

Exploring the Nature of Climate Change
Implications for the Unique Nature of Southwestern Ontario
Carolinian Canada Coalition Environment & Sustainability Forum 2007 - October 26, 2007, London ON

PLENARY: Anticipated Directions of Climatic Change in the Carolinian Canada Ecoregion

Moderator: Dr. Gordon Nelson, CCC Board Chair & Professor Emeritus, Faculty of Environmental Studies, U. of Waterloo

Speaker: **Ellen Schwartzel**, Senior Manager, Policy Analysis, Environment Commissioner of Ontario

Topic ***What's Cooking? The ECO's Perspective on Climate Change in Ontario***

What is the role of Ontario ministries in addressing climate change? What is their capacity for action? How do recent government initiatives compare to the level of need? Ellen will share the ECO's perspective, and outline some opportunities and challenges for members of the Carolinian Canada Coalition.

Bio: Ellen Schwartzel has been coordinating the research work of the Environmental Commissioner of Ontario since 1996. Ellen has been involved in environmental policy development for almost 20 years, both in provincial government, and in non-government organizations. In the late 1980's she was researcher for the Hon. Jim Bradley, who was the Ontario Minister of the Environment at the time. She also worked for a number of years in research and policy development for both Pollution Probe and the Conservation Council of Ontario. Ellen completed both her B.Sc. and M.Sc. in Botany at the University of Toronto, and grew up under a Sassafras Tree.

Speaker: **Gordon McBean**, Director Policy Studies, Institute for Catastrophic Loss Reduction; University of Western Ontario

Topic: ***A Changing Climate: Implications for the Carolinian Canada Ecoregion***

This presentation will provide a global context of climate change and global responses strategies, including a brief discussion of the UN Climate Convention and Canada's response to it. How the climate is projected to change in the Carolinian region will be discussed. Warmer conditions with more storms are predicted with more evaporation leading to lowering of lake levels. The implications for ecosystems, including human systems, will be described and some response possibilities presented.

Bio: Gordon McBean is Director Policy Studies for the Institute for Catastrophic Loss Reduction and Professor in the Departments of Geography and Political Science at the University of Western Ontario. He has a long involvement in climate change studies as a scientist, professor and manager. He was: Chair, Joint Scientific Committee for the World Climate Research Programme (1988-94) and Professor of atmospheric and oceanographic sciences at the University of British Columbia. He was a lead author for the first and second IPCC Scientific Assessments and is a review editor for the fourth Assessment. From 1994 to 2000, he was the Assistant Deputy Minister, Meteorological Service of Environment Canada and responsible for climate, weather, water and ice science and services. He is now: Chair of the Board of the Canadian Foundation for Climate and Atmospheric Sciences; Chair, International Council for Science International Planning Group on Natural and Human-Induced Environmental Hazards and Disasters Research Programme; Board member, International Institute for Sustainable Development; Co-Chair, START (international environmental science capacity building) Scientific Steering Committee; and member of other committees. His academic training is a B.Sc. (Physics) and Ph.D. (Physics and Oceanography) from The University of British Columbia and a M.Sc., (Meteorology) from McGill University. He is a Fellow of the Royal Society of Canada and of the American Meteorological and the Canadian Meteorological and Oceanographic Societies. He was awarded the 1989 Patterson Medal for distinguished contributions to meteorology.

Speaker: **Michelle Kanter**, Executive Director, Carolinian Canada Coalition

Topic: ***Carolinian Canada's Climate Change Challenge***

Is there a future for the unique nature of southwestern Ontario? The Carolinian Canada Big Picture is our collective vision and plan of action for healthy landscapes in 50, 100, or 500 years based on today's climate. How will climate change affect that vision? Although energy programs in response to climate change are organized and underway across many sectors, landscape programs are just beginning to address climate change. This forum brings together key perspectives to identify major natural heritage issues in the face of climate change for this region. This is our opportunity to be proactive. If we recognize that our natural areas are integral to a healthy ecoregion, together we can begin to develop a conservation strategy for an uncertain future, using the best available knowledge in science and stewardship. Carolinian Canada's Climate Change Challenge is listen, learn, discuss and participate today in initiating an organized response from our conservation community - a Carolinian Canada Big Picture strategy for the future.

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Bio: Trained as a wildlife biologist, Michelle Kanter has undertaken conservation work from the tropical forests of northern Australia to Canada's high Arctic tundra. However, her passion has been conserving Carolinian species and habitats 'back home'. At the Nature Conservancy of Canada, she helped protect some of the best remaining natural areas in the region including Clear Creek Forest in Chatham-Kent and Stone Road Alvar on Pelee Island in Essex. As a consultant, she developed an award-winning community stewardship program and a large part of her career has focused on working with private landowners, rural communities, and municipalities, assisting them in ecological stewardship. She joined Carolinian Canada in October 2003 as Executive Director and since then has been working with local partners on dynamic programs across the landscape. Working with private landowners assisting them in understanding the significance of habitat on their properties has also been part of Michelle's professional work. She was also chair of the City of London's Ecological Policy Advisory Committee in the late 1990s.

CONCURRENT WORKSHOPS (A.M.)

1 – RESEARCH PANEL: Climate Change Effects in Carolinian Canada

Moderator: Dr. Gordon Nelson, CCC Board Chair & Professor Emeritus, Faculty of Environmental Studies, U. of Waterloo

Gordon Nelson is a Distinguished Professor Emeritus at the University of Waterloo where he has taught and done research since 1975. He is Past Chair of the Parks Research Forum of Ontario and the Heritage Resources Centre, University of Waterloo, and is currently active in the conservation and land use field as a member of the Bruce National Park Advisory Committee, the Board of Directors of both Ontario Parks and Community Heritage Ontario. He is Chair of Carolinian Canada Coalition.

Speaker: **Linda Mortsch**, Senior Researcher, Adaptation and Impacts Research Division, Environment Canada

Topic: **Current Understandings of Climate Change Impacts on Wetlands and Waters of Carolinian Canada**

Bio: Linda Mortsch is a senior researcher with the Adaptation and Impacts Research Division of Environment Canada and an adjunct in the Faculty of Environmental Studies at the University of Waterloo. Her research interests include climate change vulnerability, impact, and adaptation assessment in water resources and wetlands as well as climate change scenario development. Linda was the Coordinating Lead Author for the North America Chapter in the recently released Working Group II report on "Impacts, Adaptation and Vulnerability" for the Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change. Her recent research projects include the Great Lakes Coastal Wetland Communities: Vulnerabilities to Climate Change and Response to Adaptation Strategies (www.fes.uwaterloo.ca/research/aird/wetlands) and Upper Thames River climate change vulnerability (http://www.fes.uwaterloo.ca/research/aird/aird_pub/Upper_Thames_Vulnerability_Mapping_Final_Report.pdf).

Speaker: **Chris Lemieux**, PhD candidate, Geography, Faculty of Environmental Studies, University of Waterloo

Topic: **The Policy, Planning & Management Implications of Climate Change for Biodiversity Conservation in the Carolinian Canada Life Zone**

An increasing number of studies indicate that climate change occurring over the past century is *already* having a discernable impact on Earth's ecosystems and species (e.g., changes in species phenology, geographic distribution, and physiology). However, biodiversity conservation system planning approaches in Canada, and indeed globally, have been designed to protect specific natural features, species and communities *in-situ*, and have not taken into account shifts in ecosystem structure and species distribution induced by climatic change. As such, and considering the recent suggestions by the Intergovernmental Panel on Climate Change (IPCC) that Earth is committed to an even greater magnitude of climate change over the next century *regardless* of greenhouse gas mitigation efforts, approaches to biodiversity conservation will *need* to be adjusted to take account of potential climate change-related impacts. This presentation reviews some of the policy, planning, management and research implications of climate change for biodiversity conservation in Canada with specific reference to the Carolinian Canada Life Zone.

Bio: Chris Lemieux is currently a PhD candidate at the University of Waterloo. His research primarily focuses on the implications of climate change for Canada's protected areas policy, planning and management frameworks. Chris has conducted climate change-related research for Parks Canada and the Canadian Council on Ecological Areas (CCEA). More recently, Chris has been working with Ontario Parks in developing a climate change adaptation action plan.

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Speaker: **Don MacIver**, Director, Adaptation and Impacts Research Division, Environment Canada

Topic: ***Climate Change in Carolinian Canada and Its Implications for Rural Residents***

Bio: Don MacIver is the Director of the Adaptation and Impacts Research Division at Environment Canada. He has a long and distinguished research record with over 200 scientific publications to his credit. Don has considerable international experience having represented Canada at numerous scientific meetings of the International Panel on Climate Change (IPCC), UNFCCC Conference of the Parties, Inter American Institute for Global Change Research (IAI), World Meteorological Organization (e.g. Co-Chair of the Organizing Committee for the World Climate Conference – 3), UNESCO's Man and the Biosphere Programme and the UN Convention on Biological Diversity. He has been a Research Associate of the Smithsonian Institution, former Professor at York University and adjunct Professor at the University of Toronto. He worked as a Forest Biometrician and Mensurationist at the Ontario Ministry of Natural Resources before joining Environment Canada as an adaptation scientist. Outside of work, he is a Municipal Politician (Mayor) and County Councillor in Ontario, a beef farmer, and an environmental activist.

2 – STEWARDSHIP PANEL: Best Practices for an Uncertain Future

Moderators: Ron Wu-Winter, Ontario Forestry Association & Jo-Anne Rzadki, Conservation Ontario

Ron Wu-Winter is the Forestry Programs Manager at the Ontario Forestry Association and a Carolinian Canada Coalition board member. Ron has a diverse work and educational background in biology, education and forest conservation – from teaching high school ecology in a small Inuit village on Canada's treeless tundra to his current position promoting the stewardship of forests and administering Ontario's Managed Forest Tax Incentive Program.

Jo-Anne Rzadki is Watershed Stewardship Coordinator for Conservation Ontario. Jo-Anne brings more than 20 years experience leading the development and management of a variety of stewardship initiatives in Ontario; including coordination of the Hamilton-Halton Watershed Stewardship Program for Hamilton Conservation Authority and Conservation Halton for 12 years. She served as a member of the coordinating committee that developed the Grand River Heritage Strategy; was Chair of the Education and Public Awareness Committee of the Hamilton Harbour Remedial Action Plan Forum; is on the board of the Ontario Land Trust Alliance; and has been active as a member of the Carolinian Canada Coalition. She has a Master's degree from the School of Rural Planning at the University of Guelph and Bachelor of Science from the University of Toronto in Biogeography and plant ecology. Jo-Anne has developed a vast network of colleagues and associates on a variety of topics, including watershed stewardship.

Speaker: **Dawn R. Bazely**, Director, Institute for Research and Innovation in Sustainability, York University

Topic: ***Border Crossings - How Can Stewardship Programs in Carolinian Canada Respond to Invasions from the South?***

"An Inconvenient Truth" has educated vast numbers of North Americans about climate change and has challenged us to act. But aside from each of us striving to reduce our personal ecological footprint, various changes to our ecosystems will be driven by a warming climate, and will require action on our part. These include the migration of species northwards. The map of North American hardiness zones has recently been redrawn and many areas have been upgraded by one zone to reflect warmer temperatures. Gardeners will be planting new exciting, frost-sensitive species which themselves have the potential of becoming non-native invaders of natural habitats, or which may host new and unknown pathogens. Additionally, recent invaders such as the Asian long-horned beetle and emerald ash borer will take further hold due to milder winters. Problem plant invaders in the USA such as the blanketing Kudzu Vine are waiting at the Canada-US border. Effective stewardship will not only have to address these new arrivals, but will also have to handle the fact that many of the "Carolinian" woody species of North and South Carolina will not be able to migrate north fast enough to cope with climate change, and we will have to consider transferring these species northwards. Coping with this impending change will be a major challenge in the next 20-30 years and will be a test of recent legislation such as the Greenbelt and Oak Ridges Moraine Acts."

Bio: Dawn Bazely joined the Biology Department in 1990 and is currently Director of York University's Institute for Research and Innovation in Sustainability. She specializes in vertebrate grazer-plant interactions, and her twenty-five year research career has spanned many places and species: lesser snow geese on Hudson Bay, barnacle geese on the Dutch Friesian Islands, domestic sheep on the Oxford University farm and in Shetland, Scotland, wild sheep on St. Kilda, Scotland, and moose and reindeer in Sweden. From 1991 to 2004 she and her many students carried out extensive studies into the impacts of deer herbivory on southern Ontario's deciduous forests.

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Dawn has a B.Sc. in Biogeography and Environmental Studies and a M.Sc. in Botany from Toronto plus a Ph.D. D.Phil. in Zoology from Oxford University. She has published over forty-five articles, chapters, monographs and technical reports. Her recently co-authored book with Judy Myers - Ecology and Control of Introduced Plants (Cambridge University Press, 2003) - received excellent reviews in the academic community in Europe and North America. Bazely has been nominated for teaching awards four times and received York's Faculty of Science and Engineering Excellence in Teaching Award in 2003. She has just received Norwegian and Canadian Government International Polar Year grants of Can \$1.8 million with Gunhild Hoogensen at the University of Tromsø to study the impacts of Oil and Gas Development on Human Security in the Arctic including invasive species.

Speaker: **Barb Boysen**, Coordinator, Forest Gene Conservation Association

Topic: ***Reforestation Challenges – Helping the Seed Fall Farther From the Tree?***

This presentation will examine reforestation and climate change within the context of current reforestation challenges. And these are many. Climate change is yet another driver which requires us to pay more attention to basic restoration principles. The challenges include recognizing how sites will change, how species might change, and how known, high quality seed source is more important than ever (not less as some are saying). The ultimate challenge is getting southern Ontario society to recognize the value of conserving what we've got, or we won't have anything to work with for the future.

Bio: Barb Boysen is the Forest Genetics Specialist in OMNR's Southern Region, working in support of the Forest Gene Conservation Association. A key FGCA program is helping people understand how climate affects choice of seed source as well as species diversity in planting programs. Barb has worked for the FGCA since 1993. Prior to that Barb worked for the OMNR in district, forest science and planning units in Brockville and Sudbury. She graduated with a degree in Forestry from Lakehead University in 1982. Barb lives in Peterborough with her husband and 3 children and manages woodlots in Lanark and Peterborough Counties. Barb has been active with the Ontario Woodlot Association for many years. Most recently she joined the Ontario Urban Forest Council to help better connect urban people to the forest – both urban and rural.

Speaker: **Mark Emery**, Stewardship Coordinator, Ontario Stewardship

Topic: ***Forests For Life and Elgin Landscape Strategy-Integrating Climate Change Issues into Community-based Stewardship Programs***

While we often look to and wait for our political and business leaders to take responsibility for actions to mitigate climate change, development of community inspired initiatives are equally important so everyone is doing their part for positive environmental change. These local actions can range from reducing energy consumption in our homes or banning together as groups and individuals to develop innovative greening initiatives for the community to get involved. Mark's presentation will profile two such local projects which are the Elgin Landscape Strategy and the Forests for Life program with the goal of helping others to learn from and consider developing in their own communities. These projects will demonstrate that yes, everyone can get involved in as big or as little role that they want regardless of age, background or physical abilities. It just takes will, desire and being presented with the right vehicle for change. Promotion of stewardship principles including collaboration, pooling of resources, empowerment, and capacity building respect for private landowners and discovering the morale fabric that holds a community together will be discussed as it pertains to these projects.

Bio: Mark Emery is the Stewardship Coordinator for Elgin County and works out of the Ministry of Natural Resources office in Aylmer. Prior to this role he was the stewardship coordinator in Oxford, Chatham-Kent and Essex counties. He has been with Ontario Stewardship since 1999. Mark has held previous positions with the Ministry of Natural Resources as well including Senior Fish and Wildlife Technician and before that, Aggregate Resources Officer when he started full time with the Ministry of Natural Resources in 1990. Mark is a graduate of the three-year Fish and Wildlife Technology program at Fleming College and prior to that he graduated from a two-year General Business-Marketing program at St. Clair College in Chatham. He believes these programs come together well in his stewardship coordinator role. He lives in London with his wife Wendy and two girls Amanda and Alyson ages 3 and 1 1/2.

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CONCURRENT WORKSHOPS (P.M.)

3 - PLANNING & POLICY PANEL: Adaptations & Benefits of Green Infrastructure

Moderator: Steve Hounsell, Ontario Power Generation

Steve Hounsell is a biologist with over thirty-two years of experience working with Ontario Power Generation (OPG) and the former Ontario Hydro. His particular interests are focused on issues of biodiversity conservation and ecological sustainability and the related disciplines of conservation biology and landscape ecology. Steve currently works in the Corporate Sustainable Development Office of Ontario Power Generation, where he manages OPG's biodiversity portfolio and its carbon sequestration and climate change adaptation program. Steve is also the Past President of Ontario Nature.

Speaker: **Paul Gray**, Coordinator, Climate Change Program, Ministry of Natural Resources

Topic: ***The Challenges of Climate Change in Ontario with Reference to Ecodiversity***

Most, if not all, ecosystems and their constituent organisms (including people) are affected by climate change. It is suggested that success in reducing or eliminating these impacts during the 21st Century will depend on how well human societies around the world embrace sustainable living objectives. Given that we don't know how people are going to behave over the next few decades and therefore don't know how much global warming will influence climatic change, an adaptive approach will be a prerequisite for the successful management of impacts in the 21st Century. Knowing when to act, what actions to take and whether it is wiser to be proactive or to react to changes as they occur exemplify the types of decisions required in a world with a rapidly changing climate. This talk provides an overview of some known and potential climate change impacts on Ontario's terrestrial biodiversity and ecosystems and provides some suggestions to help people respond to climate change.

Bio: Paul coordinates the Climate Change Program for the Ministry of Natural Resources. He attended the University of Waterloo and York University when dinosaurs ruled the Earth. He has worked on a variety of natural asset management projects in Ontario, Alberta, Northwest Territories, and Zimbabwe.

Speaker: **T. Scott Peck**, Planner, Norfolk County

Topic: ***Municipal Tools Available to Deal with Climate Change – A Reality Check***

There is little in the way of policy and planning that deals directly with climate change. There is some direction regarding transportation, redevelopment, intensification and compact form in the Provincial Policy Statement and local official plan policy that are considered in development applications but direction specific to climate change is lacking.

Given this lack of policy direction, pressure to meet local economic development goals and consumer/market demand, current development patterns are not addressing issues associated with climate change. What role does policy and planning take in addressing climate change issues and how is this communicated to the public? What do we need to do to change?

Bio: Scott Peck is a Planner with Norfolk County which is a municipality located in the heart of Carolinian Canada. Since April of 2001 Scott has provided development and policy planning services to Norfolk County with a focus on environmental planning, agricultural land use, nutrient management and ground and source water protection. Scott is the staff liaison for the Norfolk County Environmental Advisory Committee and has been involved with the Carolinian Canada Coalition since 2004. Scott is also the past Chair of the Long Point Foundation for Conservation and is a Director of the Long Point World Biosphere Reserve Foundation.

Scott was previously the Senior Planner with the Hamilton Region Conservation Authority. As Senior Planner, he was responsible for the implementation of the Authority's municipal plan input and review program, policy development and implementation, watershed and sub watershed planning and conservation area master planning. Scott received his B.A. in Geography from Wilfrid Laurier University and a Diploma in Administration from Georgian College of Applied Arts and Technology. Scott is currently working on his Diploma in Public Administration at the University of Western Ontario. He is also a Member of the Canadian Institute of Planners, Ontario Professional Planners Institute and is a Registered Professional Planner. Scott lives outside Vittoria with his wife Cheryl, daughter Abi and son Zachary.

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Speaker: **Dena Lewis**, Manager, Terrestrial and Aquatic Ecology, Ecology Division, Toronto and Region Conservation Authority

Topic: ***The Terrestrial Natural Heritage Strategy (TRCA 2007)***

Terrestrial systems need to be healthy and diverse if they are to have the necessary resilience to evolve and adapt to change. Despite the increase in awareness of conservation issues and concerns for decreasing biodiversity, there continues to be incremental losses of habitat and the quality of remaining habitat continues to decline. Traditional approaches of protecting only the most unique, rare or best example habitats are not enough. Allowing species to become threatened or rare before they are considered significant, leads to perpetual crisis management. It is expensive and the outcomes are uncertain.

The Terrestrial Natural Heritage System Strategy addresses the past and continuing decline in biodiversity in two ways:

- by applying a systems approach that emphasizes the importance of the terrestrial natural heritage system as a single functional unit, rather than as separate natural areas; and
- by determining targets for the quality, distribution and quantity of terrestrial natural heritage needed in the landscape, in order to promote biodiversity and a sustainable city/region.

The Strategy also provides strategic direction for land use and infrastructure planning, land management, stewardship and outreach, as well as monitoring of the ecological integrity of the natural heritage system over time.

Bio: Dena is a Registered Professional Biologist and a member of the Alberta Society of Professional Biologists. She has been an ecologist with the Toronto and Region Conservation Authority for 17 years and is currently the Manager of Terrestrial and Aquatic Ecology. Dena and her team of aquatic and terrestrial ecologists deliver programmes and tools designed to identify, protect and improve the health of the aquatic and terrestrial systems in the Toronto Region. Dena previously worked for over 10 years in Alberta in a diversity of areas such as; the development of the Ecological Land Classification for the eastern slopes, soil and water conservation for Alberta Agriculture, and land reclamation in the Athabasca tar sands.

4 - COMMUNITY ACTION PANEL: Innovative Local Leaders Facing Global Issues

Moderator: Alice Casselman, Association of Canadian Educational Resources

Alice Casselman M. Sc. Ed is president and founder, in 1987, of the Association for Canadian Educational Resources. A High School Science Department Head for most of her teaching career, Alice helped establish outdoor educational and experiential programs with School Boards and at Conservation Authority sites. As founding director for Canadian Outward Bound Wilderness School, Council of Outdoor Educators Ontario, Peel Environmental Network and Environmental Education Ontario, she has encouraged many others to participate in environmental community outreach projects.

Speaker: **Carolyn King**, Co-Chair, New Credit Cultural Committee & **Paul O'Hara**, Blue Oak Native Landscapes

Topic: **Life of the Grove:** The Rehabilitation and Naturalization of the Core Area Lands of the Mississaugas of the New Credit First Nation

Paul O'Hara, Blue Oak Native Landscapes, will join Carolyn in the presentation. Paul was engaged as the consultant on the project. Carolyn and Paul will show pictures of the project and outline how the project came to be, the steps they went through to implement the first stages and the future of the master plan.

Bio: Carolyn King is currently in transition from employment to self-employment. She has just left a 6-year Business Development and Support Officer/ Partnership Development position at Two Rivers Community Development Centre where she assisted in helping develop the business environment for the members of the Six Nation of the Grand River and the Mississaugas of the New Credit First Nation communities. Her goal is to develop a sole proprietor company called JDI Business Services. Carolyn plans to be a facilitator / resource person for Aboriginal / First Nation people in Canada. Some current activities include an engagement as an associate with a consulting firm to update the Comprehensive Community Plan for the Mississaugas of the New Credit First Nation and a Board Member on the Local Health Integration Network (LHIN) for Hamilton Niagara Haldimand Brant area.

Carolyn's 17 years of work experience in the community economic development field includes community and economic development, public relations, planning policies and procedures for the environment. As a First Nation

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employee for over 14 years, she has 'hands-on' experience and an in-depth knowledge of First Nation communities. Her life and work experience brings a life-long commitment to the development of her First Nation community. She is the former elected Chief of the Mississaugas of the New Credit First Nation. She completed one two-year term in political office. Carolyn was the first woman ever elected as Chief in her First Nation and served from December 1997 to December 1999. On a national level in 1996, Carolyn was elected to the newly formed National Aboriginal Capital Corporations Association and served as the Executive Secretary until her election as Chief of her community. Carolyn resides on the Mississaugas of the New Credit First Nation, she is married, has two children and three grandchildren.

Paul O'Hara is a botanist, landscape designer and native plant gardening expert. Since 1991, Paul has worked in a wide variety of horticulture, botanical consulting, ecological restoration and native plant gardening capacities in both the private and public sectors. He is recognized for his work with Species at Risk and natural landscape design. Paul teaches courses, writes articles and speaks widely on plant identification, natural history and native plant gardening. Paul is the owner/operator of Blue Oak Native Landscapes; a business dedicated to creating beautiful natural spaces in the places where we live, work and play. Paul lives in Hamilton, Ontario.

Speaker: **Patricia Rhoads**, Essex Landowner

Topic: ***Steps for Positive Actions***

This talk will focus on finding people in your community wanting to move forward for effective restoration that includes a diversity of habitats, species and community groups. Patricia will share her experiences and discuss opportunities to address climate change while working to improve our environment.

Bio: Patricia Rhoads is a grower of native plants and coordinator of natural habitat restoration projects under a variety of site conditions and with a mix of community organizations. Patricia is well known in Essex and beyond, having served with many local groups including Essex County Woodlot Owners' Association, Essex County Field Naturalists' Club, Christian Farmers Association of Essex County, Natural Habitat Restoration Program, Friends of Marshfield Woods and Canada South Land Trust. In 2003, she received the Carolinian Canada Conservation Award for restoring and monitoring the ecological health of Carolinian habitat in Canada's most threatened ecological region

Speaker: **Ron Casier**, Science Department Head, St. Joseph Catholic High School, St. Thomas

Topic: ***The Power of One and a Lot of Help from Friends***

One teacher, one student and one class are how it all started. Today at the St. Joseph's High School we have a very active Ecology Club, a proactive student-based recycling program involving the entire school, an aquaculture program for restocking Rainbow and Brown Trout and an active seed collecting program and propagation of indigenous species. Our most valued environmental accomplishment is our community partners: the Conservation Authorities, Municipal Governments, Stewardship Council, Provincial Ministries, local clubs and business people, which allow students to participate in a wide variety of environmental initiatives that better our community and preserve our natural history. The entire school gets involved in community projects such as tree plantings, and clean ups.

Bio: Ron Casier graduated from the University of Western Ontario in 1976 with a B. Sc. Honours Biology and from Althouse College in 1977 with a B. Ed. in Biology/Chemistry. He has taught the sciences at St. Joseph's High School since 1978 and is currently the Science Department Head. Since 1999, Ron has taught the Community Environmental Leadership Program and the locally developed Watershed Monitoring and Management course since 2003. Growing up in rural southern Kent County north of Rondeau, Ron's interest in natural history was wetted and has continued to develop since that time. The restoration and expansion of a woodlot on his farm is his personal challenge. Throughout his teaching career, he has tried to engage and excite his students to the natural world that still surrounds them, to make them aware of major environmental issues and give them hope that their actions at the local level have an impact on solving a part of the problem. Development of community partnerships with the school in local environmental and stewardship projects has been his major focus over the last 15 years.