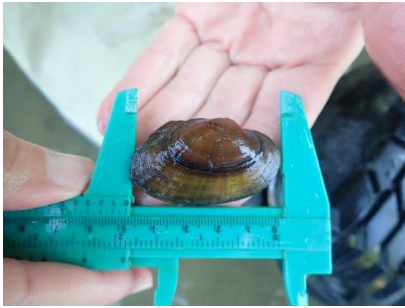


Michigan Freshwater Mussel Identification Certification

Sponsored by the Michigan Chapter of the American Fisheries Society and Michigan Department of Natural Resources Fisheries Division



March 22nd, 2023
Shanty Creek Resort
Bellaire, Michigan



Conducted by Dave Strayer, Freshwater Ecologist, Cary Institute of Ecosystem Studies (retired), Kesiree O'Brien and Cleyo Harris, Aquatic Ecologist and Fisheries Biologist from the Michigan Department of Natural Resources, Fisheries Division

Freshwater mussels are one of the most imperiled faunas in the world as well as notoriously challenging to identify. There are multiple ways these animals are protected under state and federal statute. As a result, this leads to additional scrutiny for those interested in handling freshwater mussels. To help individuals explicitly show their competencies with handling these organisms, a mussel identification test was developed.

Who needs to be certified? Beginning in 2024, the Michigan Department of Natural Resources Fisheries Division will only issue Scientific Collectors Permits to contactors who are certified in Michigan Freshwater Mussel Identification. To be certified means the person has successfully passed the Michigan Freshwater Mussel Identification Test. "Contractors" are defined as an individual or company hired to conduct freshwater mussel surveys within the State of Michigan. If the contractor holds an Ohio Freshwater Mussel Certification, that can be submitted with the Scientific Collectors Permit application in lieu of the Michigan certification. Contractors (or subcontractors) will need at least one person in their field unit that is certified in freshwater mussel identification.

If the permit applicant is not a "Contractor" including students, academics naturalists, etc. a certification is not required to obtain a Scientific Collectors Permit for mollusks, but it is recommended.

Where – Shanty Creek Resort. <https://www.shantycreek.com/> 5780 Shanty Creek Road, Bellaire, MI 49615.

When – Wednesday, March 22nd from 1:00 p.m. to 5:30 p.m. Group 1 starts at 1:00pm. Group 2 starts at 3:30pm. Registrants will be informed which group they are assigned to prior to the test day.

Cost- No cost is required for this certification opportunity.

Lodging arrangements are not included in registration. Hotel reservations can be made at the Shanty Creek Resort <https://www.shantycreek.com/> by calling 866-486-7790. Please ask for the Michigan AFS block of rooms to get the group rate of \$85 per night. The block of rooms will be released on February 22nd so please make your reservation before then! (Check in will be at 5pm on March 22nd).

To register for this workshop please visit the MIAFS website: <https://michigan.fisheries.org/annual-meetings/upcoming-meeting/>.

This testing opportunity is limited to 20 participants. Please register by February 22nd. We expect to offer two additional testing opportunities in the summer (Lake Superior State University) and fall (University of Michigan) of 2023 (date TBD).

Additional Details for Test Takers

What species may be included in the test ?

Federally Listed Species (5 species)

Epioblasma torulosa rangiana (northern riffleshell)
Epioblasma triquetra (snuffbox)
Obovaria subrotunda (round hickorynut) (currently proposed for federal listing)
Pleurobema clava (clubshell)
Villosa fabalis (rayed bean)

State-listed species (11 species)

Alasmidonta viridis (slippershell)
Cyclonaias tuberculata (purple wartyback)
Lampsilis fasciola (wavyrayed lampmussel)
Ligumia nasuta (eastern pondmussel)
Ligumia recta (black sandshell)
Obliquaria reflexa (threehorn wartyback)
Obovaria olivaria (hickorynut)
Simpsonaias ambigua (salamander mussel)
Toxolasma lividum (purple lilliput)
Toxolasma parvum (lilliput)
Truncilla donaciformis (fawnsfoot)

Non-listed species (25 species)

Actinonaias ligamentina (mucket)
Alasmidonta marginata (elktoe)
Amblema plicata (three-ridge)
Anodontoides ferussacianus (cylindrical papershell)
Corbicula sp.
Cyclonaias pustulosa (pimpleback)
Elliptio complanata (eastern elliptio)
Eurynia dilatata (spike)
Fusconaia flava (Wabash pigtoe)
Lampsilis cardium (plain pocketbook)
Lampsilis siliquoidea (fat mucket)
Lasmigona complanata (white heelsplitter)
Lasmigona compressa (creek heelsplitter)
Lasmigona costata (flutedshell)
Leptodea fragilis (fragile papershell)
Pleurobema sintoxia (round pigtoe)
Potamilus alatus (pink heelsplitter)
Ptychobranchus fasciolaris (kidneyshell)
Pyganodon sp. (including *P. grandis* (giant floater) and *P. lacustris* (lake floater); identification required only to the genus level for these species)
Quadrula quadrula (mapleleaf)
Strophitus undulatus (creeper)
Truncilla truncata (deertoed)
Utterbackia imbecillis (paper pondshell)
Venustaconcha ellipsiformis (ellipse)
Villosa iris (rainbow)

How is the test administered?

- The test includes 50 shells in total, including at least one specimen of all mussel species listed above (if any species are excluded because test specimens are unavailable, you will be told this before you begin the test).
- The test may include more than one specimen of some species.
- All specimens will be glued shut, so you won't be able to see inside the shells (as if you were identifying a live specimen in the field).
- Specimens will be typical adult examples of each species, with no "trick" shells, deformed or pathological specimens, tiny juveniles, etc.
- Shells will be grouped into 10 stations, each station containing 5 shells. You will have 12 minutes per station, for a total of 120 minutes. You will not be able to go back to re-examine shells after you've left a station.
- You may use any notes or books that you could reasonably be expected to use in the field, but no smart devices. You may answer using either scientific or common names (not both, please), and minor misspellings, errors in gender of species names, or use of outdated or commonly used alternative scientific names won't count against you.

What is considered a passing score?

A test is considered passing if ALL of the following criteria are met: (a) all federally listed species correctly identified; (b) no more than 1 specimen of state-listed species misidentified; and (c) no more than 3 specimens of non-listed species misidentified.

What happens after the test is administered?

We will contact you within 1 week to tell you whether you passed, and to let you know which species (if any) you misidentified. If you passed the test, we will provide an electronic certificate stating that you passed Michigan's mussel identification test that can then be attached to future Scientific Collector's Permit Applications. The certification is good for five years. Please note that the certification asserts only that you passed Michigan's mussel identification test. To conduct mussel surveys in Michigan, you will also need to be familiar with the Michigan mussel survey protocols (<https://mnfi.anr.msu.edu/resources/michigan-mussels>), and there may be additional project-specific requirements as well.

A participant who did not meet the passing criteria may retake the test when it is next offered.

Who can I contact for additional information about the test?

Dave Strayer: strayerd@caryinstitute.org

Kesiree O'Brien: OBrienK7@michigan.gov

Cleyo Harris: HarrisC9@michigan.gov

For questions on Scientific Collectors Permits, contact Tom Goniea: Gonieat@michigan.gov