

WATERSTRIDER



Clean Annapolis River Project

Toward an ecologically healthy Annapolis River watershed

Community Participation

Article by Jeffrey Glenen, Water Quality Analyst

The key to the success of CARP has been the participation of the residents of the Annapolis River watershed.

-Stephen Hawboldt, Executive Director

Volunteers have been an integral part of the operation of Clean Annapolis River Project (CARP) since its inception. From 1992 through to today, the River Guardians Volunteer Water Quality Monitoring Program has been one of the cornerstones of CARP's activities. The program involves water sampling by volunteers every two weeks from May through November. Although the scope and focus of the program has been refined and changed over its 18 years of existence, one thing has not changed: there has always been a steady stream of enthusiastic volunteers.

River Guardians volunteers collect water samples of the river to track the health of the watershed. The data are compiled, analyzed and used to find water quality trends and identify problem areas of the river. After these problems are identified, CARP's other projects take over. Programs like Operation Sub-watershed Investigative Monitoring (SWIM) and the shoreline habitat restoration project follow up on the problems detected through the River Guardians program. Many of CARP's activities revolve around problems

detected by volunteers or raised by other concerned citizens.

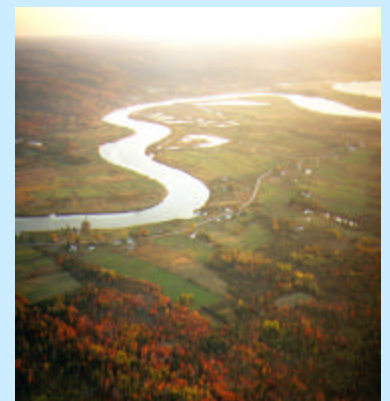
The volunteer monitoring program helps arm people with knowledge of how to better care for their surroundings. They can then pass that knowledge on to those around them. In fact, many of CARP's volunteers work with the organization because it was referred to them by other volunteers. This has helped CARP to build a reputation not only within the community, but also among other similar organizations.

In CARP's mission statement, three approaches to restoring and protecting the ecological health of the watershed are mentioned: science, leadership and community engagement. These three approaches are not mutually exclusive, but intricately intertwined. Without the community's support, CARP would never be able to assume a leadership role amongst other similar organizations and it would not have the basis to use science to sustainable effect. This is why the River Guardians program has been maintained for so long, and why it will be continued for many years to come.



Volunteer sampling the Annapolis River

Clean Annapolis River Project is a charitable, community-based organization dedicated to restoring and protecting the ecological health of the Annapolis River watershed through science, leadership, and community engagement.



If there is magic on this planet, it is contained in water.

-Loran Eiseley, *The Immense Journey*

Youth Engagement in our Communities: What is Envirothon?

Article submitted by the Digby Envirothon team

Envirothon is the study of the environment that people, animals, and plants live in together. It is taking a look at what makes the world turn and how all the beings on this planet interact with one another. It is also the study of how humans can affect these fragile ecosystems. Envirothon is an environmental competition among high schools that has five subjects of study. Four of the main topics include forestry, wildlife, soils, and aquatics while the fifth subject changes from year to year. These subjects encompass all aspects of the natural environment.

Being involved with the Envirothon team can help a person by teaching him or her how the world works. In being educated about the environment, one can become more aware of the issues it faces. This enables people to become more involved in helping to create a better environment for both humans and animals. If more people know what it takes to make this a better world, then more species can be protected and more habitats can be saved. Being able to make a difference in the world is rewarding, especially when that difference is to rebuild a habitat or even to help save an endangered species.

The environment in Canada is unique and knowing how to protect it is

important for all Canadians; if people know how to protect the environment then they can understand how to make it a better place for everyone and everything. Unfortunately, there are many people who do not know very much about their surrounding environment. It can be useful to know how to identify tree species and animal tracks or scat. Activities such as hiking and nature walks become more interesting when one can identify plant life or speculate on what animals are around and why.

The most important aspect of the Envirothon program is that it informs people why it is so important to be involved with the wilderness that surrounds them and can arm participants with knowledge on how to help protect the environment from disaster. Damage done by human recreation and carelessness can make natural disasters like extreme weather have an even greater damaging impact, or trigger manmade disasters. If more people become involved with taking care of the environment and its inhabitants then these risks can be reduced and much good can be accomplished. It is true that humans cause a lot of destruction involving natural habitats and species, but it is also true that humans can make a great difference and help to save this world that is shared by all life.



CARP staff explaining the functions of a wetland to an elementary school class



Grade 7 student using a weed wrench to remove glossy buckthorn, an invasive species

History of Envirothon

In 1979, Pennsylvania conservation districts began an initiative designed to get high school students interested in environmental sustainability. This initiative came in the form of an "Environmental Olympics" competition that tested teams of students on their knowledge of ecology and wildlife, among other things.

The program was renamed "Envirothon" in 1988 and began to expand into other states. In 1992, Nova Scotia became the first Canadian province to adopt the program. Today, the program is expanding into other countries and even other continents.

The program today is known as Canon Envirothon and is a not-for-profit organization. It has three main goals: to inspire students to learn more about the natural environment and sustainable practices, to promote stewardship and creative, cooperative problem-solving, and to provide students with experiences in environmental activities. To learn more about the program, visit envirothon.org.



Members of the Digby Envirothon team: (L-R) Marli Carty, Jamie-lee Berends, Kayla Tidd, Stacey Comeau and Rebecca Alexander

Youth Engagement in our Communities: Empower!

Article submitted by Nicole Oliver

In October 2009, 40 youth and adults converged at Kejimikujik National Park to share their passion for the environment, develop new skills and learn about new opportunities. The conference, called 'Empower!' was part of a larger concept that originated out of meetings of environmentally-focused organizations in the Southwest Nova Biosphere Reserve. Empower! had three central goals: 1) facilitate a network of active youth and engaging opportunities, 2) research and combat rural outmigration by providing inspiring examples of youth, businesses and entrepreneurs in Southwest Nova Scotia and 3) spearhead a conference at Kejimikujik National Park, where all involved can meet to learn and share their blossoming skill, knowledge, and passion!

Although the majority of participants were from within the biosphere reserve, a team from Halifax heard about the opportunity and also attended. The conference provided several opportunities for youth participants to share their passion, experiences and successes. This fostered lots of discussion on students' goals and how to best achieve them. The first full day of the conference consisted of workshops that ranged from insect collection and identification to starting your own business to using a GPS to toymaking.



Attendees of Empower!, which took place in October 2009 at Kejimikujik National Park

The idea was to expose the students to new experiences and provide them with the tools to pursue their interests and goals in their home communities.

One of the unique and sometimes challenging aspects of the weekend was the commitment to local and, when possible, organic food. Our two wonderful cooks Liesel Carlsson and Lella Gmeiner developed a healthy and varied menu from the bounty of donations we received. We were treated to fresh salads, quiche, shish kabobs and valley corn, chili, squash soup, gourmet popcorn and a variety of delicious desserts. Some of the foods were completely new to participants and they had to step out of their comfort zones. Some discovered new favourites. Some

developed a new interest in local, organic foods and cooking.

Empower! was a success. Students and teachers went home excited about what they had experienced over the weekend. Many exchanged contact information to keep in touch with new friends. There was lots of excitement about the conference and expressed desire to come again the next year. The organizers of Empower! are planning to have a one day event on March 20, 2010 at Windhorse Farm. Watch the website for details!

For more information about Empower! visit the Mersey Tobetic Research Institute Website: <http://www.merseytobetic.ca/projects-human-dimension-empower.php>



Learning about eel weirs in Kejimikujik National Park



Barrington Municipal High School Gulf of Maine Institute presenting about their group's activities

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River Guardians sign in Aylesford

The Junior Naturalist Club

Article by Megan Tardif-Woolgar, Riparian Habitat Technician

How do you make a scientific observation? This past November, the Junior Naturalist Club (students from grades 2-4) learned how to be keen nature observers while having loads of fun! During the hour-long meeting once a week, the Junior Naturalist Club participated in a variety of activities and games designed to promote wildlife observation and environmental awareness.

Each of the meetings centred on the theme of the day. When the Junior Naturalists arrived, they would discuss any nature observations they made over the past week. Next, the theme for the day was discussed while the children were given a healthy snack and a nature picture to colour. When they finished their snack, they participated in an outdoor activity and a game. After the game was completed, they went back inside to hear a story that related

back to the theme of the day.

The themes for the day included the five senses, making scientific observations, and recycling. The activities included finding items in nature that the children wish to identify, and a nature-guessing game, where the children had to use their senses to identify nature items while blindfolded, forcing them to use all the senses except taste and sight. The games were well accepted, the most popular being 'oh deer,' a version of red-rover where the children are playing deer seeking shelter, food, water, and space.

The Junior Naturalist Club is a great way to get children excited about nature. They were all very enthusiastic during the club, and walked away active nature observers. CARP would like to thank the Annapolis Field Naturalist Society for their support with this project. We hope to participate in future environmental education endeavours.



Junior Naturalists listening to a story

Sustainability in Action

Editorial by Stephen Hawboldt, Executive Director

Environmental degradation is often a by-product of human activity. It is slightly ironic that many of the programs undertaken by the Clean Annapolis River Project (CARP) to address these concerns support the career development of young environmental professionals, as a by-product. One of CARP's founding directors noted the extent to which the young scientists were using this experience to launch their careers. The list of CARP alumni is indeed impressive.

Young professionals once associated with CARP are now found everywhere. For example, one is a senior geomatics specialist with Environment Canada. Another has his own aquatic sciences consultancy. Others are teaching at secondary and university institutions. Others are using their expertise to serve Canada in other public and private sectors roles.

CARP is able to offer young professionals wonderful learning opportunities through which they can develop their potential. For example, one local university science graduate was able to work with senior microbiologists to perform DNA fingerprinting of fecal coliform bacteria to determine their origin. These bacteria are used to measure bacteria contamination of water supplies. The individual's parents and peers were impressed that he could be working on this ground breaking technology in his home town in rural Nova Scotia. Today, this young scientist is enjoying a successful career in environmental management and still living in rural Nova Scotia.

A young environmental scientist developing his or her career by working on environmental enhancement programs with CARP are also contributing to the economic and social resiliency of their hometown. This is sustainability in action.

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Contribution deadlines:

Spring: 1 March
Summer: 1 June
Autumn: 1 September
Winter: 1 December

Membership:

Adult \$7 Family \$10
Student \$5 Other \$25