

ACER NEWS

Association for Canadian Educational

Building an army of citizen scientists who monitor and adapt to climate change impacts in their communities.



Spring/Summer 2016

ACER at Work

April - June 2016 Planting for Change (P4C) Schools:

Conestoga P.S.

Lloyd S. King E.S.

Goldcrest P.S.

Artesian Drive P.S.

Ruth Thompson M.S.

May 25th - 26th 2016 Riparian Rangers Planting – *rare* Charitable Research Reserve, Cruickston Creek

June - August 2016 Riparian Rangers – Lake Simcoe



Riparian Rangers

Community members helping us monitor one tree at a time

2016 is a big year for ACER's Riparian Rangers program. ACER is working with three Conservation Authorities, with the support of funding from both the provincial and federal governments, to set up long-term monitoring of over 1200 trees and shrubs. Here is a breakdown of the three projects:

rare Charitable Research Reserve

This spring and fall, ACER is working with the *rare* Charitable Research Reserve to plant 1000 native trees and shrubs. The Great Lakes Guardian Community Fund (GLGCF) is funding the project. ACER and *rare* will also be measuring and tagging 10% of the trees and shrubs planted, removing invasive species, and picking up litter. On May 25th and May 26th ACER and *rare* kicked off the project at Cruickston Creek by planting nearly 500 trees and shrubs with a Grade 10 Sustainable Living and a Grade 9 Geography class from Southwood Secondary School. You can view a map of the trees that were tagged for long-term monitoring here: <https://goo.gl/94E05k>

In the fall, ACER and *rare* will be teaming up again to engage more community groups in this project at Bauman Creek, located on the reserve.

Continued on page 3.

HEWER

Historic Extreme Weather Event Reporting: research and report on extreme weather events to better understand community vulnerabilities. Visit www.acer-acre.ca/hewer to describe the effects of an extreme weather event in your community.



Planting for Change

Our youngest citizen scientists making change on their school yards

There are 7 new Planting for Change (P4C) schools in spring and fall of 2016. TD FEF is funding the projects, which bring schools and their wider communities together to create mini-climate change outdoor classrooms/labs. The school plants 61 native trees and shrubs and monitors five different indicator species each year on the “birthday” of the trees.

Five of the new schools, Conestoga P.S., Lloyd S. King E.S., Goldcrest P.S., Artesian Drive P.S., and Ruth Thompson M.S., have been planted this spring.

Fallingbrook M.S. and Burnt Elm P.S. will be planted in fall of 2016.

By the end of 2016 the P4C network will be 49 schools strong! You can see a map of all the schools here: <https://goo.gl/P7d8WE>

ACER would like to thank the dedicated “green spark” teachers who have made this project come to life for their school communities this spring: Erin, Allison, Rajeev, Maya, Margaret, and Carla.

We would also like to acknowledge Salisbury Garden Supplies, the City of Mississauga and Peel Region for their generous donations.

Finally, the planting days would not be possible without the help of our fantastic volunteers: Linda, Kate, Jingwei, and Nadine.

Schools interested in putting in a P4C lab in 2017 can contact Mike McMillan at office@acer-acre.ca

ACER Interns



This year ACER is working with interns from Sheridan College, University of Toronto Scarborough (UTSC), and the University of Toronto Mississauga (UTM).

Dienelaye Eporwei is currently completing her Master of Environmental Science at UTSC. For the summer, she will be working with ACER planting and measuring trees throughout Ontario in conjunction with schools and conservation authorities.

Dalwinder Kaur Grewal, Sukhpreet Kaur, and Bhawandeep Kaur are taking the Environmental Control graduate certificate program at Sheridan College. Dalwinder has a B. Tech. in Chemical Engineering, Sukhpreet a B.Sc. (non medical), and Bhawandeep a B.Sc. in chemistry, zoology, botany, and the environment. The Sheridan interns are continuing a tree inventory on the Davis campus that was started by the Environmental Control cohort of 2015.

Aidan Fox is a University of Toronto Mississauga B.Sc. candidate with a major in Geography and Environmental Science. While his internship officially starts in the fall, he will be joining ACER this summer for fieldwork near Lake Simcoe.

Finally, Francisco Santos and Ganeesha Sivakumaran are ROP students from UTM who are monitoring forests in some of ACER’s one-hectare plots this summer.



HIRA

ACER, in association with its partners, the Niagara Peninsula Conservation Authority (NPCA) and Greening Niagara, hosted its third and final HIRA (Hazard Identification Risk Assessment) on February 5, 2016 in Balls Falls, Ontario. The workshop was a forum to identify, assess, and prepare for hazards in the community as we face changes in climate. The day began with presentations from Dr. Marianne Krasny, Director of the Civic Ecology Lab at Cornell University and Don McIver, Nobel-prize winning climate scientist and mayor of Amaranth. Participants included emergency responders, municipal and conservation authority planners, citizen scientists, and observers.

Riparian Rangers Continued

Ausable Bayfield Conservation Authority

In fall of 2016, ACER will be planting 1000 trees and shrubs in cooperation with the Ausable Bayfield Conservation Authority (ABCA), funded by the Great Lakes Guardian Community Fund (GLGCF). 10% of the trees and shrubs will be measured and tagged. There will also be litter pick up and invasive species removal. Planting will take place at three sites; Elliot Park and McNaughton Park, Anne Street green space, and the St. Joseph wetland.

Lake Simcoe Region Conservation Authority

In summer and fall of 2015, the ACER team measured, mapped, and tagged 1108 trees and shrubs at 8 sites in the Lake Simcoe watershed. The two-year project is funded by Environment Canada in cooperation with the Lake Simcoe Region Conservation Authority (LSRCA). ACER protocol was used to measure root collar, height, crown width and a health assessment.

Another 1000 trees and shrubs will be measured, mapped, and tagged this summer. This year the project will begin with a training day on June 11th for Friends of Scanlon Creek. Friends of Scanlon Creek will be bringing volunteers that ACER will train in our small tree measuring protocol. The volunteers will re-measure the 364 trees and shrubs that were first tagged and measured last summer by the ACER team.



Community Mapping

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



Citizen Science Resource Development

This year ACER received a grant from the Ontario Trillium Foundation (OTF) to develop citizen science material. The capacity of trained citizens to monitor what's happening with our environment is an untapped resource that will enable us to observe, understand and report on environmental sustainability and climate change impact in local communities and towns.

In order to engage citizens in taking a role in environmental sustainability, ACER will codify its hands-on environmental training to offer online and in-person training to any citizen to learn about the science of the environment. This will allow these citizen scientists to help identify and monitor what is happening in their community and comment knowledgeably about environmental issues.

Citizen science training will add new and knowledgeable voices to the increasingly technical discourse of environmental sustainability, while facilitating the development of the community-based environmental leaders of tomorrow.



Ontario Trillium Foundation

Inside ACER

ACER STAFF

- Alice Casselman: Founding President
- Mike McMillan: Program Manager

ACER INTERNS

- University of Toronto, Scarborough:
 - Dienelaye Eporwei
- Sheridan College, Davis Campus:
 - Dalwinder Kaur Grewal,
 - Sukhpreet Kaur,
 - Bhawandeep Kaur
- University of Toronto, Mississauga:
 - Aidan Fox
 - Francisco Santos
 - Ganeesha Sivakumaran

ACER BOARD OF DIRECTORS (2015)

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

ACER SCIENTIFIC ADVISORY COUNCIL

- Heather Auld
- Don MacIver
- Sadia Butt
- Marianne Karsh
- Steve Colombo
- Madelyn Webb
- Kevin O'Brien