



Biological Field School

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Research/Conservation Projects, Courses and Programs

The following is a breakdown of the courses, which make up the core of the International Field Biology Training (FBT) Program along with their unit hours. The prices represent individual costs if students enroll for semester programs. These courses may be taken concurrently, or separate and incorporated into other programs. All costs are subject to changes or alterations as they arise;

Field Biology Training (FBT) Program Courses

The following is a breakdown of the courses, which make up the core of the International FBT Program along with their unit hours and price (in Canadian dollars). These are subject to changes or alterations as they arise;

Level 1 FBT Terrestrial & Wetland Plant Course - (Practical) 20 hours: Fee = \$800.00

Learn the practical applications of how to positively field identify up to 20 families and vascular plants by learning family and characteristics through the use of written descriptions, photographs, physical specimens and examples, when available, diagrams and the eyes of an experienced instructor. This course will prepare the student for any type of job that requires field identification of vascular plants within the eastern half of North America. This course is available as a correspondence course and online and is a prerequisite for the Level 2 Terrestrial FBT Plant course.

Level 1 FBT Terrestrial Bird Course - (Practical) 40 hours: Fee = \$800.00

Students will learn how to positively field identify up to 23 families of birds along with songs and calls of 17 commonly heard birds of the eastern half of North America. This course will prepare students for any job that requires field identification of birds and is available as a correspondence course. It is a prerequisite for the Level 2 Bird Course.

**ACCESS - Data Entry, Collection, Interpretation and
Analysis - (Practical) 20 hours: Fee = \$800.00**

The compilation of field data collection procedures and entry utilizing MS ACCESS are emphasized so that students may perform basic ACCESS operations. This course is an excellent introduction to the art and science of data collection procedures for anyone who wishes to work in field biology conducting research or working as Terrestrial Ecologists and Biologists. This course is available by correspondence and is a prerequisite for the terrestrial International FBT certification courses.

**Geographic Information Systems Applications to the
Environmental Industry & Natural Heritage Systems for
Biologists & Ecologists - (Practical) 20 hours: Fee =
\$800.00**

Data collection techniques from natural heritage assessments and field work are applied using ArcView to generate shape files, delineate polygons and output maps for reports. Some emphasis is placed on mapping Natural Heritage Systems. Basic/Introductory GIS applications are emphasized including how to capture data and using a GPS, using GIS software, shapefile configuration and editing sessions. This is an excellent course for gaining some practical field experience and applying theory to the field situation, or working the environmental industry as a GIS Technician.

**Level 2 FBT Terrestrial Plant Course - (Practical) 20
hours: Fee = \$800.00**

Learn how to practically and positively field identify up to 18 genera of vascular plants and 21 genera of trees/shrubs within the eastern half of North America by direct observation through field/tutorial sessions. Students should have a thorough understanding of how to positively field identify up to 20 families of vascular plants or have taken the Level 1 FBT terrestrial plant course. **Please note**, this course does not concentrate on species identification, but emphasizes similarities and differences between confusing Genera and species. This course is essential for those who wish to find employment that demands field expertise and knowledge of vascular plants. The field manual for this course is "Plant Genera of Ontario", which documents 11 families, 39 genera and 90 species of trees and shrubs in Ontario.

Level 2 FBT Bird Course - (Practical) 40 hours: Fee = \$800.00

Learn how to practically and positively field identify 15 genera of birds and up to 85 songs and calls of commonly heard birds within the eastern half of North America. **Please note**, this course does concentrate on Genera and species field identification. This is an excellent field course for learning how to identify based on visual cues such as body shape, size and the presence or absence of distinctive field marks.

Environmental Assessment (Practical) 24 hours: Fee = \$1500.00 CAD

This course is designed to provide an introduction to the environmental assessment process as part of environmental consulting. The role of environmental consultants is emphasized with respect to how environmental assessments factor into their work. Breeding bird studies and Ecological Land Classification are discussed. This course should prepare people for upcoming consulting work dealing with wind turbine & solar power projects, breeding bird surveys, gas, oil and pipeline projects, etc.

Bat ID & Survey (Practical) 24 hours: Fee = \$1495.00 CAD

In response to the demand to survey bats, including the 3 newly listed endangered species we have designed a certification course which provides training in how to identify bats and perform surveys. Participants will learn about acoustic and transect surveys as part of visual survey methodology and detection. Project constraints according to Ontario Ministry of Natural Resources and Forestry guidance documents and budget will be discussed.

Level 1 Aquatic/wetland FBT plant course - (Practical) 16 hours: Fee = \$800.00

This course features common aquatic/wetland plants of marshes, fens, bogs, deciduous and coniferous swamps. Emphasis is placed on identifying up to 15 - 20 families along with their habitats. It is an excellent course for those performing wetland evaluation work for Conservation authorities, the government or municipalities.

Level 2 Wetland FBT course - (Practical) 16 hours: Fee = \$800.00

This course features common erosion problems encountered in valleylands of watersheds and sub-watersheds along with remedial measures and control, how to delineate and assess wetlands utilizing provincial guidance documents, along with identification. It is an excellent course for those performing wetland evaluation work for Conservation authorities, the government, environmental consulting firms or municipalities.

Specialty Courses

Medicinal plants course (Practical) 30 hours: Fee = \$800.00

Learn the medicinal uses and properties of vascular plants; how to prepare tinctures, herbal teas and concoctions to alleviate ailments such as sore throat, tooth or head aches, depression, anxiety, etc. Plant uses from the Tharu people of southeastern Nepal and the Chocoi of Panama are emphasized. Medicinal plants as foods are also covered. This course is excellent preparation for somebody who is interested in becoming an herbal medicinalist or holistic doctor.

Trees and shrubs of Ontario course (Practical) 30 hours: Fee = \$800.00

Learn 12 - 18 families and 27 genera of trees and shrubs within the 5 forest regions of Ontario, including Ontario's species at risk trees and shrubs are emphasized (endangered, threatened, vulnerable, or special concern). These are the trees/shrubs which are not emphasized well in contemporary field guides. By introducing you to flowers vs. flowering times, typical growth forms during all seasons - winter, spring, summer and winter you will acquire a large volume of field knowledge and experience, normally compiled from years of practical field work, in a very short period of time Field trips to "hotspots" are arranged to search for living specimens.

Level 3 FBT Grass, sedge, rushes of Ontario course (Practical) 30 hours: Fee = \$800.00

Twenty five genera of grasses, 4 main sedge genera and the main genera of rushes are examined to account for up to 85 species in the eastern half of North America. Tall grass prairie species are also studied with a field trip to one of Ontario's largest Tall grass prairie habitats.

Dragonflies of Ontario course (Practical) 30 hours: Fee = \$800.00

This course is designed to introduce students to common dragonfly families and genera typically encountered while performing consulting, wetland or ELC work within the 5 forest regions of Ontario. Roughly 25 species of Odonata are represented.

Butterflies of Ontario course (Practical) 30 hours: Fee = \$800.00

This course is designed to introduce students to common butterfly and some moth families and genera typically encountered while performing consulting, wetland or ELC work within the 5 forest regions of Ontario. Roughly 35 species of Odonata are represented.

Level 3 FBT SAR and Rare plants of Ontario (Practical) 20 hours: Fee = \$800.00

This course is designed for restoration ecologists, Species at Risk Biologist or anybody interested in learning about Ontario's Species at Risk (SAR) plants. Field identification techniques on the species level are taught with numerous field practicums on approximately 18 - 25 SAR plants. The field manual for this course is the "SAR Trees, shrubs and wildflowers of Ontario - volume 1", which documents 26 families, 34 genera and 50 species of SAR plants.

Level 3 FBT Ferns of Ontario course (Practical) 30 hours: Fee = \$800.00

Approximately 30 species of ferns are examined in this intensive field course. Extensive field trips to natural areas in search of ferns are incorporated into the course curriculum. Fern growth and reproductive processes are also investigated.

Level 3 FBT Asters and Goldenrods of Ontario course (Practical) 20 hours: Fee = \$800.00

This course exclusively focuses on difficult to field identify Asters and Goldenrods which may be found in the 5 forest regions of Ontario. Approximately 13 of the 19 species of Goldenrods and 13 of the 18 species of Asters presented in our "Asters and Goldenrods of Ontario" field manual will be covered. Students will benefit from direct observation through field/tutorial sessions with a highly qualified Instructor. Students should have a copy of our "Asters and Goldenrods of Ontario" field manual available for \$100.00. Please note, this course is an intensive field course with a considerable amount of hiking built into its structure.

Mushroom and Fungi Families of Ontario; A course on field identification (Practical) 30 hours: Fee = \$800.00

You will learn how to field identify 19 common mushroom and fungi families of Ontario which are typically found while conducting inventory work. A spore print collection is required to pass this course.

Project Management (Practical) 40 hours: Fee = \$800.00

Learn how to effectively manage and lead field crews using the DISC program. This module focuses on understanding human behaviour and how to communicate with people to motivate them. The concepts of risk reversal, time management, problem solving/critical thinking and conflict resolution are explored. This certification is a prerequisite to applying to Instructor positions at the EARTHQUEST Biological Field School.

Bruce Trail mini course (Practical) 15 hours: Fee = \$160.00

This course explores the history and field methodology of the Bruce Trail Project through site visits to natural areas representing fens, alvars, escarpment, cave and crevice sites in the Bruce peninsula. Students are introduced to the project by learning the systematic field survey methodology required to participate and work on the Bruce Trail project. Flora and fauna survey methods are taught by hiking the Bruce Trail system. Students who successfully pass this course may be selected for paid internship opportunities on the Bruce Trail Project.