

# The River Meets the Public

An important part of our efforts to help species at risk is to educate and involve the community. From education programs for students to clean-up days along the river, people are getting involved with the Sydenham River. A healthier river provides better habitat for species at risk, helping their populations stabilize and improve.

## Sydenham River Website Now has a Kid Friendly Section

Visit [www.sydenhamriver.on.ca](http://www.sydenhamriver.on.ca) and check out the kids section. This section was added to help students better understand Species at Risk in the Sydenham River. The site features easily understood species descriptions and fun activities which can be printed out from the website.



250 students from Strathroy-Caradoc helped in a river clean-up and tree planting day.



News coverage and opportunities to meet the public, help bring the message of the need for healthy ecosystems to protect species at risk.

For more information contact  
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Students visit a wetland along the Sydenham River to learn about the importance of wetlands for habitat and for maintaining water flow in rivers during the summer months.



A youth group from the Alvinston United Church canoed the Sydenham from Alvinston to Wallaceburg. During a break at the Shetland Conservation Area, they learned about the Sydenham Species at Risk from Conservation Authority staff.

### Partners in Conservation

- Environment Canada's Habitat Stewardship Program for Species at Risk
- Fisheries and Oceans Canada
- Middlesex Stewardship Committee
- Natural Heritage Information Centre
- Ontario Great Lakes Renewal Foundation
- Ontario Ministry of Natural Resources
- Royal Ontario Museum
- Rural Lambton Stewardship Network
- St. Clair Region Conservation Authority
- Stewardship Kent
- University of Guelph
- World Wildlife Fund Canada



# Aquatic Species at Risk in the Sydenham River Watershed

March, 2005

The Sydenham River in southwestern Ontario is the only major watershed which lies completely in the Carolinian Life Zone and is relatively undisturbed by industrial development. This has made the river a biological treasure. The Sydenham River supports an incredible variety of aquatic life, or what we call biodiversity. At least 82 species of fish and 34 species of freshwater mussels have been found here, making it one of the most species-rich watersheds in all of Canada. Several species in the Sydenham River are found nowhere else in Canada, and some remain at only a few locations globally. Seventeen of these species have been nationally listed as endangered, threatened or of special concern in the federal Species at Risk Act.



This is the third annual newsletter highlighting the news and activities surrounding species at risk in the Sydenham River. This newsletter reports on our progress on many fronts including land stewardship, research and monitoring, outreach and education.

## Who am I?

find out at  
[www.sydenhamriver.on.ca](http://www.sydenhamriver.on.ca)  
photo courtesy of Scott Gillingwater



## Recovery Strategy Released

On June 24, 2004 the "National Recovery Strategy for Species at Risk in the Sydenham River: An Ecosystem Approach" was officially released. The ceremony took place at the unveiling of a Carolinian Canada Heritage plaque recognizing the Sydenham River Corridor. The Corridor is one of 38 critical Carolinian Canada sites in the province. The section of river from County Rd. 80 to County Rd. 79, is one of the most beautiful and natural stretches of the Sydenham. The site is 387 hectares and includes lands owned by the Municipality of Southwest Middlesex and the St. Clair Region Conservation Authority, however, the majority of this Carolinian Canada site is privately owned. Conservation of this unique reach of the Sydenham River depends on the good stewardship of the public owners and of these local families.



Several landowners from the Sydenham River Corridor attended the unveiling of a Carolinian Canada Plaque recognizing this significant site on Pratt Siding Road.



# Landowner Stewardship

Water is a precious resource. The Conservation Authority's Healthy Watersheds Program is an initiative that provides technical and financial assistance to improve and protect rural water quality. The SCRCA actively seeks grants that will bring dollars into the region to support the conservation efforts of landowners. This year saw the end of funding from the Healthy Futures Programs and the Ontario Great Lakes Renewal Foundation. Grants continued, however through the Habitat Stewardship Program for Species at Risk, the Clean Water Project for Middlesex County and the St. Clair Stewardship Initiative (administered by the Rural Lambton Stewardship Network).

Over the last four years, the Conservation Authority has distributed more than \$1,000,000 in grants to landowners which has resulted in 415 projects worth more than \$3.5 million. The projects include such Best Management Practices as streambank stabilization, tree planting, wetland creation, livestock fencing from watercourses and well decommissioning. For more information, contact the St. Clair Region Conservation Authority at 245-3710 or the Rural Lambton Stewardship Network at 354-6713.



before



after

Eaves troughs, diverting roof water away from a feedlot, help to reduce polluted runoff into nearby watercourses.

A small creek in Alexandra Park in Strathroy was rehabilitated in 2002 including the removal of a small dam. Two years later, vegetation has established and the water runs very clear. This is a tributary of the Sydenham River.



May, 2004

Cattle were allowed access to a stretch of the Sydenham River.



October, 2004

Following a fencing project, cattle are now out of the river, reducing negative impacts on water quality and allowing the banks to revegetate.

# Research and Monitoring

## Sydenham River as Training Grounds

Fisheries and Oceans Canada held an Ontario Freshwater Mussel Identification Workshop in the waters of the Sydenham River. The workshop was held here since the Sydenham is considered Canada's premier mussel river.



photo courtesy of S. Staton

Scientists visited the Sydenham to learn how to identify the wide array of mussels that inhabit the river.

## Surface Water Quality

The water quality of the Sydenham watershed is now being monitored with eleven sampling sites, as part of the Provincial Water Quality Monitoring Network. The St. Clair Region Conservation Authority collects the samples and the Ministry of the Environment provides analysis of all the parameters except bacteria, which is analysed by the Ministry of Health. Key variables will reflect the land use activities. Bacteria readings regularly exceed the acceptable levels for recreational activities in the river, and both phosphorus and nitrate levels are higher than the provincial objectives for surface water quality. High lead concentrations are also a concern.

## Benthic Sampling

The St. Clair Region Conservation Authority undertakes a benthic monitoring program. Benthic monitoring helps to assess the aquatic ecosystem health of the tributaries of the Sydenham. Organisms in the stream substrate were sampled at 22 sites in 2004. The creatures, such as mayfly and midge larvae, aquatic worms and crayfish, have fairly well known tolerances to pollution. The abundance and distribution of these organisms gives an indication of the long-term water and habitat quality. The Sydenham benthic monitoring program continues to indicate the tributaries' aquatic health ranges from fair to poor.

## Aquatic Species at Risk in the Sydenham River

### Mussels

- northern riffleshell - **Endangered**
- wavy-rayed lampmussel - **Endangered**
- rayed bean - **Endangered**
- snuffbox - **Endangered**
- mudpuppy mussel - **Endangered**
- kidneyshell - **Endangered**
- round hickorynut - **Endangered**
- round pigtoe - **Endangered**

photos courtesy of S. Staton



kidneyshell

### Fish

- northern madtom - **Endangered**
- eastern sand darter - **Threatened**
- spotted gar - **Threatened**
- blackstripe topminnow - **Special Concern**
- pugnose minnow - **Special Concern**
- bigmouth buffalo - **Special Concern**
- spotted sucker - **Special Concern**
- greenside darter - **Special Concern**

### Reptiles

- Eastern Spiny Softshell
- Turtle - **Threatened**

**Endangered:** A species facing imminent extirpation or extinction.

**Threatened:** A species that is likely to become endangered if limiting factors are not reversed.

**Special Concern:** A species is of special concern because of characteristics that make it particularly sensitive to human activities or natural events.