

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.



Spring/Summer 2018

ACER at Work

- April 21st, 2018 City of Mississauga
Earth Day 2018 – Glen Eden Park
- June 10th, 2018 ACER Annual General Meeting (AGM)
- June 23rd, 2018 Riparian Rangers Essex monitoring day

Planting for Change 2008-2018

Our youngest citizen scientists making change on their school yards

Our Planting for Change (P4C) program is 10 years old this year, and the number of schools has risen to 57. Our intern from the University of Toronto Mississauga (UTM), Wai Lam Leung (Alison), finished her analysis of 37 P4C schools with at least 2 years of data from 2008 to 2018. The P4C program involves planting 3 trees of each of the 5 indicator species; White Spruce (*Picea glauca*), Basswood (*Tilia americana*), Sugar Maple (*Acer saccharum*), Hop Tree (*Ptelea trifoliata*), and Bur Oak (*Quercus macrocarpa*).

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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 report an event.





Riparian Rangers 2018

Planting and monitoring along riparian buffer zones

This year ACER received 4 grants from the Great Lakes Guardian Community Fund (GLGCF). We are working with Essex Region Conservation Authority (ERCA), Mississippi Valley Conservation Authority (MVCA), Central Lake Ontario Conservation Authority (CLOCA), and Raisin Region Conservation Authority (RRCA).

These projects each involves planting a 1000 trees and shrubs with volunteers and our partner conservation authority. We will carry out benchmark inventory of 10% of what is planted, which will be 100 trees and shrubs each. Coded aluminum tags will be attached to 100 trees and

shrubs using zip ties. The trees and shrubs will be mapped using Google MyMaps so plants are easier to find at a later date to re-measure. A final project report will be written for each project that will include data, maps, and anecdotal reports.

ACER Interns and Associates

This summer ACER will have 7 interns from Sheridan College; Sneha Gaddipati, Navpreet Kaur, Sandeep Kaur, Asma Khurram, Kartik Makhwana, Mamata Na, and Milan Suther.

These interns will continue inventories at two Sheridan College, Davis and Trafalgar

campuses. The inventory at the Sheridan College Davis campus was started by previous Sheridan interns in 2014. The inventory at the Sheridan College Trafalgar campus was started by previous Sheridan interns in 2017.

We look forward to working with them this summer. We also have a student from Canada Summer Jobs, Yara Ensminger.





Toronto Parks and Tree Foundation Grant

ACER was awarded a contract from the Toronto Parks and Trees Foundation to work with the Arab Community Centre Toronto to plant trees in three sacred green spaces with less than 30% tree cover. We will be bringing our planting and monitoring expertise to this project to teach volunteers how to plant, measure, and maintain trees.



City of Mississauga - Earth Day 2018

This spring ACER had a booth at the City of Mississauga Earth Day 2018 at Glen Eden Park on April 21, 2018. We had the opportunity to talk to volunteers about ACER programs.

Planting for Change (P4C) 2008-2018 Continued



Wai Lam Leung analyzed the data collected to find the best and poorest performing tree species for different regions in the GTHA. She looked at yearly tree growth average, tree survival rate, and amount of carbon sequestered per tree.

She found that Bur Oak had the highest annual growth rate and survival rate, while Hop Tree had the lowest annual growth rate and survival rate. White Spruce had the second highest annual growth rate, while Sugar Maple had one of the lowest annual growth rates.

Sugar Maple then White Spruce had the highest carbon sequestered per tree followed

by White Spruce, while Hop Tree had the lowest carbon sequestered per tree. Basswood was highly adaptive and had no specific geographic distribution.

She concluded that Basswood and Bur Oak were the best performing species because they had the highest number of schools report that they are the best performing species, while the Hop Tree was the least successful species.

Schools interested in establishing a P4C outdoor climate change lab in 2018 can contact us at:

office@acer-acre.ca.

Riparian Rangers

The Riparian Rangers program began in 2014. We have now worked with 6 conservation authorities, a reserve and a city; Toronto and Region Conservation Authority (TRCA), Ausable Bayfield Conservation Authority (ABCA), Lake Simcoe Region Conservation Authority (LSRCA), Lower Thames Valley Conservation Authority (LTVCA), Quinte Conservation, Otonabee Region Conservation Authority (ORCA), rare Charitable Research Reserve, and City of Mississauga. We will be working with 4 conservation authorities this year; Essex Region Conservation Authority (ERCA), Mississippi Valley Conservation Authority (MVCA), Central Lake Ontario Conservation Authority (CLOCA), and Raisin Region Conservation Authority (RRCA). The Riparian Rangers Lake Simcoe project was funded by Environment Canada's Lake Simcoe/South-Eastern Georgian Bay Clean-Up Fund. All the other Riparian Rangers projects were funded by the Great Lakes Guardian Community Fund (GLGCF). Project reports for each project can be found on the ACER website.

This project was undertaken with the financial support of:
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Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Great Lakes Guardian Community Fund

Inside ACER

ACER INTERNS

Sheridan College

- Sneha Gaddipati
- Navpreet Kaur
- Sandeep Kaur
- Asma Khurram
- Kartik Makhwana
- Mamata Na
- Milan Suther

Canada Summer Jobs

- Yara Ensminger

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