

Short Ears, Long Tales

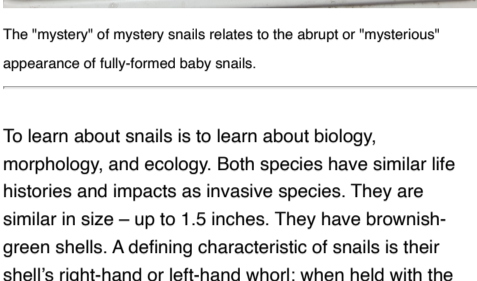
Courte Oreilles Lakes Association

Invasive Mystery Snails

Allison Slavick
Contributing Writer

What do you call a baby snail? There's probably a corresponding joke but, unfortunately, there's not a good Scrabble word like cygnet (baby swans), pollywog or tadpole (frogs, and technically a larval stage and not a baby), or joey (opossum). Baby snails are called just that – baby snails. There are two invasive snails found in Lac Courte Oreilles and Little LCO: the Chinese mystery snail and the banded mystery snail. The brown mystery snail is one of our native snails.

What's the mystery? It relates to their natural history. The females give birth to live baby snails with fully formed miniature shells. In captivity, the babies suddenly and "mysteriously" appear. Like all invasives, these two arrived via human activities. The Chinese mystery snail was imported from Asia for food on the west coast of the US and spread to lakes around the country. The banded mystery snail, native to the southeast US, has attractive red stripes that circle its shell, making it a popular addition to home aquaria and ornamental ponds, and it likely was introduced through dumping aquarium water outdoors or draining ponds.



The "mystery" of mystery snails relates to the abrupt or "mysterious" appearance of fully-formed baby snails.

To learn about snails is to learn about biology, morphology, and ecology. Both species have similar life histories and impacts as invasive species. They are similar in size – up to 1.5 inches. They have brownish-green shells. A defining characteristic of snails is their shell's right-hand or left-hand whorl: when held with the shell's tip upright, the opening for the body will be on the right or left. Mystery snails are right-handed. They live around four years (females live a little longer). Their preferred habitat is shallow warm water among aquatic plants and soft, mucky, or sandy lake bottoms. Both have an operculum – a protective oval plate that covers the shell's opening when the snail retracts inside – and this structure has given the Chinese mystery snail the common name of "trapdoor snail."

So far, mystery snails seem to live in harmony with native populations. They compete with native snails for food and habitat although there's no evidence that they contribute to drastic changes in native snail populations. They reproduce rapidly and often, however. The largest Chinese mystery snails have given birth to up to 133 babies at a time. The banded mystery snail has a record of invading the nests of largemouth bass, where they contribute to the death of fish eggs. There are a few cases in which the banded mystery snail has carried a parasite that infected migrating ducks.

Kris Larsen, Citizen Lake Monitoring and Invasive Species Specialist with the Wisconsin Department of Natural Resources, enters invasive species records for nine counties in northern Wisconsin into a statewide database. In his region about 500 people monitor water quality and many report invasive species as well, or bring specimens to the DNR for identification. "We offer training for people who want to look for all kinds of invasives, and [maintain records](#) on their location," he said. DNR staff report on invasives, too, that they discover during field work.



Chinese mystery snails collected in just one outing on a lake in Bayfield County. Note the quarter for size comparison.

In LCO, the first Chinese mystery snail was reported in 2005, but the banded mystery snail wasn't reported until 2017. The records may be incomplete. "Citizen monitoring data provides us with an accurate picture of where aquatic invasive species are and how abundant they are in various lakes. The more eyes we have looking for these snails and other invasive species, the better we can understand their long-term impacts to Wisconsin lakes, and manage them when necessary," says Paul Skawinski, Statewide Educator, [Wisconsin Citizen Lake Monitoring Network](#).

Up in Bayfield County, a number of lakes have more significant populations of both species, including the large Lake Namekagon and Lake Owen. One person in Bayfield County has made it her mission to control the population on the small lake where she lives. Let's call her the Mystery Snail Eradicator, Ms. E, as she asked to remain anonymous. Over the past decade or so she has attended five training programs as a citizen scientist to gain the knowledge and skills needed to do biological assessments of wetlands. While living in Eagan, Minnesota, she found the snails in every pond she visited, often with goldfish. Now, she has made it her mission to control invasive snails on the small lake where she lives in northern Wisconsin.

Sitting on the porch lined with flowers and hummingbird feeders with Ms. E on a hot summer afternoon, she filled me in on her efforts to eradicate snails. "In Minnesota, my first clue that the snails were invasive was that there were a lot of them. On this lake I've found them primarily in the bay where the public landing is, so that's probably how they arrived – on someone's boat. We're lucky because the water is kayak, so I can easily find them." Ms. E said that she kayaks, snorkels, and walks near shore to pick up the snails. Walking is her least favorite method, as she doesn't like disturbing the sediment and the risk of stepping on creatures that live there, like crayfish. She wears a wetsuit when she snorkels, which allows her to stay in the water longer.

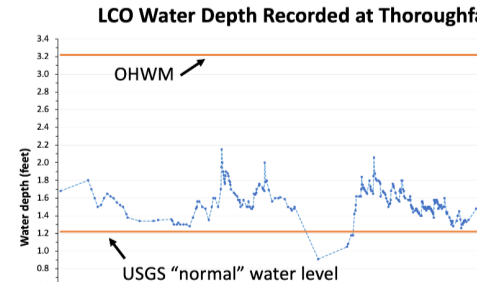
Ms. E showed me two mesh bags that she pins to her wetsuit to allow her hands to be free. She places the snails she collects in the bags as she swims. "I'm diligent about it, and I rarely find big ones anymore. I enjoy the quietness of snorkeling and find it meditative. Last summer, during the peak of the pandemic, I'd go out very often. I'd say I was going 'snailing,' which has become a verb in our house." One time, she and her husband used a dive buoy to allow them to submerge into water 15 feet deep, and she found the largest snails there.

I asked what she did with the snails, and she referred me to a Citizen Science [publication](#). One method involves a common appliance everyone has (don't freak out – it's not a blender). She herself uses a method, or rather, her husband does, that is not mentioned in the document but she declined to tell me what it is. "At first, as a humanitarian, I tried taking them away from the water. But they eventually made their way back. It did take them a while." She does practice a form of forced servitude: if she finds a particularly big snail, she puts it in her bird bath for a day to allow it to eat all the algae; she also uses this method for a water tank in which she collects rainwater for her garden. "After a day, the tank is perfectly clean." In Wisconsin, having mystery snails is "restricted," which means you're not allowed to have them in your possession.

Ms. E mentioned some neighbors who collected a dozen or so larger snails and tried eating them, with butter and garlic in the traditional French way. "Disgusting," is how they described it," she said. "But it wasn't the flavor, it was the amount of grit. They'd washed them many times but there was still a lot of grit." Others have described the snails as "chewy" and "like eating rubber bands."

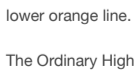
Are there any natural predators? "Muskrats," Ms. E said. "I often find little piles of broken shells all around the shore. We're lucky to have muskrats on the lake." While the banded mystery snail is known to carry many parasites, there have been no studies to determine if either species is included in the life cycle of swimmer's itch. The experts say "not likely." As far as we know, that temporary summer malady is restricted to the life cycles of native snails and waterfowl.

What can you do to stop the spread of these two invasives? Participate in a monitoring program, learn to identify them, and report your findings. Clean boats before and after you launch, remove plants and any attached animals, and drain all water. Like Ms. E, become active in taking care of your lake.



STATE OF THE LAKES
KEVIN HORROCKS, COLA PRESIDENT

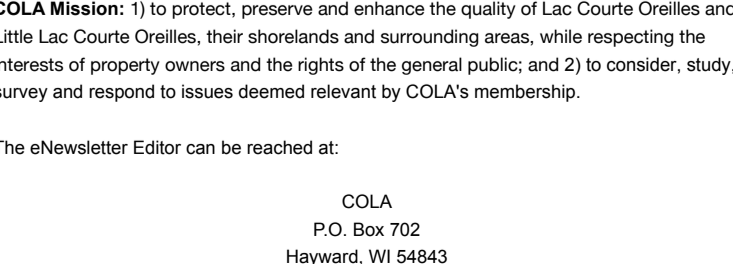
Click [here](#) for the 2020 report.



Allison Slavick works as a consultant to nonprofits all over the country, especially museums. For fifteen years she directed the Cable Natural History Museum, and previously worked as a scientist at the New York Botanical Garden and the Smithsonian Institution. She mountain bikes, skis, and picks berries near her home on Crystal Lake in southern Bayfield County.

Questions, comments, or suggestions for future articles may be sent to her at allison.slavick@gmail.com.

LCO Water Depth Recorded at Thoroughfare Bridge Gauge



Volunteers regularly monitor the depth gauge at the Thoroughfare bridge. The gauge and the chart readings are in tenths of a foot (1/10 foot = 1.2 inches). The first point on the chart, June 27, 2017, was when the gauge was first installed. The gauge was moved to the upper end of the bridge abutment on 4/15/21. The USGS "normal" water surface elevation for big LCO is 1287 feet and is represented by the lower orange line.

The Ordinary High Water Mark (OHWM) is represented by the upper orange line. The OHWM establishes the boundary between public lakebed and private land, was established for big LCO in 1955 and is 1289.27 feet above mean sea level. The OHWM is "the point on the bank or shore up to which the presence and action of the water is so continuously as to leave a distinct mark either by erosion, destruction of terrestrial vegetation or other easily recognized characteristic."

Periodic readings are recorded as accurately as reasonable. The water itself is in perpetual motion, not only flowing downstream but rising and falling due to waves, the current in the channel, the wind which can actually push water and "stuck" it toward one end of the lake or the other and the seiche effect caused by the gravitational pull of the moon and sun.

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COLA Mission: 1) to protect, preserve and enhance the quality of Lac Courte Oreilles and Little Lac Courte Oreilles, their shorelands and surrounding areas, while respecting the interests of property owners and the rights of the general public; and 2) to consider, study, survey and respond to issues deemed relevant by COLA's membership.

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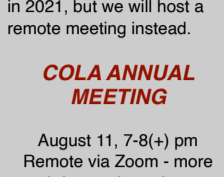
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COLA NEEDS YOUR ONGOING SUPPORT

Please consider a tax-deductible donation today!

DONATE



COLA's not quite ready for an in-person annual meeting in 2021, but we will host a remote meeting instead.

COLA ANNUAL MEETING

August 11, 7-8(+) pm
Remote via Zoom - more info. at a later date

Draft Agenda:

- Welcome & Introductory Comments
- COLA's New Organizational Structure
- COLA Financial Report
- Site Specific Criterion and other Regulatory Updates
- Report on State of the Lakes
- Fundraising & Legacy Planning
- Q&A



THE ECO-BEAST IS WORKING HARD

Terrell Boettcher wrote a [nice article](#) about the Eco-Beast for the July 7, 2021 Sawyer County Record. Many thanks to Terrell for showing COLA and the LCO Tribe at work for the preservation of the LCO lakes. More [here](#).

Also see last month's [Short Ears, Long Tales](#) for stories of what the Eco-Beast has been up to.

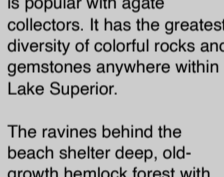
Thanks to so many COLA supporters who made the Eco-Beast a reality for LCO.



WISCALM ASSESSMENT AND GUIDANCE UPDATED FOR LAC COURTE OREILLES

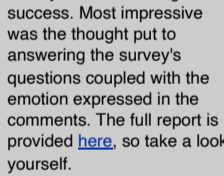
Wisconsin's Consolidated Assessment and Listing Methodology (WisCALM), from the WDNR, provides guidance on assessment of water-quality data against surface water-quality standards and for Clean Water Act reporting on surface water-quality status and trends.

The 2020 LCO water quality assessment based upon the WisCALM protocol is [now available](#).



BASS LAKE TOWNSHIP IS CONSIDERING AN ORDINANCE TO EXPAND RTV & ATV ROUTES

Please take a look at the [proposed routes](#) and the [proposed ordinance](#). The pink routes on the map are the proposed routes, and the green are the existing routes. If you are concerned about this issue, make your views known to the [Bass Lake Town Board](#).



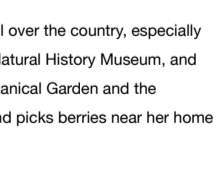
2021 NATURAL HISTORY FIELD TRIPS

One natural history field trip remains in July. These trips are planned for the general public, courtesy of the Lac Courte Oreilles Ojibwa Community College's Extension Program.

Wednesday July 21st. Little Girl's Point from 10:00 a.m. until approximately 5:30 p.m. This scenic beach, just across the Michigan border, is popular with agate collectors. It has the greatest diversity of colorful rocks and gemstones anywhere within Lake Superior.

The ravines behind the beach shelter deep, old-growth hemlock forest with orchids and other Pacific Northwest plant species. These are found in the East only near Lake Superior. Click [here](#) to see all of this year's natural history field trips sponsored by the Extension Department at the Lac Courte Oreilles Ojibwa College.

For more information, contact Cali Quaderer-Cuddy, Extension Program Coordinator, at cquaderer@lco.edu



COLA'S VIEW FROM THE DOCK REPORT

The "View From Your Dock" survey last fall was a great success. Most impressive was the thought put to answering the survey's questions coupled with the emotion expressed in the comments. The full report is provided [here](#), so take a look yourself.

It's obvious that we belong to a dedicated and thoughtful community, and the Lac Courte Oreilles lakes can look forward to a bright future.

LAKE OBSERVATION FORMS

SEE ANYTHING WEIRD?

If you observe green water, algal mats on the surface or floating or dying fish - anything out of the ordinary - please take pictures and report this using COLA's [observation forms](#) immediately! COLA will alert the WDNR, the LCO Tribe, collect water samples, etc., to follow up.

Please, if you see something, do something.

Do your part to help enhance and preserve the LCO Lakes!

COLA NEEDS YOUR HELP

COLA is a **volunteer organization**. That means essential jobs don't get done unless someone steps up to help out. Contact communications@cola-wi.org if interested or you need more information.

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[ARCHIVED ISSUES OF SHORT EARS, LONG TALES](#)