CAROLINIAN CANADA

NEWSLETTER Fall 2005

Woodlands at Risk

Nodding Pogonia (above), Large Whorled Pogonia, Drooping Trillium, and Heart-leaved Plantain are four Carolinian woodland species at risk with a 2006 deadline for detailed recovery strategies to be in place. (Photo by P. Allen Woodliffe)

By Nikki May and Michelle Kanter

A multi-stakeholder team was struck in 2004 to develop a Carolinian Woodland Recovery Strategy under the new *Species at Risk Act* (SARA). This is one of the most ambitious recovery strategies in Canada, both in geographic and ecological scope. The fragmented nature of woodlands in Carolinian Canada makes it particularly challenging to put together a strategy that is relevant, effective, and achievable for everyone involved– from landowners to federal politicians. The aim is to create a broadly focused "road map" for conservation of species and natural communities at risk in Carolinian woodlands by identifying priorities for protecting and restoring habitat. Carolinian Canada is currently wrapping up the first year of a two- to three-year process to produce the strategy.

The Carolinian Woodland Recovery Strategy (CWRS) covers all ecological systems dominated by woody communities in the Carolinian life zone including forests, swamps, woodland, shrub thickets, and cultural habitats, using definitions based on the Ecological Land Classification scheme.

Team members were drawn from government, academia, First Nations, NGOs, landowners, and ecological consultants. Given the bold scope, other experts were invited to join as advisory members to review documents. The group is highly knowledgeable and keenly enthusiastic, and, despite its large size, has accomplished much in a short space of time. The team reflects the diversity of the Carolinian life zone and the many scales and jurisdictions that must be involved.

Until recently, recovery strategies have focused on a single species. This meant that in an area like Carolinian Canada, where there are over 130 federally recognized species at risk and more identified each year, the task of putting together teams and writing the required documents is dauntingly huge. Currently, there are over 40 Recovery Teams working on species in Carolinian Canada, creating a "burn-out" situation for many ecologists. A few government experts are spread very thinly, and the teams rely heavily on volunteer labour.

Fortunately, SARA allows for ecosystem-level recovery strategies that can cover a wide range of species under one habitat type or geographic area. Two examples are the Garry Oak Recovery Strategy in British Columbia, which covers a whole ecological community, and the Sydenham River Recovery Strategy in Ontario, which focuses on a wide range of aquatic species in an entire river basin. The Ministry of Natural Resources (MNR), which is the provincial partner responsible for terrestrial Species at Risk in Ontario outside of federal parks, is encouraging the development of multi-species strategies. Thus, the idea of writing a strategy to cover the large variety of threatened and endangered species that calls Carolinian woodlands home was proposed by ecologists and supporters.

CWRS will address Carolinian woodland plants at risk within an ecosystem context. Natural areas in the Carolinian zone have a number of severe threats in common. Examining these species' recovery needs within an ecosystem context will ensure that actions taken to benefit one species will not negatively impact another. Taking an ecosystem approach may also help to protect rare and threatened species and communities that are not yet listed under SARA, and is therefore expected to be more cost-effective in the long term. *(continued on pages 2 & 3)*

Drooping Trillium (Photo by P. Allen Woodliffe)

The Team is co-chaired by Michelle Kanter of the Carolinian Canada Coalition and Roxanne St. Martin of the Ministry of Natural Resources. John Ambrose, a Carolinian botanical expert, has been contracted to write the draft strategy, and Nikki May is providing technical assistance in year two. Core funding has been provided by MNR with additional support provided by the George Cedric Metcalf Foundation.

The first team meeting occurred in November of 2004 when the group brainstormed goals and objectives that they thought most crucial to the strategy. At the end of the meeting, the team was split into three working groups. One of these was to focus on developing a set of goals and objectives, another was to focus on mapping the occurrence of remnant woodlands and rare species in the Southwestern Ontario landscape, and the third was to focus on identifying the species and vegetation communities at risk based on global, national, and provincial rankings provided by the Natural Heritage Information Centre.

The second meeting in February 2005 was very intense as each working group shared and compared the work they had done over the intervening period. A comprehensive set of goals and objectives was agreed upon, and these have since been brought to a public workshop at the 2005 Carolinian Canada / Parks Research Forum joint AGM in May. These goals and objectives will provide the foundations of the strategy and its implementation, so comments are welcome at this stage.

Maps were produced from the Big Picture and Conservation Blueprint data showing all the known remnants of woodlands and the element occurrences of species and communities at risk. These maps work at a large scale to show the general distribution of Carolinian woodlands; however, the team recognized that links to smaller-scale mapping will be needed for the implementation stage.

A comprehensive list of hundreds of woodland-associated plant species and vegetation communities known or thought to be at risk was discussed. Several species are high priority, based on their legal status and the requirement of SARA schedules to have a detailed strategy in place for them within certain deadlines. Four species with a 2006 deadline are included in the first draft. Detailed appendices for Large Whorled Pogonia, Drooping Trillium, Heart-leaved Plantain, and Nodding Pogonia refer to strategies for habitat recovery in the main document. "Overlap" species covered adequately in other strategies are not included in the initial woodlands strategy, such as savanna species that are addressed by Tallgrass Ontario. Some overlap species and habitats will be discussed in more detail in draft two, and appendices may be added in the future, as the need arises. Wildlife species will also be discussed as an additional "layer" to the strategy.

At the February meeting, the team also held a brainstorming session to identify stakeholders and existing programs. The focus of the most recent discussion was on threats to Carolinian woodlands associated with each of the objectives and the action items and tools required to overcome these threats and implement the goals.

A first draft strategy will be presented to the team this fall for review. A second draft is due in 2006. Provincial review is required before submission to the federal SARA process. In the meantime, interested stakeholders are invited to join the Carolinian Woodlands Network.

The team has worked very hard so far, and thanks to their collective knowledge, skills, and energy the bulk of the material required for the strategy document has been compiled. Over the next few months, there will be further data collection and discussion to refine the document, but it is well on its way to becoming a useful prescription for the work required to conserve and restore Carolinian woodlands.

The Carolinian Woodland Recovery Strategy is generously supported by the Ontario Ministry of Natural Resources.

Heart-leaved Plantain (Photo by P. Allen Woodliffe)

Carolinian Woodland Recovery Strategy Draft Goals &

Comments are welcome!

Recovery Goal: To sustain and restore the evolutionary capacity (i.e., health and long-term viability) of Carolinian Woodlands and their associated communities of species, thereby protecting ecological features, functions and services on the southwestern Ontario landscape.

Objectives:

1. Build Upon and Enhance the Big Picture - Use the Big Picture and associated greenspace and greenway work as a framework for identifying, securing and re-establishing an ecologically viable, interconnected system of Carolinian woodlands representing the full range of woodland communities and associated species at ecodistrict and ecoregional scales.

2. Determine Critical Habitat for Schedule 1 species - Within the context of the Big Picture Framework, identify specific habitat cores and "hot-spots" which support notable populations of priority "at risk" species and undertake an assessment of critical habitat needs (including ecological processes which support habitats) at a multi-species community level, and where needed, at a species (autecological) level. (Include new Schedule 1 species as they are listed.)

3. Prioritize Threats and Management Action - Identify and prioritize threats that are undermining the integrity of Schedule 1 species and their "Critical Habitats," and more broadly, Carolinian woodland communities and species, and identify associated management actions for recovery.

4. Affect policy change such that significant Carolinian woodlands have strong protection under provincial and municipal law.

5. Develop and support capacity for restoration activity among stakeholders to increase the extent and connectivity of Carolinian Woodlands on the landscape. Include concepts of Big Picture scale planning, achieving a net gain in forest cover and managing degraded sites to restore their features and functions.

6. Implement restoration activities and sustainable forest and landscape management to achieve ecodistrict and watershed targets for forest cover, spatial configuration and connectivity.

7. Coordinate Recovery Activities - Coordinate and collaborate with other recovery teams, organizations, agencies, individuals and programs working on conservation of Carolinian Zone ecosystems and species, with priority placed on Schedule 1 species.

8. Develop A Communications and Education Program - Develop and implement a concurrent communications and education plan that will be widely delivered and readily acceptable to a variety of stakeholders (government, industry, landowners, agriculture, First Nations and NGOs), highlighting the goal and benefits of the program.

9. Promote private landowner stewardship, as a primary mechanism for recovery.

10. Monitor and Measure Recovery Results - Undertake recovery implementation within an adaptive management process, complete with testable hypotheses, quantitative targets and monitoring programs for targeted communities and species. Revise as necessary.

Carolinian Woodland Recovery Team

Roxanne St. Martin, OMNR Southern Region SAR Program
John Ambrose, Carolinian Canada / Field Botanists of Ontario
Dan Kraus, Nature Conservancy of Canada
Allen Woodliffe, OMNR - Aylmer District
Donald Kirk, OMNR - Guelph District
Michelle Kanter, Carolinian Canada
Kara Vlasman, OMNR - Guelph District
Karen Hartley, OMNR - Provincial SAR
Barb Boysen, OMNR/Forest Gene Conservation Association
Dawn Burke, OMNR - Southern Region Science & Tech London
Peter Carson, Long Point Basin Land Trust
Jane Bowles, Ecological Consultant / UWO Herbarium
Tara Tchir, Upper Thames River Conservation Authority
Bonnie Bergsma, City of London
Jo-anne Rzadki, Hamilton Halton Watershed Stewardship Program
Steve Hounsell, Ontario Power Generation
Sandy Dobbyn, Ontario Parks
Ken Elliot, OMNR - Southern Region Science & Tech London
Paul General, Six Nations
Nikki May, Sarnia Urban Wildlife Committee, Lambton Wildlife Inc.
Brian Craig, Environment Canada - EMAN
Ed Czerwinski, OMNR - Southern Region Forest Health
Mary Gartshore, Ecological Consultant
Dawn Bazely, York University
Rebecca Hay, MNR-Guelph District
David Morris, University of Waterloo

Groups and individuals interested in participating in the Carolinian Woodland Recovery Strategy should contact Carolinian Canada to join our Woodlands Network. You will receive updates on the strategy, opportunities to help shape and implement it, and invitations to key events and action teams.

An Inspiration of Conservationists
2005 Conservation Award Nominees Announced

Nine exceptional people, programs, and groups have been nominated for Carolinian Canada's 2005 Conservation Awards. Each has created ripples that have progressed to waves of awareness in their communities. Not only are they dedicated to improving their local natural areas, but their work inspires others to care for the environment.

The following excerpts from the nominations demonstrate the efforts of this year's Carolinian Canada Conservation Award nominees. Award recipients will be announced this fall.

Margaret Reed, of Beamsville, works to preserve the natural features of the Cave Springs area in the Niagara region. As a volunteer, she has conducted numerous educational programs highlighting Carolinian forest ecosystems and species, focusing on how people can help protect natural areas. She has written a brochure and booklet, planted trees, and provided tours to increase environmental awareness.

Allan Elgar works to galvanize the Oakville community to protect forests and natural areas from urban sprawl. He founded a grassroots residents' group, was elected twice to local council, and has been selected for provincial commissions and conservation boards. His positive and inclusive style of activism proves that citizens can make a difference.

Mary and Wilfred Bradnock of London are hard-working volunteers who assist the Upper Thames Region Conservation Authority in its projects by spreading the word, finding good sites for restoration, keeping politicians informed, and assisting with educational programs. They have joined many school groups in planting trees and shrubs, and have instilled a sense of pride and environmental stewardship in students.

Peter Carson of Walsingham has dedicated his life to conservation in the Carolinian region and also provincially. He is a tireless volunteer, an advisor on ecological restoration and protection of significant natural areas, and a founding member of and driving force behind Long Point Basin Land Trust. With his partner, he runs a successful business, developing a 200-acre farm to provide native plants and seeds to the public and conservation organizations.

Arthur Teasell of Sarnia, who passed away shortly after being nominated for this award, was responsible for setting up the Sarnia Urban Wildlife Committee, which protects and manages six natural areas. He was also very active on the Arbor Week Committee, and led the establishment of the Waterfront Protection Association, which is working to increase public access to natural beaches on the waterfront. The breadth of his efforts was exceptional.

Rural Lambton Stewardship Network (RLSN) has partnered and led hundreds of conservation projects in Lambton County. It has pursued pioneering opportunities aimed at a healthy rural environment, working closely with landowners on habitat restoration, tallgrass prairie projects, conservation tillage, water quality, and enhancement of natural values of Lambton County. Through RLSN's efforts many farming landowners have turned non-productive areas of their land into aesthetic recreation and wildlife areas.

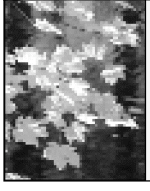
Pelee Island Winery has effectively put its money where its mouth is with respect to habitat improvement and creation. The winery's vineyard operations and grape-growing practices have eliminated the use of fertilizers and pesticides. Along with being the main sponsor of the Pelee Island Winery Endangered Species Festival since 2001 and promoting education about rare species on their wine labels, the winery is also a key collaborator in an alvar restoration project.

Hamilton Naturalists' Club (HNC) was the first volunteer organization in Ontario to purchase significant areas as nature sanctuaries. Over the course of 85 years, it has raised hundreds of thousands of dollars towards its goals of preserving, protecting, and enhancing the natural environment around Hamilton and across Carolinian Canada.

East Elgin Secondary School Environmental Leadership Class of Aylmer is one of the most sought-after classes at the school, eagerly attended by students committed to conserving Ontario's natural heritage. All students invest many volunteer hours in the Catfish Creek watershed, in the heart of the Carolinian zone, and they're not afraid to get a little wet or a little dirty doing everything from tree planting and prairie restoration to streambank work or organizing a Waterfowl Festival.

One of the nine nominees for this year's Conservation Awards, Margaret Reed works tirelessly to protect Carolinian forests in the Niagara area.

Carolinian Canada Conservation Awards Ceremony 2005



Join us to share the stories and successes of our
Conservation Award Nominees and Recipients
on November 10, 2005 at 4:00 p.m.,
at the Elmhurst Inn, Ingersoll, Ontario.
Call or check www.carolinian.org for event details.

COALITION NEWS

A Map to the Future: Strategic Plan for the

By Michelle Kanter, Executive Director, Carolinian Canada

The Carolinian Canada Coalition is a unique organization in this region, bridging the gap between national, provincial, and local programs. As the Carolinian life zone is increasingly recognized as a priority for conservation, taking the time to build our core capacity is a natural evolution in the history of this organization.

Our current guiding documents include the comprehensive 1997 "Carolinian Canada Strategy" and the 2002 "Practical Options for Greening Carolinian Canada." Both focus the work of a wide variety of groups towards key conservation needs and have been used by numerous groups to guide their own strategies in working towards the collective goal of improved ecological health in the zone.

The Coalition does not at this time have a comprehensive up-to-date strategy document of its own with goals developed for the organization itself. This type of document is crucial to map out how our organization fits into and best support the wider goals of the conservation community. It will map a way to effectively coordinate a vision for an expanding and active conservation community in the Carolinian life zone.

We invite input from our members and stakeholders in developing our "map to the future" and hope to see you at our Strategic Plan Meeting on November 10, 2005.

Carolinian Canada recognizes the generosity of the Ontario Trillium Foundation in supporting this initiative.

A MAP TO THE FUTURE

Carolinian Canada Strategic Plan

Carolinian Stakeholders Meeting
Thursday, November 10, 2005
Location - Ingersoll, Ontario. Check the Carolinian Canada website at www.carolinian.org for event details.

All Welcome!
How can we achieve our vision for Carolinian Canada together? A 1-day workshop to analyze, discuss, inform, innovate, and create a map to our future.

Carolinian Canada Coalition

THE ONTARIO TRILLIUM FOUNDATION

The Carolinian Canada Coalition acknowledges the financial support of the Ontario Trillium Foundation, an agency of the Ministry of Tourism, Culture and Recreation, which receives annually $100 million in government funding generated through Ontario's charity casino initiative.

Skunk's Misery Plaque

Although officially named the Mosa-Bothwell Forest, locals have called it Skunk's Misery since the 1930s. This 1,400-acre natural area approximately 40 km northeast of Chatham is home to Canada's largest colony of endangered Acadian Flycatcher along with many other rare species such as Black Rat Snake and Cerulean Warbler.

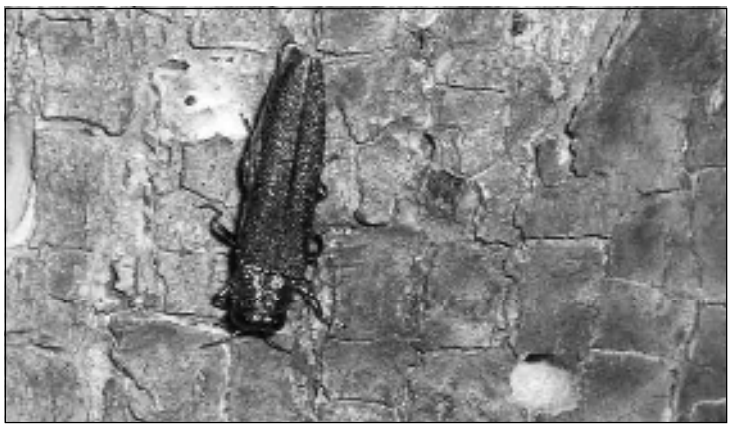
On June 5, 2005, a Carolinian Canada heritage plaque was unveiled to recognize the biological riches of Skunk's Misery, one of 38 Carolinian Canada Signature Sites. "This is one of the largest and best forests in the county and the region," said Steve Evans of Middlesex County at the celebration. Despite a light rain, a good crowd of people joined in the celebration and stayed for a lunch and forest tour generously provided by the County. The plaque, located at the McLaren forest entrance on Concession Drive, just northeast of Hagerty Road in Newbury, acknowledges the efforts of the County of Middlesex, Municipality of Southwest Middlesex, Lower Thames Valley Conservation Authority, St. John's Presbyterian Church, St. Vincent de Paul Camp, and several generations of landowners who have worked together to protect these woodlands under a mix of public and private ownership.

At the Skunk's Misery heritage plaque unveiling, local politicians from the Municipality of Southwest Middlesex and landowners joined with Carolinian Canada to celebrate protection efforts at this Signature Site. From left to right: John Miller, Councillor; Doug Reycraft, Mayor; Vance Blackmore, Deputy Mayor; John Kavelaars, Councillor.

THE BACK 40 What Bug is That?

By Linda Tucker, OMNR Forest Health Technician

This past summer can be summed up as hot, humid, and mainly dry. These conditions have been extremely demanding on our trees. Some show no immediate outward signs of drought stress but are still suffering to a degree. Drought conditions can weaken the vigour of a tree, causing it to become more susceptible to dieback as well as pests and diseases. The following describes some of the significant pests and diseases affecting trees within our Carolinian landscape. In some cases, they are threatening large populations, important habitats, and impacting species survival.



Emerald Ash Borer is an exotic pest from Asia that is believed to have been in Canada since approximately 2000. (Photo by Linda Tucker - MNR)

The Emerald Ash Borer *(Agrilus planipennis)* was detected in Windsor, Ontario, in 2002 and has since been found in Essex County, the Municipality of Chatham Kent, and the County of Lambton on Squirrel Island, Walpole Island I.R. 46. This introduced pest is able to attack and kill healthy ash trees. High numbers of larvae injure the tree by feeding within the cambium. This eventually girdles the tree, inhibiting its ability to conduct and transport nutrients.

Gypsy Moth *(Lymantria dispar)* is an exotic insect that causes periodic damage to a wide variety of trees. Moderate to severe damage this season has materialized in pockets located in Brant County, the City of Haldimand County, the Regional Municipality of Niagara, and Middlesex County. Damage occurred particularly on Red Oak and White Oak, American Beech, and Black Cherry . Defoliation from Gypsy Moth often results in added stress and possible tree mortality if damage is high for consecutive years. Gypsy Moth populations fluctuate year to year and are often kept in check by the fungus *Entomophaga maimaiga*..

One very important but overlooked bark beetle is the native **Hickory Bark Beetle** *(Scolytus quadrispinosus)*. This insect is currently causing landscape-level decline and mortality in all species of hickory, particularly in the northwest part of the Carolinian zone. This insect is often considered a secondary pest as it usually attacks trees previously weakened by other factors (for example, drought). The recent escalated population of this insect in our area may be linked with the drought-like conditions experienced in 2001 and 2002. Female adults bore into the main bole or larger branches where they construct egg-laying galleries in the cambium. Once these eggs hatch, numerous larvae feed in separate galleries. High populations eventually girdle the tree.

Butternut is now considered an endangered species, with recent protection under the *Species at Risk Act* (SARA). This is a result of an exotic fungal pathogen known as **Butternut Canker** *(Sirococcus clavigignenti-juglandacearum)* that is able to attack and kill Butternuts of all ages and sizes. It is known to exist throughout the natural range of Butternut in Ontario. Damage begins when the fungus attacks the inner bark of the tree, resulting in the formation of cankers. Once established, these perennial cankers spread around the branches and trunk, eventually girdling the tree and in time killing it.

Another exotic fungal pathogen is **Beech Bark Disease**. It is currently causing decline and mortality in beech trees, particularly in the eastern region of the Carolinian zone. Scale insects feed on the main stem of the tree, creating an entry point for the disease. The disease *(a Nectria sp. of fungi)* eventually kills portions of the tissue underneath the bark. Over time, this moves around the tree, eventually girdling it. Visible tiny red fruiting bodies may materialize on the surface of the bark where the fungus has killed the tissue.

Dogwood Anthracnose *(Discula destructive)* is an introduced fatal disease affecting the Eastern Flowering Dogwood. Infected leaves develop tan-coloured spots often encircled with a purple border. Infections in the form of elliptical cankers often spread down the leaf petioles and onto the shoot. Multiple cankers can girdle and kill individual branches. This disease usually progresses to the main stem, leading to whole tree mortality. It occurs in the County of Middlesex, the City of Norfolk County, and in the Regional Municipality of Niagara.

Landowners can help control the spread of these pests and diseases by reporting sightings to Linda Tucker, Provincial Forest Health Technician, SW Region, OMNR, (519) 773-4727, e-mail linda.tucker@mnr.gov.on.ca.
To be added to the distribution list for Linda Tucker's Forest Insect and Disease Bulletin, send an e-mail to the address above.

Since its detection in Middlesex County in 2001, damage from Hickory Bark Beetle has spread to Huron, Elgin, and Lambton counties. (Photo by Linda Tucker - MNR)

THE BACK 40 - Funding

Compensation for the Bugs

Property owners whose trees were ordered destroyed by the Canadian Food Inspection Agency (CFIA) to combat Asian Long-Horned Beetle and Emerald Ash Borer will be eligible for compensation for the replacement of trees. The CFIA announced in September that compensation will be provided to a maximum of $300 per tree ordered destroyed on privately owned land, $150 per tree on public land, and $40 per tree in woodlots. However, railway and utility rights of way, drainage ditches, and unmanaged or wild areas are not included in the compensation program. CFIA expects that by March 2006, replanting costs will reach $5.75 million. For more information, visit www.inspection.gc.ca.

Photo courtesy Bruce Harschnitz

Fund for the Birds

By Leora Berman, Wetland Habitat Fund

The Wetland Habitat Fund provides financial and technical support to landowners for the conservation, restoration, and enhancement of wetlands and other important bird habitats. As a delivery agent of Ontario's Eastern Habitat Joint Venture (a conservation partnership between Wildlife Habitat Canada, the Ministry of Natural Resources, the Canadian Wildlife Service, and the Nature Conservancy of Canada, and other partners), Wetland Habitat Fund seeks to inspire and build relationships with landowners to conserve significant waterfowl, waterbird, shorebird, and landbird habitats.

Regional representatives provide personal service, technical advice, and financial assistance through the delivery of two landowner-based stewardship programs: the Ontario Wetland Habitat Fund Program and the All Birds-All Habitats Program.

Projects within the Carolinian zone in Important Bird Areas are targeted to support the Big Picture Project, increased biodiversity, and to achieve goals of both local and provincial stewardship plans.

Funding is available at a cost-sharing amount of 50% with landowners up to a maximum of $5,000 and with the signing of a 10-year conservation agreement for the project undertaken. If you have a wetland area to be conserved or restored or would like to enhance an existing forested corridor, large forested tract, or grassland area, find out more by visiting www.wetlandfund.org or www.ehjvontario.ca, or by calling your local representative:

Cambridge Region (York, Toronto, Peel, Dufferin, Wellington, Halton, Hamilton-Wentworth, Niagara, Waterloo, Brant, Haldimand): Robert Messier, (519) 621-2763 ext.270;
London Region (Norfolk, Elgin, Middlesex, Oxford, Lambton, Southern Perch, Southern Huron): Leora Berman, (519) 442-1536;

Southwestern Region (Essex, Kent): David A. Kraus, (519) 825-7491.

Photo courtesy Bruce Harschnitz

GREENING CAROLINIAN CANADA

Carolinian Canada's Big Picture goal of conservation will happen gradually, through thousands of actions across the zone. Habitat projects being carried out by non-profit groups, individuals, companies, and governments in a wide variety of places, from corporate grounds and school grounds to natural areas, not only restore degraded landscapes – these actions can also inspire and educate. In each issue of the newsletter, we will highlight habitat projects so readers can share and learn from these successes and challenges. If you're interested in submitting a story for the Greening Carolinian Canada section, send a note to newsletter@carolinian.org.

Pit and Mound Restoration

By Danielle Breault, Essex Region Conservation Authority

The Essex Region will get a little greener as the very successful "pit and mound" restoration technique is being implemented at five new projects across the region. In 2003, Essex Region Conservation Authority (ERCA) restored 70 acres of habitat using this innovative technique as a test site. The results exceeded expectations, yielding exceptional seedling survival and growth. Based on this success, five new sites are being restored using the pit and mound technique. A 10-acre site near Lebo Creek in Leamington and 60 acres across four sites in the Canard River watershed in Essex and Amherstburg are currently underway.

The pit and mound technique relies on heavy equipment to create an uneven topography. This mimics the conditions of a natural forest and provides a diversity of moisture and sunlight conditions. This is conducive to the rapid establishment of planted seedlings and nuts.

"This process is extremely cost-effective and helps us move forward more quickly toward the goal of 12% natural areas coverage," explains Matthew Child, Coordinator of Habitat and Aquatic Resources for ERCA. "We are also able to use a greater diversity of tree species because of the variety of moisture conditions."

Creating uneven topography is key to the pit and mound restoration technique. (Photo by Essex Region Conservation Authority)

As well, restoring hydrology to the site with the pit areas confers an immediate wildlife benefit. Frogs, toads, dragonflies, butterflies, and deer were all observed within the months following restoration of the first site.

Direct seeding yields excellent results (here, a young Hickory) at a site in Essex County that is being restored using the pit and mound technique. (Photo by Essex Region Conservation Authority)

In Good Company

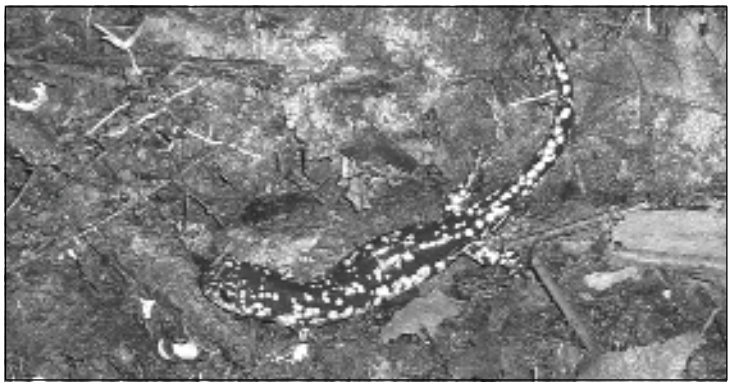
Imperial Oil Sarnia's manufacturing site includes a mature 300-acre forest, one of the largest in the area.

In June, company representatives met with members of Lambton Wildlife Incorporated, Ministry of Natural Resources, St. Clair Conservation Authority, Lambton Urban Wildlife, and Carolinian Canada to discuss the opportunities to maintain the health of the forest. An ecological inventory was considered to be the first step.

The initiative is being led by Seanna Davidson, who is on an eight-month assignment with Imperial Oil as part of her participation in the Pollution Probe Environmental Professional Internship. She brought the group together after attending Carolinian Canada's Big Picture Talk on Carolinian Forests and Land Use Planning in Southern Ontario. An initial walk in the forest by the group identified a wide variety of vegetation.

Some of the more interesting species found are the Tulip Tree, Swamp White Oak, Shumard Oak, Jumpseed, Leatherwood, Partridge Berry, and Yellow Mandarin, which has never been reported before in Lambton County. Some of the wildlife known from the site include Blue Spotted Salamander, Yellow Bellied Sapsucker, Red-eyed Vireo, and Ovenbird.

Allen Woodliffe and Larry Cornelis with a Tulip Tree at Imperial Oil's forest site.



Blue Spotted Salamander

The group is planning to conduct a more extensive inventory over the coming months.

Lawn and Order: Sarnia's Watch-dog Snaps Back

By Malcolm Boyd, President Elect, Lambton Wildlife Inc.

Recent events in Sarnia have highlighted the need for local environmental groups to be proactive "watch-dogs" in their communities. Janet Bremner, president of Lambton Wildlife Inc., noticed an editorial in the local newspaper in support of the City of Sarnia's intention to enact a by-law, which, among other things, would have mandated the City's By-law Enforcement Officer, upon receipt of a complaint, to charge any property owners who let their grass grow over eight inches in height. Janet was concerned that this would adversely affect anyone who was trying to reduce the use of fertilizers and water and get away from the high maintenance "golf course" look--either through the use of xeriscape gardening techniques or the use of native plants. The Lambton Wildlife Inc. Board agreed, and we wrote a letter to City Council expressing our concerns.

Having had some municipal experience, I decided to contact City Hall and get a copy of the proposed by-law. Then I phoned around and found that some other similar "tidy yard" by-laws in southwestern Ontario had exempted "Naturalized Areas," "areas deliberately implemented to produce ground cover, including wild flowers, shrubs, perennials, prairie grasses and other ornamental grasses."

I checked with a City Councillor who was known to care very much about environmental issues and determined that we would have significant political support to have "Naturalized Areas" exempted from the enforcement provisions of the by-law. We made it clear to staff that we were prepared to attend the City Council meeting in great numbers to argue against the by-law as it stood. Thankfully, the draft by-law was revised to exempt "Naturalized Areas." We did not have to attend the Council meeting, and the by-law passed with virtually no debate on our issue, thanks to City staff and Council listening to and agreeing with our concerns.

Being an environmental watch-dog at the local level can help make a difference.

NEWS & EVENTS

Pinery & North Lambton Butterfly Count

By Melody Cairns, Pinery Provincial Park

Though the temperatures were up to about 40˚C with the humidity, twenty dedicated volunteers arrived at Pinery Provincial Park on June 25th with their butterfly nets in tow to participate in the 2005 North American Butterfly Association (NABA) Butterfly Count. Once registered, the butterfliers made their way to assigned areas throughout Pinery and northern Lambton County to begin the search. After seven hours of humid hunting, 43 different species of butterflies were found and more than 3,080 individual butterflies counted.

Most abundant were the European Skippers (1,574 individuals) and Cabbage White Butterflies (653 individuals), followed by Little Wood Satyrs (229 individuals) and Spring/Summer Azures (158 individuals). To the excitement of all participants, two new butterflies were added to this year's list; both Grey and Green Commas were caught, recorded, and then released. Less abundant this year were Monarch Butterflies, with a total of four being found.

If you are interested in taking part in the 2006 Pinery & North Lambton NABA Butterfly Count, the date is tentatively set for June 24, 2006. For more information on NABA, visit www.naba.org, and for information on Pinery Provincial Park, visit www.OntarioParks.com or www.PineryPark.on.ca.

Native Demonstration Sites in Rondeau Bay

The Rondeau Watershed Coalition (RWC) has received a grant from the Ontario Trillium Foundation to establish two public demonstration sites within the Rondeau Bay Watershed. The group received $67,700 over two years to raise public awareness about the importance of native ecosystems, and to help enhance aquatic and wildlife habitat within the watershed.

The demonstration sites will include a wetland plot and a prairie grass plot, along with educational signage. The RWC received funding to conduct native plantings on private lands within the watershed as well, and to produce educational material, including a full-colour poster, which the group hopes to distribute free of charge to local schools.

According to RWC Program Coordinator Heather Prangley, the project is well underway and should be completed by the spring of 2006. Anyone wishing to get involved with the plantings, or with public education, should contact the Rondeau Watershed Coalition at (519) 674-1594 or rwc@ciaccess.com.

NEWS & EVENTS

Greenway in Norfolk

Ontario Nature and the Norfolk Field Naturalists (NFN) are working together and looking for more partners to raise awareness of the importance of a web of natural areas to both human and environmental health in Norfolk County.

A special meeting will be held on Thursday, October 27th, 7pm at the Banquet Hall in the Simcoe Recreation Centre, and will feature presentations by Ontario Nature and other partners. The goal is to provide the community with first-hand knowledge of conservation efforts and to demonstrate the positive impact (physical, social and economic) on human and environmental health in protecting Ontario's natural heritage. The community will then have a chance to discuss and develop a balanced strategy for Norfolk County.

For more information on participating in this event, contact Jennifer Baker at jenniferb@ontarionature.org or (905) 527-9477.

Toronto's Waterfront

WaterfrontAction is a new organization in Toronto that is trying to reach out to other groups, organizations, and individuals that have an interest in the way Toronto's waterfront is developed along its full length. The group's main objective is to be a strong community-based voice that advances a vision of a revitalized waterfront, based on the planning principles of Toronto's Waterfront Official Plan. For information, contact waterfrontaction@rogers.com.

Carolinian Collection at UBC

The University of British Columbia Botanical Garden and Center for Plant Research in Vancouver is currently looking for wild-collected seed, of known provenance from Ontario sources, to create a new garden conservation component based on the Carolinian forest. For information on this project, or to send comments, suggestions, or nursery catalogues, contact Kevin Kubeck, The University of British Columbia Botanical Garden and Center for Plant Research, 6804 Southwest Marine Drive, Vancouver, British Columbia V6T 1Z4; kkubeck@interchange.ubc.ca.

Nurturing the Forest

The Ontario Urban Forest Council is holding its annual general meeting in conjunction with an all-day public forum on October 20, 8am to 6pm, at Black Creek Pioneer Village in Toronto. The day begins with sessions on Professional Urban Forest Management; the afternoon is devoted to the topic Amateur Guardians of the Urban Forest. For information or to register, e-mail: jradec@mountpleasantgroup.com

ON's New ED

Ontario Nature has announced the appointment of Caroline Schultz as its new Executive Director, effective October 24. Caroline Schultz, most recently head of the Nature Conservancy of Canada's program in Central and Eastern Ontario, replaces Babak Abbaszadeh, who is leaving Ontario Nature to become the executive assistant to Ontario's Energy Minister, Dwight Duncan.

Changes at Environment Canada

Graham Bryan, formerly an Ecological Gifts Program Coordinator for Environment Canada-Ontario Region, is now the Biodiversity Issues Coordinator for Environment Canada-Ontario Region. Graham Bryan remains the contact for How Much is Enough? A Framework for Habitat Rehabilitation in Great Lakes Areas of Concern, and can be reached at Graham.Bryan@ec.gc.ca. Lesley Dunn (Lesley.Dunn@ec.gc.ca) is now the Ecological Gifts Coordinator for the Ontario Region.

Ecogifts Resources

The Ontario Ecological Gifts Handbook 2005 (updated edition) is the main reference on the EGP certification process. It is now available at http://www.on.ec.ca/ecogifts/handbook-e.html. Recently, EGP supported the Nature Conservancy of Canada in developing a set of best practices for conservation easements, which are meant to complement the new Canadian Land Trust Alliance Standards and Practices. A publication, *Conservation Easement Best Practices*, will be available from the Ecological Gifts Program in the coming months.

Ontario Trillium Foundation Funding

In June, the Ontario Trillium Foundation awarded grants totalling $824,500 to four organizations in central and southwestern Ontario, including Carolinian Canada. The grant will help Carolinian Canada develop a strategic plan.

Front row (l-r): Ontario Farmland Trust Chair Stew Hilts; Hon. Madeleine Meilleur, Minister of Culture; Ecological Farmers Association of Ontario President Ann Slater. Back row (l-r): Ontario Trillium Foundation Vice-Chair Hugh O'Neil; Canadian Chestnut Council Chair Dr. Colin McKeen; Carolinian Canada Chair Gordon Nelson; Hon. Steve Peters, Minister of Agriculture and Food.

By Heather Webb
Conservation & Science Coordinator, Ontario Nature

Kentucky Coffee-tree
Gymnocladus dioicus ("naked branch" + "two sexes")
Status: Threatened

As the light looked so dim, and the place, for the time, looked quiet enough, and the dilapidated little wooden house itself looked as if it might have been carted here from the ruins of some burnt district, and as the swinging sign had a poverty-stricken sort of creak to it, I thought that here was the very spot for cheap lodgings, and the best of pea coffee.

Herman Melville, Moby-Dick

Named for a hot drink once made from its fruit, the Kentucky Coffee-tree is actually related to the pea. The tree has a short trunk with two to four secondary branches and a narrow crown, and can reach heights of 80 to 100 feet. The leaves are doubly compound (see photo) and are comprised of roughly 70 blue-green leaflets. They are the largest leaves of any native Canadian tree, attaining lengths of almost a metre. The wood is very durable and is resistant to insects, disease, and storm damage. Although not commercially viable today, the wood was once used for cabinetry, railroad ties, and fence posts.

The trait for which Kentucky Coffee-tree is best known is its fruit, used by settlers to make "pea coffee." The fruit is a 15- to 25-cm pod containing up to seven shiny, dark beans. The beans were roasted, ground and steeped in boiling water just like coffee beans today, and the resulting drink is said to taste much like regular coffee. Raw, however, the Kentucky Coffee-tree fruits are poisonous: in fact, pea coffee made many settlers sick.

Alas, this giant-leaved beauty is much harder to find today than it once was, and one reason for this is that it has trouble finding a mate! The Kentucky Coffee-tree is dioecious (pronounced "di-EE-shuss"): individuals are either male or female. Although a tree can send up new suckers, this asexual cloning becomes genetically unstable over time. Sexual reproduction, in which seeds are produced through pollination, is more genetically robust. Unfortunately, of Canada's 25 known populations of Kentucky Coffee-tree, only two produce seeds. The others are all same-sex clones.

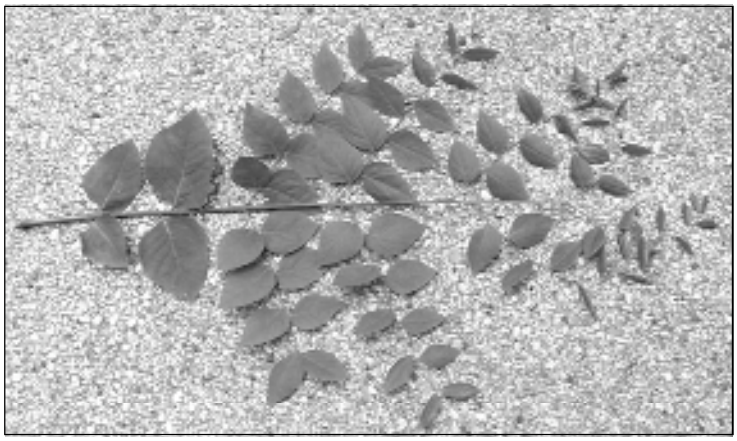
What this means for the species in Canada is uncertain; however, there is likely little genetic diversity among Canadian Kentucky Coffee-trees. Such low diversity can create a "genetic bottleneck," from which it can be very difficult for the species to recover. Recovery efforts are ongoing, however, and are being addressed in a recovery plan for the Walpole Island ecosystem. The Walpole Island First Nation will have an essential role in helping restore this unique tree to its Carolinian habitat.

Coffee-tree Lore:

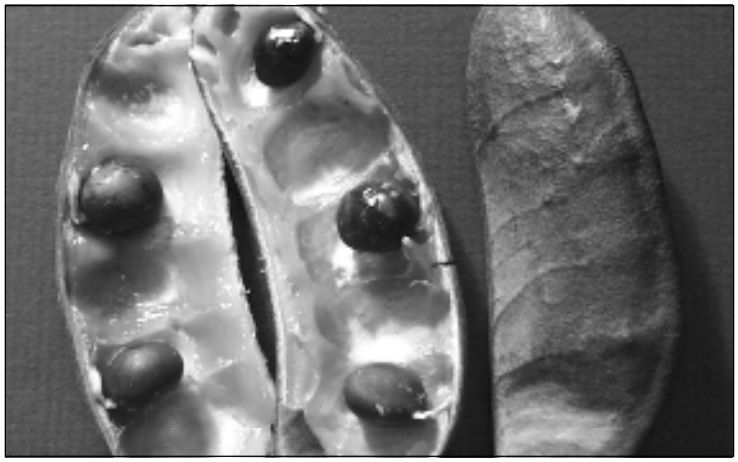
- During the American Civil War, Jesse James's stepfather was bound and hung from a coffee-tree when he was discovered to be associated with a pro-slavery group.
- The name "coffeetree" was first recorded in the late 1700s in George Washington's diaries.
- A Kentucky Coffee-tree shades the spot where Civil War hero "Stonewall" Jackson's arm is buried. After the Battle at Wilderness, Jackson was mistakenly shot by one of his own troops and subsequently had to have his arm amputated. Jackson later died of pneumonia and is buried elsewhere.

To learn more about the Kentucky Coffee-tree, check out the following links:

Species at Risk (Environment Canada) at www.speciesatrisk.gc.ca and Bkejwanong Natural Heritage (Walpole Island First Nation) at www.bkejwanong.com/NatHeritage/main.html.



Kentucky Coffee-tree's doubly compound leaves are the largest of any native Canadian tree. (Photo by Paul Wray, Iowa State University, www.forestryimages.org)



The fruit of Kentucky Coffee-tree was used by early settlers to make "pea coffee." (Photo by Paul Wray, Iowa State University, www.forestryimages.org)

Give Something Warm & fuzzy this year...

A Carolinian Canada Gift Certificate.

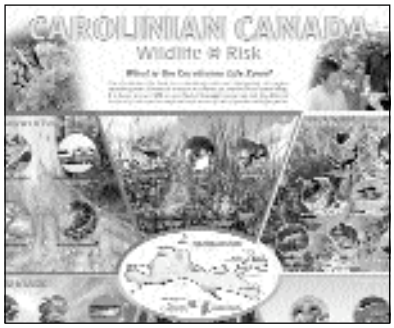
It's more than a Membership! It's making a Difference.

❑ $20.

Welcome to Carolinian Canada
Carolinian Canada membership with Signature Sites Guide (80-page full-colour guide to 38 Carolinian Canada Natural Areas) will be mailed usually within 8 weeks.

❑ **Explore Carolinian Canada**

Not sure what they need? This certificate is redeemable for Carolinian Canada Forums, Membership, Posters, Guides, Maps, CD's, T-shirts, and more from the publications section at www.carolinian.org



Shop @ Home, No Waiting - 2 Easy Steps

1. Mail in this form with your cheque or purchase on-line – we'll credit the receiver's account.

2. Download the Gift Certificate of your choice from www.carolinian.org for your immediate gift.

A Gift from:	A Gift to:
Name: _____	Name: _____
Address: _____	Address: _____
Postal Code: _____	Postal Code: _____
Email: _____	Email: _____
Phone: _____	Phone: _____

Amount of Gift Certificate ❑ $20 Welcome ❑ Explore $

Don't forget your own 2006 Membership! ❑ $20 Individual ❑ $50 Organization

TOTAL: $

Make cheque payable to Carolinian Canada. (Credit cards accepted on-line)
Mail to Carolinian Canada, 1017 Western Rd., London ON N6G 1G5. (519) 433-7077
info@carolinian.org www.carolinian.org