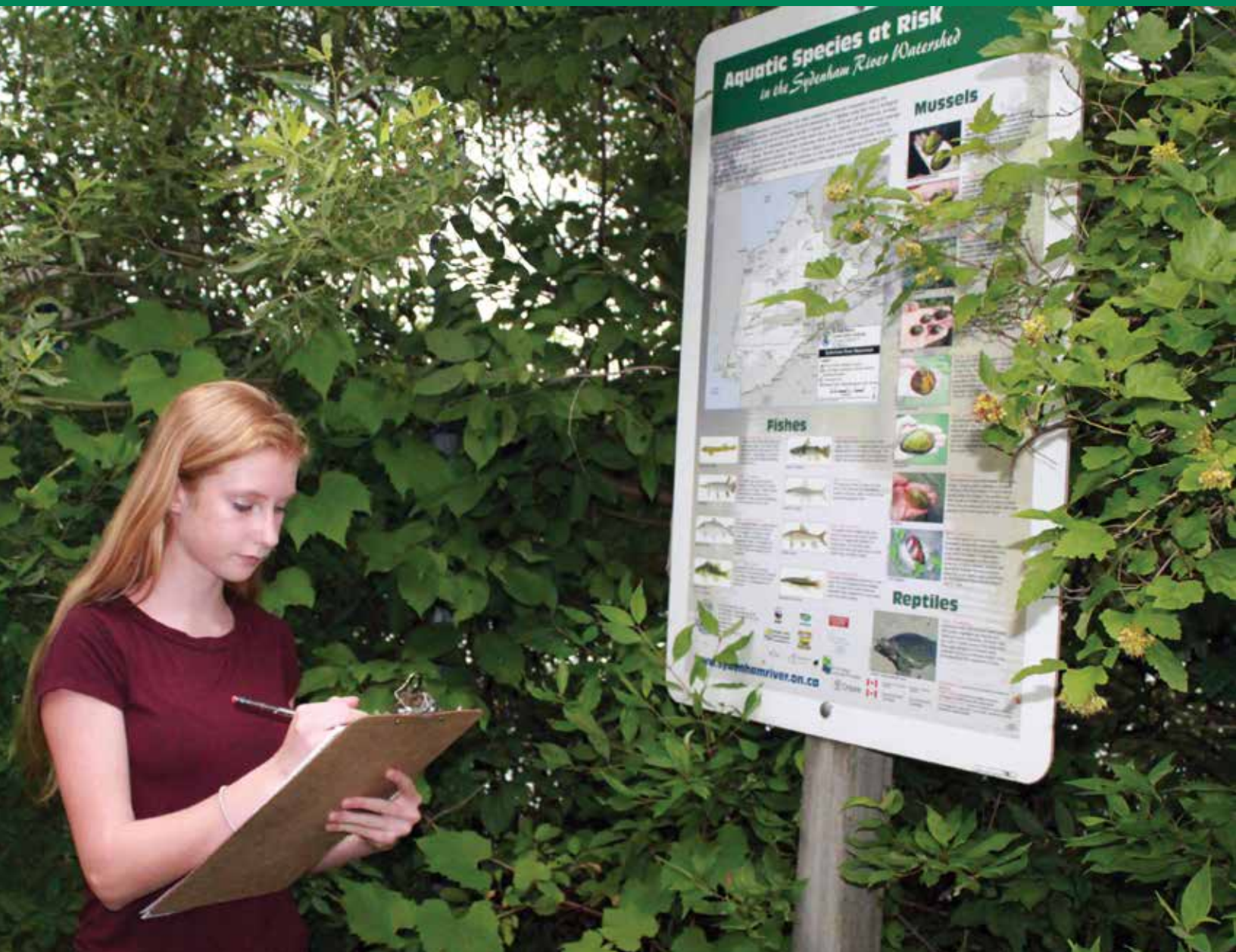


St. Clair Region Conservation Authority

Conservation Education Programs for Secondary Schools



hands-on secondary school curriculum-based programs

For more information on elementary and secondary school programs visit us at www.scrca.on.ca

CONSERVATION EDUCATION AT THE ST. CLAIR

The St. Clair Region Conservation Authority provides both in-class and outdoor conservation education experiences which are closely tied to a variety of grade-specific curricula. Demand for these programs is very high, so it is recommended you book early to avoid disappointment. By visiting our website, you can find information on each program including how they relate to current curriculum and how to book a program. Many of the programs listed can be adapted to suit your specific interests. First-hand self learning is the emphasis of our program activities.

OUTDOOR PROGRAMS

Outdoor Education brings classroom studies to life. We offer 6 hands-on high school programs available at the Lorne C. Henderson Conservation Area near Petrolia. Other Conservation Areas may be available for certain programs (discuss with our staff when booking). Most programs are 2 hours in length.

Forest Inventory

Using biotic and abiotic forest indicators, students analyze the health of two distinct survey sites – a mature forest and a plantation. Students explore the definition of a forest, its complexity and fragility; as well as the 'value' of a forest based upon differing perspectives. A culminating hands-on restoration activity is available on request. Topics discussed include resource management, habitat restoration, species inventories, indicators of biodiversity, the role of plants in the ecosystem, invasive species and human impact on the environment.

Curriculum Links: SNC1D, SNC1P, SBI3C, SVN3M, SVN3E, CGC1P, CGF3M, CGR4M, CGR4E



Stream Assessment

Students are led through an on-site stream investigation and are taught to analyze the chemical, biological and physical characteristics of the stream. Discussion focuses on the health of the stream based upon chemistry, benthic macroinvertebrate populations, signs of erosion and streambank stability. Historical information on the stream is shared and the students learn causes for current stream conditions. They are encouraged to brainstorm potential ways to lessen human impact and improve stream health in the future.

Curriculum Links: SNC1D, SNC1P, SVN3M, SVN3E, CGC1P, CGF3M, CGR4M, CGR4E



Introduction to Entomology

Students receive an in-depth introduction to the world of insects. Through a guided hike and specimen collection from two ecosystems, students will learn the basics of insect identification, classification, specialization and diversity. Emphasis on insect interactions with other parts of the ecosystem provides a link to agriculture, pollination, medicine, water quality, climate change, biomimicry and ecosystem services.

Curriculum Links: SNC1D, SNC1P, SBI3U, CRG4M, CRG4E

GPS Training and Geocaching

Uses and applications of GPS units allow students to develop spatial technology skills and navigate the Conservation Area while marking waypoints, elevation, and developing routes. You may choose to stay for an ALL DAY GEOCACHING adventure. Following the 2-hour morning program, students spend an additional 2 hours searching for published geocaches at the 135-hectare Conservation Area. Two program fees apply for full day activities. (4 hours)

Curriculum Links: CGC1D, CGC1P, CGO4M

Introduction to GIS

Spatial Technology Skills are developed through field data collection and analysis. Using a pre-set problem, students will discuss GIS criteria, build data sets, complete GIS analysis, determine output and make a final decision following their analysis. A simple introduction to QGIS programming demonstrates the use of data collection. Prerequisite GPS Training and Geocaching. Both programs can be chosen for a full day of activities.

Curriculum Links: CGC1D, CGC1P, CGO4M

Instincts for Survival

'Survival of the Fittest' is the harsh law required for the balance of nature. This simulation game teaches students about animal interdependencies, predator/prey relationships, disease, food pyramids & trophic levels, adaptations for survival & the power & responsibility of human beings.

Curriculum Links: SNC1D, SNC1P, PPL10, PPL20



CLASSROOM PROGRAMS

A Conservation Education instructor can be made available to bring the outdoors into your classroom. In addition to programs listed below, specialized programs can be developed including animal/plant preparation for winter/spring, life cycles, soils, etc. Activities can include Power Point presentations, games and nature activities. Some activities can be played in the school yard. Please call for details. The cost for a one hour program is \$100 per class and \$75 for each additional class in the same school for the same day.

The 3 programs below are offered free of charge thanks to our sponsors

St. Clair River Bottom Critters

Sponsored by the Sarnia-Lambton Environmental Association

Students will identify live river bottom critters and learn how these creatures are used as indicators of environmental health. Biological monitoring techniques and water quality improvement over the past 40 years will also be discussed in the hands-on investigation.

Curriculum Links: SNC1D, SNC1P, SVN3M, SVN3E

River RAP

Sponsored by the Friends of the St. Clair River

Learn about local threats to our watershed using a hands-on 'enviro-scape' model. Students will learn about current strategies to ensure safe, healthy water for the St. Clair River community and the plants and animals that inhabit it. Topics discussed: watersheds, water quality threats, non-sustainable agriculture, erosion and sedimentation, wetlands as purifiers, water treatment processes and Remedial Action Plans.

Curriculum Links: SNC1D, SNC1P, SVN3M, SVN3E, CGF3M, CGR4M, CGR4E

Aquatic Species at Risk

Sponsored by Environment Canada

This program provides an in-depth look at LOCAL species at risk. The river these animals depend upon for survival, the Sydenham River, is considered one of the most biodiverse rivers in Canada. Exploration of the species, their ecological importance, the current environmental stressors they face and the solutions that can help them provides students with a better appreciation of their community and their role within the system.

Curriculum Links: SNC1D, SNC1P, SVN3M, SVN3E, CGF3M, CGR4M, CGR4E



Specialist High Skills Major (SHSM)

Certification Programs

Conservation Authority staff can assist/facilitate a number of sector recognized certification programs for a variety of majors.

Certification programs offered to date include, but are not limited to:

- Compass/Map/Global Positioning System (GPS)
- Geographic Information System (GIS)
- Tree Planting
- Project Wild & Below Zero
- Species Identification

Staff are available to work with teachers to build additional certification programs upon request.

Innovation, Creativity, Entrepreneurship (ICE) Training

Conservation Authority staff are available to partner in ICE Training sessions for SHSM students as either:

Sector Partner – providing authentic ‘sector’ relevant challenges for SHSM students under the guidance of a facilitating teacher

Facilitator - acting as sector partner and facilitator, ICE trained Conservation Authority staff will lead students through the 3 gears of ICE training: Empathy and Need Finding; Ideation and Prototyping; and Strategy and Testing.

Each ICE training session is tailored to meet the needs of the SHSM major, individual students and teachers involved. Please contact us to discuss opportunities and fees related to this type of experience.



Outdoor Program Fees

\$4.50 per student for a two hour program
\$8.50 per student for 4 hours (2 programs)
Minimum Fee: \$60.00

In-Class Program Fees *

\$100 per class for a 1 hour program
\$75 for each additional class for the same school on the same day
* Some programs are sponsored and are free of charge - these are noted with the program.

This program is sponsored in part by the generous contributions of:



For further information on how to book a program:

Visit our website:

www.scrca.on.ca

Contacts:

Sharon Nethercott, H.B.O.R., B.Sc., B.Ed.
Conservation Education Coordinator
Lorne C. Henderson Conservation Area
3653 Petrolia Line, Petrolia, Ontario N0N 1R0
519 882-2399 Cell: 519 384-0735
E-Mail: snethercott@scrca.on.ca

Melissa Gill, H.B.Sc.
Conservation Education/Community Partnership Technician
Lorne C. Henderson Conservation Area
3653 Petrolia Line, Petrolia, Ontario N0N 1R0
519 882-2399 Cell: 519 852-6037
E-Mail: mgill@scrca.on.ca

Administration Office:

St. Clair Region Conservation Authority
205 Mill Pond Crescent
Strathroy, Ontario N7G 3P9
519 245-3710 Fax: 519 245-3348
E-Mail: stclair@scrca.on.ca
Website: www.scrca.on.ca