



Biological Field School

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Research/Conservation Projects, Courses and Programs, 2010

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 3 month semester programs. Although these courses may be incorporated into 6, 9 & 12 month and 2 year programs individual programs costs are then subject to the length of the program, rather than individual courses. These 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 Terrestrial FBT Plant Course - (Practical) 40 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 genera 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 Terrestrial FBT 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.

GIS - (Practical) 20 hours: Fee = \$800.00

Data collection techniques from census/survey field work are applied using ArcView 9.3 to generate shape files, delineate polygons and output maps for reports. 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 Terrestrial FBT Plant Course - (Practical) 40
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 General 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.

**Level 2 Terrestrial 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.

Principles and concepts of Ecological Land Classification (ELC) Course
 - (Practical) 40 hours: Fee = \$1550.00 (\$1400.00 CAD, if taken with 3
 or more courses)

This is an excellent introductory course on the basic principles and concepts involved with classifying natural areas for management and conservation planning. This course focuses on vegetation and mapping. Prerequisite courses are Level 1 and 2 FBT plants, Level 1 and 2 FAT birds. Students with an interest in obtaining employment with the government in Ontario, Canada, working in the USA, consulting firms or Conservation Authorities would be advised to take this course.

Principles and concepts of Wetland Studies Course
 - (Practical) 40 hours: Fee = \$1300.00 CAD

The provincial and national evaluation system used to classify wetlands based on biotic and cultural factors for management and conservation purposes is emphasized so that participants learn how to delineate and classify wetlands. This course includes an Ontario Wetland Evaluation System (OWES) component, but focuses more on vegetation and mapping. Prerequisite courses are Level 1 and 2 FBT Aquatic/wetland plants. Erosion control, classification and identification as also introduced. Students with an interest in obtaining employment with the government on Ontario, Canada, working in the USA, consulting firms or Conservation Authorities would be advised to take this course.

Environmental Assessment
 - (Practical) 40 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.

Level 1 Aquatic/wetland FBT plant course - (Practical) 30 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 Aquatic/wetland FBT course - (Practical) 30 hours: Fee = \$800.00

This course features common erosion problems encountered in valleylands of watersheds and sub-watersheds along with remedial measures and control, fish spawning habitat, along with identification. It is an excellent course for those performing wetland evaluation work for Conservation authorities, the government or municipalities.

Specialty Year 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.

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

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.

Grasses, sedges, 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 SARs and Rare plants of Ontario (Practical) 40 hours: Fee = \$800.00

This course is designed for restoration ecologists, Species at Risk Biologist or anybody interested in learning about Ontario's SAR plants. Field identification techniques on the species level are taught with numerous field practicums on approximately 50 - 60 SAR plants.

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.

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.

Management/Leadership (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.