



Identification of Ontario's Benthic-invertebrate Families

A course co-hosted by Conservation Ontario and the
Ontario Ministry of Environment and Climate Change

20-22 February 2018

Dorset Environmental Science Centre
(1026 Bellwood Acres Road, Dorset, Ontario)

Instructors:

Chris Jones¹,
Sarah Sinclair²

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COURSE ANNOUNCEMENT

Purposes:

- (1) To fast-track the process of learning family-level benthic-invertebrate identification
- (2) To prepare registrants for the family-level certification exam that is administered by the Society for Freshwater Science's (SFS's) Taxonomic Certification Program

Instructors:

Chris Jones is the Ontario Ministry of the Environment and Climate Change's benthic-invertebrate-biomonitoring scientist. His research is aimed at improving biomonitoring methods by better characterizing reference conditions for Ontario's waterbodies, deriving biocriteria (numerical pass/fail thresholds) for biomonitoring indices, and understanding sources of variation in benthic community composition. Chris is an SFS-certified taxonomist, and coordinates Ontario's Benthos Biomonitoring Network (a province-wide, lake-, stream-, and wetland-biomonitoring collaboration). He is also a student in Laurentian University's Boreal Ecology Ph.D. Program.



Sarah Sinclair is posted at the Dorset Environmental Science Centre as Conservation Ontario's Biomonitoring Technician. Sarah is an SFS-certified taxonomist. She oversees the OBBN's quality-assurance program by checking taxonomic identifications and enumerations for hundreds of samples each year. She is a graduate of Fleming College in the Ecosystem Management program.



Format:

To pass the SFS certification, taxonomists must have mastered the terminology used in family-level keys; they must have learned the characters that distinguish families in each major group of invertebrates; and they must have studied a wide variety of specimens, so they understand the morphological variability that exists within families. This course provides students an opportunity to acquire such skills and experience. Emphasis is on taxa from eastern North America (especially Ontario).

The course provides an intensive 3 days of learning (9 am to 5 pm). Lectures and demonstrations will proceed for most of each day, with a portion of each afternoon reserved for instructor-guided practice (students will identify their own, or provided, specimens). Optional evening sessions (7-9 pm each day) will review important concepts.

Taxonomic Groups Covered

Day 1 (20 February 2018): Families in Ephemeroptera, Anisoptera, Zygoptera, Hemiptera, Megaloptera, Trichoptera, and Lepidoptera

Day 2 (21 February 2018): Families in Plecoptera, Coleoptera, and Diptera

Day 3 (22 February 2018): Families (or higher taxonomic ranks) in Coelenterata, Platyhelminthes, Nemata, Annelida, Mollusca, Isopoda, Amphipoda, and Hydrachnidia

Registrants who demonstrate proficiency during the course are encouraged to challenge the Society for Freshwater Science's (Stroud Centre) taxonomic certification exam. The exam may be written online at the Dorset Environmental Science Centre at 10 am on the day following the course (23 February 2018). A \$100 USD fee (payable to SFS) applies.

Suggested Equipment:

Students will require a microscope, benthic-invertebrate specimens, laboratory tools (e.g., forceps), and taxonomic references. We will be referring to *An Introduction to the Aquatic Insects of North America, 4th Edition: Merritt, Cummins and Berg* specifically during the course. A limited supply of equipment will be provided at the course; however students are asked to be as self-sufficient as possible. Registrants having access to their own stereo microscope, preferred taxonomic keys, or other resources are encouraged to bring them. Microscopes that provide acceptable illumination of benthic-invertebrate specimens, and have magnification of at least 40X, are suitable. Students planning to write the SFS certification exam are encouraged to bring their own laptop.

Hospitality:

Registrants are responsible for their own meals and lodging. There are local accommodations nearby at the Nordic Inn, Dorset. There is one grocery store in Dorset and a couple of restaurants that are open during the winter. There is also the option of staying in either Bracebridge or Huntsville and carpool daily (30 - 45 min). There are several restaurants, grocers, hotels, motels and bed & breakfasts in those towns.

Course Fee: \$350 (plus HST and registration service fee)

Registration Process:

We can accommodate up to 25 students. Registration is first-come-first-served.

Register on-line at: https://www.regonline.com/familyidworkshop_Feb_2018

Contact Sarah Sinclair for further information: (705) 766-2427 or obbn@ontario.ca

Course Location:

