

YOUR DONATIONS MADE IT HAPPEN!

The Association of Canadian Educational Resources (ACER) Reviews CTF Funded Projects

Representing Almost a Decade of Scientific Research & Public Education

With interest and financial support from ISA and the Canadian TREE Fund, among other funding partners, ACER continues to focus on programs involving community youth and university students in monitoring the effects of climate change on trees – especially in urban forests.

Established program sites in woodlots, experimental planting plots, and new programs in schoolyards and restoration sites serve as demonstration and training sites for local students and community volunteers. Data collected at these sites is shared with participants, the public at large, educators and scientists. The latter use and acknowledge this data, collected by students, in their international papers, posters and publications (www.canada-biodiversity.ca). Visit www.acer-acre.org and www.measureup.ca for further details on all of our initiatives. Here is a brief summary.

A New Forest Protocol Introduced (Drs. Bazely & Vicari, York University, 2009)

Working with Dr. Dawn Bazely from York University, ACER established a pilot deer browse protocol study in Humber mature forest that was initially inventoried in 2000. Deer fencing was put in place in the fall of 2009 by Humber Arboretum staff as a new attempt to reduce damage done by resident deer herds in the West Humber River Valley. ACER volunteers and York students completed the baseline set-up inside and outside of the one-hectare forest led by Mark Vitori from Dr. Basely's team. Results are now being processed by the university.

In addition to assessing browse damage, this study will predict the future of this urban forest in a quantitative manner to provide support for decisions concerning management. The Humber plot study can be extended to the other forest biodiversity plot partner sites.

Forest Biodiversity Experiments & Schoolyard Programs (2002 ongoing)

The one-hectare biodiversity experimental plot established in 2002 at Humber continues to draw students for our one-day field work measure and mulch program. ACER is now preparing all the data from this plot for analysis and subsequent publication. 2,157 trees representing 76 species in biodiversity sensitive designs were planted as well as 400 replacement trees. All trees have been measured annually by students from Grade 6 to 12. The poster from 2008, "Biological Threats to Biodiversity," is on the www.canadabiodiversity.ca website.

The methods used in this plot for long-term study were the basis for development of ACER's "Our School Yard – Planting for Change" program. We are now in the last quarter of this two-year project and have posted the photos and data – including growth comparison data and maps for the six pilot schools to www.measureup.ca. "Our School Yard – Planting for Change" is a value-added concept for any schoolyard naturalization program such as the EcoSchools Schoolyard Greening initiative. It especially appeals to science, math and geography teachers.

Measureup.ca provides a forum where teachers who are involved can communicate about the project with each other. The program has proven to be a catalyst in the pilot schools for leading to other "green" projects, events and clubs. We will be starting this in two more schools this spring, one in Hamilton and one in Toronto, and will be help fund the expansion of the program.



Youth & Restoration Ecology (2008-09)

In the summer of 2008, ACER began working with Rexdale youth, providing leadership to a project for six agencies. This project employed university students as supervisors along with a crew of local youth to undertake an intense program to remove invasive species, inventory all remaining native trees, and undertake regeneration initiatives. A community planting was held in the fall using appropriate species. Students were recruited through the local YMCA and... **continued**



supported with funds from the City of Toronto Ward 1 Councillor Hall and donations in-kind from TRCA, Humber Arboretum, North Etobicoke Restoration Project and ACER.

This project proved to be very successful and ACER led the second summer in 2009 on a nearby site in the Arboretum along the edges of a pond and the west branch of the Humber. All data was entered, analyzed and published. The YMCA presented ACER with an award and mention in their employer recognition publication in the fall of 2009.

Internships (2008 ongoing)

This is a new concept for ACER. Many new Canadians have been trained as volunteers in our programs over the years as they wished to learn the Canadian vegetation and methodology. The internships outlined below have allowed ACER to complete research initiatives in forests in southern Ontario and to further develop and report on our pilot programs.

YMCA Eco-Intern. Our involvement with the YMCA in the Humber Youth Stewardship program was key in retaining a one-year “Eco-Intern” through the YMCA. Jason Noronha, a graduate of Trent University, was a field volunteer with us and became our first Eco-Intern in the fall of 2009. He registered and supported 10 classes who came to measure and record data at the

Humber Arboretum. Jason has since been assisting with all ACER programs, events and newsletters. He is currently working with our research forester, who designed the Humber Arboretum forest biodiversity experiment in 2002, to prepare the data the students have collected for analysis and publication this year.

University of Waterloo/Carolinian Canada Internships. In the fall of 2008, ACER began a subsidized program of co-op student internships with Carolinian Canada and the University of Waterloo wherein ACER matches 50% of the cost. For a period of four months, a co-op student can learn ACER protocols, support ACER office and outreach programs, and undertake primary research for publication.

Three co-op students have revisited the one-hectare forest biodiversity plots established since 1997 and published the results of their studies. The forest plot sites are owned by a variety of partners in locations across southern Ontario where visiting classes carried out the benchmark inventory. The Bluewater School Board, Botanical Gardens, Toronto and Region Conservation Authority and Humber Arboretum are a few examples of site owners.

Each of the University of Waterloo co-op students led teams to re-measure and assess the changes in the trees in samples of the 25 quadrats in several one-hectare plots. Each student has produced a paper

showcasing their research and analysis that has been reviewed by ACER and appropriate forest scientists. The Niagara Peninsula, Niagara Escarpment and Lake Ontario to Lake Simcoe papers have been published and executive summaries are available.

The current University of Waterloo co-op student is leading the development of a standard riparian protocol and consulting with several agencies that carry out stream/riverside plantings. This initiative, based on ACER’s experience in the Humber Youth Stewardship program for two summers, is to produce a standard protocol that anyone can use to measure and report. The goal is to track riparian plantings so we will know which species of trees to plant and how to plant them for successful growth to provide increased bank stability and shade, key elements required for better water quality and cold water fish survival.

Examining 2010

The ACER team is looking forward to development and installation of a deer deterrent discovery walk and a schoolyard demonstration plot in co-operation with the Humber Arboretum. Again, this provides a key public education opportunity through youth employed and involved in ACER programs.

We have received confirmation from Ontario Studies in Education (OISE) that a student trainee will be with us during the month of May as her last teaching placement before graduation. Elodie Fernandez has a biology and French degree and will work with intern Jason Noronha with visiting classes, update the curriculum connection documents and translate the team task cards into French.

The Canadian TREE Fund 2010 grant will help establish the new protocol for riparian zone plantings. This will allow standardized reporting of success and support ACER as it continues to develop new educational projects and programs involving communities and our youth.

We look forward to a continued relationship with CTF to further support ACER’s work with youth in the development and delivery of current and new programs. Your support has been recognized in our newsletters and brochures and on our websites and is much appreciated.

— Alice Casselman, President, ACER