



Short Ears, Long Tales

Courte Oreilles Lakes Association

Issue #35 July 9, 2019

Turtle Bellies

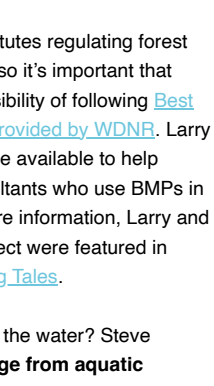
A recap of COLA's June 15th annual meeting and a new word to remember - plastron

By Jim Coors
COLA Board of Directors

Those of us who live on, visit, or just enjoy Lac Courte Oreilles know about the major issues facing the lakes. We're part of a large watershed, the Upper Couderay River Watershed – a 10-lake, 68,000+ acre landscape draining into Lac Courte Oreilles and eventually the Couderay River. LCO's water quality depends on all that's happening in the watershed. Speakers at COLA's June 15 annual meeting were hard-pressed to cover all new and ongoing developments.

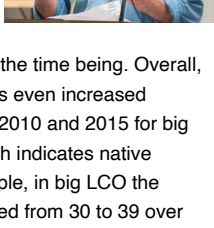
Many thanks to Larry Partridge, WDNR forester, for summarizing a grand and complex [risk assessment of forest lands in the Upper Couderay River Watershed](#).

COLA and scientists from the University of Wisconsin-Stevens Point Geographic Information Systems Center joined together to map erosion and sedimentation susceptibility down to the parcel level throughout the watershed. Landowners can now easily evaluate the risks of potential forestry activity and undertake the necessary mitigation efforts.



Larry noted that there are few statutes regulating forest management for private owners, so it's important that property owners take the responsibility of following [Best Management Practices \(BMPs\) provided by WDNR](#). Larry and his fellow WDNR foresters are available to help property owners find forest consultants who use BMPs in planning forestry actions. For more information, Larry and COLA's forestry assessment project were featured in a [recent issue of Short Ears, Long Tales](#).

So much for the land, what about the water? Steve Urmland reviewed **LCO's challenge from aquatic invasive species (AIS)**, primarily curly leaf pond weed and Eurasian water milfoil (EWM). In July, 2018, with grant support from WDNR, COLA conducted a [point-intercept survey](#) – a 2254-point, grid assessment of all aquatic plants in both little and big LCO. While CLP and EWM were found in both lakes, the AIS situation seems under control for the time being. Overall, aquatic plant species diversity has even increased somewhat from the last surveys (2010 and 2015 for big and little LCO, respectively), which indicates native species are doing well. For example, in big LCO the number of native species increased from 30 to 39 over the last eight years, indicating a healthy and diverse aquatic environment.



EWM, which was first detected several years ago in little LCO is now in both lakes, particularly the west basin of LCO, and it is being spot-treated with herbicides. COLA decided to hand pull CLP in 2019 rather than rely on herbicides, a decision based on the May 22-23 survey, but, unfortunately, by June it appeared that CLP is making a comeback in Musky Bay and elsewhere in LCO. Thankfully, COLA board member Dick Laumer has recruited a large group of AIS monitors to keep an eye out on the ever-changing status of AIS in LCO.

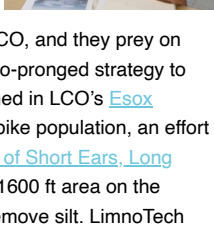
What's up with the marker buoys? Mike Persson provided a map of the water buoys in big LCO with a few reminders of what they mean. The seven buoys mark very shallow spots, and it's advisable to stay at least 75 yds away if your boat has a significant draft. It's also a good idea to stay outside the buoys – avoid the shore side.



Marker Buoys on Lac Courte Oreilles. For a larger image [click here](#).

Mike also provided an update on the **musky restoration efforts in Musky Bay**. Musky Bay used to be the site that WDNR used to harvest musky eggs for the rest of the state, but not anymore.

Phosphorus and silt deposition due to the outflow from neighboring cranberry operations damaged the musky habitat. There's also been a big increase in the northern pike population in recent years. Pike are not believed to be native to LCO, and they prey on musky. So there needs to be a two-pronged strategy to restore musky habitat as envisioned in LCO's [Esox Recovery Plan](#). First, control the pike population, an effort covered in the [May 1, 2017 issue of Short Ears, Long Tales](#). Second, begin dredging a 1600 ft area on the northeast side of Musky Bay to remove silt. LimnoTech will be doing this work.



And finally – Turtles. Dr. Beth Reinke, a new professor at Northeastern Illinois University, presented a fascinating report about growth rates and other characteristics of painted turtles (*Chrysemys picta*) in Musky Bay over the past 10 years. Dr. Reinke spent many summers at her grandparents' cabin on the shores of Musky Bay, and she has been entranced by painted turtles ever since.



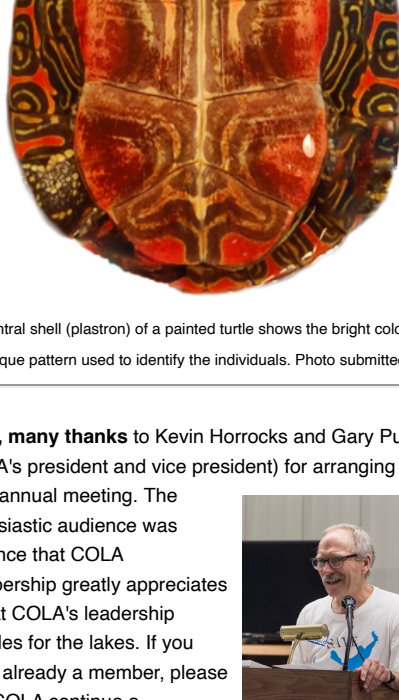
Painted turtles have a few quirky features. They live for a long time, well past 35 years. Their reproductive rate increases as they age, so this provides natural selection pressure for older and older turtles. But their name points to their essential peculiar feature – highly colored and intricate patterns on their bellies – which intrigues evolutionary biologist to no end. Why?

The orange coloration on the plastron, which is the bottom portion of the shell, is due to the accumulation of carotenoids that come from the painted turtle's diet. Dr. Reinke has explored all sorts of possible reasons why painted turtles store carotenoids, from using orange coloration to attract mates, increasing competitive abilities, fending off predators. Only one reason remains plausible, and it's related to another fascinating feature. Painted turtles freeze solid during the winter. How do turtles reactivate their metabolism in the spring?

Carotenoids are anti-oxidants that may influence oxidative stress. Storing carotenoids in the shell may help mobilize oxygen as turtles thaw with warmer temperatures. In fact, what we learn about these turtles may well be useful for limiting damage to strokes and cardiac arrest in humans.

To further her research, Dr. Reinke has started an ["Adopt a Turtle Campaign"](#). After joining this project, you will receive periodic updates on your adopted turtle's development and other research. You'll also be helping students working with Dr. Reinke appreciate all the marvels of painted turtles and fund periodic trips to Lac Courte Oreilles.

For more information, Dr. Reinke was featured in the [October 1, 2018 issue of Short Ears, Long Tales](#).



The ventral shell (plastron) of a painted turtle shows the bright coloration and unique pattern used to identify the individuals. Photo submitted.

Many, many thanks to Kevin Horrocks and Gary Pulford (COLA's president and vice president) for arranging a great annual meeting. The enthusiastic audience was evidence that COLA membership greatly appreciates all that COLA's leadership provides for the lakes. If you aren't already a member, please help COLA continue a productive and valuable legacy by [joining COLA now](#). And also consider supporting COLA with a donation to the [Lac Courte Oreilles Foundation](#).



Jim Coors is a member COLA's Board of Directors. He retired from the University of Wisconsin-Madison in 2007 where he was a professor in the Plant Breeding and Genetics program and the Department of Agronomy for 24 years. He is married to Ann Pollock whose great grandparents, Edward Cady Higbee and Grace Fassett Higbee, purchased the land now referred to as the "Camp at Reserve" on the east shore of Lac Courte Oreilles in 1919.

Questions, comments, or suggestions for future articles may be sent to communications@cola-wi.org.

[View this email in your browser](#)

PLEASE RENEW YOUR COLA MEMBERSHIP FOR 2019-2020

COLA membership is a pretty good deal. For only 25\$/year, you help COLA protect the LCO Lakes, are informed about issues involving the LCO Lakes, and you get a picnic in return!

[Renew your membership](#) today in one of Wisconsin's most active and respected lake associations.

Are your neighbors and extended family members of COLA? If not, please ask them to [join](#).

COLA PICNIC

Saturday, July 13, 2019

Trails End Resort
8080 Co Hwy K on Barbertown Bay

11:00 am – 2:00 pm
Picnic lunch starts at 12:00 noon

Raffle for food and fun at LCO Lakes' restaurant/bars.

Come by car or boat

Food and beer/pop will be provided by COLA to current COLA members.



LAKES ILLIMITABLE ARE LAKES LOST

[Aquatic invasive species have changed the context of public access.](#)

By Jeff Forester, Minneapolis Star Tribune, May 10, 2019

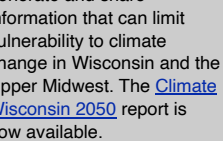
ADOPT A TURTLE

Beth Reinke, with COLA's help, has been conducting turtle research on LCO for the past ten years. Beth is now an assistant professor at Northeastern Illinois University. You can help her keep the program going by joining the [Adopt a Turtle](#) program. Your support lets her continue to purchase supplies and helps students from Northeastern Illinois University travel to LCO to get field experience. [\(More on Beth's research on LCO\)](#)



WISCONSIN INITIATIVE ON CLIMATE CHANGE IMPACTS

The mission of WICCI is to generate and share information that can limit vulnerability to climate change in Wisconsin and the Upper Midwest. The [Climate Wisconsin 2050](#) report is now available.



ZEBRA MUSSELS ARE NEARBY

Close indeed - See linked lists for lakes/rivers in WI and MN within a 150 mile radius of Lac Courte Oreilles.

[Wisconsin lakes and rivers](#)
[Minnesota lakes and rivers](#)

The Zebra Mussel is a serious invasive species and could destroy our lakes. See the message from COLA President Kevin Horrocks [here](#).

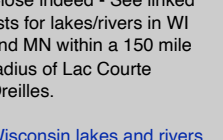


Photo provided by [USDA and USGS](#).

2018 ANNUAL LCO WATER QUALITY ASSESSMENT

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.

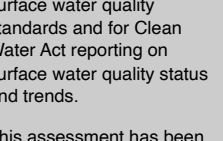
This assessment has been prepared for each of the last 6 years by LimnoTech Inc.

See the assessment [here](#).

[See more details about WisCALM on the WDNR website.](#)

NEW 700 FT SETBACK REQUIREMENTS FOR ENHANCED BOAT WAKES

A new enhanced boat wake ordinance became effective on November 12, 2018. To view the ordinance [click here](#).



A higher resolution map of the new 700 ft setback requirements for enhanced boat wakes is provided [here](#).

THE LAC COURTE OREILLES LEGACY FUND

Many families have enjoyed LCO's pristine beauty for generations. Your generous donations over the past nine years have helped preserve the lake and remain the essential funding for current activities. Now we have another opportunity to protect the lake far into the future by putting the [Lac Courte Oreilles Foundation](#) into your estate plans.

The LCO Foundation teamed up with the Eau Claire Community Foundation to create the [Lac Courte Oreilles Legacy Fund](#) and the [Higbee Family Fund](#). Endowment gifts include planned gifts such as a bequest in a will, charitable remainder trust, or outright gifts, such as of cash, or stock.

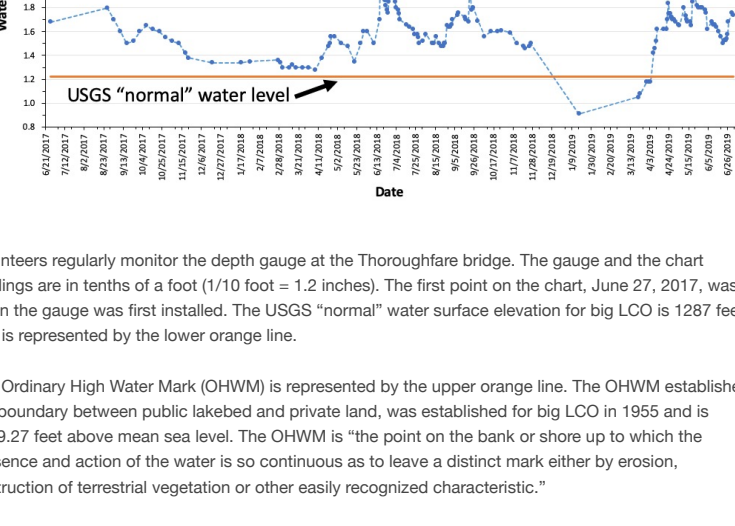
SPREAD THE GOOD NEWS

If you have friends or family on nearby lakes who would enjoy Short Ears, Long Tales, [let us know](#).

Help COLA by sharing this newsletter with friends.

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

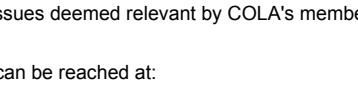
LCO Water Depth Recorded at Thoroughfare Bridge Gauge



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 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 continuous 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 "stack" it toward one end of the lake or the other and the seiche effect caused by the gravitational pull of the moon and sun.



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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