vistas of the bay.



*Photo courtesy Wikimedia*

### TUESDAY, May 27

- 8:10 a.m. - 10:30 a.m. Hydroclimatic Variability in the Great Lakes Region and Its Impact on Aquatic Ecosystems  
*Room 1305*
- 8:30 a.m. - 10:30 a.m. Microplastic Pollution in the Great Lakes Ecosystem  
*Room 1008*
- 8:30 a.m. - 10:30 a.m. Citizen Science, Outreach, and Education in the Great Lakes Basin  
*Room 1009*
- 8:30 a.m. - 10:30 a.m. Ecology in Tributaries of the Great Lakes  
*Room 1105*
- 8:30 a.m. - 10:30 a.m. Physical Processes and Biological Dynamics in the Changing Great Lakes of the World  
*Room 1110*
- 8:30 a.m. - 10:30 a.m. Lake Simcoe: An Ecosystem in Transition  
*Room 1307*
- 8:30 a.m. - 10:30 a.m. State of the Hamilton Harbour Ecosystem: Health, Integrity, and Management  
*Room 1309*
- 1:10 p.m. - 3:30 p.m. Great Lake Esocids: Overcoming Challenges and Future Status of Important Apex Predators  
*Room 1008*
- 1:10 p.m. - 3:10 p.m. Citizen Science, Outreach, and Education in the Great Lakes Basin  
*Room 1009*
- 1:10 p.m. - 5:50 p.m. Advancement in the Development and Application of Great Lakes Ecosystem Indicators  
*Room 1105*
- 1:10 p.m. - 5:30 p.m. Physical Processes and Biological Dynamics in the Changing Great Lakes of the World  
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- 1:10 p.m. - 5:50 p.m. Lake Simcoe: An Ecosystem in Transition  
*Room 1307*
- 1:10 p.m. - 5:10 p.m. State of the Hamilton Harbour Ecosystem: Health, Integrity, and Management  
*Room 1309*
- 3:50 p.m. - 5:50 p.m. Remote Sensing, Visualization, and Spatial Data Applications for the Great Lakes  
*Room 1008*
- 3:50 p.m. - 5:10 p.m. Towards Governance Indicators for the Great Lakes Region  
*Room 1009*
- 3:50 p.m. - 5:50 p.m. Linking Watershed Processes to the Fate and Transport of Pollutants in Urban Waterways  
*Room 1305*

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## SESSION OVERVIEW

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### WEDNESDAY, May 28

- 8:10 a.m. - 10:30 a.m. Emerging issues related to microbes, nutrients, contaminants and toxins  
*Room 1009*
- 8:10 a.m. - 10:30 a.m. Responses of Fish and Fisheries to the Recent Food Web Changes in Lake Huron  
*Room 1110*
- 8:10 a.m. - 10:30 a.m. Magnitude, Timing, and Pathways of Nutrient and Sediment Loading: The Importance of Season  
*Room 1307*
- 8:30 a.m. - 10:30 a.m. Remote Sensing, Visualization, and Spatial Data Applications for the Great Lakes  
*Room 1008*
- 8:30 a.m. - 10:30 a.m. Invasive Round Goby as Drivers of Ecological Change in the Laurentian Great Lakes  
*Room 1105*
- 8:30 a.m. - 10:30 a.m. Exploring the Functioning of Lake Ontario Ecosystem: An Intensive Field Year Perspective  
*Room 1305*
- 8:30 a.m. - 10:30 a.m. Salmonid Feeding Ecology in Changing Great Lakes Food Webs  
*Room 1309*
- 1:10 p.m. - 4:50 p.m. Remote Sensing, Visualization, and Spatial Data Applications for the Great Lakes  
*Room 1008*
- 1:10 p.m. - 5:10 p.m. Field and Watershed Modeling: Scaling up the Effects of BMPs in Reducing Pollutant Exports  
*Room 1009*
- 1:10 p.m. - 4:50 p.m. Invasive Round Goby as Drivers of Ecological Change in the Laurentian Great Lakes  
*Room 1105*
- 1:10 p.m. - 3:30 p.m. Responses of Fish and Fisheries to the Recent Food Web Changes in Lake Huron  
*Room 1110*
- 1:10 p.m. - 4:30 p.m. Exploring the Functioning of Lake Ontario Ecosystem: An Intensive Field Year Perspective  
*Room 1305*
- 1:10 p.m. - 5:50 p.m. Magnitude, Timing, and Pathways of Nutrient and Sediment Loading: The Importance of Season  
*Room 1307*
- 1:10 p.m. - 5:30 p.m. Session Honoring Contributions of David M. Dolan to Great Lakes Research  
*Room 1309*
- 3:50 p.m. - 5:50 p.m. Reptile and Amphibian Conservation in a Changing Landscape  
*Room 1110*



### THURSDAY, May 29

- 8:10 a.m. - 10:30 a.m. Exploring the Idea of the Great Lakes as ‘Commons’  
*Room 1009*
- 8:10 a.m. - 10:10 a.m. Advances in Monitoring and Forecasting Beach Nearshore Water Quality  
*Room 1105*
- 8:10 a.m. - 10:30 a.m. *Phragmites australis*: Impacts and Restoration Challenges for Great Lakes Coastal Habitats  
*Room 1110*
- 8:10 a.m. - 10:30 a.m. Aquatic Invasive Species Challenges in a Changing World  
*Room 1305*
- 8:10 a.m. - 10:30 a.m. Environmental Chemistry, Discoveries, and Biotic Effects of Chemicals of Emerging Concern  
*Room 1307*
- 8:10 a.m. - 10:30 a.m. Strategic Restoration of Aquatic Habitat: Are We Doing the Right Things in the Right Place?  
*Room 1309*
- 8:30 a.m. - 10:30 a.m. Water and Its Climatic Context: Earth System Approaches to the Great Lakes  
*Room 1008*
- 1:10 p.m. - 5:50 p.m. Physical Processes in Large Lakes  
*Room 1008*
- 1:10 p.m. - 5:30 p.m. Great Lakes Agreement and Compact, Science to support action and issues in human dimensions  
*Room 1009*
- 1:10 p.m. - 5:50 p.m. Advancement in the Development and Application of Great Lakes Ecosystem Indicators  
*Room 1105*
- 1:10 p.m. - 5:30 p.m. Divergent Patterns in Great Lakes Primary Production: Characteristics, Causes, and Consequences  
*Room 1110*
- 1:10 p.m. - 5:30 p.m. Aquatic Invasive Species Challenges in a Changing World  
*Room 1305*
- 1:10 p.m. - 3:30 p.m. Environmental Chemistry, Discoveries, and Biotic Effects of Chemicals of Emerging Concern  
*Room 1307*
- 1:10 p.m. - 5:30 p.m. Lake Erie in Transition: Current Nutrient Science and Implications for Management  
*Room 1309*
- 3:50 p.m. - 5:10 p.m. Modeling Nutrient Transport to the Great Lakes: Approaches and Management Implications  
*Room 1307*

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## SESSION OVERVIEW

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### FRIDAY, May 30

- 8:10 a.m. - 10:30 a.m.      Transitions at the Water's Edge: Changing Carbon and Nutrient Cycling in Coastal Ecosystems  
*Room 1105*
- 8:10 a.m. - 10:30 a.m.      Advantages of Bayesian Methods for Aiding Fisheries Decisions in Transitioning Ecosystems  
*Room 1307*
- 8:10 a.m. - 12:30 p.m.      Lake Huron's Altered Foodweb  
*Room 1309*
- 8:30 a.m. - 11:30 a.m.      Climate, Phenology, and Life History Traits: Extending the Match-Mismatch Hypothesis  
*Room 1009*
- 8:30 a.m. - 12:10 p.m.      Coupled Physical and Biogeochemical Processes in Lakes  
*Room 1110*
- 8:30 a.m. - 10:30 a.m.      A Grand Connection: The Nexus of Water Research and Management in the Grand River Watershed  
*Room 1305*
- 8:50 a.m. - 10:30 a.m.      Outreach and Education  
*Room 1008*
- 10:50 a.m. - 12:10 p.m.      Addressing Coastal/Nearshore Issues with an Ecosystem and Process-Based Framework  
*Room 1105*
- 10:50 a.m. - 12:30 p.m.      Vertical Restructuring of the Great Lakes: Consequences of Deep Chlorophyll Layers  
*Room 1305*
- 10:50 a.m. - 12:30 p.m.      Fish ecology  
*Room 1307*



# TUESDAY, May 27

	1008	1009	1105	1110
	<b>Microplastic Pollution in the Great Lakes Ecosystem</b> Chair: Laura Alford	<b>Citizen Science, Outreach, and Education in the Great Lakes Basin</b> Co-Chairs: Amanda Fracz, Julia Rutledge, and Pat Chow-Fraser	<b>Ecology in Tributaries of the Great Lakes</b> Chair: Chris Pennuto	<b>Physical Processes and Biological Dynamics in the Changing Great Lakes of the World</b> Co-Chairs: Ralph Smith, Kristen Fussell, and Stu Ludsin
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>8:10</b>				
<b>8:30</b>	<u><b>S.A. Mason</b></u> Great Lakes Plastic Pollution Survey	<u><b>B.S. Buck</b></u> From Storytelling to Citizen Science: The Evolution of Carolinian Canada's <i>Grow Wild!</i> Species at Risk Outreach Program	<u><b>H. Breton</b></u> The Living Infrastructure of Lower Spencer Creek - Restoring the Future	<u><b>A. Oveisy</b></u> A Lagrangian approach to ice dynamics in surface waters <b>CANCELED</b>
<b>8:50</b>	<u><b>A. Driedger</b></u> Mapping Marine Debris in the Great Lakes	<u><b>J. Chau</b></u> Engaging Youth and Adults in Water Quality and Quantity Monitoring in Watersheds along the north shore of Lake Ontario	<u><b>S.R. David</b></u> Using stable isotopes to investigate reemergence of riverine Lake Whitefish <i>Coregonus clupeaformis</i> migrations in northern Lake Michigan	<u><b>R.K. Gawde</b></u> Hydrodynamics and Thermal Regime in Lake Superior: Impacts of an Episodic Climate Anomaly
<b>9:10</b>	<u><b>P.L. Corcoran</b></u> Distribution and Degradation of Plastic Debris along the Shorelines of the Great Lakes, North America	<u><b>D.C. Tozer</b></u> The Great Lakes Marsh Monitoring Program: 18 Years of Surveying Birds and Frogs as Indicators of Ecosystem Health	<u><b>C.M. Pennuto</b></u> Macroinvertebrate Communities and Leaf Litter Processing Are Changed by the Presence of Round Gobies in Lake Erie Tributary Streams	<u><b>M.L. Dijkstra</b></u> Ecosystem Function in Lake Superior: Impacts of an Episodic Climate Anomaly

1305	1307	1309	
<p><b>Hydroclimatic Variability in the Great Lakes Region and Its Impact on Aquatic Ecosystems</b> Co-Chairs: John Lenters, Peter Blanken, Drew Gronewold, and Christopher Spence</p>	<p><b>Lake Simcoe: An Ecosystem in Transition</b> Co-Chairs: Joelle Young, Erin Dunlop, and Lew Molot</p>	<p><b>State of the Hamilton Harbour Ecosystem: Health, Integrity, and Management</b> Co-Chairs: Mohiuddin Munawar, John Hall, and Kristin O'Connor</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>F.M.G. McCarthy</u></b> Drought in the Lake Huron basin- Causes and Implications</p>			<b>8:10</b>
<p><b><u>C.M. Chiu</u></b> A century long gridded hydrometeorological dataset for assessing the impacts of climate variability and climate change on the Great Lakes region</p>	<p><b><u>J.D. Young</u></b> A Comprehensive Review of the State of Lake Simcoe</p>	<p><b><u>V.P. Hiriart-Baer</u></b> Hamilton Harbour over the last 25 years: insights from a long-term comprehensive water quality monitoring program</p>	<b>8:30</b>
<p><b><u>J.P. Smith</u></b> Past, Present, and Future of The Great Lakes Dashboard - A Dynamic Graphical Interface for Visualizing Data Describing Various Aspects of the Laurentian Great Lakes Environment</p>	<p><i>Previous Presentation Continued</i></p>	<p><b><u>C. Zisou</u></b> Why models should talk to each other? Lessons learned from the Hamilton Harbour</p>	<b>8:50</b>
<p><b><u>P.D. Blanken</u></b> Impacts of Ice Cover on Great Lakes Evaporation: An Analysis of Simultaneous Ice-covered and Ice-free Conditions on Lakes Michigan and Huron During the 2013-14 Winter</p>	<p><b><u>D. Puric-Mladenovic</u></b> Terrestrial Monitoring in the Lake Simcoe Watershed</p>	<p><b><u>M.A. Staniewski</u></b> Exploring the Influence of Viruses on Phytoplankton and Bacterial Production in Hamilton Harbour: a Preliminary Assessment</p>	<b>9:10</b>

# TUESDAY, May 27

	1008	1009	1105	1110
	<p><b>Microplastic Pollution in the Great Lakes Ecosystem</b> Chair: Laura Alford</p>	<p><b>Citizen Science, Outreach, and Education in the Great Lakes Basin</b> Co-Chairs: Amanda Fracz, Julia Rutledge, and Pat Chow-Fraser</p>	<p><b>Ecology in Tributaries of the Great Lakes</b> Chair: Chris Pennuto</p>	<p><b>Physical Processes and Biological Dynamics in the Changing Great Lakes of the World</b> Co-Chairs: Ralph Smith, Kristen Fussell, and Stu Ludsin</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>9:30</b>	<p><b><u>T. Norris</u></b> Transport Pathways and Accumulation Rates of Plastic Debris near Humber Bay, Lake Ontario</p>	<p><b><u>J.M. Rutledge</u></b> Land Use Effects on Citizen Monitored URBAN Streams and Wetlands in Hamilton, Ontario</p>	<p><b><u>J.B.K. Leonard</u></b> Movement-related life history variation in brook trout (<i>Salvelinus fontinalis</i>) in Lake Superior tributary streams</p>	<p><b><u>C.D. Troy</u></b> Year-round characterization of a deep-water Lake Michigan bottom boundary layer</p>
<b>9:50</b>	<p><b><u>P. Helm</u></b> Microplastics in Wastewater Effluents and an Urban Stream Entering Lake Ontario</p>	<p><b><u>T.L. Karst-Riddoch</u></b> Differing Susceptibility to Eutrophication in two Georgian Bay Embayments due to Hydrology: Evidence from the Paleolimnological Record in Support of a Citizen-Based Monitoring Program</p>	<p><b><u>D.W. Hondorp</u></b> Rethinking Sturgeon Migration: Dispersal Patterns of Lake sturgeon in the Lake Huron-to-Lake Erie Corridor</p>	<p><b><u>M.D. Rowe</u></b> Modeling the Effects of Stratification and Bathymetry on the Interaction of Phytoplankton and Invasive Quagga Mussels in Nearshore Lake Michigan</p>
<b>10:10</b>	<p><b><u>L.K. Alford</u></b> The Next Step: Microplastic Pollution Prevention</p>	<p><b><u>V.J. Thomas</u></b> Engaging Citizen Scientists: The Importance of Public Outreach and Education in Order to Protect Our Local Watersheds in the Great Lakes Basin</p>	<p><b><u>T.M. Neeson</u></b> Prioritizing barrier removals to restore native fish migrations in Great Lakes tributaries</p>	<p><b><u>R.E.H. Smith</u></b> Hydrodynamic Controls on Dreissenid Mussel Energetics and Impacts: Insights from 3D Modelling in Lake Simcoe</p>
<b>10:50</b>	<p><b>Welcome &amp; Plenary</b> Michael DeGroote Centre for Learning and Discovery, Room 1305/1307</p>			

1305	1307	1309	
<p><b>Hydroclimatic Variability in the Great Lakes Region and Its Impact on Aquatic Ecosystems</b> Co-Chairs: John Lenters, Peter Blanken, Drew Gronewold, and Christopher Spence</p>	<p><b>Lake Simcoe: An Ecosystem in Transition</b> Co-Chairs: Joelle Young, Erin Dunlop, and Lew Molot</p>	<p><b>State of the Hamilton Harbour Ecosystem: Health, Integrity, and Management</b> Co-Chairs: Mohiuddin Munawar, John Hall, and Kristin O'Connor</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>A.D. Gronewold</u></b> Common Drivers Behind Long-Term Water Level Variability and Ecosystem Function Along Earth's Longest Freshwater Coast</p>	<p><b><u>K. Gee</u></b> Restoration Priorities in the East Holland River Subwatershed</p>	<p><b><u>M. Munawar</u></b> Characteristics of Algal Blooms in Hamilton Harbour and Bay of Quinte Areas of Concern</p>	<b>9:30</b>
<p><b><u>D.B. Rokitnicki-Wojcik</u></b> Referencing Coastal Wetland Habitat to Water Levels: Using Survey Science for Ecology in Lake Ontario</p>	<p><b><u>L. Weiss</u></b> Targeted BMP Scenarios to Control Anthropogenic Sources of Atmospheric Phosphorus Deposition to Lake Simcoe</p>	<p><b><u>K.A. Bedford</u></b> Zooplankton Production and Biomass in Hamilton Harbour from 2002-2013</p>	<b>9:50</b>
<p><b><u>D.K. Rucinski</u></b> Assessing the Impact of Potential Climate Change on Shoreline Ecosystems of the Upper Great Lakes with an "Integrated Ecological Response Model"</p>	<p><b><u>J.D. Aspinall</u></b> High-resolution characterization of the surviving organic soil resource after the Summer 2014 floods of the vegetable fields at Horling's Marsh, Ontario</p>	<p><b><u>M. Fitzpatrick</u></b> Microbial - Planktonic Food Web of a Eutrophic and Contaminated Ecosystem: Hamilton Harbour, Lake Ontario</p>	<b>10:10</b>
<p><b>Welcome &amp; Plenary</b> Michael DeGroot Centre for Learning and Discovery, Room 1305/1307</p>			<b>10:50</b>

# TUESDAY, May 27

	1008	1009	1105	1110
	<p><b>Great Lake Esocids: Overcoming Challenges and Future Status of Important Apex Predators</b> Chair: John Paul Leblanc</p>	<p><b>Citizen Science, Outreach, and Education in the Great Lakes Basin</b> Co-Chairs: Amanda Fracz, Julia Rutledge, and Pat Chow-Fraser</p>	<p><b>Advancement in the Development and Application of Great Lakes Ecosystem Indicators</b> Co-Chairs: Lizhu Wang, William Taylor, and Euan Reavie</p>	<p><b>Physical Processes and Biological Dynamics in the Changing Great Lakes of the World</b> Co-Chairs: Ralph Smith, Kristen Fussell, and Stu Ludsin</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>1:10</b>	<p><b><u>C.R. Biberhofer</u></b> Thermal habitat utilization by northern pike in Tadenac Bay, Georgian Bay</p>	<p><b><u>D.H. Ireland</u></b> The World's Largest BioBlitz, and telling our environmental stories effectively</p>	<p><b><u>L. Wang</u></b> IJC's Efforts in the Development of Great Lakes Indicators</p>	<p><b><u>R.M.L. McKay</u></b> Ice cover as a factor driving microbial community composition in the Lake Erie</p>
<b>1:30</b>	<p><b><u>J.D. Midwood</u></b> Winter biology of northern pike in a large urban embayment</p>	<p><b><u>A. Kirkpatrick</u></b> Engaging Lake Associations in Aquatic Invasive Species Monitoring: A Citizen Science Approach</p>	<p><b><u>V. Serveiss</u></b> Program Effectiveness Indicators to Assess Progress under the Great Lakes Water Quality Agreement</p>	<p><b><u>T.H. Johengen</u></b> Does it Matter How you Stir the Pot? Examination of Time Series Trends in Water Quality and Harmful Algal Blooms as Related to Wave Events and Hydrodynamics in Western Lake Erie</p>
<b>1:50</b>	<p><b><u>B. Nawrocki</u></b> Niches and Trophic Positions of Predatory Fish Species in the Lower Huron-Erie Corridor</p>	<p><b><u>O. Lyandres</u></b> Great Lakes Stewardship - A Model for Effective Employee Engagement in a Citizen Science Program</p>	<p><b><u>J.R. Boehme</u></b> Development and Definitions of Selected IJC Great Lakes Ecosystem Indicators</p>	<p><b><u>P.C. Golnick</u></b> Thermal Threshold of Hypoxia in Western Lake Erie</p>
<b>2:10</b>	<p><b><u>J.D. Weller</u></b> Abiotic Changes to Mus-kellunge Breeding Habitat in Severn Sound, Georgian Bay.</p>	<p><b><u>G.T. Tisue</u></b> Volunteer Lake &amp; Stream Monitoring: Experience with the Michigan Clean Water Corps Programs</p>	<p><b><u>M.J. Burrows</u></b> Delivering Great Lakes Assessment Information</p>	<p><b><u>L.Z. Almeida</u></b> Effects of Altered Nutrient Loading and Changing Climate on Habitat Quality for Lake Erie Fishes</p>



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<p><b>Hydroclimatic Variability in the Great Lakes Region and Its Impact on Aquatic Ecosystems</b> Co-Chairs: John Lenters, Peter Blanken, Drew Gronewold, and Christopher Spence</p>	<p><b>Lake Simcoe: An Ecosystem in Transition</b> Co-Chairs: Joelle Young, Erin Dunlop, and Lew Molot</p>	<p><b>State of the Hamilton Harbour Ecosystem: Health, Integrity, and Management</b> Co-Chairs: Mohiuddin Munawar, John Hall, and Kristin O'Connor</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>J.D. Lenters</u></b> Great Lakes evaporation: "Measuring to manage" during a time of transition</p>	<p><b><u>S.K. Oni</u></b> Uncertainty Assessments and Hydrological Implications of Climate Change in Two Adjacent Agricultural Catchments of Lake Simcoe Watershed</p>	<p><b><u>R.D. Linley</u></b> Application of Coastal Oceanic Sensor Arrays in the Hamilton Harbour Area of Concern</p>	<b>1:10</b>
<p><b><u>P. Petchprayoon</u></b> A Decade of Warming on the Great Lakes from MODIS Surface Temperature Observations</p>	<p><b><u>J.H. Crossman</u></b> The Impact of Uncertainty in Climate Change on Projections of Water Quality in Lake Simcoe</p>	<p><b><u>K.E. Leisti</u></b> Aquatic vegetation trends and targets in Hamilton Harbour and Cootes Paradise</p>	<b>1:30</b>
<p><b><u>K.J. Dammerman</u></b> The effects of thermal incubation regimes on larval lake sturgeon development and behavior</p>	<p><b><u>L.W. Stanfield</u></b> Quantifying assimilative capacity of all tributaries to Lake Simcoe based on cumulative impacts to biological integrity</p>	<p><b><u>C.M. Boston</u></b> Fish community structure in Hamilton Harbour: describing a fish community from a degraded ecosystem and comparison with other Areas of Concern in Lake Ontario</p>	<b>1:50</b>
<p><b><u>S.L. Abdel-Fattah</u></b> Risk-Based Assessment of Climate Change Impacts and Risks on the Biological Systems and Infrastructure in the Great Lakes</p>	<p><b><u>A. Gudimov</u></b> Eutrophication Risk Assessment and Adaptive Management Implementation in Lake Simcoe</p>	<p><b><u>E.L. Gertzen</u></b> The influence of dissolved oxygen and temperature on fish habitat in Hamilton Harbour</p>	<b>2:10</b>

# TUESDAY, May 27

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	<p><b>Great Lake Esocids: Overcoming Challenges and Future Status of Important Apex Predators</b> Chair: John Paul Leblanc</p>	<p><b>Citizen Science, Outreach, and Education in the Great Lakes Basin</b> Co-Chairs: Amanda Fracz, Julia Rutledge, and Pat Chow-Fraser</p>	<p><b>Advancement in the Development and Application of Great Lakes Ecosystem Indicators</b> Co-Chairs: Lizhu Wang, William Taylor, and Euan Reavie</p>	<p><b>Physical Processes and Biological Dynamics in the Changing Great Lakes of the World</b> Co-Chairs: Ralph Smith, Kristen Fussell, and Stu Ludsin</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>2:30</b>	<p><b><u>J.P. Leblanc</u></b> Towards development of a habitat suitability index model for young-of-the-year muskellunge in Georgian Bay</p>	<p><b><u>M.A. Timm</u></b> <i>Mussel Madness</i>: Can a Board Game Teach the Next Generation about Great Lakes Grand Challenges and Prepare Society for Solutions?</p>	<p><b><u>A.T. Fisk</u></b> Concept and Need for a Great Lakes Observatory Network</p>	<p><b><u>M. Xia</u></b> The application of an unstructured based biophysical model to Lake Erie</p>
<b>2:50</b>	<p><b><u>C.C. Wilson</u></b> Genetic assessment of muskellunge rehabilitation efforts in Lake Huron and Lake Simcoe</p>	<p><b><u>K.J. Fermanich</u></b> Green Bay Watershed High Schools Contribute to Long Term Monitoring</p>	<p><b><u>P. Seelbach</u></b> Collaborative Planning for Systems-level Monitoring and Accounting of Basin Water Resources</p>	<p><b><u>M.E. Fraker</u></b> Biophysical Drivers of Walleye Recruitment Variation in Lake Erie</p>
<b>3:10</b>	<p><b><u>G.E. Liddle</u></b> An Overview of the Lake Simcoe Muskellunge Restoration Project</p>		<p><b><u>K.E. Wehrly</u></b> Using the Great Lakes Aquatic Habitat Framework (GLAHF) to evaluate ecological indicators developed by the International Joint Commission (IJC)</p>	<p><b><u>A.E. Honsey</u></b> Recruitment Synchrony of Yellow Perch <i>Percus flavescens</i> in the Great Lakes Region, 1966-2008</p>
<b>3:30</b>	<b>BREAK</b>			

1305	1307	1309	
<p><b>Hydroclimatic Variability in the Great Lakes Region and Its Impact on Aquatic Ecosystems</b> Co-Chairs: John Lenters, Peter Blanken, Drew Gronewold, and Christopher Spence</p>	<p><b>Lake Simcoe: An Ecosystem in Transition</b> Co-Chairs: Joelle Young, Erin Dunlop, and Lew Molot</p>	<p><b>State of the Hamilton Harbour Ecosystem: Health, Integrity, and Management</b> Co-Chairs: Mohiuddin Munawar, John Hall, and Kristin O'Connor</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>A.K. Baldrige</u></b> Exploring the relative impacts of climate change and dreissenid mussels on the Lake Michigan zooplankton community</p>	<p><b><u>K. Zolfaghari</u></b> Chlorophyll-a Concentration Estimation in Lake Simcoe Using MERIS Satellite Data and a Linear Mixed Effect Model</p>	<p><b><u>J. Sherry</u></b> Differential Gene Expression in Rainbow Trout (<i>Oncorhynchus mykiss</i>) Exposed to Randle Reef Sediment</p>	<b>2:30</b>
<p><b><u>R.A. Bourbonniere</u></b> Dissolved Greenhouse Gas Dynamics and their Relationship to Hypolimnetic Hypoxia in Lake Erie</p>	<p><b><u>M. Chowdhury</u></b> Observations of the Contributions of Vertical Turbulent Mixing on the Dissolved Oxygen Budget in Lake Simcoe</p>	<p><b><u>D.J. Milani</u></b> Prioritization of sites for sediment remedial action at Randle Reef, Hamilton Harbour</p>	<b>2:50</b>
<p><b><u>S.A. Ludsin</u></b> The Dynamics of Nutrient Loss from the Maumee River Basin in Response to Hydro-climatic Shifts in the Future</p>	<p><b><u>J. Li</u></b> Cumulative Impact of Phosphorus Loading Reductions, Invasive Species and Climate Change on Minimum Volume-Weighted Hypolimnetic Dissolved Oxygen in Lake Simcoe, 1980-2012</p>	<p><b><u>C.V. Zanchetta</u></b> Population trends of colonial waterbirds nesting in Hamilton Harbour in relation to habitat creation and management</p>	<b>3:10</b>
<b>BREAK</b>			<b>3:30</b>

# TUESDAY, May 27

	1008	1009	1105	1110
	<p><b>Remote Sensing, Visualization, and Spatial Data Applications for the Great Lakes</b> Co-Chairs: George Leshkevich and Robert Shuchman</p>	<p><b>Towards Governance Indicators for the Great Lakes Region</b> Co-Chairs: Carolyn Johns and Gail Krantzberg</p>	<p><b>Advancement in the Development and Application of Great Lakes Ecosystem Indicators</b> Co-Chairs: Lizhu Wang, William Taylor, and Euan Reavie</p>	<p><b>Physical Processes and Biological Dynamics in the Changing Great Lakes of the World</b> Co-Chairs: Ralph Smith, Kristen Fussell, and Stu Ludsin</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>3:50</b>	<p><b><u>B. Kerkez</u></b> A sensor platform for the measurement of evaporation across the Great Lakes</p>	<p><b><u>S. Jetoo</u></b> The need for governance indicators for the Laurentian Great Lakes</p>	<p><b><u>J. Dellinger</u></b> Developing Human Health Indicators for the IJC Using the Fish Consumption Indicator as an Example</p>	<p><b><u>A.A. Bozimowski</u></b> Aquatic Macroinvertebrate Co-Occurrence Patterns in Great Lakes Coastal Wetlands: Interaction of the Harsh-Benign Hypothesis and Community Assembly Rules</p>
<b>4:10</b>	<p><b><u>B.S. Minsker</u></b> Algorithmic Detection of Thermoclines in Great Lakes Water Quality Data Using Signal Processing Methods</p>	<p><b><u>D.L. VanNijnatten</u></b> Transboundary Governance Capacity: Towards Indicators and an Analytical Framework</p>	<p><b><u>T.K. Takaro</u></b> Source Water Monitoring as an Indicator of Risk to Human Health in the Great Lakes</p>	<p><b><u>T.A. Langer</u></b> Beta Diversity, Spatiotemporal Structuring and Mechanisms Shaping Great Lake Coastal Wetland Fish and Macroinvertebrate Communities</p>
<b>4:30</b>	<p><b><u>B.W. Rieff</u></b> Semi-automated identification of plankton and biovolume calculation</p>	<p><b><u>C.M. Johns</u></b> Indicators of Governance Capacity: Great Lakes Governance Networks</p>	<p><b><u>H. Shapiro</u></b> Recreational Water Indicators of Human Health Risk in the Great Lakes</p>	<p><b><u>H.M.H. Siersma</u></b> Trends in the Sediment Composition of Saginaw Bay, Lake Huron, 1956-2012: Implications for <i>Hexagenia</i> spp. Recovery?</p>

1305	1307	1309	
<p><b>Linking Watershed Processes to the Fate and Transport of Pollutants in Urban Waterways</b> Co-Chairs: Christopher Wel- len and Claire Oswald</p>	<p><b>Lake Simcoe: An Eco- system in Transition</b> Co-Chairs: Joelle Young, Erin Dunlop, and Lew Molot</p>	<p><b>State of the Hamilton Harbour Ecosystem: Health, Integrity, and Management</b> Co-Chairs: Mohiuddin Munawar, John Hall, and Kristin O'Connor</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>J.R. Gerald</u></b> Nutrient removal efficiency of an urban stormwater pond in Peterborough, ON</p>	<p><b><u>L.A. Molot</u></b> Cold-water fish optimal hab- itat in Lake Simcoe: long- term trends and relation- ships to climate change and total phosphorus</p>	<p><b><u>J.S. Quinn</u></b> Re-terning Windermere Basin</p>	<b>3:50</b>
<p><b><u>W.R. Trenouth</u></b> A novel highway drainage system for application in salt vulnerable areas <b>CANCELLED</b></p>	<p><b><u>D.O. Evans</u></b> Shifting Thermal Regime is Delaying Spawning of Lake Trout in Lake Simcoe.</p>	<p><b><u>P.A. Martin</u></b> Long-term Trends in Con- taminants in Aquatic Wild- life in the Hamilton Har- bour Area of Concern</p>	<b>4:10</b>
<p><b><u>K.N. Croucher</u></b> De-icing Salt Accumulation in Roadside Soils - Possible Linkages with Groundwater Quality in Southern Ontario</p>	<p><b><u>J.J. Trumpickas</u></b> The effect of habitat and shoreline alterations on nearshore small fish com- munity structure in Lake Simcoe</p>	<p><b><u>D.M. Herbert</u></b> The Cootes to Escarpment EcoPark System: Protecting natural heritage between the Hamilton Harbour and the Niagara Escarpment</p>	<b>4:30</b>

# TUESDAY, May 27

	1008	1009	1105	1110
	<p><b>Remote Sensing, Visualization, and Spatial Data Applications for the Great Lakes</b> Co-Chairs: George Leshkevich and Robert Shuchman</p>	<p><b>Towards Governance Indicators for the Great Lakes Region</b> Co-Chairs: Carolyn Johns and Gail Krantzberg</p>	<p><b>Advancement in the Development and Application of Great Lakes Ecosystem Indicators</b> Co-Chairs: Lizhu Wang, William Taylor, and Euan Reavie</p>	<p><b>Physical Processes and Biological Dynamics in the Changing Great Lakes of the World</b> Co-Chairs: Ralph Smith, Kristen Fussell, and Stu Ludsin</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>4:50</b>	<p><b><u>S.E. Doka</u></b> Challenges for GIS in Areas of Concern</p>	<p><b><u>H.L. Sorensen</u></b> Citizen based monitoring and lakewide management: Recommendations for information sharing and partnership development in the Lake Superior Basin</p>	<p><b><u>M.W. Murray</u></b> Re-evaluation of Indicators of Toxic Chemicals in the Great Lakes</p>	<p><b><u>J. Brand</u></b> Hydrodynamic Effect on Rates of Entrainment of Ichthyoplankton at a Cooling Water Intake Structure in Lake Huron</p>
<b>5:10</b>	<p><b><u>J.A. Saarinen</u></b> Western Lake Erie Restoration Assessment: further understanding the potential and benefits of coastal wetland restoration</p>		<p><b><u>E.D. Reavie</u></b> Indicators Require Exhaustive Testing: An Example Using Diatoms and Phosphorus</p>	<p><b><u>S.E. Doka</u></b> Lake Ontario Nearshore Vulnerability Assessment</p>
<b>5:30</b>	<p><b><u>T. Brown</u></b> Reconstructing Lake Superior landuse / land-cover raster grids in yearly time steps from 1700 to present</p>		<p><b><u>G.L. Boyer</u></b> Development of an Indicator for harmful algal blooms in the Great Lakes</p>	

1305	1307	1309	
<p><b>Linking Watershed Processes to the Fate and Transport of Pollutants in Urban Waterways</b> Co-Chairs: Christopher Wellen and Claire Oswald</p>	<p><b>Lake Simcoe: An Ecosystem in Transition</b> Co-Chairs: Joelle Young, Erin Dunlop, and Lew Molot</p>	<p><b>State of the Hamilton Harbour Ecosystem: Health, Integrity, and Management</b> Co-Chairs: Mohiuddin Munawar, John Hall, and Kristin O'Connor</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>A.E. Kirkwood</u></b> Linking water quality and contaminant fate to biological diversity and function in urban surface waters</p>	<p><b><u>R. Dolson</u></b> Characteristics of Recovering Lake Whitefish and Cisco Populations in Lake Simcoe</p>	<p><b><u>K.M. O'Connor</u></b> Hamilton Harbour Remedial Action Plan Process: Connecting Science to Management Decisions</p>	<b>4:50</b>
<p><b><u>N.J. Hutchinson</u></b> Development of an Export Coefficient Model to Assess Management of Urban Stormwater Quality in Spencer Creek, Dundas, ON</p>	<p><b><u>E.S. Dunlop</u></b> Using fisheries acoustics to study Lake Simcoe's pelagic fish community</p>		<b>5:10</b>
<p><b><u>C.C. Wellen</u></b> A Comparison of the Hydrological Controls on Contaminant Export from Urban and Agricultural Watersheds Draining into Hamilton Harbour, Ontario</p>	<p><b><u>J. La Rose</u></b> Long term shifts in the Lake Simcoe Recreational Fishery as Revealed by 50 Years of Intensive Monitoring</p>		<b>5:30</b>

# WEDNESDAY, May 28

	1008	1009	1105	1110
	<p><b>Remote Sensing, Visualization, and Spatial Data Applications for the Great Lakes</b> Co-Chairs: George Leshkevich and Robert Shuchman</p>	<p><b>Emerging issues related to microbes, nutrients, contaminants and toxins</b> Chair: Andrea Kirkwood</p>	<p><b>Invasive Round Goby as Drivers of Ecological Change in the Laurentian Great Lakes</b> Co-Chairs: Justin Glenn Mychek-Londer, Harri Pettitt-Wade, Kyle Wellband, and Felicia Vincelli</p>	<p><b>Responses of Fish and Fisheries to the Recent Food Web Changes in Lake Huron</b> Co-Chairs: James Bence and Ji He</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>8:10</b>		<p><b><u>M. Ibsen</u></b> The Role of <i>Cladophora glomerata</i> as a Refuge for Fecal Bacteria and Antibiotic Resistance in an Urbanized Near-shore Zone of Lake Ontario</p>		<p><b><u>G. Paterson</u></b> Investigating Temporal Responses of Lake Huron Lake Trout Energy Densities During Ecosystem Change</p>
<b>8:30</b>	<p><b><u>D.M. O'Donnell</u></b> Remote sensing reflectance in the Great Lakes: In situ measurements, closure analyses, and a forward model</p>	<p><b><u>K.P. Kenow</u></b> Distribution and Foraging Patterns of Waterbirds on Lake Michigan with Implications for Exposure to Botulinum Toxin</p>	<p><b><u>V. Kovac</u></b> Ten Years Of Successful Invasion Of Round Goby <i>Neogobius Melanostomus</i> In The River Danube (Central Europe) - A Review</p>	<p><b><u>E.W. Murphy</u></b> Contaminant Concentrations of Lake Trout: Are They Affected by Changes in Growth as a Function of the Changing Food Web?</p>
<b>8:50</b>	<p><b><u>K.A. Endsley</u></b> The Great Lakes Optical Properties Geospatial Database</p>	<p><b><u>S.M. Short</u></b> The Ecology of Freshwater Phytoplankton Viruses: Complex Dynamics and New Players</p>	<p><b><u>K. Horkova</u></b> Temporal Aspect, Ontogenetic Phenomena and Ecological Factors in the Successful Invasion of Round Goby <i>Neogobius Melanostomus</i> in the River Danube (Central Europe)</p>	<p><b><u>Y.C. Kao</u></b> Potential Effects of Climate Change on the Growth of Five Economically Important Fishes in Lake Huron</p>
<b>9:10</b>	<p><b><u>R.W. Sawtell</u></b> A Fast Algorithm for Automatic Removal of Mirror Side Banding From MODIS Oceancolor Imagery</p>	<p><b><u>P.M.C. Antunes</u></b> Implications of changing Great Lakes water quality on trace metal and nutrient partitioning and bioavailability</p>	<p><b><u>M.S. Calder</u></b> Amplification of the Net Reproductive Number By Dispersion of the Invasive Round Goby Fish</p>	<p><b><u>C.P. Madenjian</u></b> Piscivory by Lake Whitefish in Lake Huron</p>



1305	1307	1309	
<p><b>Exploring the Functioning of Lake Ontario Ecosystem: An Intensive Field Year Perspective</b> Co-Chairs: Tom Stewart, Lars Rudstam, and Mohi Munawar</p>	<p><b>Magnitude, Timing, and Pathways of Nutrient and Sediment Loading: The Importance of Season</b> Co-Chairs: Krista Chomicki, Tanya Long, and Mohamed Mohamed</p>	<p><b>Salmonid Feeding Ecology in Changing Great Lakes Food Webs</b> Co-Chairs: Tim Johnson, Gord Paterson, and Aaron Fisk</p>	
<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	
	<p><b><u>M. Mohamed</u></b> Winter, Spring, Summer, Fall - Why does season matter to loadings at all? A synthesis of the current issue</p>		<b>8:10</b>
<p><b><u>T.J. Stewart</u></b> A "Fish-Head" Perspective On The Lake Ontario 2013 Coordinated Science And Monitoring Initiative</p>	<p><b><u>G.S. Bowen</u></b> Spatial and temporal variation in the water quality of four marshes adjacent to the nearshore of Western Durham, Lake Ontario</p>	<p><b><u>T.E. Pitcher</u></b> Comparison of Isotopic Niche Widths Among Male Alternative Reproductive Tactics and Wild vs. Hatchery-produced Female Chinook Salmon From Lake Ontario</p>	<b>8:30</b>
<p><b><u>J.M. Watkins</u></b> Dynamic Seasonality of Surface Chl and Whiting Events in Lake Ontario Tracked by Remote Sensing and Shipbased Platforms in 2013</p>	<p><b><u>K.M. Chomicki</u></b> Annual and seasonal differences in nearshore water quality of Lake Ontario by Western Durham in relation to wet and dry years</p>	<p><b><u>H.K. Swanson</u></b> Trophic ecology and isotopic niche of humpback Lake Trout <i>Salvelinus namaycush</i> in Lake Superior: comparisons with other morphotypes</p>	<b>8:50</b>
<p><b><u>H. Niblock</u></b> Ecology and Dynamics of Planktonic Communities in Western Lake Ontario: 2013 Intensive Studies</p>	<p><b><u>D.S. Smith</u></b> City of Toronto Wet Weather Flow Monitoring Network: Baseline Conditions 2008 to 2011</p>	<p><b><u>D.L. Delach</u></b> Fatty acid fractionation patterns and their correlation with stable isotopes and stomach content analysis in two lakes</p>	<b>9:10</b>

# WEDNESDAY, May 28

	1008	1009	1105	1110
	<p><b>Remote Sensing, Visualization, and Spatial Data Applications for the Great Lakes</b> Co-Chairs: George Leshkevich and Robert Shuchman</p>	<p><b>Emerging issues related to microbes, nutrients, contaminants and toxins</b> Chair: Andrea Kirkwood</p>	<p><b>Invasive Round Goby as Drivers of Ecological Change in the Laurentian Great Lakes</b> Co-Chairs: Justin Glenn Mychek-Londer, Harri Pettitt-Wade, Kyle Wellband, and Felicia Vincelli</p>	<p><b>Responses of Fish and Fisheries to the Recent Food Web Changes in Lake Huron</b> Co-Chairs: James Bence and Ji He</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>9:30</b>	<p><b><u>R.A. Shuchman</u></b> A Satellite Algorithm Tool Box for the Great Lakes</p>	<p><b><u>L.K. Kammin</u></b> Emerging Contaminants: Pharmaceuticals and Personal Care Products in the Great Lakes</p>	<p><b><u>B.S. Zielinski</u></b> The scent of a man (<i>Neogobius melanostomus</i>)</p>	<p><b><u>E.S. Dunlop</u></b> The Response of Lake Whitefish to Rapid Changes in the Structure and Function of the Lake Huron Food Web</p>
<b>9:50</b>	<p><b><u>M. Sayers</u></b> Long Term Chlorophyll Observations in the Great Lakes from Oceancolor Satellite Data Using Multiple Retrieval Approaches</p>	<p><b><u>M.P. Montenero</u></b> Iodine-131: a novel tracer for Milwaukee sewage effluent in nearshore Lake Michigan</p>	<p><b><u>E.S. McCallum</u></b> Persistence of the round goby in a contaminated ecosystem</p>	<p><b><u>J. Gobin</u></b> The Effect of Changes in Growth and Recruitment of Lake Huron Lake Whitefish on Life History Traits, Population Dynamics, and Harvest</p>
<b>10:10</b>	<p><b><u>C.E. Binding</u></b> Long Term Water Clarity Changes in the Great Lakes from Multi-sensor Satellite Observations.</p>	<p><b><u>D.L. Ferrer</u></b> Geospatial data acquisition and management in the development of a web-based environmental exposure model for the Great Lakes basin</p>	<p><b><u>D. Essian</u></b> Diets of Botulism Affected Piscivorous Birds on Lake Michigan</p>	<p><b><u>L.C. Mohr</u></b> Changing Commercial Fisheries and Fish Communities in Lake Huron. Are they Related?</p>
<b>10:50</b>	<b>Plenary, Michael DeGroot Centre for Learning and Discovery, Room 1305/1307</b>			
<b>12:00</b>	<b>IAGLR Business Lunch, David Braley Athletic Centre</b>			

1305	1307	1309	
<p><b>Exploring the Functioning of Lake Ontario Ecosystem: An Intensive Field Year Perspective</b> Co-Chairs: Tom Stewart, Lars Rudstam, and Mohi Munawar</p>	<p><b>Magnitude, Timing, and Pathways of Nutrient and Sediment Loading: The Importance of Season</b> Co-Chairs: Krista Chomicki, Tanya Long, and Mohamed Mohamed</p>	<p><b>Salmonid Feeding Ecology in Changing Great Lakes Food Webs</b> Co-Chairs: Tim Johnson, Gord Paterson, and Aaron Fisk</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>K.L. Bowen</u></b> Temporal Trends in the Zooplankton Community of Lake Ontario: Canadian Index Station Results Complement the CSMI Lakewide Surveys</p>	<p><b><u>E.T. Howell</u></b> Water Quality on the Toronto-Mississauga Waterfront after the July 8, 2013 Deluge</p>	<p><b><u>J.A. Mumby</u></b> Non-complementary foraging behaviour of Lake Ontario salmonid species</p>	<b>9:30</b>
<p><b><u>R.P. Barbiero</u></b> Changes in the crustacean zooplankton community in Lake Ontario, 1997-2011</p>	<p><b><u>T.L. Long</u></b> Winter nutrient dynamics in the urban and agricultural watersheds of Hamilton Harbour, Ontario</p>	<p><b><u>B.W. Metcalfe</u></b> Has the Feeding Behaviour of Lake Trout (<i>Salvelinus namaycush</i>) in Lake Ontario Changed In Response To Shifts In Prey Fish Community Composition?</p>	<b>9:50</b>
<p><b><u>V.A. Karatayev</u></b> Monitoring the ecological impacts of Dreissena: characterizing drivers and gradients of density, biomass, and population structure in Lake Ontario</p>	<p><b><u>D.K. Kim</u></b> Phosphorus dynamics in the Bay of Quinte: What do the models predict?</p>	<p><b><u>K.G. Drouillard</u></b> Individual Efficiencies and Lake Trout Responses to Fluctuating Prey Fish Biomass</p>	<b>10:10</b>
<b>Plenary, Michael DeGroot Centre for Learning and Discovery, Room 1305/1307</b>			<b>10:50</b>
<b>IAGLR Business Lunch, David Braley Athletic Centre</b>			<b>12:00</b>

# WEDNESDAY, May 28

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	<p><b>Remote Sensing, Visualization, and Spatial Data Applications for the Great Lakes</b> Co-Chairs: George Leshkevich and Robert Shuchman</p>	<p><b>Field and Watershed Modeling: Scaling up the Effects of BMPs in Reducing Pollutant Exports</b> Co-Chairs: Rem Confesor and George Arhonditsis</p>	<p><b>Invasive Round Goby as Drivers of Ecological Change in the Laurentian Great Lakes</b> Co-Chairs: Justin Glenn Mychek-Londer, Harri Pettitt-Wade, Kyle Wellband, and Felicia Vincelli</p>	<p><b>Responses of Fish and Fisheries to the Recent Food Web Changes in Lake Huron</b> Co-Chairs: James Bence and Ji He</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>1:10</b>	<p><b><u>J.A. Concha</u></b> Water Constituent Retrieval over Case 2 Water using Landsat 8: Initial Results</p>		<p><b><u>S.L. Stephenson</u></b> Effects of temperature on round goby (<i>Neogobius melanostomus</i>) larval survival, development and distribution</p>	<p><b><u>M.S. Ridgway</u></b> Coastal Zone Occupancy by Double-Crested Cormorants on Lake Huron Before, During and After a Food Web Regime Shift</p>
<b>1:30</b>	<p><b><u>J.C. Ho</u></b> Evaluating LANDSAT algorithms for cataloguing historical harmful algal blooms in Lake Erie</p>	<p><b><u>W. Francesconi</u></b> Conservation Practices in APEX: From the Field to the Watershed <b>CANCELED</b></p>	<p><b><u>K.G. Drouillard</u></b> Use of PCBs as metabolic tracers to estimate field metabolic rate of round goby (<i>Neogobius melanostomus</i>) during temperature acclimation</p>	<p><b><u>D.G. Fielder</u></b> Recent Walleye Trends in Lake Huron</p>
<b>1:50</b>	<p><b><u>A. Vodacek</u></b> Forecasting Yearly Variability in <i>Cladophora</i> Growth from Remote Measurements of Temperature and Turbidity</p>	<p><b><u>I.O. Rashid</u></b> Evaluation of the Soil and Water Assessment Tool (SWAT) model applicability in a first-order agricultural watershed in southern Ontario</p>	<p><b><u>K.W. Wellband</u></b> Is Genetic Diversity a Predictor of Invasion Success? A Case Study of Gobies in the Great Lakes</p>	<p><b><u>R.D. Clark</u></b> Lake-wide Chinook Salmon Abundances in Lakes Michigan and Huron Correlate with Changes in Alewife Abundance and Between-Lake Migration Patterns</p>
<b>2:10</b>	<p><b><u>G. Leshkevich</u></b> Soil Moisture Change and Impacts in the Great Lakes Basin</p>	<p><b><u>T.M. Redder</u></b> Application of an Enhanced, Fine-Scale SWAT Model to Target Land Management Practices for Maximizing Pollutant Load Reductions in the Tiffin River Watershed</p>	<p><b><u>P.M. Capelle</u></b> Aggression and sociality: Conflicting or complementary traits of a successful invader?</p>	<p><b><u>J.X. He</u></b> Using a System of Time-varying Models to Quantify Piscivory Patterns During the Rapid Food-web Changes in the Main Basin of Lake Huron</p>

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<p><b>Exploring the Functioning of Lake Ontario Ecosystem: An Intensive Field Year Perspective</b> Co-Chairs: Tom Stewart, Lars Rudstam, and Mohi Munawar</p>	<p><b>Magnitude, Timing, and Pathways of Nutrient and Sediment Loading: The Importance of Season</b> Co-Chairs: Krista Chomicki, Tanya Long, and Mohamed Mohamed</p>	<p><b>Session Honoring Contributions of David M. Dolan to Great Lakes Research</b> Co-Chairs: Joseph DePinto, Martin Auer, and Steven Chapra</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>A.E. Scofield</u></b> Distribution of the Deep Chlorophyll Layer (DCL) in Lake Ontario during 2013: a Vertically Restructured System</p>	<p><b><u>J. Guo</u></b> Sediment Influx and Resuspension in Lake Winnipeg</p>	<p><b><u>M.T. Auer</u></b> Dave Dolan Contributions to Great Lakes Research and Management</p>	<b>1:10</b>
<p><b><u>M.R. Twiss</u></b> Seasonal Differences in Trace Metal (Fe, Mo) Stimulation of Photosynthesis and Nitrate Assimilation in the Deep Chlorophyll Layer (DCL) of Lake Ontario</p>	<p><b><u>R.R. Essig</u></b> Lake Michigan Tributary Nutrient Loading: A spatial and temporal trend assessment for 2011-2013</p>	<p><b><u>A. El-Shaarawi</u></b> Dave Dolan: A life Devoted to Quantitative Research on the Great Lakes</p>	<b>1:30</b>
<p><b><u>L.G. Rudstam</u></b> Diel changes of vertical fish distribution in the Lake Ontario offshore: potential impact to utilization of the deep chlorophyll layer</p>	<p><b><u>B.L. Upsdell Wright</u></b> Seasonal Loadings of Sediment and Nutrients from the Gully Creek Watershed to Lake Huron</p>	<p><b><u>J.V. DePinto</u></b> Trends in Phosphorus Loading to the Western Basin of Lake Erie</p>	<b>1:50</b>
<p><b><u>E.M. George</u></b> Evidence of Cisco Spawning in Chaumont Bay, Lake Ontario</p>	<p><b><u>K.J. Van Meter</u></b> Spatial-Temporal Patterns in Streamflow and Nutrient Fluxes Across the Grand River Watershed: Emerging Simplicity or Confounding Complexity?</p>	<p><b><u>R.P. Richards</u></b> Seasonality in Phosphorus Loading to Lake Erie from the Maumee River</p>	<b>2:10</b>

# WEDNESDAY, May 28

	1008	1009	1105	1110
	<p><b>Remote Sensing, Visualization, and Spatial Data Applications for the Great Lakes</b> Co-Chairs: George Leshkevich and Robert Shuchman</p>	<p><b>Field and Watershed Modeling: Scaling up the Effects of BMPs in Reducing Pollutant Exports</b> Co-Chairs: Rem Confesor and George Arhonditsis</p>	<p><b>Invasive Round Goby as Drivers of Ecological Change in the Laurentian Great Lakes</b> Co-Chairs: Justin Glenn Mychek-Londer, Harri Pettitt-Wade, Kyle Wellband, and Felicia Vincelli</p>	<p><b>Responses of Fish and Fisheries to the Recent Food Web Changes in Lake Huron</b> Co-Chairs: James Bence and Ji He</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>2:30</b>	<p><b><u>B.S. Krumwiede</u></b> Analyzing and Visualizing Change in the Great Lakes: Past, Present, and Future</p>	<p><b><u>W. Yang</u></b> Evaluating BMP Effectiveness at Field and Watershed Scales in the Gully Creek Watershed of Lake Huron Basin Using SWAT</p>	<p><b><u>H. Pettitt-Wade</u></b> Isotopic Niches and Potential for Dietary Plasticity in Round Goby and Tubenose Goby in The Great Lakes</p>	<p><b><u>N.E. Dobiesz</u></b> Improving Our Understanding of Round Goby <i>Neogobius melanostomus</i> Population Dynamics in Lake Huron Using Estimates of Consumption by the Top Piscivores</p>
<b>2:50</b>	<p><b><u>G. Leshkevich</u></b> Delivering Environmental Satellite and In Situ Data to the Great Lakes User Community - New Coast-Watch Products</p>	<p><b><u>G.B. Arhonditsis</u></b> How reliably can we guide management decisions using mathematical modeling?</p>	<p><b><u>K.M. Cole</u></b> Spatial and temporal distributions of the invasive Round Goby (<i>Neogobius melanostomus</i>) and Rusty Crayfish (<i>Orconectes rusticus</i>) on critical spawning reefs</p>	<p><b><u>S.A. Adlerstein</u></b> Relative Importance of Top-down and Bottom-up Effects on the Collapse of Alewife Population in Lake Huron</p>
<b>3:10</b>	<p><b><u>T.H. Hansen</u></b> Processing Seven Plus Years of Bathymetry Data</p>	<p><b><u>M.C. Gildow</u></b> Reducing Dissolved Phosphorus in the Maumee River through Implementation of Fertilizer Management Practices</p>	<p><b><u>D.S. Olson</u></b> The Diets of Hatchling Round Gobies in Western Lake Michigan</p>	<p><b><u>J.R. Bence</u></b> Using a Stochastic Model to Evaluate the Past and Future Role of Predators in Changes to Lake Huron's Main Basin Fish Community</p>
<b>3:30</b>	<b>BREAK</b>			

1305	1307	1309	
<p><b>Exploring the Functioning of Lake Ontario Ecosystem: An Intensive Field Year Perspective</b> Co-Chairs: Tom Stewart, Lars Rudstam, and Mohi Munawar</p>	<p><b>Magnitude, Timing, and Pathways of Nutrient and Sediment Loading: The Importance of Season</b> Co-Chairs: Krista Chomicki, Tanya Long, and Mohamed Mohamed</p>	<p><b>Session Honoring Contributions of David M. Dolan to Great Lakes Research</b> Co-Chairs: Joseph DePinto, Martin Auer, and Steven Chapra</p>	
<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	
<p><b><u>M.J. Yuille</u></b> Shocking Results: A Novel Approach to Estimating Round Goby Densities in Lake Ontario</p>	<p><b><u>J.L.A. Hood</u></b> Landscape controls on Si concentration and the seasonal Si cycle</p>	<p><b><u>H.S. Schmitt Marquez</u></b> Interlake and Total Loading Estimates of Total Phosphorus and Chloride in the Upper Great Lakes System, 1994-2008</p>	<b>2:30</b>
<p><b><u>J.P. Holden</u></b> Changes in mid sud-summer distributions of Rainbow Smelt and Alewife in Lake Ontario</p>	<p><b><u>S.L. Schiff</u></b> Do Stable Isotopes of Nitrate Reveal Source or Processes? Revisiting the Paradigms</p>	<p><b><u>S.C. Chapra</u></b> Long-term Trends of Nutrients and Trophic Response Variables for the Great Lakes</p>	<b>2:50</b>
<p><b><u>B.F. Lantry</u></b> Is the frequency of wounds observed on preferred and alternate hosts related to host and Sea Lamprey abundance for Lake Ontario?</p>	<p><b><u>K.A. Leal</u></b> Stable Isotopes Reveal Sources of Groundwater Sulfate in an Agriculture-Dominated Watershed</p>	<p><b><u>C.A. Stow</u></b> A Bayesian approach to guide development and evaluation of substance objectives under the 2012 Great Lakes Water Quality Agreement</p>	<b>3:10</b>
<b>BREAK</b>			<b>3:30</b>

# WEDNESDAY, May 28

	1008	1009	1105	1110
	<p><b>Remote Sensing, Visualization, and Spatial Data Applications for the Great Lakes</b> Co-Chairs: George Leshkevich and Robert Shuchman</p>	<p><b>Field and Watershed Modeling: Scaling up the Effects of BMPs in Reducing Pollutant Exports</b> Co-Chairs: Rem Confesor and George Arhonditsis</p>	<p><b>Invasive Round Goby as Drivers of Ecological Change in the Laurentian Great Lakes</b> Co-Chairs: Justin Glenn Mychek-Londer, Harri Pettitt-Wade, Kyle Wellband, and Felicia Vincelli</p>	<p><b>Reptile and Amphibian Conservation in a Changing Landscape</b> Chair: Chantel Markle</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>3:50</b>	<p><b><u>W. Xu</u></b> Spatial Pattern of Great Lakes Estuary Processes from Water Quality Sensing and Geostatistical Methods</p>	<p><b><u>A. Singh</u></b> Importance of Real-time Water Quality technology for bridging gaps of traditional water quality monitoring used to calibrate watershed models</p>	<p><b><u>C. Hares</u></b> Round Goby Replacing Native Fauna as Main Littoral Prey Item of Burbot in eastern Lake Michigan</p>	<p><b><u>K. Yagi</u></b> Mitigating the adverse effect of invasive common reeds, <i>Phragmites australis</i>, on the survival of Fowler's Toads, <i>Anaxyrus fowleri</i>, at Long Point, Ontario</p>
<b>4:10</b>	<p><b><u>J. Biberhofer</u></b> Underwater Video Documentation of Selected Off-shore Reefs and Shoals in Lake Huron</p>	<p><b><u>R.B. Confesor</u></b> Modeling the Impacts of Best Management Practices (BMP) Adoption at the Watershed Scale</p>	<p><b><u>P.W. Willink</u></b> Mottled Sculpin <i>Cottus bairdii</i> in Illinois; A Motley Tale of Subspecies, Invasive Species, Habitat Degradation, and Climate Change</p>	<p><b><u>S.P. Boyle</u></b> Understanding the Road Ahead: A Comprehensive Evaluation of Mitigation Measures Used to Reduce Reptile Road Mortality and Maintain Population Connectivity</p>
<b>4:30</b>	<p><b><u>L. Liou</u></b> Initial Results from the Workshop on Developing a Great Lakes Remote Sensing Community</p>	<p><b><u>R.H. Becker</u></b> Modeling The Effects Of Tillage Practices On Sediment And Nutrient Loading In The Maumee River</p>	<p><b><u>J. Janssen</u></b> Goby Lemonade</p>	<p><b><u>C.E. Markle</u></b> Comparing Approaches to Model Habitat Suitability for Blanding's Turtles (<i>Emydoidea blandingii</i>) in the Georgian Bay Archipelago</p>



1305	1307	1309	
<p><b>Exploring the Functioning of Lake Ontario Ecosystem: An Intensive Field Year Perspective</b>                      Co-Chairs: Tom Stewart, Lars Rudstam, and Mohi Munawar</p>	<p><b>Magnitude, Timing, and Pathways of Nutrient and Sediment Loading: The Importance of Season</b>                      Co-Chairs: Krista Chomicki, Tanya Long, and Mohamed Mohamed</p>	<p><b>Session Honoring Contributions of David M. Dolan to Great Lakes Research</b>                      Co-Chairs: Joseph DePinto, Martin Auer, and Steven Chapra</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>W.J.S. Currie</u></b>                      Sampling the Western Lake Ontario Basin Ecosystem Using New and Old Tools</p>	<p><b><u>W.T. Dickinson</u></b>                      Impacts of Climate Change on Winter Hydrology and Sediment and Nutrient Transport</p>	<p><b><u>J.V. Klump</u></b>                      Dolan, Data and Green Bay</p>	<b>3:50</b>
<p><b><u>M. Hossain</u></b>                      Linear Inverse Modelling: A New Tool To Examine Food Web Scale Questions In The Great Lakes</p>	<p><b><u>T.F. Cummings</u></b>                      Nitrate Export and Source Determination in Small Agricultural Catchments</p>	<p><b><u>M.J. Maccoux</u></b>                      Validation of a total phosphorus mass-balance model for Green Bay, Lake Michigan</p>	<b>4:10</b>
	<p><b><u>V. Lam</u></b>                      The role of seasonality on phosphorus export in agricultural soils from tile drainage under different tillage practices</p>	<p><b><u>M.T. Auer</u></b>                      End Game Great Lakes</p>	<b>4:30</b>

# WEDNESDAY, May 28

	1008	1009	1105	1110
		<p><b>Field and Watershed Modeling: Scaling up the Effects of BMPs in Reducing Pollutant Exports</b> Co-Chairs: Rem Confesor and George Arhonditsis</p>		<p><b>Reptile and Amphibian Conservation in a Changing Landscape</b> Chair: Chantel Markle</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>4:50</b>		<p><b><u>M.M. Kalcic</u></b> Using SWAT to Estimate Watershed-scale BMP Performance in the Western Lake Erie Basin</p>		<p><b><u>S.P. Boyle</u></b> Knowing Where They Cross: Using Hotspot Analyses to Inform Wildlife Management Decisions in a Provincial Park</p>
<b>5:10</b>		<p><b><u>F. Sun</u></b> Chlorophyll-a Modeling with Support Vector Regression in Taihu Lake of China, 1998-2006</p>		<p><b><u>P.S. Desjardins</u></b> Alpha Heart Wildlife Presents: The Kawartha Turtle Trauma Center</p>
<b>5:30</b>				<i>Previous Presentation Continued</i>

1305	1307	1309	
	<p><b>Magnitude, Timing, and Pathways of Nutrient and Sediment Loading: The Importance of Season</b>                      Co-Chairs: Krista Chomicki, Tanya Long, and Mohamed Mohamed</p>	<p><b>Session Honoring Contributions of David M. Dolan to Great Lakes Research</b>                      Co-Chairs: Joseph DePinto, Martin Auer, and Steven Chapra</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
	<p><b><u>P.J. Doris</u></b>                      Soil testing through the H-3 project: a success story and effects of season, tillage, tile drains on P and sediment losses</p>	<p><b><u>D.R. Obenour</u></b>                      A Decision Support Model for Cyanobacteria Blooms in the Western Basin of Lake Erie</p>	<b>4:50</b>
	<p><b><u>C.J. Van Esbroeck</u></b>                      Field-scale phosphorus transport from reduced tillage systems via overland flow and tile drainage in southwestern Ontario</p>	<p><b><u>Y. Feng</u></b>                      Identifying Nutrient Source for the 2010 Blue-green Algae Outbreak in Sodus Bay, NY via Modeling and Data Analysis</p>	<b>5:10</b>
	<p><b><u>G. Opolko</u></b>                      Event Loads and Seasonal Trends of Suspended Sediment and Phosphorus in Subsurface Runoff From Tile-Drained Fields Under Different Tillage Systems in Southwestern Ontario</p>		<b>5:30</b>

# THURSDAY, May 29

	1008	1009	1105	1110
	<p><b>Water and Its Climatic Context: Earth System Approaches to the Great Lakes</b> Co-Chairs: Brent Lofgren and Jia Wang</p>	<p><b>Exploring the Idea of the Great Lakes as 'Commons'</b> Chair: Nancy Auer</p>	<p><b>Advances in Monitoring and Forecasting Beach Nearshore Water Quality</b> Co-Chairs: Sonia Joseph-Joshi and David Rockwell</p>	<p><b>Phragmites australis: Impacts and Restoration Challenges for Great Lakes Coastal Habitats</b> Co-Chairs: Rebecca Rooney and Janice Gilbert</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>8:10</b>		<p><b><u>M.T. Auer</u></b> End Game On The Commons</p>	<p><b><u>J.M. Morris</u></b> USGS Beach-Health Investigations Throughout the Great Lakes - A Summary of Work from 2008-2014</p>	<p><b><u>H.A. Braun</u></b> Great Lakes <i>Phragmites</i> Collaborative: A Partnership to Link People, Information and Action</p>
<b>8:30</b>	<p><b><u>L.A. Mason</u></b> Fine-scale Analysis of Changes in Surface Water Temperature and Ice Cover in the North American Great Lakes</p>	<p><b><u>A. Bradley</u></b> The Great Lakes Commons Initiative - A Groundbreaking Collaboration to Transform the Future of our Lakes</p>	<p><b><u>M.B. Nevers</u></b> Integration of Nearshore Beach Modeling Efforts to Assess Indicator Bacteria Contamination Sources and Transport Mechanisms</p>	<p><b><u>P.M. Catling</u></b> The <i>Phragmites</i> database: New information on the spread, potential distribution, habitats, identification and problems with European Common Reed ...</p>
<b>8:50</b>	<p><b><u>I. Lehnherr</u></b> Recent Climate Change Impacts on Lake Hazen (the largest lake north of the Arctic Circle) and its Watershed</p>	<p><b><u>P. Baines</u></b> An Engagement Compass for a Great Lakes Commons</p>	<p><b><u>L.M. Fry</u></b> Linking Hydrological and Hydrodynamics Models to Determine the Impacts of Rivers on Beach Water Quality</p>	<p><b><u>M.J. Battaglia</u></b> Mapping the U.S. and Canadian Coastal Great Lakes Wetlands and Stressors</p>
<b>9:10</b>	<p><b><u>J. Wang</u></b> Great Lakes Ice and Climate: From Research to Forecast</p>	<p><b><u>T.J. Ehinger</u></b> Using Video Art to Visualize Vulnerability and Vitality of the Commons</p>	<p><b><u>A.A. Ritzenhaler</u></b> Understanding Spatial and Temporal Variability in Nearshore Bacterial Water Quality and its Implications on Effective Beach Management</p>	<p><b><u>J.V. Marcaccio</u></b> Creation of a Basin-wide Inventory of Invasive-<i>Phragmites</i> for the Canadian Great Lakes Coastlines Using PALSAR and LANDSAT Imagery</p>

1305	1307	1309	
<p><b>Aquatic Invasive Species Challenges in a Changing World</b> Co-Chairs: Stephen Hensler, Timothy Strakosh, and Jessica Simons</p>	<p><b>Environmental Chemistry, Discoveries, and Biotic Effects of Chemicals of Emerging Concern</b> Co-Chairs: Bernard Crimmins, Robert Letcher, and Daryl McGoldrick</p>	<p><b>Strategic Restoration of Aquatic Habitat: Are We Doing the Right Things in the Right Place?</b> Chair: Michele Wheeler</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>A.J. Fusaro</u></b> Creation of a Cumulative Risk Map for Potential Great Lakes Invaders</p>	<p><b><u>A.J. Mandelia</u></b> Modeling PCB Transport in the Torch Lake Area of Concern</p>	<p><b><u>C.S. Kleist</u></b> City of Duluth Stream Restoration and Recovery after the 500 Year Flood</p>	<b>8:10</b>
<p><b><u>J.L. Sieracki</u></b> Predicting the Spread of Invasive Species via Ballast Water in the Laurentian Great Lakes</p>	<p><b><u>H.G. Dryfhout-Clark</u></b> Temporal and Spatial Trends of Atmospheric Deposition of Priority Pollutants to the Great Lakes (1990-2010)</p>	<p><b><u>C.M. Groff</u></b> Re-colonization of the <i>Hexagenia</i> Mayfly to Lower Green Bay, Lake Michigan: Exploring New Methods to Aid in the Revitalization of an Anthropogenically Degraded Freshwater Ecosystem</p>	<b>8:30</b>
<p><b><u>J. Gerlofsma</u></b> Assessment of plankton density in ballast water samples using a High Resolution Laser Optical Plankton Counter and FlowCAM</p>	<p><b><u>A. Visha</u></b> Temporal PCB and mercury trends in Lake Trout and Walleye: A Bayesian modeling analysis from Lake Ontario</p>	<p><b><u>R. Portiss</u></b> Multispecies use of restored fish habitat in Toronto Harbour</p>	<b>8:50</b>
<p><b><u>J.W. Fang</u></b> The Assessment of Rusty Crayfish (<i>Orconectes rusticus</i>) Populations in the Greater Toronto Region</p>	<p><b><u>T.A. Johnson</u></b> Temporal and Spatial Distributions of Mercury and Trace Metals in Great Lakes Trout</p>	<p><b><u>C. Vis</u></b> Predicting coastal wetland restoration outcomes using state-and-transition simulation models: a case study for Point Pelee National Park</p>	<b>9:10</b>

# THURSDAY, May 29

	1008	1009	1105	1110
	<p><b>Water and Its Climatic Context: Earth System Approaches to the Great Lakes</b> Co-Chairs: Brent Lofgren and Jia Wang</p>	<p><b>Exploring the Idea of the Great Lakes as 'Commons'</b> Chair: Nancy Auer</p>	<p><b>Advances in Monitoring and Forecasting Beach Nearshore Water Quality</b> Co-Chairs: Sonia Joseph-Joshi and David Rockwell</p>	<p><b>Phragmites australis: Impacts and Restoration Challenges for Great Lakes Coastal Habitats</b> Co-Chairs: Rebecca Rooney and Janice Gilbert</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>9:30</b>	<p><b><u>X. Bai</u></b> A Record-Breaking Low Ice Cover over the Great Lakes during Winter 2011/2012: Combined Effects of a Strong Positive NAO and La Niña</p>	<p><b><u>R.P. Lovelace</u></b> Learning to be human in environments where we belong</p>	<p><b><u>F. Rezanezhad</u></b> Groundwater Quality at Beaches of the Great Lakes</p>	<p><b><u>C. Robichaud</u></b> <i>Phragmites australis</i> Establishment and Bird Communities at Long Point, Ontario</p>
<b>9:50</b>	<p><b><u>B.M. Lofgren</u></b> Atmospheric and Water Budget Projections from a Regional Modeling System</p>	<p><b><u>N.A. Auer</u></b> Can We Build Reverance for Great Lakes By Example?</p>	<p><b><u>N.J. Neureuther</u></b> Determining the impacts of toxics in the Great Lakes using genomic biomarkers of mussels involved in the contaminant monitoring of the NOAA Mussel Watch Program</p>	<p><b><u>W.A. Bickford</u></b> Developing Microbe-based Management Strategies to Control Invasive <i>Phragmites australis</i></p>
<b>10:10</b>	<p><b><u>C. DeMarchi</u></b> Comparing Coupled Hydro-sphere-Atmosphere Research Model (CHARM) Simulation of Great Lakes Water Temperature to the FVCOM Model Simulation and Experimental Data</p>	<p><b><u>M.A. Noodin</u></b> Connecting Anishinaabe Stories with Science</p>		<p><b><u>J.M. Gilbert</u></b> Controlling <i>Phragmites</i> in Ontario: Challenges, Successes, Next Steps</p>
<b>10:50</b>	<b>Plenary, Michael DeGroot Centre for Learning and Discovery, Room 1305/1307</b>			

1305	1307	1309	
<p><b>Aquatic Invasive Species Challenges in a Changing World</b> Co-Chairs: Stephen Hensler, Timothy Strakosh, and Jessica Simons</p>	<p><b>Environmental Chemistry, Discoveries, and Biotic Effects of Chemicals of Emerging Concern</b> Co-Chairs: Bernard Crimmins, Robert Letcher, and Daryl McGoldrick</p>	<p><b>Strategic Restoration of Aquatic Habitat: Are We Doing the Right Things in the Right Place?</b> Chair: Michele Wheeler</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>J.T. Buckley</u></b> Monitoring Invasive Rusty Crayfish on Critical Lake Michigan Spawning Reefs</p>	<p><b><u>L. Fuentes</u></b> Examining Trends of Methylmercury in Michigan Using Nestling Bald Eagle Feathers</p>	<p><b><u>G.M. Sargis</u></b> Lessons Learned in Restoring Lake Ontario Coastal Wetlands through Habitat Creation and Control of Invasive Species</p>	<b>9:30</b>
<p><b><u>J.M. Simons</u></b> The Value of Partnerships: Innovation in Monitoring for and Responding to Invasive Species</p>	<p><b><u>K.M.S. Liznick</u></b> Total and Methyl Mercury in Lake Erie Sediments, Water and Fish: Toward Identifying the Cause of Recent Increases in Fish Mercury</p>	<p><b><u>C.J. Palmer</u></b> Monitoring the Success of Ecological Restoration Efforts - Suggestions for Obtaining Reliable Ecological Measurements</p>	<b>9:50</b>
<p><b><u>J.K. Brinsmead</u></b> Looking into the Crystal Ball: Forecasting AIS Science and Information Needs in Ontario Using the Delphi Method</p>	<p><b><u>M.S. Milligan</u></b> Identification of Environmental Degradation Products Potentially Derived from Legacy Pollutants and Emerging Contaminants in Great Lakes Fish Using GCxGC-TOF Mass Spectrometry</p>	<p><b><u>F.B. Stille</u></b> Restoration Planning in an Urban Context - A Multi-Discipline Approach to Prioritization in the Greater Toronto Area</p>	<b>10:10</b>
<p><b>Plenary, Michael DeGroot Centre for Learning and Discovery, Room 1305/1307</b></p>			<b>10:50</b>

# THURSDAY, May 29

	1008	1009	1105	1110
	<p><b>Physical Processes in Large Lakes</b> Co-Chairs: Leon Boegman, Ryan Mulligan, Dima Beletsky, Chin Wu, Mathew Wells, Marek Stastna, and Eric Anderson</p>	<p><b>Great Lakes Agreement and Compact, Science to support action and issues in human dimensions</b> Chair: James Nowlan</p>	<p><b>Advancement in the Development and Application of Great Lakes Ecosystem Indicators</b> Co-Chairs: Lizhu Wang, William Taylor, and Euan Reavie</p>	<p><b>Divergent Patterns in Great Lakes Primary Production: Characteristics, Causes, and Consequences</b> Co-Chairs: Sue Watson and Ralph Smith</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>1:10</b>	<p><b><u>D. Beletsky</u></b> Modeling spread of invasive species in Lake Michigan</p>	<p><b><u>J.D. Allan</u></b> The Heterogeneous Distribution of Great Lakes Ecosystem Services</p>	<p><b><u>G. Perhar</u></b> Using A Metabolite-Driven Daphnia Physiology Model as an Early Warning System for Ecosystem Health</p>	<p><b><u>S.M. Brothers</u></b> Long-Term Patterns in Primary Production in the Laurentian Great Lakes: Tracing the Cumulative Effects of Eutrophication and Invasive Species</p>
<b>1:30</b>	<p><b><u>J.M. Choi</u></b> Drifter and dye release experiments in internal Poincare wave-dominated southern Lake Michigan</p>	<p><b><u>H.M. Pankhurst</u></b> The Durham Region Coastal Wetland Monitoring Project: Monitoring to Management - Making the Connection</p>	<p><b><u>N.T. Schock</u></b> Inter-annual variation of habitat conditions and macroinvertebrate communities of a coastal wetland of Saginaw Bay over a 15 year period., MI</p>	<p><b><u>G.L. Fahnenstiel</u></b> Long-term trends in lake-wide phytoplankton productivity in the Upper Great Lakes: 1998-2013</p>
<b>1:50</b>	<p><b><u>P. Xue</u></b> Response of Lake Superior to the mesoscale meteorological forcing</p>	<p><b><u>J. Marty</u></b> Assessing the risk of oil and HNS spills in Canadian waters: methods and results for the Great Lakes- St. Lawrence River ecosystems</p>	<p><b><u>R.G. Biastoch</u></b> Spatial and temporal trends in Toronto and Region Conservation Authority benthic macroinvertebrate communities from 2001-2012</p>	<p><b><u>A.S. Chiandet</u></b> Why are phytoplankton communities different in Severn Sound, Georgian Bay?</p>
<b>2:10</b>	<p><b><u>A.F. Manome</u></b> Ice-hydrodynamic coupled simulation in Lake Erie with FVCOM</p>	<p><b><u>J.E. Mayer</u></b> Predicting Behavioral Intention of Organisms-in-Trade Hobbyists: A Study to Enhance Outreach in the Great Lakes Region</p>	<p><b><u>J.D. Buckley</u></b> Assessing the Accuracy of Fish-Based Biological Indicators as Indicators of Wetland Condition at The Great Lakes Coastal Margins using Receiver-Operator Characteristic Curve Analysis</p>	<p><b><u>Y. Shimoda</u></b> Effects of P Loading Reductions and Dreissenid Mussels on the Phytoplankton of the Bay of Quinte, Lake Ontario</p>



1305	1307	1309	
<p><b>Aquatic Invasive Species Challenges in a Changing World</b> Co-Chairs: Stephen Hensler, Timothy Strakosh, and Jessica Simons</p>	<p><b>Environmental Chemistry, Discoveries, and Biotic Effects of Chemicals of Emerging Concern</b> Co-Chairs: Bernard Crimmins, Robert Letcher, and Daryl McGoldrick</p>	<p><b>Lake Erie in Transition: Current Nutrient Science and Implications for Management</b> Co-Chairs: Justin Chaffin and Carol Miller</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>S.R. Hensler</u></b> Fine tuning approaches for aquatic invasive species early detection monitoring</p>	<p><b><u>D.H. Miller</u></b> Adverse Outcome Pathways Linked to Population Models as a Methodology for Investigating Effects of Chemical Stressors</p>	<p><b><u>Z. Raymer</u></b> Mapping Harmful Algal Blooms in the Laurentian Great Lakes: An Analysis of HAB Occurrences Since 2002</p>	<b>1:10</b>
<p><b><u>L.E. Burlakova</u></b> Changes in Lake Erie benthos over the last 50 years: historical perspectives, current status, and main drivers</p>	<p><b><u>A. Mostafa</u></b> Determination of Contaminants of Emerging Concern Using POCIS Sampler and UHPLC-Orbitrap Mass Spectrometry</p>	<p><b><u>D.D. Kane</u></b> <i>Microcystis</i> blooms and phosphorus dynamics in two of Lake Erie's agricultural tributaries (Maumee and Sandusky rivers)</p>	<b>1:30</b>
<p><b><u>A.Y. Karatayev</u></b> Spread, population dynamics and ecosystem impacts of zebra versus quagga mussels</p>	<p><b><u>B.S. Crimmins</u></b> Shotgun Screening of Great Lakes Lake Trout using Atmospheric Pressure Gas Chromatography - Quadrupole Time of Flight Mass Spectrometry</p>	<p><b><u>N.C. Feisthauer</u></b> Using agri-environmental indicators to track changes in the risk of nutrient and sediment losses in the Lake Erie basin: I. Grand River Case Study</p>	<b>1:50</b>
<p><b><u>N.J. Kosmenko</u></b> Bioenergetics Modeling to Assess Aquatic Invasive Species Impact</p>	<p><b><u>L. Shen</u></b> Identification, Occurrence and Bioaccumulation of Analogues of Dechlorane 604 Lake Ontario Sediment and Trout</p>	<p><b><u>P.J. Joosse</u></b> Using agri-environmental indicators to track changes in the risk of nutrient and sediment losses in the Lake Erie basin: II. Application from watershed scale to the Lake Erie Basin</p>	<b>2:10</b>

# THURSDAY, May 29

	1008	1009	1105	1110
	<b>Physical Processes in Large Lakes</b> Co-Chairs: Leon Boegman, Ryan Mulligan, Dima Beletsky, Chin Wu, Mathew Wells, Marek Stastna, and Eric Anderson	<b>Great Lakes Agreement and Compact, Science to support action and issues in human dimensions</b> Chair: James Nowlan	<b>Advancement in the Development and Application of Great Lakes Ecosystem Indicators</b> Co-Chairs: Lizhu Wang, William Taylor, and Euan Reavie	<b>Divergent Patterns in Great Lakes Primary Production: Characteristics, Causes, and Consequences</b> Co-Chairs: Sue Watson and Ralph Smith
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>2:30</b>	<u><b>M.C. Wilson</b></u> Wind-Forced Dynamics of the Lake Ontario North Shore Coastal Boundary Layer	<u><b>D.N. Sekovski</b></u> Restoring Lake Prespa: Challenges, Strategy and Results	<u><b>G.C. Christie</b></u> Indicators of the Status of Aquatic Invasive Species in the Great Lakes	<u><b>L.A. Molot</b></u> A novel model for cyanobacteria bloom formation: the critical role of anoxia and ferrous iron
<b>2:50</b>	<u><b>R.R. Arifin</b></u> Modeling Thermal Stratification Pattern and Thermal Bar Formation in Lake Ontario	<u><b>M. Ramin</b></u> Coupling Public Perception and Stakeholder Engagement with the Water Quality Criteria Setting Process in the Bay of Quinte	<u><b>G.J. Niemi</b></u> Predicting Occurrences of Indicator Bird Species in Great Lakes Coastal Wetlands	<u><b>K.A. Perri</b></u> Examination of Cyanobacterial Siderophore Production in Culture and Lake Erie
<b>3:10</b>	<u><b>J.A. Austin</b></u> Observations of radiatively driven convection in a deep, dimictic lake	<u><b>F. Lupi</b></u> Economic Benefits of Great Lakes Beach Recreation	<u><b>R.L. Wheeler</b></u> Status and Trends of Michigan Great Lakes Coastal Wetlands Over a Three Year Period and a Comparison of Ecosystem Indicator Performance.	<u><b>S.B. Watson</b></u> Molecular and taxonomic characterization of potential microcystin-producing cyanobacteria in Lake St. Clair during a late summer bloom
<b>3:30</b>	<b>BREAK</b>			

1305	1307	1309	
<p><b>Aquatic Invasive Species Challenges in a Changing World</b> Co-Chairs: Stephen Hensler, Timothy Strakosh, and Jessica Simons</p>	<p><b>Environmental Chemistry, Discoveries, and Biotic Effects of Chemicals of Emerging Concern</b> Co-Chairs: Bernard Crimmins, Robert Letcher, and Daryl McGoldrick</p>	<p><b>Lake Erie in Transition: Current Nutrient Science and Implications for Management</b> Co-Chairs: Jeff Reutter and Carol Miller</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>J.T. Ives</u></b> Inter- and Intra-annual Variability in the <math>\delta^{13}\text{C}</math> and <math>\delta^{15}\text{N}</math> Isotope Values of <i>Hemimysis anomala</i>, the Bloody Red Shrimp</p>	<p><b><u>D.L. Delach</u></b> PFC concentrations and accumulation potential among predator and prey fish in the Great Lakes</p>	<p><b><u>J.G. Winter</u></b> Long term changes in nutrients, chloride and phytoplankton in the nearshore waters of Lake Erie</p>	<b>2:30</b>
<p><b><u>R.A. Sturtevant</u></b> GLANSIS - Assessment of the Relative Impact of Established Nonindigenous Species</p>	<p><b><u>G. Su</u></b> Determination of organophosphate flame retardants metabolites in three polarity-specific animal tissues by use of liquid chromatography-tandem quadrupole mass spectrometry</p>	<p><b><u>S. Simoliunas</u></b> The Perennial Problem of Phosphorus in Detroit River</p>	<b>2:50</b>
<p><b><u>N.J. Wood</u></b> Analysis of invasive mute swan impacts on submerged aquatic vegetation in coastal wetlands using remote sensing techniques</p>	<p><b><u>X. Ortiz Almirall</u></b> Occurrence of Substituted Diphenylamines in the Great Lakes</p>	<p><b><u>L.T. Johnson</u></b> Historical and seasonal trends in nitrogen loading from Lake Erie tributaries</p>	<b>3:10</b>
<b>BREAK</b>			<b>3:30</b>

# THURSDAY, May 29

	1008	1009	1105	1110
	<p><b>Physical Processes in Large Lakes</b> Co-Chairs: Leon Boegman, Ryan Mulligan, Dima Beletsky, Chin Wu, Mathew Wells, Marek Stastna, and Eric Anderson</p>	<p><b>Great Lakes Agreement and Compact, Science to support action and issues in human dimensions</b> Chair: James Nowlan</p>	<p><b>Advancement in the Development and Application of Great Lakes Ecosystem Indicators</b> Co-Chairs: Lizhu Wang, William Taylor, and Euan Reavie</p>	<p><b>Divergent Patterns in Great Lakes Primary Production: Characteristics, Causes, and Consequences</b> Co-Chairs: Sue Watson and Ralph Smith</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>3:50</b>	<p><b><u>M. Stastna</u></b> On the generation of short internal waves by lake scale internal seiches</p>	<p><b><u>L. Shen</u></b> Estimating Ontario's Water Withdrawals and Consumption in the Great Lakes Basin</p>	<p><b><u>R.W. Howe</u></b> Measurable Responses of Great Lakes Coastal Wetland Biota to Environmental Stressors</p>	<p><b><u>B.M. Lesht</u></b> Temporal and Spatial Scales of Change in Great Lakes Chlorophyll Concentration Inferred from Satellite Observations: 1998-2013</p>
<b>4:10</b>	<p><b><u>D.T. Steinmoeller</u></b> Calculating free modes of oscillation in arbitrarily-shaped closed basins</p>	<p><b><u>J.P. Smith</u></b> Web interface to assist with the periodic assessment of withdrawals, consumptive uses, and diversions per the Great Lakes - St. Lawrence River Basin Sustainable Water Resources Agreement</p>	<p><b><u>D.G. Uzarski</u></b> A Basin Wide Great Lakes Coastal Wetland Monitoring Program: Metrics to Evaluate Ecosystem Health</p>	<p><b><u>F. Yousef</u></b> Satellite Observations of Long Term Trends in Optical Properties of the Upper Great Lakes</p>
<b>4:30</b>	<p><b><u>A. Jabbari Sahebari</u></b> Large Eddy Simulation of a turbulent oscillating bottom boundary layer</p>	<p><b><u>M.S. Piskur</u></b> A Cumulative Impact Assessment of Water Uses in the Great Lakes-St. Lawrence River Basin</p>	<p><b><u>M.E. Landon</u></b> Navigating Change in a Long Term Monitoring Program</p>	<p><b><u>C.N. Brooks</u></b> Using a Satellite Time-Series Dataset to Analyze Growth of Cladophora and Other Submerged Aquatic Vegetation in the Great Lakes</p>

1305	1307	1309	
<p><b>Aquatic Invasive Species Challenges in a Changing World</b>                      Co-Chairs: Stephen Hensler, Timothy Strakosh, and Jessica Simons</p>	<p><b>Modeling Nutrient Transport to the Great Lakes: Approaches and Management Implications</b>                      Co-Chairs: Alex Mayer and Dale Robertson</p>	<p><b>Lake Erie in Transition: Current Nutrient Science and Implications for Management</b>                      Co-Chairs: Jeff Reutter and Carol Miller</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>A.L. Whitten</u></b>                      The Effects of Dreissenids on Zooplankton Community Composition and Size Structure</p>	<p><b><u>P.C. Esselman</u></b>                      Statistical estimation of landscape contributions of total phosphorus loads to the entire U.S. coastal zone of the Great Lakes</p>	<p><b><u>R.A. Nesbitt</u></b>                      The State of Urban Phosphorus Management in the Lake Erie Basin</p>	<b>3:50</b>
<p><b><u>M. Ronan</u></b>                      Are the Control Programs and Propaganda Against the Rusty Crayfish Justified in Ontario?</p>	<p><b><u>D.M. Robertson</u></b>                      SPARROW Watershed Modeling of the Entire Great Lakes Basin</p>	<p><b><u>E.M. Verhamme</u></b>                      Western Lake Erie Nutrient and HABs Modeling: 2011 &amp; 2012 Comparisons</p>	<b>4:10</b>
<p><b><u>O. Casas-Monroy</u></b>                      Efficacy of Ballast Water Treatment Technologies in Context of Adapting to a Warming Arctic Environment</p>	<p><b><u>K.J. Van Meter</u></b>                      Landscape Nutrient Legacies and Time Lags: A Conceptual Framework</p>	<p><b><u>S.J. Sweeney</u></b>                      Farming on the bluff: Agricultural land loss along Lake Erie's coast from Rondeau Bay to Long Point, 2006-2013</p>	<b>4:30</b>

# THURSDAY, May 29

	1008	1009	1105	1110
	<p><b>Physical Processes in Large Lakes</b> Co-Chairs: Leon Boegman, Ryan Mulligan, Dima Beletsky, Chin Wu, Mathew Wells, Marek Stastna, and Eric Anderson</p>	<p><b>Great Lakes Agreement and Compact, Science to support action and issues in human dimensions</b> Chair: James Nowlan</p>	<p><b>Advancement in the Development and Application of Great Lakes Ecosystem Indicators</b> Co-Chairs: Lizhu Wang, William Taylor, and Euan Reavie</p>	<p><b>Divergent Patterns in Great Lakes Primary Production: Characteristics, Causes, and Consequences</b> Co-Chairs: Sue Watson and Ralph Smith</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>4:50</b>	<p><b><u>C.H. Wu</u></b> Meteorologically induced high-frequency water level oscillations in Lake Michigan</p>	<p><b><u>W.P. Leger</u></b> Building a Collaborative Adaptive Management Approach Across the Great Lakes-St. Lawrence River System</p>	<p><b><u>M.F. Bowman</u></b> Forensicology: The application of a broad spectrum of sciences &amp; technologies to investigate and establish facts related to ecology</p>	<p><b><u>M.J. McCarthy</u></b> Ammonium regeneration in the water column supplies over half of the ammonium demand in Taihu Lake (China)</p>
<b>5:10</b>	<p><b><u>A.J. Bechle</u></b> The Great Lakes Meteorological Tsunami Climate</p>	<p><b><u>K.L. Laurent</u></b> Strategic tools to overcome policy barriers and move the Great Lakes-St. Lawrence River Basin closer to a "thriving and prosperous" future</p>	<p><b><u>J.J.H. Ciborowski</u></b> Comparing the Sensitivity and Consistency of Biological Indicators of Environmental Conditions: A Standard Protocol</p>	<p><b><u>G.K. Nurnberg</u></b> Internal Phosphorus Load Assessment in Lake Winnipeg</p>
<b>5:30</b>	<p><b><u>A.J. Campbell</u></b> A Cost Effective Remote Stereo Imaging System for Surface Wave Measurement</p>		<p><b><u>N. Tenczar</u></b> Distributed Data Management for the Great Lakes</p>	

1305	1307	1309	
<p><b>Aquatic Invasive Species Challenges in a Changing World</b>                      Co-Chairs: Stephen Hensler, Timothy Strakosh, and Jessica Simons</p>	<p><b>Modeling Nutrient Transport to the Great Lakes: Approaches and Management Implications</b>                      Co-Chairs: Alex Mayer and Dale Robertson</p>	<p><b>Lake Erie in Transition: Current Nutrient Science and Implications for Management</b>                      Co-Chairs: Jeff Reutter and Carol Miller</p>	
<p><b>Presenter / Title</b></p>	<p><b>Presenter / Title</b></p>	<p><b>Presenter / Title</b></p>	
<p><b><u>R.A. Canning</u></b>                      The Introduction and Management of <i>Stratiotes aloides</i> in the Trent-Severn Waterway</p>	<p><b><u>J.R. Stoll</u></b>                      Agricultural Land Conversion with an Environmental Purpose: Switchgrass as a Phosphorous Control Method in the Lower Fox River Watershed</p>	<p><b><u>C.J. Miller</u></b>                      Multi-Stage Ditch Design for Reduction of Sediment and Phosphorus Loads</p>	<p><b>4:50</b></p>
<p><b><u>S.E. Arnott</u></b>                      Gauging the Success of Outreach to Recreational Boaters and Anglers to Prevent the Spread of Aquatic Invasive Species in Ontario</p>		<p><b><u>J.C. Ho</u></b>                      A statistical model of the interannual variability of hypoxia in Lake Erie</p>	<p><b>5:10</b></p>
			<p><b>5:30</b></p>

# FRIDAY, May 30

	1008	1009	1105	1110
	<p><b>Outreach and Education</b> Chair: Rochelle Sturtevant</p>	<p><b>Climate, Phenology, and Life History Traits: Extending the Match-Mismatch Hypothesis</b> Co-Chairs: Cassie May and Troy Farmer</p>	<p><b>Transitions at the Water's Edge: Changing Carbon and Nutrient Cycling in Coastal Ecosystems</b> Co-Chairs: Bopi Biddanda and Jim Cotner</p>	<p><b>Coupled Physical and Biogeochemical Processes in Lakes</b> Co-Chairs: Joe Ackerman, Mathew Wells, and Liset Cruz-Font</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>8:10</b>			<p><b><u>B.A. Biddanda</u></b> Systematically Variable Carbon Metabolism in a Great Lakes Coastal Zone</p>	
<b>8:30</b>		<p><b><u>A.J. Lynch</u></b> The Projected Influence of Climate Change on Lake Whitefish (<i>Coregonus clupeaformis</i>) Recruitment in the 1836 Treaty Waters of Lakes Huron, Michigan, and Superior</p>	<p><b><u>J.H. Fillingham</u></b> Modeling Carbon and Phosphorus Cycles in the Nearshore Zone of Lake Michigan</p>	<p><b><u>N. Nakhaei</u></b> Modelling sediment oxygen demand in stratified lakes</p>
<b>8:50</b>	<p><b><u>A.E. Riley</u></b> Shining a Light in the Black Box: Effectively Communicating the Science Behind Pharmaceutical and Personal Care Product Pollution</p>	<p><b><u>J.M. Pfaff</u></b> Recruitment of Invasive White Perch in Lake Erie: The Relative Roles of Climate Warming and Re-eutrophication</p>	<p><b><u>C.T. Parsons</u></b> Sediment Nutrient Dynamics Under Redox Oscillating Conditions (Cootes Paradise, Ontario)</p>	<p><b><u>M.T. Nishizaki</u></b> Using Eddy Correlation to Assess Benthic Oxygen Flux During Late Fall and Winter</p>
<b>9:10</b>	<p><b><u>N. Molen</u></b> Extending Great Lakes Remote Sensing Products to Stakeholders through GLOS, Coastwatch, and Custom Portals</p>	<p><b><u>C.L. Schmit</u></b> Climate Change Effects on Lake Erie Yellow Perch Spawning Phenology</p>	<p><b><u>J.B. Cotner</u></b> Fluorescent dissolved organic matter and nearshore to offshore gradients in Earth's largest lake</p>	<p><b><u>S. Tuttle-Raycraft</u></b> The effects of suspended sediment on the suspension feeding of unionid mussels</p>



1305	1307	1309	
<p><b>A Grand Connection: The Nexus of Water Research and Management in the Grand River Watershed</b> Co-Chairs: Martin Keller, Claire Holeton, and Sandra Cooke</p>	<p><b>Advantages of Bayesian Methods for Aiding Fisheries Decisions in Transitioning Ecosystems</b> Co-Chairs: Yan Jiao and Thomas Nudds</p>	<p><b>Lake Huron's Altered Foodweb</b> Co-Chairs: James Johnson, Henry Vanderploeg, and Scott McNaught</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
	<p><b><u>M.R. DuFour</u></b> Coupling hydroacoustic and gill net surveys: Getting by with a little help from my Bayesian friends</p>	<p><b><u>G.J. Warren</u></b> Lake Huron 2012 Cooperative Science and Monitoring Initiative Introduction</p>	<b>8:10</b>
<p><b><u>D.T. Summach</u></b> Long Term Monitoring of Water Quality in the Vicinity of Wastewater Treatment Plants in the Region of Waterloo - Water Quality Observations in the Grand River Watershed During Summer Low Flow Events</p>	<p><b><u>A.J. Debertin</u></b> Why do non-quota commercial fisheries persist in Lake Erie?</p>	<p><b><u>T. Wills</u></b> Does "Nearshore Phosphorus Shunt" Translate to Higher Abundance of Nearshore Fish?</p>	<b>8:30</b>
<p><b><u>J. Spoelstra</u></b> How sweet it is! High concentrations of artificial sweeteners in the Grand River</p>	<p><b><u>K.B. Reid</u></b> Risk assessment of alternative seasonal harvest strategies for the Lake Erie walleye (<i>Sander vitreus</i>) fishery: Does it matter when fish are harvested?</p>	<p><b><u>D.B. Bunnell</u></b> Describing Nutrients and Biomass Along a Nearshore to Offshore Gradient in Lake Huron with Comparisons to Lakes Michigan and Superior</p>	<b>8:50</b>
<p><b><u>A.M. Morrison</u></b> Assessing the Use of Stable and Radioisotopes to Study Phosphorus Cycling in the Grand River</p>	<p><b><u>A. Arab</u></b> Hierarchical Bayesian Modeling Approaches for Habitat Management of Benthic Fishes in the Missouri River</p>	<p><b><u>E.S. Rutherford</u></b> The Effect of Spatial and Temporal Variability in Lower Food Web Dynamics on Larval Fish Feeding, Growth and Survival in Thunder Bay, Lake Huron</p>	<b>9:10</b>

# FRIDAY, May 30

	1008	1009	1105	1110
	<b>Outreach and Education</b> Chair: Rochelle Sturtevant	<b>Climate, Phenology, and Life History Traits: Extending the Match-Mismatch Hypothesis</b> Co-Chairs: Cassie May and Troy Farmer	<b>Transitions at the Water's Edge: Changing Carbon and Nutrient Cycling in Coastal Ecosystems</b> Co-Chairs: Bopi Biddanda and Jim Cotner	<b>Coupled Physical and Biogeochemical Processes in Lakes</b> Co-Chairs: Joe Ackerman, Mathew Wells, and Liset Cruz-Font
	<b>Presented by / Title</b>	<b>Presented by / Title</b>	<b>Presented by / Title</b>	<b>Presented by / Title</b>
<b>9:30</b>	<u><b>H.M. Domske</b></u> Transferring Shipboard Science to the Classroom	<u><b>T.M. Farmer</b></u> Climate Warming Negatively Affects Lake Erie Yellow Perch Reproductive Success and Recruitment	<u><b>H. Garrick</b></u> Plankton size structure from Near to Offshore: Contrasting Patterns in Lakes Michigan and Superior	<u><b>J.D. Ackerman</b></u> Hydrodynamic habitat influences suspension feeding by unionid mussels in freshwater ecosystems
<b>9:50</b>	<u><b>K.M. Chomicki</b></u> Educating the public on nearshore water quality: strategies to engage, educate, and share data	<u><b>C.J. May</b></u> Larval Walleye Recruitment and Zooplankton Availability: Testing the Match-Mismatch Hypothesis in Lake Erie	<u><b>E. Butts</b></u> Changes in the Lake Michigan Food Web: Importance of microzooplankton 1980 to present	<u><b>W. Liu</b></u> Inter-annual Variability of Physical Processes in Lake Michigan
<b>10:10</b>	<u><b>M.E. Bohling</b></u> Education and Outreach of Habitat Restoration in the St. Clair Detroit River System	<u><b>C.M. Mayer</b></u> Diversity in a Multi-Stock System: Temporal and Spatial Portfolio Effects in Lake Erie Walleye Production	<u><b>N.C. Schmidt</b></u> Influences of Metabolism on Macroinvertebrate Community Structure Across Great Lakes Coastal Wetland Vegetation Zones	<u><b>J. Wang</b></u> Modeling spring bloom in Lake Michigan with and without river-loaded nutrient
<b>10:30</b>	<b>BREAK</b>			

1305	1307	1309	
<p><b>A Grand Connection: The Nexus of Water Research and Management in the Grand River Watershed</b> Co-Chairs: Martin Keller, Claire Holeton, and Sandra Cooke</p>	<p><b>Advantages of Bayesian Methods for Aiding Fisheries Decisions in Transitioning Ecosystems</b> Co-Chairs: Yan Jiao and Thomas Nudds</p>	<p><b>Lake Huron's Altered Foodweb</b> Co-Chairs: James Johnson, Henry Vanderploeg, and Scott McNaught</p>	
Presented by / Title	Presented by / Title	Presented by / Title	
<p><b><u>M.S. Rosamond</u></b> Seasonal Nitrous Oxide:Nitrate Relationships and Stream Order in Southern Ontario: Implications for Production Pathways and Management Strategies</p>	<p><b><u>J.D. Doll</u></b> Comparing Bayesian and frequentist methods of fisheries models: Hierarchical catch curves</p>	<p><b><u>K.M. Keeler</u></b> Connecting the Lower Food Web between Lakes: Zooplankton of the St. Clair-Detroit River System 2012-2013</p>	<b>9:30</b>
<p><b><u>J.J. Venkiteswaran</u></b> Linking aquatic metabolism, gas exchange, and hypoxia to impacts along the 300 km Grand River, Canada</p>	<p><b><u>Y. Jiao</u></b> Alternative Bayesian statistical catch-at-age models for walleye stock assessment in Lake Erie</p>	<p><b><u>L.R. Fogarty</u></b> Event Sampling in a Nutrient Limited System, Thunder Bay River Watershed, Alpena County, MI, 2012</p>	<b>9:50</b>
<p><b><u>K.M. Chomicki</u></b> Total, Particulate, and Mussel Phosphorus Distribution Patterns in the Nearshore of Lake Erie Adjacent to the Grand River, Ontario.</p>	<p><b><u>M. Mahmood</u></b> A Bayesian methodological framework for setting fish tumour occurrence delisting criteria: A case study in St. Marys River Area Of Concern</p>	<p><b><u>J.E. Johnson</u></b> Effects of Changing Food Web and Nutrient Loading on the Nearshore Fish Community of Thunder Bay, Lake Huron</p>	<b>10:10</b>
<b>BREAK</b>			<b>3:30</b>

# FRIDAY, May 30

	1008	1009	1105	1110
		<p><b>Climate, Phenology, and Life History Traits: Extending the Match-Mismatch Hypothesis</b> Co-Chairs: Cassie May and Troy Farmer</p>	<p><b>Addressing Coastal/Nearshore Issues with an Ecosystem and Process-Based Framework</b> Co-Chairs: Lisa Fogarty and Paul Seelbach</p>	<p><b>Coupled Physical and Biogeochemical Processes in Lakes</b> Co-Chairs: Joe Ackerman, Mathew Wells, and Liset Cruz-Font</p>
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>10:50</b>		<p><b><u>M.T. Arts</u></b> Does Climate Change Have the Potential to Affect the Production and Distribution of Essential Long-Chain Polyunsaturated Fatty Acids (LC-PUFA) in Aquatic and Terrestrial Food Webs?</p>	<p><b><u>N.R. Urban</u></b> Towards an Ecological Assessment of Mining Impacts on Nearshore Lake Superior</p>	<p><b><u>B. Hlevca</u></b> Water temperature variability in Toronto Waterfront embayments</p>
<b>11:10</b>		<p><b><u>J.M. Sawyer</u></b> Exploring the Effects of Climate Change on the Transfer and Accumulation of Polyunsaturated Fatty Acids (PUFAs) on the Bay of Quinte's Food Web</p>	<p><b><u>R.J. Stevenson</u></b> Relating Algal Blooms in the Nearshore Zone Determined by Satellite Remote Sensing to Rivers, Nutrient Loading, Watershed Land Use, and Storm Events</p>	<p><b><u>L. Cruz-Font</u></b> Fish movements in Toronto Harbour associated with upwelling events</p>
<b>11:30</b>			<p><b><u>B.A. Turschak</u></b> Spatial Variability in the Trophic Structure of Lake Michigan Fishes as Revealed by Stable C and N Isotopes</p>	<p><b><u>M.G. Wells</u></b> Benthic temperature variation due to large amplitude seiches may impact fish habitat in Lake Simcoe</p>

1305	1307	1309	
<p><b>Vertical Restructuring of the Great Lakes: Consequences of Deep Chlorophyll Layers</b> Co-Chairs: Lars Rudstam, Brian Weidel, and James Watkins</p>	<p><b>Fish ecology</b> Chair: Patricia Chow-Fraser</p>	<p><b>Lake Huron's Altered Foodweb</b> Co-Chairs: James Johnson, Henry Vanderploeg, and Scott McNaught</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>J.F. Atkinson</u></b> Thermocline modeling for the deep chlorophyll layer in Lake Ontario</p>	<p><b><u>G.R. Jacobs</u></b> Evaluating the effects of ontogeny and ecosystem change on lake sturgeon trophic ecology</p>	<p><b><u>J.L. Loughner</u></b> Lake Huron Beach Fish Assemblages: Temporal and Habitat Differences</p>	<b>10:50</b>
<p><b><u>S.H. Burnet</u></b> Dynamics of the deep chlorophyll layer (DCL) across the Great Lakes</p>	<p><b><u>L.S. Schoen</u></b> Analysis of Fish Movements Between Great Lakes Coastal Wetlands and Near Shore Habitat via Otolith Microchemistry</p>	<p><b><u>W.W. Fetzer</u></b> Long-term Nearshore Fish Community Changes in Michigan waters of the Great Lakes</p>	<b>11:10</b>
<p><b><u>E.W. Jackson</u></b> Diel shifts in zooplankton distributions in Lake Ontario 2013: effects of zooplankton on the deep chlorophyll layer</p>	<p><b><u>C.A. Audet</u></b> The Effects of Intraspecific Hybridization on the Reintroduction of Atlantic salmon (<i>Salmo salar</i>) to Lake Ontario</p>	<p><b><u>S.A. Fera</u></b> The Effects of Food Web Changes on Lake Whitefish Growth, Diet, and Depth in Lake Huron</p>	<b>11:30</b>

# FRIDAY, May 30

	1008	1009	1105	1110
			<b>Addressing Coastal/Nearshore Issues with an Ecosystem and Process-Based Framework</b> Co-Chairs: Lisa Fogarty and Paul Seelbach	<b>Coupled Physical and Biogeochemical Processes in Lakes</b> Co-Chairs: Joe Ackerman, Mathew Wells, and Liset Cruz-Font
	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>	<b>Presenter / Title</b>
<b>11:50</b>			<u><b>P. Chow-Fraser</b></u> Long-term effects of impoundment on ecosystem functions of coastal wetlands in Georgian Bay	<u><b>R. Munubi</b></u> Depth Distribution of Algivorous Cichlid Fish in Relation to Algal Food Resources in Lake Tanganyika <b>CANCELED</b>
<b>12:10</b>				
<b>12:30</b>	<b>CONFERENCE ENDS</b>			

1305	1307	1309	
<p><b>Vertical Restructuring of the Great Lakes: Consequences of Deep Chlorophyll Layers</b> Co-Chairs: Lars Rudstam, Brian Weidel, and James Watkins</p>	<p><b>Fish ecology</b> Chair: Patricia Chow-Fraser</p>	<p><b>Lake Huron's Altered Foodweb</b> Co-Chairs: James Johnson, Henry Vanderploeg, and Scott McNaught</p>	
Presenter / Title	Presenter / Title	Presenter / Title	
<p><b><u>T.J. Holda</u></b> Is the mysid vertical distribution affected by deep chlorophyll layer? Testing the vertical distribution model of mysids.</p>	<p><b><u>M.D. Faust</u></b> Feasibility of electrosedation as an alternative to chemical sedation of lake trout, <i>Salvelinus namaycush</i></p>	<p><b><u>A.M. McLeod</u></b> The Off-shore Shunt: The Influence of Lake Trout on Nutrient Recycling</p>	<b>11:50</b>
<p><b><u>B.P. O'Malley</u></b> Lake-wide patterns in chlorophyll usage by <i>Mysis</i> in Lake Ontario: The gut fluorescence technique</p>	<p><b><u>D.E. Dittman</u></b> Lake Sturgeon Status Metrics in the Oswegatchie and Oswego River Systems, New York, USA <b>CANCELED</b></p>	<p><b><u>L.N. Ivan</u></b> Will Asian Carps Successfully Invade and Impact the Saginaw Bay, Lake Huron Food Web? <b>CANCELED</b></p>	<b>12:10</b>
<b>CONFERENCE ENDS</b>			<b>12:30</b>

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## NOTES

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Aquatic Invasive Species (AIS)  
Climate Change (CC)  
Contaminants (CO)  
Data Management, Monitoring, and Modeling (DM)  
Education, Policy, and Outreach (ED)  
Nearshore Zone (NS)  
Nutrients (NU)  
Physical Processes and Biological Coupling (PP)  
Specific Lakes and Places (SL)  
General Contributions (GC)

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## POSTERS BY THEME

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### Aquatic Invasive Species (AIS)

- AIS-1 GLYSHAW, P.W.  
Temporal Trends in Nutritional State and Reproduction of *Dreissena rostriformis bugensis* in Southern Lake Michigan
- AIS-2 KRONLEIN, M.R.  
Environmental DNA (e-DNA) Monitoring of High-risk Invasive Species in the Great Lakes Area Using Gene-Z
- AIS-3 LUNDQUIST, D.C.  
Ballast Biofilm Challenges: Cleaning and Conversion
- AIS-4 MAITLAND, B.M.  
Zooplankton community dynamics in a northern Lake Huron embayment: The influence of water temperature and larval fish abundance
- AIS-5 MCGREW, A.R.  
Omnivory and prey-switching of the invasive mysid, *Hemimysis anomala*
- AIS-6 THOMA, S.M.  
Evaluating the role of *Hemimysis anomala* in the food webs of spawning reefs in Lakes Michigan and Huron: a stable isotope approach
- AIS-7 DONOVAN, M.M.  
Variation in the call structure of male round goby (*Neogobius melanostomus*) and relationship to body morphometrics as a potential honest signal
- AIS-8 N'GUYEN, A.  
Potential economic impacts of a goby invasion
- AIS-9 DROUILLARD, K.G.  
Comparing standard metabolic rate of round goby (*Neogobius melanostomus*) and tubenose goby (*Proterorhinus semilunaris*) over a temperature gradient

### Climate Change (CC)

- CC-1 KULASA, M.R.  
Impact of Zooplankton Availability on Larval Walleye Diet Selectivity and Growth Rate in Western Lake Erie

- CC-2 HU, H.  
Simulation of ice and circulation in Lake Erie
- CC-3 MUSIC, B.  
Water and Energy Budgets of the Great Lakes as Simulated by Regional Climate Models
- CC-4 XIAO, C.  
A Study of Great Lakes Effects on Cold Season Synoptic Processes Using WRF Comparison Experiments

### Contaminants (CO)

- CO-1 LONG, A.M.  
Experimental determination of algal virus decay in a freshwater pond
- CO-2 KOVAK, R.  
DNA fingerprinting of sand bacterial populations from four Great Lake beaches by PCR-DGGE
- CO-3 WIJESINGHE, R.U.  
Detection and quantification of *Clostridium botulinum* type E toxin gene (bontE) in Cladophora, sediment and water at the Great Lakes beaches
- CO-4 AGBOOLA, A.  
Primary Productivity in the Western Basin of Lake Erie in 2013
- CO-5 THOMAS, V.J.  
Examining Potential Causes of Poor Water Quality in Central Algoma Watersheds: Exploratory Investigative Actions on Desbarats Lake
- CO-6 RAZAVI, N.R.  
Effect of Eutrophication on Methylmercury, Selenium and Fatty Acid Content in Bighead Carp *Hypophthalmichthys nobilis*
- CO-7 DEMARCHI, C.  
Assessing the Impact of Urbanization on the Hydrology of the Chagrin River, a Suburban Watershed Near Cleveland (Ohio), and Exploring Possible Remediation Strategies
- CO-8 EIMERS, M.C.  
Urban cover effects on streamflow across the Greater Toronto Area

- CO-9 BHAVSAR, S.P.  
High Levels of Perfluoroalkyl Acids in Sport Fish Species Downstream of a Firefighting Training Facility at Hamilton International Airport, Ontario, Canada
- CO-10 MCGOLDRICK, D.J.  
Levels, trophic magnification, and temporal trends of organosiloxanes in aquatic biota from Canadian lakes
- CO-11 BHAVSAR, S.P.  
Risk-benefit of consuming Lake Erie fish
- CO-12 BHAVSAR, S.P.  
Significance of toxaphene in Great Lakes fish consumption advisories
- CO-13 TRUONG, J.  
Organophosphate Ester Concentrations in the Great Lakes St. Lawrence Seaway
- CO-14 XIA, X.  
The Analysis of Synthetic Musks using an In-cell clean-up and Atmospheric Pressure Gas Chromatography - Mass Spectrometry
- CO-15 DALEY, J.  
A Multidisciplinary Approach to Assess the Impact of Microplastics on Laurentian Great Lakes Ecosystem Health
- CO-16 LI, S.  
Development and verification of a novel field equipment for detection of plastic debris in surface waters and coastal environments
- CO-17 SOKOL, E.C.  
Polychlorinated Biphenyl (PCB) Fish Contamination: A Look at Michigan's Upper Peninsula Inland Lakes
- DM-2 DANIEL, S.E.  
Long-Term Benthic Monitoring of Laurentian Great Lakes
- DM-3 JOHNSON, L.B.  
Great Lakes Environmental Indicators: Validating Coastal Ecosystem Indicators
- DM-4 CIBOROWSKI, J.J.H.  
Biological Indicators of the Condition of Great Lakes Exposed Coastal Margins
- DM-5 ST. PIERRE, J.I.  
Characterizing Biotic Response to Cumulative Anthropogenic Stress at Great Lakes Coastal Margins
- DM-6 SLAWECKI, T.A.D.  
GEO Great Lakes: A Framework For Bi-national Data Sharing
- DM-7 WOLF, A.T.  
Management of a Dynamic Coastal Ecosystem: The Point au Sable Nature Preserve in Lower Green Bay, Wisconsin
- DM-8 LESHKEVICH, G.  
Persistent Wind Fields Over the Great Lakes, 2006-2012
- DM-9 SMITH, J.P.  
Web Presence for the Great Lakes Synthesis, Observations And Response (SOAR) System - A Portal to View Real-time Sensor Data from Buoys in Lake Erie, Lake Michigan, and Saginaw Bay

## Data Management, Monitoring, and Modeling (DM)

- DM-1 CHIN, A.T.M.  
Comparing Bird-based Disturbance Gradients and Indices of Biotic Integrity for Ranking the Health of Great Lakes Coastal Wetlands

## Education, Policy, and Outreach (ED)

- ED-1 AMOS, M.A.  
Guidance on Quality Assurance for Ecosystem Restoration in the Great Lakes Basin
- ED-2 REID, K.B.  
Evolving toward an interdisciplinary approach to fisheries management
- ED-3 MASSON, C.  
Towards a Great Lakes - St. Lawrence River Regional Vision Decision

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## POSTERS BY THEME

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### Nearshore Zone (NS)

- NS-1 BOEHLER, J.A.  
Complex Macroinvertebrate Communities Occupy Agricultural Ditches of Lake Erie Tributaries
- NS-2 CRIBLEY, J.  
Habitat selection by longnose dace (*Rhinichthys cataractae*) in an artificial stream setting
- NS-3 FRIGAULT, J.  
Spatial and Temporal Variation in Macroinvertebrate Community Composition in the Nearshore Zone along the Eastern Shoreline of Lake Huron
- NS-4 GLASE, J.D.  
What lies beneath: mapping coastal waters of Great Lakes national parks
- NS-5 YONGABO, P.Y.  
Lake Kivu fisheries ground mapping, Rwandan side
- NS-6 WAPLES, J.T.  
How is the Nearshore Benthic Community Fed? Estimating Lateral Transport of Pelagic Energy with Naturally Occurring Radionuclides

### Nutrients (NU)

- NU-1 FENG, Y.  
Importance of Sediment Phosphorus Loading for Blue-green Algal Bloom in Sodus Bay, NY
- NU-2 NOWELL, P.M.  
Intrinsic Soil Phosphorus Retention/ Release Characteristics in the Agricultural Landscape of the Rondeau Bay Watershed, Ontario: Preliminary Results
- NU-3 LIANG, A.  
Linking phosphorus binding forms and internal loading in Bay of Quinte: insights from a field study
- NU-4 SINE, S.S.  
Does  $\delta^{15}\text{N-NO}_3^-$  reflect land-use in small agricultural catchments?
- NU-5 KUCZYNSKI, A.  
Management implications of *Cladophora* resurgence in the Great Lakes

### Physical Processes and Biological Coupling (PP)

- PP-1 GIBBONS, K.J.  
Effect of weather on vertical distribution of algal groups in the western Lake Erie
- PP-2 HRYCIK, A.R.  
An eco-genetic model to understand fish movement decisions
- PP-3 MAJARREIS, J.M.  
Near-bed physical conditions in the nearshore of East Basin Lake Erie and the potential for mussel-mediated benthic phosphorus enrichment
- PP-4 PEREZ-FUENTETAJA, A.  
Inter-Annual Dynamics of Zooplankton and Nutrient Regimes in Lake Erie
- PP-5 MISTRY, R.J.  
The Selective Feeding Behaviours of Adult and Juvenile Freshwater Mussels Under Flowing Conditions
- PP-6 PLACH, J.M.  
Iron Cycling in a Littoral Freshwater Beach: Implications for Floc Trace Metal Dynamics
- PP-7 ARIFIN, R.R.  
Lake Ontario Spring Thermal Evolution Simulation
- PP-8 MAO, M.  
Application of unstructured grid wave models to Lake Michigan

### Specific Lakes and Places (SL)

- SL-1 ANWAR, S.M.S.  
Agriculture in western Lake Erie Basin watersheds: A Binational analysis of geomatics information resources pertinent to the harmful algal bloom problem
- SL-2 EATON, L.A.  
Spatial and Temporal Trends in the Nearshore Zone of Thunder Bay, Lake Huron
- SL-3 RUTHERFORD, E.S.  
Life on the Edge: The Spatial Structure of the Food webs of Lakes Michigan and Huron Before and

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## POSTERS BY THEME

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- After the Dreissenid Invasion
- SL-4 HOLECK, K.T.  
Lake Ontario's Nearshore Zooplankton Community: Response to Invasion by Non-native Species and Changes in Lake Productivity
- SL-5 MUMBY, J.A.  
Spatial variation in isotopic signatures of important prey fishes in Lake Ontario
- SL-6 BHAVSAR, S.P.  
Assessment of contaminant levels in fish from the Toronto waterfront area
- SL-7 BHAVSAR, S.P.  
Improvements in Fish PCB and Other Contaminant Levels in Response to Remedial Actions at Hamilton Harbour, Ontario, Canada
- SL-8 MILNE, J.E.  
Hamilton Harbour Beaches: Towards de-listing 2020, Successes and Challenges
- SL-9 AUKES, P.  
Characterization of Dissolved Organic Matter Composition and Quality along the Grand River
- SL-10 CEJUDO, E.  
Before and after: the effect of Kitchener wastewater Treatment plant upgrade in Dissolved Inorganic Nitrogen in the Central Grand River
- SL-11 SCHIFF, S.L.  
Cities permanently alter riverine dissolved organic matter quality
- SL-12 MEAD, J.L.  
Geochemistry of the Grand River: Before and After Wastewater Treatment Plant Modifications
- SL-13 REZANEZHAD, F.  
Stream-riparian-hyporheic connections
- SL-14 SHAKER, S.  
Reconstruction of Phosphorus Loadings in the Grand River Basin
- SL-15 DOLSON, R.  
Long-Term Trends and Recent Changes in the Lake Simcoe Fish Community

- SL-16 ARTEAGA, R.  
Studies of phytoplankton dynamics along the NW shore of Lake Simcoe
- SL-17 DITTRICH, M.  
The effect of sediment diagenesis on hypolimnetic oxygen dynamics in Lake Simcoe
- SL-18 LI, J.Z.  
Determining the influence of shifts in wind speed and thermal stratification upon mixing regimes in Lake Simcoe
- SL-19 NANDAKUMAR, H.  
Aerobic and anaerobic bacterial load in NW Lake Simcoe wetland sediments as an indicator of anthropogenic disturbance
- SL-20 VOLIK, O.  
Temporal and spatial change in anthropogenic impact on Lake Simcoe: insights from pollen, non-pollen palynomorphs and thecamoebians

### General Contributions (GC)

- GC-1 CHAFFIN, J.D.  
Renovations to Stone Laboratory Increase Research Opportunities
- GC-2 FRIEDLINE, S.N.  
The association between land use and success of wild rice populations in Michigan wetlands
- GC-3 MARTIN, I.A.M.  
Examination of field scale hydrological processes under three different tillage methods; Conservation Till (CT); Annual Till (AT); and No Till (NT)
- GC-4 MOFIDI, M.A.  
Numerical study of the flow pattern around the bridge pier in 180 degrees curved channel
- GC-5 PINHEIRO, V.M.  
Champlain Acoustic Telemetry Observation System (CATOS): Investigating Lake Trout Spawning Behavior and the Impact of Habitat Fragmentation on Lake Whitefish

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## POSTERS BY THEME

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- GC-6 STOCKWELL, J.D.  
Do Cyanobacteria Blooms Short-Circuit Essential  
Fatty Acid Transfer to Fish?
- GC-7 SMITH, A.K.  
Non-lethal sampling of lake sturgeon for stable iso-  
tope analysis: comparing pectoral fin-clip and dorsal  
muscle tissue for use in trophic studies
- GC-8 SMITH, S.D.P.  
A Comprehensive Stressor-Response Model to  
Inform Ecosystem Restorations Across the Great  
Lakes Basin

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