

100 Queen’s Park

Toronto, Ontario

M5S 2C6

**2023 ONTARIO FISH IDENTIFICATION WORKSHOP**

If you are a fisheries biologist or a student registered in a fisheries biology program, the Royal Ontario Museum (ROM), Department of Natural History provides an opportunity to improve your fish identification skills. The workshops are designed primarily for professionals, technicians, field biologists, and environmental consultants -- but other interested individuals, including university and college students, are welcome.

This three-day introductory workshop will cover the broad array of Ontario fish families and provide an opportunity to develop specialized knowledge of a fish group of interest. PowerPoint presentations and hands-on exercises will familiarize you with the characteristics that are used in distinguishing families, genera, and species. Exercises will develop your skills of counting, measuring, and examining the pertinent anatomical structures that are necessary to use identification keys to Ontario’s fishes. Workshops will be held at The **University of Guelph**, and experienced staff from the ROM will be on hand to assist you with exercises, provide advice, and access the specimens housed in the reference collection brought from the ROM.

# Introductory Workshop Presentations

* Fish anatomy
* Families of fishes
* Lampreys, gars, herrings, pikes, suckers, and catfishes
* Trouts and salmons
* Minnows
* Sculpins, temperate basses, sunfishes, perches and gobies
* Barcoding and eDNA of fishes, given by Dr. Bob Hanner, Dept of Integrative Biology, U of Guelph.
* Review

**Hands-on exercises**

Approximately half the classroom time will be devoted to hands-on exercises, which focus on anatomical characteristics that separate species and test your ability to key fishes to family and species. The remaining time focuses on presentations, group identification, and testing. 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 workshop has 9-10 hours of hands-on exercises, which are interspersed between presentations.

# Tests

The introductory workshop will conclude with a 30-minute slide test, and a 1.5-hour specimen test. A passing grade of 70% is required to obtain a certificate.

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# Workshop Course Materials

Workshop registration for the introductory workshop includes a complimentary copy of the second edition (2022) of *The ROM Field Guide to Freshwater Fishes of Ontario,* and two spiral-bound lab manuals. These lab manuals include PowerPoint presentations (which will be sent electronically in advance of the workshops) and a revised *Keys to the identification of Ontario Freshwater Fishes.* Laminated guides to redhorse suckers and blackline shiners will be available on request for $2 each at the workshop. Also included in electronic format:

* Random access electronic 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

# Time & Place

Time: The workshop has been scheduled for: Wednesday June 21 – Friday June 23, 2023

All workshops will begin promptly at 9AM and end at 5PM.

Place: **University of Guelph**, Science Complex, Room 2304 (highlighted in green on attached map)

Time:

# Resource Staff

* Erling Holm, ROM Departmental Associate
* Mary Burridge, ROM Assistant Curator
* Brenna Wells, ROM Technician Assistant

# What to Bring

Microscopes and dissecting tools will be made available for your use. You are welcome to bring some of your own collections of fishes. We will endeavour to assist you as much as possible to make positive identifications.

# Books and Fish Viewers

If you would like a copy of *Freshwater Fishes of Canada* by W. B. Scott and E. J. Crossman (1978) and *Fishes of the Great Lakes Region* by C. L. Hubbs, K. F. Lagler, Revised by G. R. Smith (2004), they can be pre-ordered (see registration form). 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. If you are interested in purchasing one or more of the following plexi-glass fish viewers, note this on the registration:

* 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

COVID protocols may be required (proof of vaccination, masks, waivers) depending on the status of the pandemic at the time of the workshops.

# Nearby Accommodation

* Days Inn, 785 Gordon Street, Guelph. Reservations: (519) 822-9112
* Delta Hotels Guelph Conference Centre, 50 Stone Road West, Guelph. Reservations:

(519) 780-3700.

Both hotels are a 5-minute walk to the Science Complex.

**Travel**

See attached map. If you are driving into Guelph for the day, please allow ample time to arrive. The closest parking lot to the Science Complex is P31.

# Registration/Cancellation

To inquire about availability or reserve a spot in this workshop, contact Cathy Dutton by phone or e-mail (see below). Print a copy of the registration form and e-mail it to:

Cathy Dutton

Telephone: 416-586-5894 E-mail: cathya@rom.on.ca

# If you need to cancel your registration, the registration fee will be refunded to you minus a $50 administration charge if you cancel up to within two weeks of the workshop. None of the registration fee will be refunded if you cancel less than two weeks before the date of your workshop.

**Additional Information:**

For information about course content or matters other than registration, contact:

Mary Burridge, Department of Natural History (Ichthyology), Royal Ontario Museum 100 Queen’s Park, Toronto, Ontario CANADA M5S 2C6

e-mail: workshop-ichthyol@rom.on.ca

