Promoting the understanding and management of lakes, ponds, and watershed associates in the state

CFL News

The CFL is the Voice for Connecticut Lakes.
The mission of the CFL is to work with you and for you for healthier lakes and watersheds on local, state and even federal levels.

A Message from the CFL Board

Thank you to all renewing Connecticut Federation of Lakes (CFL) members and to those who provided generous donations in support of lakes in Connecticut. Your continued assistance is vital to the mission of the CFL, to protect the freshwater resources of the state through education, public involvement and exchange of information. We aim to assist local lake associations and individuals towards the common goal of sustainable lake management. Together, we are the voice of CT lakes.

In an effort to continue active dialogue among lake residents, state professionals, scientists, and lake managers, we bring to you the 2017 Connecticut Lakes Forum. The fall forum will be held in the beautiful Clubhouse at Woodridge Lake in Goshen, CT on Saturday, October 14, 2017 from 8:00 a.m. - Noon.

Our Board is a group of volunteers; one hundred percent of your donations go to funding the programs of the CFL. Please renew your membership and make a donation of any size to help the protection of Connecticut lakes.

Checks should be made payable to “Connecticut Federation of Lakes” and mailed to:
Connecticut Federation of Lakes
C/O Connecticut College Box 5604
270 Mohegan Avenue
New London CT 06320

OR donate online at our secure website (click DONATE NOW).

On behalf of the Board of Directors, Connecticut Federation of Lakes, thank you for your interest in protecting our lakes and in the CFL!

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Be on the lookout!
Invasive Water Chestnut
(Trapa natans)
In case you missed it...
Recap of the Annual Meeting- April 29, 2017 - By: Randy Miller, CFL Vice President

The Connecticut Lakes Conference 2017 (CLC 2017) and the Connecticut Federation of Lakes (CFL) Annual Meeting were held Saturday, April 29, 2017 at the Connecticut Agricultural Experiment Station in New Haven. The day-long event featured top notch speakers covering a variety of topics important to maintaining and preserving Connecticut’s lakes and their watersheds. Equally important was the opportunity for the Connecticut lakes communities to gather and make new acquaintances; compare notes on successes and non-successes at their lakes with other lake residents, lake managers and limnologists and develop contacts and pick the brains of the Conference sponsors.

A successful conference is driven by having a supportive group of sponsors, which was clearly the case for CLC 2017. Presenting sponsors were Northeast Aquatic Research and Solitude Lake Management. Contributing Sponsors included All Habitat, Aquatic Ecosystems Research, Bahler Brothers, New England Aquatic Services, The Pond and Lake Connection, and Reid & Riege LLC.

All were generous with both their financial support and information sharing.

Almost 100 attendees heard presentations on topics that included invasive aquatic plants, cyanobacteria, controlling storm water runoff with lake-smart landscaping, developing lake friendly town zoning regs, managing roadway stormwater, association governance issues, volunteer water quality monitoring, lake association initiatives and more! You will find the Conference presentations posted on the CFL website at www.ctakes.org.

A big thank you from the CFL to all who attended and brought their enthusiasm for Connecticut’s lakes to the Conference. Input received from the attendees through a Conference survey is already being used in planning future events. The CFL looks forward to supporting Connecticut’s lake communities with future educational programs!
Buffer Zones: Maximizing the Potential of Your Lakefront Property
By Luke J. Gervase The Pond and Lake Connection, pondconnection8@gmail.com (203) 885-0184

A buffer zone is an area of shoreline with planted grasses, shrubs, or trees that serves to separate the lake water from a lakefront property. This area is also known as the riparian zone. While at first thought these zones might seem like an obstruction to your view, they provide many valuable services.

Riparian zone
The riparian zone of a lake is the interface between land and water, and is where a buffer zone would be installed. Based on your property, a perfect buffer zone would extend as far as possible from the water's edge toward your building, but ideally would be about 30 feet in length from the shoreline to your building to maximize function.

The riparian zone serves two major functions when vegetation is present. These functions are the reduction of surface water runoff, which carries nutrients and pollutants, and the protection of banks from erosion. A vegetated riparian zone acts to serve as a buffer towards the runoff water from big rain events or snowmelt, and to reduce the amount of nutrients and pollutants that would otherwise make it into the lake water. Once these compounds make it into the lake, a number of things can happen including water becoming more turbid, increased potential for nuisance plant and algae growth, and increased sediment loads.

A vegetated buffer zone along a shoreline will also help prevent erosion by holding sediment in place and protecting the shoreline from wind and wave action. When shoreline banks are eroded, more sediment is added into the water, which can increase turbidity as well as create environmental conditions that allow certain nuisance plants to thrive.

Additional benefits of buffer zones
The plants of a buffer zone have the ability to consume some nutrients already in the lake, which is dependent on the plant species present. Certain species are more efficient at up-taking nutrients, like phosphorus and nitrogen, due to their root structure and other characteristics. In addition, the trees, shrubs, and grasses commonly found in buffer zones can attract a wide range of wildlife that can be pleasant to observe.

Growing your own buffer zone
It is critical that when you construct a buffer zone you only plant species of vegetation that are native to your region. When designing a buffer zone it is important to realize the importance of having trees, shrubs, and grasses and not just one of these three types of plants. Trees have the ability to take up the most nutrients while also attracting a high amount of birds. Unmown grasses (not your typical lawn!) have the greatest ability to slow down the speed of surface runoff. Once the water settles in the grass, the grass can then use the runoff water and all of the nutrients the water carried, to grow. Shrubs also have the ability to reduce the impacts of surface runoff, but similar to trees, they are great at stabilizing the shoreline. Where wind and waves are an issue, trees and shrubs might be the most suitable plants as they help stabilize the topsoil along a shoreline. Where runoff water high in nutrients and pollutants is an issue, a mix of grasses and shrubs is the most suitable approach. Additionally, it is important to remember that the simplest way to grow your own buffer strip is to stop mowing your lawn! By letting part of your yard grow naturally, you permit native species to colonize the area and reduce the cost of a buffer strip project.
Buffer Zones

(continued from p4...)

....Multiple studies have shown that buffer strips have substantial positive impacts on waterbodies, and although they may seem insignificant, they can really make a difference on the state of your lake. Buffer zones maximize your lakefront property in a relatively cheap and easy manner, while benefitting overall lake water quality.

CT Lakes License Plates!

The CFL has been working to make CT Lakes Special Interest License Plates available to all who care about our lakes. It has not been easy. Our goal is to raise awareness of the declining state of our lakes and the need for greater support from all corners. We appreciate the interest shown by members so far. We are working on a new approach to making this happen with our State representatives and look forward to updating everyone in the Fall. Thank you.

Stay Updated on Tech Tools!

The EPA-sponsored BloomWatch phone app is one of several citizen science projects aimed at informing and protecting lake users. The future CFL conferences will have a BloomWatch representative to explain more about this program and how you can get involved.

Tool Kit for Volunteer Water Monitoring

One of our local lakes organizations, Lake Lillinonah’s Friends of the Lake partnered with Fairfield University’s Dr. Jennifer Klug and began a volunteer water quality monitoring program nine years ago. Today they are proud to share with other lake organizations their Citizen-Led Environmental Observatory, CLEO tool kit. The kit includes a power point presentation to guide yearly volunteer training and details methods for measuring the presence of algal blooms as well as variables that contribute to algal growth. The free product can be downloaded from:

The History of the Secchi Disk
Hillary Kenyon, Northeast Aquatic Research

The Secchi disk is one of the simplest tools in lake science. It is simply a black and white circular plate attached to a measuring tape, and is used to visually measure water clarity. Secchi clarity measurements are typically utilized in open water, in the deepest area of a lake.

Water clarity is dependent on sunlight penetration, and is affected by phytoplankton and suspended particles in the water column. Thus, clearer waterbodies will have the more desirable greater Secchi transparency values.

To make a Secchi disk reading, one must lower the disk down into the water off the side of the boat and observe how far it remains visible. A proper Secchi disk transparency reading is made by taking the average of the depth at which the disk disappears and depth at which the disk becomes visible again. Used in concert with other lake water quality data, such as water nutrient samples, and dissolved oxygen and temperature readings, the Secchi disk is a great way to track changes over time. But what are the origins of this simple observation?

The Secchi disk has its roots in the late 1700s to early 1800s when a person known as Captain Bérard observed a white dinner plate lying on the bottom of the Mediterranean sea. Bérard made note of the clarity of the water, and Bérard’s shipmate, Arago, recorded the notion in his personal writings. Years later Commander Cialdi, of the Papal Navy, came across Arago’s notes and was intrigued by the scientific possibilities.

Cialdi enlisted the help of an astronomy professor, Pietro Angelo Secchi, and the two of them recreated the dinner plate scenario in a series of experiments. Secchi published their scientific results in 1866, and the creation of the Secchi disk is credited to P.A. Secchi, himself, in 1865. Secchi’s original disk was plain white and 12 inches in diameter, which is the same design that is used in measuring transparency in some marine studies today (Tyler, 1968). The 8 inch, black and white quadrant Secchi disk, that is now used in lake science, is an 1899 modification by George C. Whipple.

Secchi disk readings are somewhat subject to user error and differences in human eyesight, but when one uses a “view scope,” such as the AquaScope, measurements become very reliable. The viewscope minimizes water glare and prevents the wave action or water surface turbulence from impacting user measurements. The important thing to remember, though, is consistency. If your particular lake group has a long-term Secchi monitoring program, make sure to note if you switch to using a viewscope, because results will be drastically different than measurements made without one.
Hydrilla in the News! - An Update for Connecticut
Hillary Kenyon, Northeast Aquatic Research

Back in September 2016, there were a series of newspaper articles published on the discovery of the invasive aquatic plant Hydrilla verticillata in Keeney Cove, on a Glastonbury section of the CT River. The Hartford Current, Fox61, and several other local newspapers all noted the severity of the finding. Hydrilla has a nasty reputation for rapid expansion. Like other aquatic invasive plants, Hydrilla is not native to the United States, and it is able to out-compete and take over native species.

Hydrilla grows in water up to and possibly deeper than 25ft, and as the plant follows the sunlight to the water surface, it creates thick ugly mats of extremely dense plant material. This sort of tremendous growth reduces species biodiversity and alters essential fish habitat. It also drastically reduces the aesthetic and recreational value of waterbodies. If anyone has ever had to boat through or swim near a dense bed Eurasian milfoil plants, just know that Hydrilla can be even worse. We know that is hard to visualize, but there are tales from Florida of ducks nearly walking on water as the Hydrilla beneath them reached unimaginable densities.

The multiple September 2016 newspaper articles quoted top CT DEEP (Department of Energy and Environmental Protection) official William Hyatt in his statement, “Managing this infestation will be exceedingly difficult.” He was diplomatically realistic when he suggested that, “Eradication is not practical. What we can do is educate boaters on what they need to do to reduce the risk of further spread.”

Unfortunately these statements are more or less true, but it has been almost a year since Hydrilla was found in the CT River and no management has taken place. In fact, we have no idea of the breadth of the problem because no one has even surveyed the river to see how expansive the Hydrilla has become. It seems somewhat negligent to fall back on ‘education of boaters’ as our only defense. Proactive management is also possible, but the underlying problem here is funding.

Unfortunately, invasive species management tends to be close to the bottom of the State financial priorities, but if nothing is done, the Hydrilla in the CT River will continue to be a vector to other waterbodies in the state.

The CT draft 2018-2023 Plan of Conservation and Development lists the CT Lake Grants program, as did the 2013-2018 Plan; however, there has been no public funding of this program for many years. There was a brief period of aid with the Aquatic Invasive Species Grants in 2014 and 2015, which helped a number of CFL-member lakes. Yet with little funding for the management of inland waterbodies on the State horizon, the CFL must continue to advocate for proactive
Invasive species management. It will be a combined effort of the State, local municipalities, and resident nonprofit organizations.

At present in CT, Hydrilla has been found in Keeney Cove (CT River), a location in the Silvermine River in Norwalk, Held Pond in Weston, a small pond in Mystic, and Coventry Lake. The DEEP is currently funding a rapid response management program at Coventry Lake, but Hydrilla is already expanding to new areas in the lake and efforts to limit spread must continue in future years. There is no boat ramp steward consistently monitoring the public access to Keeney Cove nor to Coventry Lake so there is no telling where Hydrilla will pop up next.

There are many other invasive species that are widespread in the State, and we truly do not need Hydrilla to become more common. Invasive species can be devastating to a lake’s ecosystem and economy. Keeping Hydrilla contained should be a top priority for the CFL and the State of Connecticut. Please share this knowledge with your neighbors.

For an example of an active Hydrilla management program in the northeast, please visit the New York Department of Environmental Conservation website:

Croton River Hydrilla Management Efforts (NY)  
http://www.dec.ny.gov/animals/106386.html

Hydrilla identification photos and key:  
http://cipwg.uconn.edu/hydrilla/  
&  

Dense Hydrilla stand, image courtesy of Maine, VLM
Newsletter Committee

Do you have an idea for a story that you think lake community members should hear? The Newsletter Committee welcomes your input and your articles. Please send suggestions or articles via e-mail to either hillary.kenyon@gmail.com or rachelaperryis@gmail.com.

Calendar

Board Meetings – 3rd Wednesday of January, March, April, May, June, September, and October 7PM at Northeast Utilities, Newington, CT.

CFL Fall Forum - October 14th, 8AM-12PM at the Woodridge Lake Clubhouse, Goshen, CT.

Check CTlakes.org for meeting updates.

CT DEEP Invasive Investigator Program

For all CFL members who wish to pursue monitoring invasive species at their boat ramp, please see the CT DEEP informational description of their volunteer training program (p.8).
Wanted: Volunteers for the Invasive Investigator Program

Under the supervision and sponsorship of the Connecticut Department of Environmental Protection

Title: Invasive Investigator
Position: Volunteer

History: Zebra mussels, an invasive species, have recently been found in the Housatonic River system, specifically in Lakes Lillinonah and Zoar. It is important to curb the spread of these species because they are detrimental to the ecosystem and can adversely impact recreational activities. The Connecticut Department of Environmental Protection (CT DEP) believes that public awareness and education are key tools to prevent the spread of all aquatic invasive species by recreational boaters and other users.

General Description: The Volunteer Invasive Investigator Program is designed specifically to help educate people on ways to keep our waters clean and prevent the spread of aquatic hitchhikers into the lakes and rivers of Connecticut. The Invasive Investigators will check for invasive species and collect information about where boats have been, if any invasive species were found, and what if any cleaning steps were done prior to launch.

Skills: Good communication skills; willingness to work weekend and holiday hours; ability to meet new people; sincere interest in lake protection.

HOW THE PROGRAM WORKS
Training: Volunteers are required to attend an initial training of 2.5 hours and visit local boat launches. DEP Boating staff will familiarize you with the local invasive species, teach you how to conduct a voluntary inspection and provide instructions regarding data collection. Annual refresher training will be approximately 1 hour. The program is administered under the authority of the CT DEP and training is held at local sites. Volunteers will be under the local supervision of the lake or pond organization with whom they register. Cost: The training is free!

Monitoring: At the boat launch, we ask that you interact with boaters, familiarize them with invasive species present at the waterbody, distribute invasive species educational materials, conduct a voluntary inspection to see if there are any visible plant fragments or zebra mussels, and show the boater the steps needed to ensure they are not spreading unwanted plants and animals. The Invasive Investigator will also conduct a voluntary survey to determine what, if any cleaning precautions were taken prior to launching, and return surveys and other information gathered to the DEP-Boating Division on a weekly basis.

Hours: Scheduling will be done according to times you are available. While volunteers may schedule boat launch monitoring times at their convenience, we encourage participation particularly on weekends, since that’s when most people go boating.

For more information or to request a schedule of the next volunteer training workshop:
Please contact Gwendolynn Flynn at 860-447-4339 or gwendolynn.flynn@ct.gov