

ONTARIO FISH IDENTIFICATION WORKSHOPS 2025

A variety of courses are being offered this year:

- **Three-day introductory workshop** that will cover the broad array of Ontario fish families and provide an opportunity to develop specialized knowledge of a group of interest.
- **Four-day introductory workshop** that will cover the same information as the three-day introductory workshop but has an additional day in the field (Marden Lake/Eramosa River) with Jason Barnucz and Robin Gaspardy from Fisheries and Oceans Canada, and ROM staff. A presentation on preservation, documentation, photographing and sampling tissues for genetic studies will also be given in the field.
- Two-day workshop on **fish species-at-risk** in Ontario.
- Two-day workshop on **Great Lakes invasive fish species**.
- Three-day workshop on **Ontario carps and minnows**, including the families: Cyprinidae, Leuciscidae, Tincidae, and Xenocyprididae.

Presentations & Exercises:

PowerPoint presentations and hands-on exercises will familiarize you with the characteristics that are used in distinguishing families, genera, and species. Approximately half the classroom time will be devoted to hands-on exercises, where you will develop your skills of counting, measuring, and examining the pertinent anatomical structures that are necessary to use identification keys to Ontario's fishes, as well as testing your ability to key fishes to family and species. A reference collection of all Ontario freshwater fishes of a variety of sizes will be made available so that you can specialize in a group of your choice.

The introductory workshops have 9-10 hours of hands-on exercises, which are interspersed between presentations, including a special presentation on *Barcoding and eDNA of fishes*, given by Dr. Bob Hanner, Dept. of Integrative Biology, University of Guelph.

Workshops will be held at The University of Guelph, and experienced staff from both the ROM and Fisheries and Oceans Canada will be on hand to assist you with exercises, provide advice, and access the specimens housed in the reference collection brought from the ROM.

Workshop Course Materials

Workshop registration for the **Introductory Workshops** includes a complimentary copy of the second edition (2022) of *The ROM Field Guide to Freshwater Fishes of Ontario*, lab manual of PowerPoint presentations, and a revised *Keys to the identification of Ontario Freshwater Fishes* by E. Holm and B. Wells.

The **Minnow workshop** includes a lab manual of PowerPoint presentations, and an identification key to Ontario's minnows and carps.

The **Great Lakes Invasive Fishes** workshop includes a complimentary copy of the second edition (2022) of *The ROM Field Guide to Freshwater Fishes of Ontario*, and a lab manual with PowerPoint presentations illustrating the identification of invasive and potentially invasive fishes to the Great Lakes with similar-looking native fish species.

The fish **Species-at-Risk workshop** includes a lab manual with PowerPoint presentations illustrating the identification of fishes at risk and other similar-looking fish species. You are expected to bring your *Field Guide to Freshwater Fishes of Ontario* and manual "*Keys to the identification of Ontario Freshwater Fishes*" that you received at the introductory workshop, as we will not supply a second copy free of charge.

Also included in electronic format:

- Electronic random-access key to minnows of Ontario
- Illustrated glossary of terms used in the electronic minnow key
- Habitat preferences of Ontario minnows
- Ontario recognized common and scientific fish names and OMNRF species codes
- Selected bibliography useful in the identification of Ontario's fishes
- Companies that sell supplies for collecting, identifying, and documenting collections
- Useful fish-related websites

Tests

The introductory workshop will conclude with a 30-minute slide test, and a 1.5-hour specimen test. The minnow workshop will include a test jar of 20 assorted minnows to be completed during the workshop and a specimen test at the end of the workshop. The species-at-risk and Great Lakes invasive fishes workshops will conclude with a 1.5-hour specimen test. A passing grade of 70% is required for all workshops to obtain a certificate.

Resource Staff

- Erling Holm, ROM Departmental Associate
- Mary Burridge, ROM Assistant Curator
- Brenna Wells, ROM Technician
- John Furlone, ROM Technician
- Jason Barnucz, Fisheries and Oceans Canada
- Robin Gaspardy, Fisheries and Oceans Canada

Books and Fish Viewers

We offer two books and three sizes of fish viewer for sale, for pickup at the workshops, reserved through the following link: <https://forms.office.com/r/ZpT3N4Pf9n>

- Freshwater Fishes of Canada by W. B. Scott and E. J. Crossman (1978)* - \$100
- Fishes of the Great Lakes Region by C. L. Hubbs, K. F. Lagler, Revised by G. R. Smith (2004) - \$35
- Chub viewer with inside dimensions 1.25" wide x 6.0" long x 3.0" deep – \$30
- Sunfish viewer with inside dimensions 1.5" wide x 12.0" long x 8.0" deep – \$40
- Trout viewer with inside dimensions 3.0" wide x 18.0" long x 8.0" deep - \$50

*Note that the former is not a revised edition. There are plans for supplements, which include accounts for species new to the fauna, updated distribution maps, and revised keys.

If you conduct fieldwork, identification of small living fishes in the field is facilitated by viewing and photographing them in Plexi-glass fish viewers. We recommend that all fish crews have at least a small "Chub" viewer, which helps to keep a fish alive during its identification in the field and results in a better photograph for identification confirmation.