

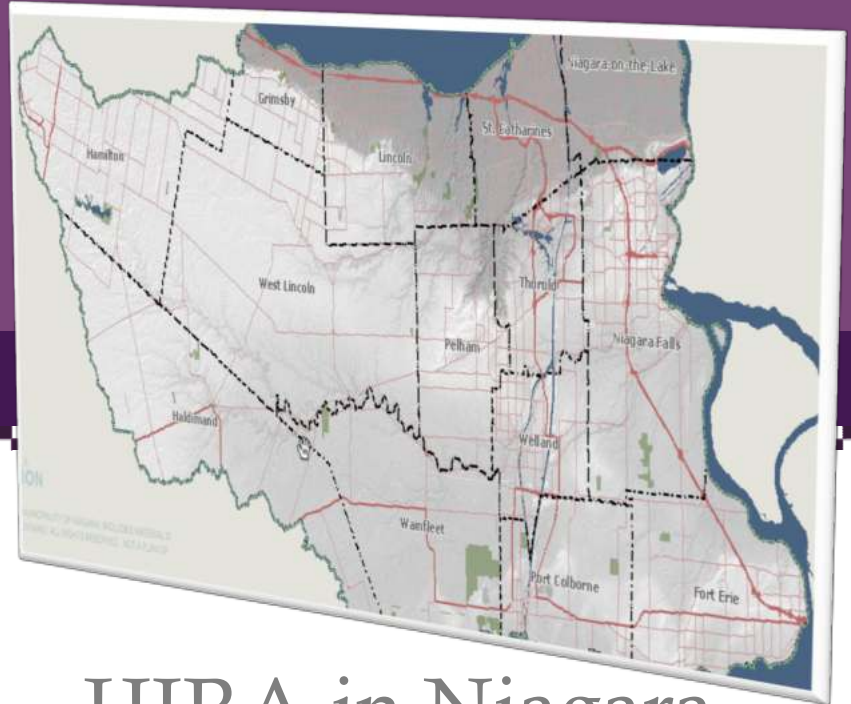
ACER NEWS

The Association for Canadian Educational Resources: Building an army of citizen scientists who can monitor, measure, mitigate and adapt to the local impact of climate change in their own communities.

Winter 2016

Upcoming 2016 Events

- February 6 Seedy Saturday (Seeds of Diversity and Unitarian Congregation)
- February 28 WinterRouge (Rouge National Urban Park)
- April 19 Envirothon Workshop (Forest Ontario)
- April 23 Mississauga Earth Day (City of Mississauga)
- May 4 Envirothon Competition (Forest Ontario)
- May 13 OSEE Conference (Ontario Society for Environmental Education)



HIRA in Niagara

ACER, in association with its partners, the Niagara Peninsula Conservation Authority (NPCA) and Greening Niagara, is hosting its third and final HIRA (Hazard Identification Risk Assessment) on February 5, 2016 in Balls Falls, Ontario. As the number of extreme weather events continue to increase, emergency planning is now more important and necessary than ever before.

The workshop is a forum to identify, assess and prepare for hazards in the community as we face changes in climate. Participants include emergency responders, municipal planners and authorities, citizen scientists, and observers. They will have an opportunity to map emergency response assets in up to 12 municipalities within the Niagara Peninsula and plot the probability and consequence of a range of threats from flooding, wind and ice storms to disease to fire and earthquakes.

Guest speakers include **Dr. Marianne Krasny**, Director of the Civic Ecology Lab at Cornell University and **Don MacIver**, Nobel-prize winning climate scientist and mayor of Amaranth.

Community Mapping in Grimsby, Ontario

The final community mapping session, held on November 13, 2015, aimed to identify existing vulnerabilities, and develop adaptive strategies within the community to build resilience and combat the local impacts of climate change.





In addition to the 19 Go Global hectare forest plots in Canada, ACER has established 2 plots at the Caño Palma Biological Station in Limon, Costa Rica. The ACER team has been supporting three interns from Vanier College in Montreal who have been monitoring the incredible tree biodiversity found in the Costa Rican plots. One of the plots is on a volcanic hill while the other is located in a forest that experiences severe floods. Data from the interns will be shared on the ACER website this spring.

Caño Palma Biological Station

Caño Palma Biological Station is a biological research station located in the tropical coastal rainforests of Costa Rica. They run regular monitoring projects in which students, graduates and keen conservationists can gain valuable tropical work experience. They also host independent researchers, providing them with a base from which to conduct their investigations.

The Station was founded by, and is supported by the Canadian Organization For Tropical Education and Rainforest Conservation (COTERC). The mission of COTERC is to provide leadership in education, research, conservation, and the educated use of natural resources in the tropics. Caño Palma Biological Tortuguero on Costa Rica's north-eastern coast.

The station is situated approximately 8 kilometres (5 miles) north of the The Tortuguero area is an ancient flood plain covered by lowland Atlantic tropical wet forest and is biologically the richest ecosystem in Costa Rica. Average daily temperature is about 26 degrees Celsius and rainfall may exceed 6,000 mm per annum.

(EXCERPT FROM THE CPBS WEBSITE).

Go Global: The One-Hectare Plot

As a result of the Rio de Janeiro Biodiversity Convention in 1992, the Smithsonian Institution was commissioned to develop a protocol to inventory and then monitor forests using one-hectare plots. Monitoring became important for assessing climate change as well as biodiversity. Canada adopted the Biodiversity Convention and developed 80 plots using Smithsonian protocol. There are about 400 plots in North, Central and

South America and the same Smithsonian protocol is used to measure each one. There are 80 plots in Canada. ACER, together with its community partners, is responsible for measuring and monitoring 19 one-hectare plots across Southern and Central Ontario, which it does by training volunteer citizen scientists through its Go Global program.





Thunder Bay Planting for Change

A Planting for Change schoolyard planting site acts as a mini-climate change outdoor classroom and lab. Students collect data annually on the health and yearly growth of their tree plantings as they explore issues surrounding climate change locally and globally. Bishop E.Q. Jennings Senior Elementary is our first Thunder Bay site.

On Oct. 15, 2015, Bishop E.Q. Jennings Senior Elementary in Thunder Bay became ACER's 42nd Planting for Change site – and the very first site in Northern Ontario. Funded by the TD Friends of the Environment Fund, this project came to fruition thanks to the dedication of Bishop E.Q. Jennings teacher Joel Biesenthal and his school community.

Joel corresponded with ACER staff via Skype on several occasions to ensure everything was in place for the big day. On the planting day, Joel managed to involve the entire student body, school board Trustees, volunteers, the media, and a priest from a local parish.

Sue Hamel, an EcoSchools representative and professor in the department of Undergraduate Studies in Education from Lakehead University, joined Joel's class the

week after the planting to witness the measuring and monitoring component of Planting for Change.

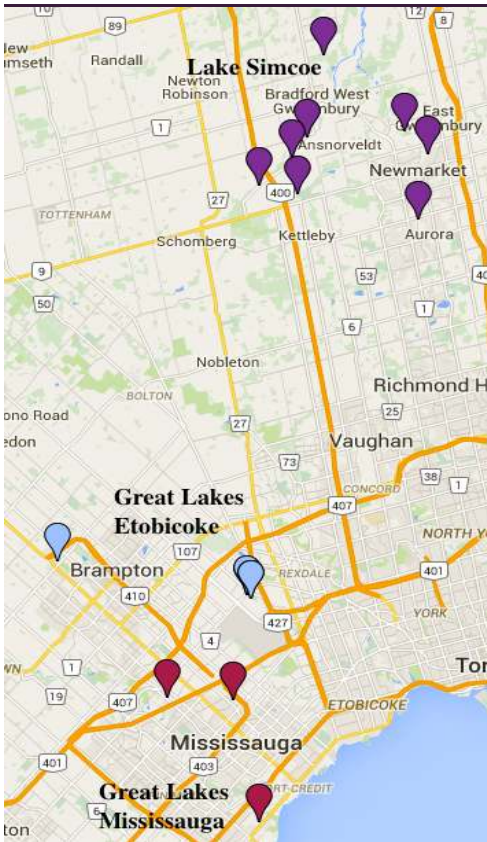
A big thank you to ACER's scientific advisory committee, who helped select the tree species for Northern Ontario schools participating in Planting for Change. The data collected from the Planting for Change sites will help our junior citizen scientists better understand the link between climate change and the health of our trees.

"This was a great class experience. It taught us about our environment, names of trees and shrubs and also teamwork. We will continue to collect the data from the trees that will be handed down each year by every class. We hope we have made a difference in our environment."

-Christina, Bishop EQ Jennings student

"Our climate change lab-planting day was a huge success! With beautiful weather and our Green Team leading the way, our entire school community was outside for the afternoon to get the job done. Each class was assigned a tree to take care of. The hope is that each class will get connected with and nurture their tree. It was nice to see our community come together for this cause."

**JOEL BIESENTHAL,
TEACHER, BISHOP EQ**



Riparian Rangers

Lake Simcoe

In 2015, we commenced a 2-year project with Lake Simcoe Region Conservation Authority (LSRCA) with funding from Environment Canada's Lake Simcoe/South-Eastern Georgian Bay Clean-Up Fund. ACER measured, GPS mapped and tagged 10% of trees planted, took soil samples, analyzed the findings and prepared the report. The ACER team measured 1,108 trees and shrubs in 8 locations within the Lake Simcoe watershed, and trained LSRCA staff and Friends of Scanlon Creek volunteers on Smithsonian protocol for small trees.

Great Lakes Mississauga & Etobicoke

We also completed two existing Riparian Rangers projects with support from the Great Lake Guardian Community Fund and our partners – the City of Mississauga and the Toronto Region Conservation Authority (TRCA) in the watershed riparian zones of the Credit River, and Etobicoke and Mimico Creeks. These plantings are to stabilize the banks and slow down the flashfloods. ACER staff collected the second year of measurements in order to monitor the success of the plantings.

TreeCaching

Trademark and licensing for TreeCaching Trails was obtained this year. The Toronto and Region Conservation Authority (TRCA) hired ACER to install 4 new TreeCaching trails at Heartlake Conservation Area, Claireville Conservation Area, Valleywood Park, and Nort Johnson District Park and Veterans Park in Woodbridge. The resulting trails are enhancing the experience for visitors at each of these parks and conservation areas. TreeCaching is a self-generating revenue project of ACER and supports ACER's community-based climate change and citizen science programming. For more information call Mike McMillan at (905) 891-6004.

Inside ACER

ACER STAFF

Alice Casselman: Founding President and Program Director

Gail Picco: Director, Growth and Transformation

Nimesha Basnayaka: Program Coordinator, Riparian Rangers

Mike McMillan: Program Coordinator, Planting for Change and TreeCaching

ACER INTERNS

University of Toronto, Mississauga Campus: Sundus Ansari

ACER BOARD OF DIRECTORS

Jill Cunningham, John Cary, Sonya Wieler, Leah Casselman, Irene Katkov

ACER SCIENTIFIC ADVISORY COUNCIL

Heather Auld, Don MacIver, Sadia Butt, Marianne Karsh, Steve Columbo, Madelyn Webb, Kevin O'Brien

Association for Canadian Educational Resources

202-92 Lakeshore Road East

Mississauga, ON L5G 4S2

(905) 891-6004 | office@acer-acre.ca | www.acer-acre.ca

