Coventry Lake Advisory & Monitoring Committee Newsletter — Summer 2023

Thoughts About Water Quality for summer 2023 on Coventry Lake

Summer of 2022 was a new experience as Coventry Lake had its first Public Health Warning restricting contact with the lake's waters due to a high level of toxic cyanobacteria (blue-green algae). Since that event there has been additional focus of watching the lake. Dr. Robert Kortmann, GZA Senior Consultant – Applied Limnologist, is concentrating his attention on the seasonality of the lake waters. The optimistic view in late winter 2023 by Dr. Kortmann is the lake waters are much clearer than in 2022 indicating less cyanobacteria in the water column. In the summer of 2021 a hurricane and then three tropical storms occurred which resulted in a large post-turnover cyanobacteria bloom observed in October – November 2021. Once the very short winter ice on the lake melted in February 2022 observations revealed that an abundance of bacteria from the fall bloom remained in the water column. The warm spring weather caused the cyanobacteria to create a large bloom by July 2022. This bloom which caused the Public Health warning restrictions died off in less than 3 weeks as the main source of food, phosphorous, was at a low point of 13-15 µg/L (blooms occur when count is greater than 25 µg/L).

The fall of 2022 did not have the hurricane/tropical storm cycle as in 2021. Observations revealed only small amounts of cyanobacteria scum pockets on the lake waters. Dr. Kortmann continues to watch the lake waters as spring emerges. The signs are positive so far: die off in summer of 2022, minor signs of cyanobacteria in the water in fall of 2022, a warmer winter but with some occasional icing in winter of 2023 and continued very low phosphorous levels.

Additionally Dr. Kortmann has worked over the winter with Town of Coventry staff and Coventry Lake Advisory and Monitoring to be able to have more frequent eyes on the lake and will be establishing a co-op volunteer water monitoring program in 2023. Watch for more details as the program is developed.

Please be a part of this important program. If you see any algae blooms write to: coventrylakeadvisor@coventryct.org Include: Name, date, location of bloom, and picture of the algae bloom. Coventry Lake Advisory & Monitoring would also appreciate the same information regarding any new or different aquatic plant growth you see.

A Message From Marine Patrol Officer Patrick M. Kilby, Coventry Police Department

It is a pleasure to be back out on the water this season. I am looking forward to seeing all of the lake residents here in Coventry again. If I have not met you yet please do not hesitate to approach me on the water or at the boat launch and introduce yourself.

Last season there were dozens of lake residents who were not carrying sufficient lifejackets/PFD's while operating manually propelled vessels such as kayak's, canoes, and SUP's. I was very lenient with lake residents and issued verbal warnings. It is a termination of voyage offense, so I do have to escort people off the water safely back to shore according to the law. This is a serious safety concern and a violation of Connecticut General Statutes: 15-129(a)(1). The USCG and the state take this very seriously. Our main goal is keeping you safe while enjoying the waterways. There was over a dozen drownings on the water last year here in our state and over 8 major boating accidents. Our goal is to prevent this from happening but it is difficult as we cannot be on the water in every place 24/7. Insufficient lifejackets/PFD's on motorized vessels while operating on the water was the second highest issue on the lake. If you are planning on bringing family or friends on board your boat. Please make sure you have enough lifejackets/PFD's for everyone on board. It is your responsibility as the owner of a vessel to ensure that your vessel is properly equipped with all of the required USCG safety equipment and that all operators met the proper legal requirements.

The State of CT DEEP Boating Division performs vessel safety checks at the state boat launch on most Saturday's and Sunday's during the boating season. A decal is provided when you pass the safety inspection. Please check all safety equipment before loading your vessel back with gear before the season. Please also make sure that all of your equipment is USCG approved, in proper order, not expired, is within the approved dates, and is readily accessible on your vessel. We are finding more and more people around the state utilizing the waterways who are purchasing cheaper safety equipment that is not USCG approved. Avoid utilizing Amazon for boating equipment purchases. It is difficult to ensure that the product is USCG approved as items are approved in other country's other than the USA even when stated USCG approved.

Coventry Lake Watershed Activities with Kids

When it rains in your yard, where does the water go? Maybe it goes into Coventry Lake. Maybe you are part of another watershed. A watershed is an area of land where all of the water eventually goes to the same place. The summer is a great time for kids to explore watersheds. One way to trace your watershed is by using this map from The US Geological Survey at https://txpub.usgs.gov/DSS/streamer . Just click on any small stream near your home and trace its path as it joins with other bodies of water.

At last year's Libraries Love Lakes event at Booth & Dimock Memorial Library, kids made their own watershed models. It is really easy to do.

1. Grab a sheet of paper and crumple it into a ball.
2. Spread the paper until the crumples make mountains and valleys.

Spray water on top of the paper and see rivers form and join together. It is your very own model watershed!

Of course, the best way to explore is by getting outside and visiting Coventry Lake. While outside you can do your own experiments. For example, try timing how long it takes water to soak into different surfaces around Coventry Lake. Pour a cup of water on pavement, grass, the sand, etc. and see which puddle is soaked up the fastest. When water takes a long time to permeate the surface it has more time to pick up pollutants as it travels through our watershed. This could be a great launching point for ideas and activities to help protect our lake. Happy exploring!

Coventry Lake Aquatic Plants

Coventry Lake has less than 25 aquatic plants in its waters based on plant surveys from Connecticut Agricultural Experiment Station (CAES) and North East Aquatic Research (NEAR). Just like in our own landscaped yards, aquatic plants have a tendency to be abundant one year and disappear the next.

In the 2022 aquatic plant survey from NEAR the most abundant aquatic plants were Clasping-leaf pond weed, Stonewort, and large-leaf pondweed. These 3 plants are native aquatic plants and account for more than 60% of the lake's aquatic plant life.

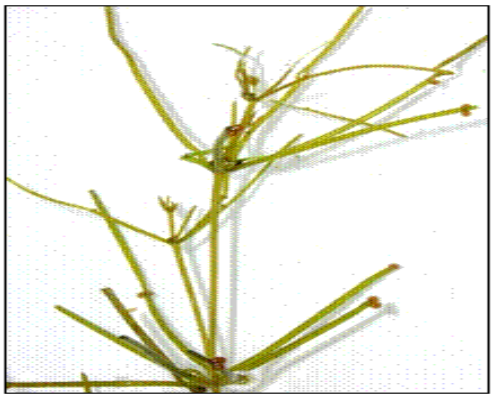
There were very few invasive plants found during NEAR's 2022 survey. One invasive aquatic plant is Curly-leaf pond weed. It was found on the lake's southern shoreline but was listed at only 1% of Coventry's aquatic plant life. It had been very abundant 2 years ago along the western shoreline but is not found there now. A few fragments of the invasive aquatic plant, water chestnut, were found and removed in July of 2022. This is the second instance of finding a few stray fragments in Coventry Lake. The speculation is that blue herons bring water chestnut plants from other locations as it is a favorite to use in their nest building.

Two other invasive aquatic plants had been found in Coventry Lake's waters. Eurasian milfoil had been very abundant around the shoreline of the lake for many years. Then in the fall of 2015 the highly invasive aquatic plant, Hydrilla, was found. Since 2018 the lake's 178 acres littoral zone (shoreline) has been treated 3 times a year over a 90 day period with an herbicide, fluridone. This program has been very successful. No Eurasian milfoil has been found since 2019 and in the fall 2022 it was announced that no hydrilla was located in Coventry Lake. For 2023 the hydrilla treatment program will move to a less aggressive treatment approach. Plant surveys will be conducted and if hydrilla growth is found the growth will be spot treated. There is no whole lake treatment planned for 2023. The surveys are necessary as the tubers and the turions (seeds) of hydrilla have the possibility of re-spouting for several years. To read more about Hydrilla and the 2022 aquatic plant survey by NEAR at https://www.coventryct.org/DocumentCenter/View/7392/Coventry-Lake-2022-Hydrilla-Report

Remember to contact Coventry Lake advisory & Monitoring at: coventrylakeadvisor@coventryct.org if you see an aquatic plant you want to identify or are concerned about. Include your name, location, of plant, contact information and a close-up photo.

Large Leaf Pondweed

Curly Leaf Pondweed



Stonewart

Clasping Leaf Pondweed

Protect Your Pets!

Many lake property owners share their homes with their furry friends. It is important to recognize not only the benefits of living on the lake with your furry friend, but also the risks for them. There are many aquatic plants in Coventry Lake, both beneficial and detrimental. The following are poisonous to dogs and should be easily recognizable to pet owners. These plants are more likely to be seen/have harmful effects in the Summer or Fall seasons.

Cyanobacteria:

As many of you know, there was a large bloom of cyanobacteria last summer. What many of you might not know is that cyanobacteria is fatal to dogs. If your dog swims in, swallows, or has contact with the water in any way, and the water gets into their bodies either by licking their fur, licking items that were in the water, or simply digesting it themselves, they could suffer severe illness and even death. Cyanobacteria can be easily identified in the water as foam, scum, and paint-like streaks in the water that are the colors red, green, blue, blue-green, or brown. The symptoms to be alert for if this instance were to occur are seizures, panting, drooling, respiratory failure, diarrhea, and disorientation. If you see your pet come in contact with water that contains cyanobacteria, immediately rinse/wash them off. If you see your pet swallow any water containing cyanobacteria or see them experience any of the above mentioned symptoms, bring them to the vet immediately.

Lyngbya Series (a type of cyanobacteria):

Lyngbya Series is a type of cyanobacteria. It can cause similar symptoms to those mentioned above to your furry friends. It is identified by thick mats in the water that are dark green or black in color and smell musty. Again, if you see your dog in the water when it appears this way, wash them off immediately and if you see them swallow any water containing this bacteria, please bring them to the vet immediately.

Dogs love to swim as you all do in the summer, but please look after their and your own health and well-being!

GREAT BLUE HERON

Among the wide variety of birds and fowl encountered in, on, and around Lake Wangumbaug, none is more striking or unique than the Great Blue Heron (*Ardea herodias*), the most familiar wading bird in North America.

It can be a startling moment, quietly paddling a kayak along the shoreline, among phragmite in Lisicke Cove or the rocks surrounding Underwood Island, to suddenly notice the unexpected presence of a Great Blue Heron. Statuesque in the shallows, attentively scrutinizing the lake for the next hunting opportunity. Disturbed by human presence, it may "bark" its displeasure, then launch gracefully into flight – distinctive, elegant, powerful – searching for another safe, isolated location.

NAME/SPECIES — the Great Blue Heron (*Ardea herodias*) is the largest heron native to North America. Statuesque, stately, graceful and slow-moving, the Great Blue Heron is one of the most magnificent birds on this continent.

HABITAT— Great Blue Herons thrive in marshes, swamps, lakeshores, riversides, beaches and ponds. They also forage in upland areas and prairies, especially in winter.

SIZE — Great Blue Heron adults typically range from 42-52 inches in height, with a wingspan of 6-7 feet. Despite its large size, its hollow bones result in average weight of only 5-6 pounds.

APPEARANCE — Great Blue Herons have a striking, pre-historic, "Jurassic Park"-like appearance. [NOTE: The oldest Great Blue Heron fossils are about 1.8 million years old, from the Pleistocene Epoch. Its dinosaur-like appearance – long thick bill; curvaceous and powerful neck; long legs – reflects successful adaptations that have served the species well over the past 1.8 million years.] Adults (both females and males) have a white head with prominent black eyebrows extending into long feathery plumes protruding past the back of the head. They have a long yellow spear-like bill. Feathers at the back of the neck drop down into a kind of necklace. Neck and back are covered in shaggy feathers. The long gray or brownish neck, often held in a graceful S-shape posture, tops a bluish-gray body, with underparts streaked in black, brown and white. With long chestnut-colored legs, and strikingly distinctive yellow eyes. Juveniles appear much the same, although usually more brown than gray, with a black crown and no plumes.

VOICE — Usually silent, the Great Blue Heron sounds off when disturbed or alarmed and while on the nest. Its most commonly-heard call is a series of 3-to-4 hoarse, cranky, croaky aggressive warning squawks when alarmed: *fraunk fraunk taaaw taaaw*. In flight its call is a deep, hoarse *fraaahnk* or *braaak* trumpeting sound. They use up to seven different sounds.

FLIGHT— The Great Blue Heron makes a striking and distinctive sight in the air, flying powerfully with slow, deep wingbeats, while usually tucking its neck into a tight, graceful, curved S-shape.

MIGRATION— Great Blue Herons are usually migratory, although some populations in the southern US may stay in one area year-round. Northern populations move to the southern US, the Caribbean, Central or South America, as they are unable to fish successfully in frozen water. Although usually solitary outside the nesting season, they sometimes migrate in small flocks, both day and night. The Great Blue Heron may stay year-round in coastal southern Connecticut, but migrates annually to-and-from Lake Wangumbaug.

HABITS/LIFESTYLE— Great Blue Herons are active mainly in the morning and at dusk, when fishing is best. They prefer to feed alone, but loose feeding flocks may sometimes form, helping to locate schools of fish more easily. During the breeding season Great Blue Herons become extremely territorial and defend their nests aggressively.

REPRODUCTION/LIFETSYLE – MATING — Great Blue Herons usually have one mate for the duration of each breeding season and will then choose a new mate in the following year, exhibiting serial monogamous mating behavior. In our part of North America breeding typically ranges from March until May. They will nest and breed in colonies, called rookeries. Rookeries are typically located in isolated areas, such as wooded swamps and small islands, often high in trees, where human and predator access is limited. Nesting birds may even accept human-provided nesting platforms. Pairs often return to the same colony, and nests from previous years may be reused. Once a nest is built, the female lays 3-6 pale-blue eggs, and both parents incubate in turns for about a month. Eggs hatch over several days. Both parents feed their offspring by regurgitating food, and the young leave the nest 2-3 months after hatching. Once fledged, the young herons depend on their parents for food for another 3-4 weeks.

FEEDING

The Great Blue Heron spends about 90% of its waking hours hunting for food. It will eat whatever it can catch with its formidable bill: insects, fish, crustaceans, reptiles, amphibians, small mammals, and birds – especially ducklings. It usually forages alone, in shallow waters, locating food by sight. Once a Great Blue Heron spots its prey it strikes quickly, straightening its long powerful neck, plunging its spear-like bill into the water, grabbing its quarry, then swallowing it whole. Excellent night vision allows this versatile wading bird to hunt in darkness as well as daylight. (Cont. on Next Page)

(GREAT BLUE HERON Cont.)

PREDATORS— Crows and ravens eat Great Blue Heron eggs. Hawks, eagles, racoons, bears and turkey vultures are known to prey on both young and adult Great Blue Herons.

ENVIRONMENTAL THREATS— The Great Blue Heron's adaptability has resulted in an increasing population in an era when many other bird species are in trouble. These birds were hunted for their plumes until the early 20th century. They have endured significant habitat loss and continual human development-related disturbance. Although adaptable, ongoing land-use change, especially along shorelines, is a continual threat. The Great Blue Heron's continued viability hinges on people's interest in protecting their sensitive breeding colonies and natural habitat. Some populations, especially in small coastal areas, are vulnerable to such localized impacts as development-related habitat destruction, human persecution and pollution.

FUN FACTS ABOUT GREAT BLUE HERONS

They are the largest heron in North America

They can swallow fish that are much wider than their narrow neck.

However, they have been known to choke to death with prey too large to swallow whole.

Specially-shaped vertebrae allow their neck to curl into its characteristic S-shape for flying/hunting.

They are able to hunt during the night as well as day.

As chicks they have gray eyes at birth, but they become yellow as adults.

Their feathers are highly specialized, like a powdery down, and continually grow and fray.

When preening they use their chest feathers for removing slime and oils from their plumage.

Those living near the ocean often sit on plants such as floating kelp waiting for fish prey to swim by.

Love Coventry Lake?

Join

Coventry Lake Advisory & Monitoring Committee

Requirements

Registered voter in Coventry CT

Available for meetings the 2nd Monday of each month at 7 PM

Apply Online

https://www.coventryct.org/157/Boards-Commissions

Help us make sure Coventry Lake remains a center piece of the community.

Coventry Lake Advisory and Monitoring Committee Members : Charlie Brown, Rich Pearson, Scott Gallo, Carly Levine, Amanda Slater and Chairperson Debby Zeppa

Email us at: coventrylakeadvisor@coventryct.org