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# Development of a Strategy to Conserve and Restore Carolinian Woodlands

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(Presented by John Ambrose)

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## Abstract

*A multi-stakeholder Team was struck in 2004 to develop a Recovery Strategy for Carolinian Woodlands under the new Species at Risk Act (SARA). This Recovery Strategy 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.*

**Keywords:** *Carolinian Canada Woodlands, recovery strategy, conservation of species and communities at risk, multi-stakeholder, multi-species.*

## Introduction

What is a Carolinian Woodland? 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 (Lee *et al.*, 1998).

Team members were drawn from government, academia, First Nations,

NGOs, landowners, and ecological consultants (see Table 1). 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, much has been accomplished 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 (SAR) and more identified each year, the task of putting together teams and writing the required documents is daunting. 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 (National Recovery Working Group, 2004). Two examples are the Garry Oak Recovery Strategy (Garry Oak Systems Recovery Team, 2002) in British Columbia, which covers a whole ecological community, and the Sydenham River Recovery Strategy (Dextrase *et al.*, 2003) 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 the Carolinian Woodlands home was proposed by ecologists and supporters.

## **A Work in Progress**

A small scoping team was created to develop the idea. The team saw a clear opportunity for a proactive strategy, one that holistically considered woodland issues and aimed for a visionary rather than the reactionary approach of previous single-species strategies. The CWRS will address Carolinian woodland plants at risk such as the nodding pogonia (*Triphora trianthophora*) and the nodding trillium (*Trillium cernuum*) 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 pro-

**Table 1.** Members of the Carolinian Woodland Recovery Team.

<b>Carolinian Woodland Recovery Team</b>	
<i>Name</i>	<i>Organization</i>
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

tect 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.

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 it 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 on 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 the public workshop at the 2005 Carolinian Canada/Parks Research Forum joint AGM in May. These goals and objectives, outlined below, will provide the foundations of the strategy and its implementation.

## **Draft Goals and Objectives (Carolinian Woodland Recovery Team, 2005)**

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.

### *Recovery Objectives*

Objectives (10): [underlined words/phrases = the essence of these draft Objectives]

1.0 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.

2.0 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.)

3.0 Prioritize Threats and Management Actions - 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.

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

5.0 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

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

7.0 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.

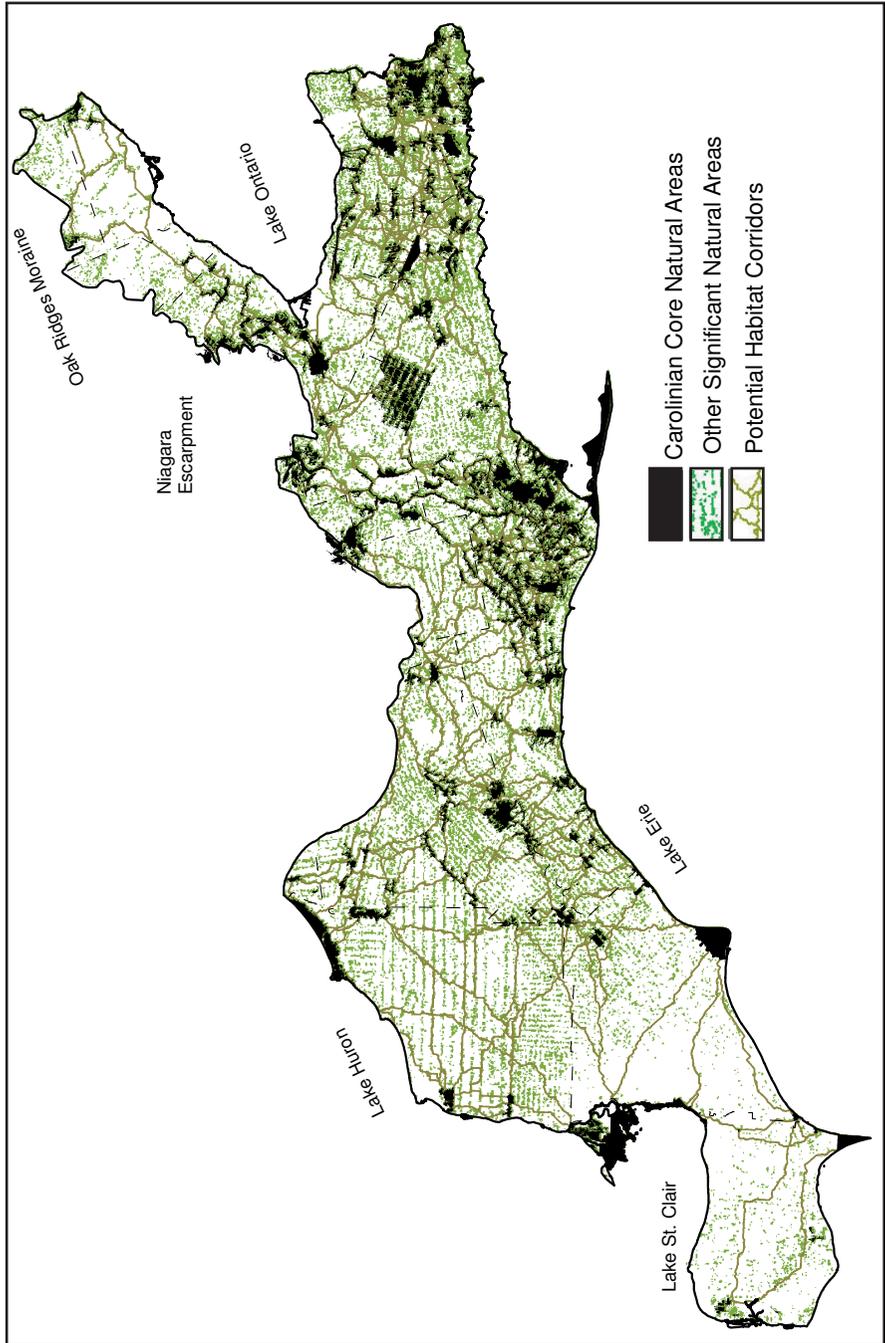
8.0 Develop a Communications and Education Program - Develop and implement a concurrent communications and education plan that will be widely delivered and readily acceptable to a variety of stakeholders (government, industry, landowners, agriculture, First Nations, and NGOs), highlighting the goal and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

9.0 Promote Private Landowner Stewardship, as a primary mechanism for recovery.

10.0 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.

Maps were produced from the Big Picture and Conservation Blueprint data

**Figure 1.** Big Picture Map of Carolinian Canada showing locations of woodlands.



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 the 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 (*Isotria verticillata*), nodding trillium, heart-leaved plantain (*Plantago cordata*), 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 the Carolinian Woodlands.

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