

# ECOLOGICAL LAND CLASSIFICATION FOR SOUTHERN ONTARIO A TRAINING COURSE

October 3 to 7, 2005



Agriculture and  
Agri-Food Canada

Agriculture et  
Agroalimentaire Canada



Gartner Lee Limited



Dougan & Associates  
Ecological Consulting Services

## Master ELC Basics

For ecologists, planners, biologists, geographers, foresters, land managers or land owners who assess and manage natural resources, Ecological Land Classification (ELC) for Southern

Ontario (Lee *et al.*, 1998) provides a tool that allows the identification, description, naming, mapping and monitoring of landscape patterns and communities in a consistent manner. It has been developed by the Ontario Ministry of Natural Resources (OMNR) in response to a growing demand for a standardized method of classifying the range of habitats found across southern Ontario. The ELC system is based on more than five years of data collection and with the advice of the finest ecologists and botanists in the province.

The OMNR is now sponsoring training courses to facilitate the proper application of ELC in the field, and interpretation of data. The goal of the training course is to provide a practical opportunity for participants to acquire skills in the application and interpretation of ELC in Southern Ontario. Skills instruction will include:

- ▲ surficial geology interpretation
- ▲ soils sampling, description and classification
- ▲ delineation of vegetation communities and mapping
- ▲ vegetation inventory and forest cruising techniques and
- ▲ data interpretation and application of the methodology

Many professionals and agencies are already using the ELC system to facilitate their land management activities. It is the provincial standard for vegetation description and will be more widely required as more agencies and municipalities realize the benefits of having a consistent province-wide approach for ecosystem description.

Completion of this course qualifies for Continuing Education Credits for: **Ontario Professional Forester's Association and International Society of Arboriculture.**

## The Course

This is an intensive five-day field course designed to provide hands-on experience in applying the specialized techniques required by the ELC system. In order to maximize opportunities for interactions among instructors and students, classes will have no more than 20 students and between two and four instructors present at all times. Courses are based out of Queens University Biological Station (QUBS), about 50 kilometres north of Kingston, Ontario. Accommodation and meals at QUBS are available for flat rates for the course duration. The course will begin the Monday morning at 9:00 a.m. and conclude at 4:00 p.m. on the Friday. While some previous experience with plant identification and soil description in the field is an asset, the course is suited to all levels of expertise. Fees include five days tuition, the ELC field guide and ELC training manual.



# The Instructors

The ELC courses will be led by an experienced compliment of professionals from Gartner Lee Limited, Dougan and Associates, Ontario Ministries of Natural Resources and Agriculture, Food and Rural Affairs, and Agriculture Canada. This diverse and qualified group have contributed their separate expertise in pedology, ecology, botany, forestry, mapping, land use planning, and teaching to make the training materials comprehensive and robust. The ecologists leading the courses include Harold Lee, Dale Leadbeater, and Ken Ursic, a unique collaboration of private and public sector experience.

## 🌲 Harold Lee, B.Sc., M.Sc.

Harold, with the Southcentral Science and Information Section, Science and Information Branch, OMNR, has been the lead ecologist on the Southern Ontario Ecological Land Classification program since 1992. Harold is the principal developer and author of southern ELC products and provides, with his plant ecology and soils background, the direct link to the ELC program at the training courses. Harold has taught at the University of Guelph, and the University of Ottawa.

## 🌲 Peter Uhlig, Forest Ecologist, B.Sc., M.Sc.

Peter is a forest ecologist with the Ontario Forest Research Institute, with a background in pedology. He has been involved in Forest Ecosystem Classification System development in northern Ontario, as well as Growth and Yield programs, data collection and analysis and staff training.

## 🌲 David Kroetsch, B.Sc. P.Ag.

David is a soil data specialist with Agriculture and Agri-Food Canada specializing in soil survey upgrades and research on soil re-survey techniques using digital information and the spatial and temporal change in soil and landscape attribute information in Ontario.

## 🌲 Eric Wilson, B.Sc.(Agr)

Eric is a land resource specialist and pedologist with the Ontario Ministry of Agriculture, Food and Rural Affairs. He has extensive experience with soil resource mapping and interpretation in Ontario. He is presently involved with soil survey upgrading activities in the Province.

## 🌲 Dale A. Leadbeater, B.Sc., B.Ed.

As a senior biologist with Gartner Lee Limited, Dale has applied the ELC system in a wide variety of projects since 1996 including environmental assessment, subwatershed and land management projects. She has also taught at the University of Toronto, Trent University, York University and Sheridan College.



## 🌲 Dirk Janas, B.Sc.

Dirk is a terrestrial ecologist with Gartner Lee Limited and has conducted land classification throughout Ontario since 1996. He has applied the ELC system for projects of various scale and detail including environmental impact studies, rare species habitat mapping, and secondary plans. Dirk is a trained aerial photo interpreter and has co-instructed plant taxonomy at the University of Guelph.

## 🌲 Ken Ursic, B.Sc., M.Sc.

As a senior ecologist with Dougan & Associates, Ken has participated in the establishment of ELC plot network in Ontario. He has also applied the ELC system extensively in natural heritage resource inventories at the site-specific and watershed scales. Ken has instructed at the University of Guelph and the University of Toronto.

## 🌲 Sam Brinker, B.E.S. Hons.

Sam is skilled in vegetation and wildlife inventory and assessment, is certified in the Ecological Land Classification (ELC) system and the Wetland Evaluation System for southern Ontario, familiar with the Forest Breeding Bird Survey protocol, and has special expertise in restoration ecology and species / habitat sensitivity analyses. Through his work and his volunteer efforts he has contributed to the conservation of 12 Ecologically Significant Areas (ESAs) and conducted inventories for provincially significant ANSI's and wetlands in southern Ontario. He has also documented various Species at Risk and rare communities including prairies, savannahs and alvars in an effort to improve our understanding and the status of these rare natural heritage elements in Ontario.

# Program Outline

## Day 1

- 🌲 Introductions, course objectives and outline
- 🌲 Background to the ecological land classification
- 🌲 Introduction to soils

## Day 2

- 🌲 Application of soils classification
- 🌲 Describing soils in the field: soil pits and augers
- 🌲 Air photo interpretation

## Day 3

- 🌲 Introduction to plant classification and ecological land classification
- 🌲 Using the ELC tools: keys, community tables, data cards
- 🌲 Using related tools: forestry techniques, prisms, field cruising, tally records

## Day 4

- 🌲 Site identification: soil characteristics and plant community descriptions
- 🌲 Mapping polygons by community type, ecosite and vegetation type





## Day 5

- 🌲 Applying the ELC to different types of studies and scales
- 🌲 Practicum 1 (in-class): ELC mapping
- 🌲 Practicum 2 (in-field): ELC data cards
- 🌲 Review and wrap-up



# Networking Form

Please help us to meet your needs and to keep in touch by giving us the following information:

-  I am planning to arrive on Sunday night:  Yes  No
-  I am a smoker:  Yes  No
-  Special Dietary Requirements:  Yes  No Details: \_\_\_\_\_
-  Life Threatening Allergies:  Yes  No Details: \_\_\_\_\_

My area(s) of expertise are:

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I am taking the ELC Training Course because I wish to use it for:

- |   |   |
|---|---|
| <input type="checkbox"/> Land management activities   | <input type="checkbox"/> Background for environmental planning career |
| <input type="checkbox"/> Career development   | <input type="checkbox"/> Ecological restoration                       |
| <input type="checkbox"/> Basic skills   | <input type="checkbox"/> Wildlife applications                        |
| <input type="checkbox"/> Forestry   | <input type="checkbox"/> Watershed planning                           |
| <input type="checkbox"/> Ecological studies   | <input type="checkbox"/> Development of policy and legislation        |
| <input type="checkbox"/> Impact assessment ( <i>Environmental Assessments, Environmental Impact Studies, CEAA</i> ) | <input type="checkbox"/> Other...                                     |

I would particularly like training in:

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I am particularly interested in:

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## Health and Safety

This training is being conducted to provide information for the use of the participants. The instructors, Gartner Lee Limited, Dougan and Associates, the Ontario Ministry of Natural Resources can not be held responsible for the way in which this information is applied by the participants. Participants are responsible for their health and safety. This is a field course, and potential to exposure to biting insects (ticks that may carry Lyme disease, mosquitoes, etc.), poison ivy, poison sumac, among others is very real. Please read the section in the Classroom Manual on Health and Safety, and discuss any concerns you may have with your instructors or family doctor.

I \_\_\_\_\_ agree to indemnify and save Gartner Lee Limited, Dougan & Associates and the Ontario Ministry of Natural Resources harmless from all claims arising in favour of any person, including myself, firm or corporation on account of personal injury (including death) or property damage to the extent resulting from my actions and participation in the Ecological Land Classification training program.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date