



LAKE REPORTER

CYANOBACTERIA IN OUR LAKE: 2019 REVIEW

By Citizen Science Committee Co-Chair Sally Napolitano

High quality drinking water, the economic benefits of recreation and tourism, property values. These are all assets or “Natural Capital” of Canandaigua Lake and they are all dependent on maintaining a clean and healthy lake. Declines in the quality of the lake water have far reaching impacts to our health and economy, some of which we have already experienced with beach closings, recreational water quality advisories and stepped up monitoring of both our public and private drinking water systems for *Microcystin*, the toxin produced by the cyanobacteria *Microcystis*.

It is evident, based on the results of our volunteer shoreline monitoring effort that Harmful Algal Blooms (HABs) are here to stay unless actions are taken to limit their occurrence. A question frequently posed to the Canandaigua Lake Watershed Association is, “What can we do about it?” That is the million dollar question.

What we DO know is that there are many contributing factors to HABs that include changes in climate, namely increasing storm intensity, higher air and water temperatures and nutrient loading into the lake. It is suspected that the prevalence of invasive species such as dreissenid mussels (quagga and zebra) are also a contributing factor. However, of these contributing factors, there is only one that we have any control over and that is nutrient loading.

Nutrient loading comes in the form of run-off from **every** piece of land within our watershed bringing phosphorus, nitrogen, carbon, sediment and other pollutants into the lake. It is the availability of phosphorus and nitrogen that allow HABs to occur. Efforts to limit phosphorus and nitrogen from entering the lake must be undertaken by all of us to have any impact on limiting the occurrence of HABs. That means **all** agriculture, residential and commercial properties within the watershed need to work together to limit their impact.



Photo of a shoreline bloom taken on 9/17/2019 by a HABs volunteer

295 Shoreline Surveys. 38 Confirmed Blooms. 26 CLWA Volunteers. 665 Volunteer Hours.

As part of the CLWA’s continuing Citizen Science program, the 2019 Volunteer Shoreline Harmful Algal Bloom (HABs) Surveillance season concluded in the second week of October. The CLWA continued to partner in this monitoring effort with the Canandaigua Lake Watershed Council (CLWC), the Seneca Lake Pure Water Association (SLPWA), the Finger Lakes Institute (FLI) and the New York State DEC.

In 2019 we had “more eyes on the lake”, as this year’s program grew to 26 DEC trained volunteers up from the 17 DEC trained volunteers in 2018. In conjunction with the CLWC, this allowed us to monitor an additional 11 zones around the lake for a total of 28 zones. As with last year’s program, volunteers committed to perform weekly surveys of their zones, report their findings, and take photos and/or water samples if a HAB was suspected.

Collected samples were transported to the Finger Lakes Institute in Geneva for timely *blue green chlorophyll a* testing; the indicator for the presence of a harmful algal bloom. FLI was generally able to provide same day results! When FLI testing determined a *blue green chlorophyll a* level above the bloom threshold (25ug/L BGA) selected samples were prepared for shipment and sent on to the Upstate Freshwater Institute for *Microcystin* toxin analysis paid for by the NYSDEC. Toxin analysis by UFI which confirmed the presence of *Microcystin* at “high” levels (above 20ug/L) was subsequently reflected in the NYHABS map hosted by the NYSDEC.

SHORELINE HARMFUL ALGAE BLOOM MONITORING, Continued from page 1

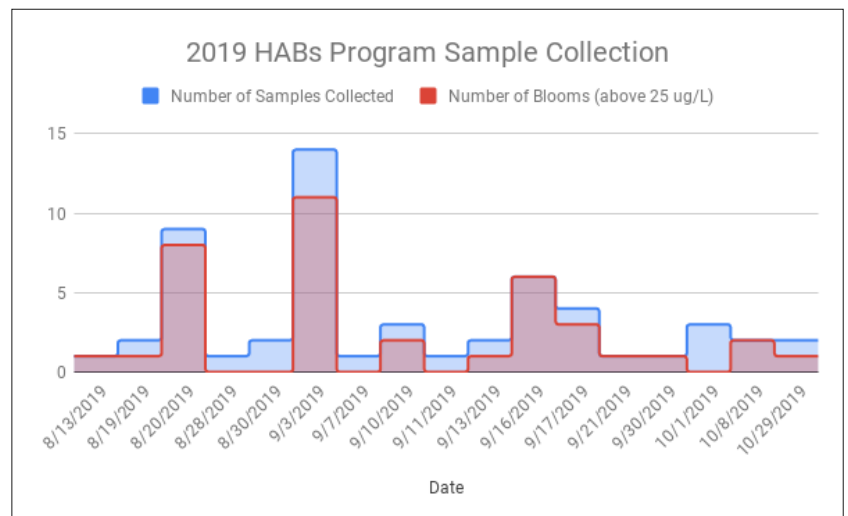
New to our program this year, due to our partnering with SLPWA, was a “real-time” public notification of suspected blooms available on our 2019 Shoreline Monitoring Interactive Map. We would like to thank SLPWA for all their time and hard work in creating this platform for public notification. See link here: <https://www.canandaigualakeassoc.org/science-education/blue-green-algae-2/>.

	2019	2018
Number of weekly shoreline surveys performed	295	218
Number of water samples collected by volunteers and watershed staff and submitted for analysis	65	54
Number of blooms confirmed by FLI analysis (results exceeded 25 ug/L <i>Blue Green Chlorophyll a</i>)	38	25
Number of blooms confirmed with high toxins (results exceed 20 ug/L <i>microcystin</i>)	18*	23

*Due to changes within the DEC reporting for 2019, the number of blooms “confirmed with high toxins” is still pending.

Our observations from this year’s monitoring program were that we had documented blooms two weeks earlier than in 2018, with the earliest confirmed bloom occurring on August 13th, and reported blooms which continued through the end of our program on October 10th. In fact, one of our dedicated volunteers took a sample as late as October 28th that tested at FLI as a confirmed bloom. We have learned that water clarity is not always a reliable indicator of the absence of *Microcystis* and its associated toxin *Microcystin*, and whether that area of the lake is safe for recreational use.

The CLWA Volunteer Shoreline HABs Surveillance program logged in 665 volunteer hours in the 2019 season, an amazing effort on the part of these volunteers! The CLWA would like to thank each one for their dedication to this important program: Steve & Sue Zumbo, Marty Lasher, Joel Pasternack, Lynn Klotz, Sally Napolitano, Susan Carpenter, Cindy Mellen-Smith, Bill & Valerie Yust, Bob & Becky Olsen, Carolyn Morehouse, Lynn Thurston, Dee Crofton, Nadia Harvieux, Scott Kreher, Charles Wochele & Linda Dworaczyk, Neil Atkins, Elizabeth Fladd, Ted Carman, Lindsey Ayers, Judy Von Bucher, Elaine & Paul Messina, Dorothy Roach, Saralinda Hooker, Dick McGavern and Patti & Roger Brazill.



We are anticipating some major changes to the manner in which the NYSDEC supports Citizen Science Volunteer Shoreline HABs Monitoring across the State in 2020 including not providing funding for toxin testing of our samples. This increased financial burden on lake associations makes your contributions to our Citizen Science efforts all the more important.

The 2019 Shoreline HAB Monitoring Program was made possible by an Ontario County Water Resource Council grant, as well as the generous financial support of our CLWA members. Thank you!

PRESIDENTS MESSAGE

By Neil Atkins, CLWA President



The stresses placed on the lake are the result of many factors. We've seen continued development on the lakeshore as well as the upland areas, allowing less land for runoff infiltration. Older septic systems are failing, are not being upgraded or are being overused with expanded rental pressures. We have seen the expansion of dairy farms not only in our area but the Finger Lakes area with more manure spread over larger areas with little buffering. And, with the development and the larger homes being built on the lake and in the watershed, we have seen greater use of chemical applications on lawns. Also, the more frequent significant storm events produce greater runoff taking with it nutrients from fields, lawns and failing septic systems.

The Canandaigua Lake Watershed Association has partnered with groups in an attempt to address some of these issues. A Land Use Committee was convened several years ago, which was comprised of Code Enforcement Officers, planning and zoning board members, the Canandaigua Lake Watershed Council, and CLWA members. We crafted model laws for site plan review, steep slopes, and on-site wastewater treatment, all of which towns could modify to suit their individual needs. After two public information meetings, four towns adopted new regulations for their on-site wastewater treatment. Several towns modified their Site Plan regulations; and, Steep Slope Laws were enacted.

We recognize the importance of engaging with the agricultural community. CLWA has now co-sponsored two programs in partnership with the Ontario County Soil and Water District, focused on soil health. These well-attended programs addressed manure spreading, runoff containing nutrients, and best farming practices.

CLWA continues to support and contribute toward the Canandaigua Lake Watershed Council's projects to establish wetlands to intercept flows from problem tributaries, allow infiltration and allow contaminants to settle out before returning flows to the lake. This is important during the peak flows of storm events.

CLWA has partnered with the City of Canandaigua and the Town of Canandaigua on our Lake Friendly Lawn Care program to encourage its homeowners and large parcel owners to eliminate the use of harmful chemicals on our green spaces. The City of Canandaigua does not use treatment on city properties.

We continue to support the Watershed Council and DEC in their research efforts to collect data to address our HABs issues. Our active volunteer shoreline monitoring program and secchi disk programs are contributing greatly to these ongoing efforts. Additionally, CLWA has also retained the services of two research scientists to analyze the foam formed in the lake, looking at contributing sources. Sample collection was completed this fall and researchers will be performing analysis on the samples over the next few months with a report due in the spring. We are excited to share the findings with our CLWA members.

A few of our board members serve on zoning boards and town boards and are active on town committees. We encourage our members to attend and participate in the meetings of these boards and committees. It's only through the interest and desire of our residents to participate as attendees, or board or committee members that we can effect positive change.

We sincerely appreciate our ongoing member support through donations, volunteer hours, and your engagement in the community. Thanks for allowing us to continue our mission of protecting the watershed for future generations.



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info@canandaigualakeassoc.org

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Cover photo by Dana Besaw

2019 CLWA VOLUNTEER WATER CLARITY MONITORING PROGRAM

By Citizen Science Committee Chair Nadia Harvieux and Lindsay McMillan

This was the 10th year of CLWA’s Take-A-Dip citizen science water clarity program. The goal of the Take-A-Dip program is to contribute to the overall water quality monitoring efforts on Canandaigua Lake by tracking changes in water clarity. This data is important because a significant decrease in water clarity over a short period of time can indicate an active algae bloom. New to the program this year was the addition of online data reporting, which helped keep the information on the CLWA website up-to-date. Our volunteers did a tremendous job this season; we had 20 volunteers monitoring weekly lake clarity, recording 249 water clarity measurements from mid-June through late October.

In the last week of June, the average weekly water clarity was recorded at 7.14 meters and remained between 5.08-5.9 meters throughout the month of July (Figure 1). A slight improvement was observed in the first two weeks of August with water clarity measurements of 6.32 and 6.0 meters. By the third week of August through the end of September, the water clarity decreased and ranged from 3.7 to 4.7 meters before improving in the beginning of October. A comparison of 2019 with past years is shown in Figure 2.

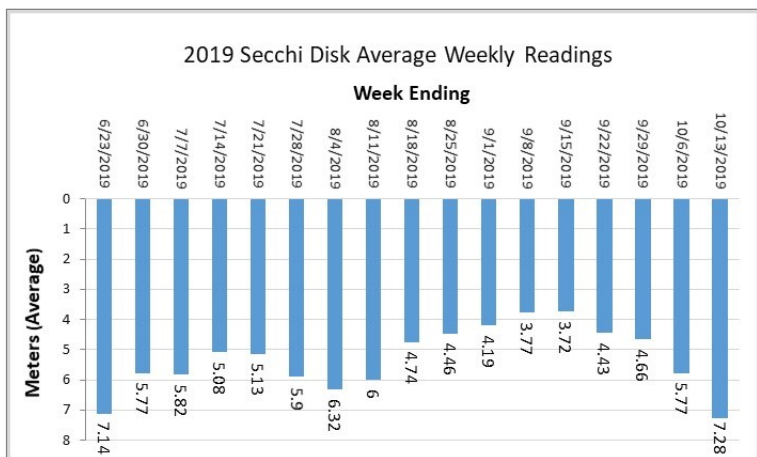


FIGURE 1

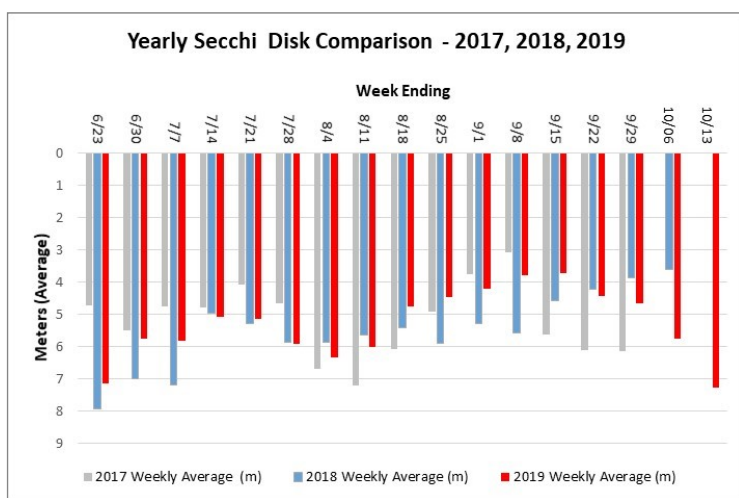


FIGURE 2

Additionally, our Take-A-Dip volunteers recorded surface water temperature data (Figure 3) through the monitoring season and we look forward to continuing to track changes in surface water temperature in future monitoring seasons.

CLWA would like to recognize the following volunteers for their participation in the 2019 Secchi Disk Program: Amy Bowen, Dee Crofton, Rob Gray, Nadia Harvieux, Gary Helming, Scott Hill, Brad Kellogg, Bruce Kennedy, Alan Krautwurst, Scott Kreher, Marty Lasher, Lindsay McMillan, Bill Mehls, Joel Pasternack, Brian and Dolores Perkins, Kathy Postma, Wade Sarkis, David Schwaner, Lynn Thurston, and Bill Yust. A very special thank you to Dee Crofton for coordinating with the volunteers.

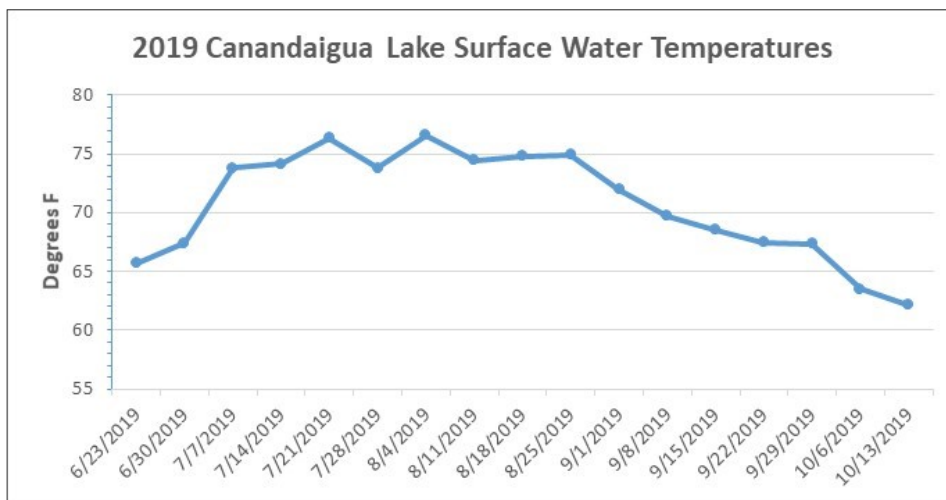


FIGURE 3

REDUCING THREATS TO WATER QUALITY

By Wade Sarkis, CLWA Board Member and Past President



As the threats from blue green algae outbreaks become more serious, we are seeing more resources directed to studying the problem. Scientific research has ramped up and much more will be required to pinpoint the causes of harmful algal blooms (HABs). We do know that nutrients in the lake contribute to the problem and we can all do more to reduce their impacts.

Sediment containing nutrients typically settles near the shore of the lake. Boat traffic creates waves which tend to stir up the sediment throughout the day. If you are on the lake in the morning, you can see that the water remains clear near shore until around midday when the number of boats increases. People have every right to enjoy the lake from their boat, but perhaps greater thought should be given to boat wakes and their impacts on sediment dispersion. The issue has worsened over the past few years with the growing sport of wake surfing. Wake surf boats are designed to create a large wake. The waves eventually crash into shore and stir up sediment with greater intensity than traditional boats. Perhaps wake surfing could be limited to the center of the lake, 1000 feet or more from shore. This would also be a safer place to wake surf as there is typically less boat traffic further from shore.

Failing septic systems are another potential source of nutrients entering the lake. We are fortunate that the Towns of South Bristol, Canandaigua, Gorham and Middlesex have adopted new onsite wastewater laws to address septic systems. Septic systems within 200 feet of the shoreline must be inspected every 5 years and upgrades to substandard systems must be completed within 12 months. The new laws should have an immediate positive impact on water quality. However, we know that septic systems are designed using the 1.5 people per bedroom standard. Many properties adjacent to the lake are used for short term rentals and a quick review of online rental sites commonly show advertised occupancy of 10 or more people in two or three-bedroom cottages. There are very few systems around Canandaigua Lake designed for that type of capacity. Septic systems can be easily overwhelmed by excessive use leaving the Lake susceptible.

A property owner can rent their cottage barring any rules against it. With proximity to the Lake adding to profit potential, perhaps some additional protections for the Lake are warranted. For example, for rental properties on septic systems, the owner could demonstrate that the septic system has been recently inspected and that the system capacity is equal to the advertised sleeping accommodations. It makes sense that our municipalities could amend their new ordinances and require short term rental property owners to limit occupancy to the onsite septic system capabilities.

While we now have more rigorous rules for septic systems, there are no local laws regarding the application of lawn chemicals adjacent to the lake or its tributaries. Some property owners apply fertilizers, herbicides and pesticides on lawns by the shore or next to streams and storm drains leading to the Lake. During storm events, these chemicals wash into the Lake and add to the nutrient load and pollution. Should Towns consider placing limits on lawn treatments near the lakeshore or streams? Perhaps they could encourage adoption of the Lake Friendly Lawn Care program developed by the Canandaigua Lake Watershed Association. The City of Canandaigua has recognized the importance of the program, and is working to promote it to city residents, whose storm drains lead to the Lake. In fact, the program is good idea for all homeowners in the watershed. The Lake Friendly Lawn Care strategies and pledge form can be found on our CLWA website (<https://www.canandaigualakeassoc.org/get-involved/lake-friendly-living/>).

Harmful algal blooms are a real threat to the health of Canandaigua Lake and our drinking water. We must all do what we can to minimize our contributions to the spread of HABs. Updating local laws and changing our behaviors will be critical in the fight to protect this vital resource.



LAKE FOAM RESEARCH PROJECT ON CANANDAIGUA LAKE

By Nadia Harvieux and Lindsay McMillan

Lake foam is one of the most frequent inquiries made to the CLWA office from our members and the general public. In the late summer of 2018, intense foam accumulations along the shoreline (see 2018 foam images, below) prompted a new wave of questions about the lake foam- What makes up the foam? Are the timing of foam events linked to harmful algal blooms? Is it safe to be in contact with the foam? The last foam study was conducted in 2002/2003 by Dr. Greg Boyer, Ph.D., at SUNY ESF (available on the CLWA website). Since then, some notable changes have occurred in Canandaigua Lake, including the establishment of invasive Quagga mussels and the dominance of cyanobacteria in the late summer, resulting in harmful algal blooms. CLWA decided to revisit the questions about lake foam this summer with research partners, Dr. Rick Smith, Ph.D. and Dr. Stella Woodard, Ph.D., of Global Aquatic Research (GAR).



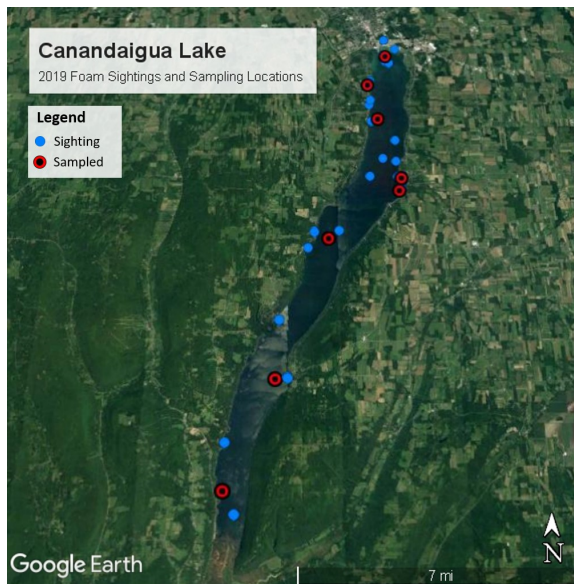
2018 Foam Images. Left: Foam event on west side of Canandaigua Lake on 9/9/2018 (photo credit: Dorothy Roach), Right: 9/17/18 foam event from east side of Canandaigua Lake (photo credit: Terry Smith)

CLWA worked closely with Rick and Stella to design a foam study plan and protocol, which evolved to include sampling both shoreline accumulations and mid-lake foam events. Foam collection occurred in September and October by a team of dedicated CLWA citizen science volunteers who participated in a training with Rick and Stella over the summer. Volunteers used specialized tools to collect a 5-gallon sample of foam, as well as water samples for analysis. During this time, Rick and Stella also obtained tributary water samples, non-foam event lake water samples, and plankton, aquatic plant and invasive mussel samples to be included in their study. In September and October, CLWA citizen science volunteers collected 5 mid-lake samples and 3 shoreline samples (see Table 1) from various locations around Canandaigua Lake (see Map 1).

Table 1: 2019 Foam Sampling Record

Date	Samplers	Foam Description
9/7/2017	Lynn Klotz and Nadia Harvieux	Shoreline accumulation in Crystal Beach area
9/13/2019	Chuck Wochele and Lindsay McMillan	Shoreline accumulation from West Lake Road
9/18/2019	Marty Lasher and Lindsay McMillan	Sample collected from boat about a mile south of Kershaw
9/27/2019	Rick Smith and Stella Woodard	Sample collected south of German Brothers from Marty Lasher's boat
10/1/2019	Elaine & Paul Messina	Sample collected mid-lake from boat in the Onanda Park area
10/8/2019	Nadia Harvieux, Ted Carman, Dee Crofton	Sample collected off Granger Point from boat
10/8/2019	Nadia Harvieux, Ted Carman, Dee Crofton	Sample Collected mid-lake off Vine Valley from boat
10/28/2019	Sally Napolitano	Shoreline accumulation collected in the Cottage City area

Map 1: 2019 Foam Sampling Locations





2019 Foam Collection Photos. Top left: shoreline foam sample collected on 9/13/19 by CLWA volunteer Chuck Wochele on the west side of Canandaigua Lake, top right: CLWA Board Members and foam study volunteers Dee Crofton and Nadia Harvieux collect mid lake foam near Vine Valley on 10/8/19, bottom left: Dee Crofton ,collects a mid-lake foam sample using the retractable skimmer, bottom center: shoreline foam sample collected on 9/7/19 by CLWA Board Member and foam study volunteer, Lynn Klotz, on the east side of Canandaigua Lake, bottom right: Researchers Rick Smith and Stella Woodard collect samples mid-lake on 9/27/19.

While not every foam event could be sampled, CLWA and GAR wanted to track visual observations of foam and capture information about the extent, character and timing of the foam events. CLWA developed an online reporting tool that is available for volunteers and the general public to submit foam observations. The foam survey can be accessed on the CLWA website by visiting: <https://www.canandaigualakeassoc.org/foam-reporting/> . You will be asked to document the location where the foam was observed using a map which records the GPS coordinates. Up to three photos for each foam event may be uploaded - a close up, a photo from 5-10 foot distance, and a zoomed out image to capture the full-scale of the event are ideal.

ARTICLE CONTINUED ON PAGE 8

LAKE FOAM RESEARCH PROJECT ON CANANDAIGUA LAKE, Continued from Page 7

Using this new online tool, CLWA members and the public submitted 53 visual observations of foam between August 14 and November 25, 2019 at a wide range of locations.

Of these 53 foam reports:

FOAM EXTENT

- 62% were reported to be large, localized (many properties along shore / many boat lengths)
- 25% reported to be small, localized (few properties along shore/ a few boat lengths)
- 13% widespread / lakewide

FOAM THICKNESS

- 51% of foam reports were 2 inches or less thick
- 23% were 2-6 inches thick
- 11% unknown
- 15% 6-12 inches thick
- 0% > 12 inches

FOAM TYPE (STREAKS, SHORELINE ACCUMULATION, FOAM "BERGS")

Respondents reported a mixture of foam types

- The majority, 70% reported foam streaks in this combo
- 47% noticed a build up along shore
- 9% saw foam chunks (foam-bergs)

OCCURRENCE WITH HAB EVENTS

- 43% of foam events followed a HAB event
- 41% did not
- 16% were unsure

The foam sampling season has ended and Rick and Stella will be analyzing the samples to determine the make-up of the foam, including testing for contaminants that could be entrained in the foam. We look forward to learning the results from our partners at Global Aquatic Research and sharing that information with our members and the public.

This project would not have been possible without the dedicated efforts of our CLWA citizen science volunteers - Dee Crofton, Ted Carman, Marty Lasher, Lynn Klotz, Elaine & Paul Messina, Sally Napolitano and Chuck Wochele who participated in the foam collection, and our many members who submitted online foam observations, thank you! CLWA would also like to express our appreciation to the Greater Canandaigua Civic Center for providing cold storage of the 5-gallon foam samples at the rink during the 24-48 hours required to collapse the foam into a water sample, thank you! And, lastly, thank you to all of our CLWA annual appeal donors who made contributions this year to help financially support this project.



Examples of foam thickness, as reported by volunteers and public observers.

UPCOMING FARMLAND PROTECTION WORKSHOP SERIES FOR FARMLAND OWNERS JANUARY 6 & 13, 2020

The Ontario County Agricultural Enhancement Board, the Ontario County Planning Department, the Finger Lakes Land Trust and the Genesee Land Trust are sponsoring a series of workshops for farmland owners on agricultural conservation easements and the NYS Farmland Protection Implementation Grant programs (sometimes referred to as purchase of development rights).

The series is intended to provide more in-depth information for farmland owners who are interested in knowing how these farmland protection tools could fit into their short and long term farm business planning and land protection goals.

There is no charge for the sessions. Class size is limited and registration is required. You can register online for the sessions you wish to attend by visiting: <https://www.co.ontario.ny.us/FormCenter/Planning-19/Registration-for-Winter-20192020-Conserv-147>

For more information contact Maria Rudzinski, Senior Planner, Ontario County Planning Department, 585-396-4416 or email maria.rudzinski@co.ontario.ny.us. If you are unable to register online, please email your name, address, phone number and location of your farmland to Maria Rudzinski.

Workshop Location:

Ontario County Safety Training Facility
2914 County Rd. 48
Canandaigua, NY 14424
6:30p - 8:30p

Date	Topic
Tuesday, January 6th, 2020	Developing a Land Plan for an Agricultural Conservation Easement Appraisals: Determining the value of farmland and
Tuesday, January 23, 2020	In Depth Look at the NYS DAM Agricultural Conservation Easement & the State Farmland Protection Grant Process

SAVE THE FOLLOWING DATES!

Winter may be upon us, but its not to early to mark your calendars for the following events:






Soil Health Workshop

Wednesday, February 12, 2020

8:30am-2:30pm

Location: Ontario Produce Auction, 4860 Yautzy Road, Stanley, NY

Spring Viewpoints Presentation: Impacts of the Round Goby

Presented by Dr. Susan Cushman, Finger Lakes Institute Research Scientist and Director of Introductory Biology Laboratories, Hobart and William Smith Colleges

When: Wednesday, May 20, 2020 from 6:30 pm—8:00 pm

Where: Finger Lakes Community College Stage 14

Susan Cushman is an aquatic ecologist who primarily studies stream communities. Her current research projects cover a diverse set of topics including fish health (mercury bioaccumulations, environmental estrogen, and parasites), population dynamics related to habitat restoration, and stream community composition in the Finger Lakes region. At this talk, Dr. Cushman will share on her research on the Round Goby, one of the most potentially disruptive invasive species in the Finger Lakes.

A STEWARD'S PERSPECTIVE: SUMMER 2019 BOATING SEASON

By Lindsey Ayers, Watercraft Steward and CLWA Administrative Assistant

This summer I had the pleasure to work as a part-time Watercraft Steward on Canandaigua Lake through the Finger Lakes Institute (FLI) at Hobart and William Smith Colleges. In this position, I helped educate boaters on methods to prevent the spread of aquatic invasive species (AIS) to other waters by offering my knowledge on the topic and by performing inspections of watercrafts launching and exiting the lake, amongst other duties. Check out flisteward.com/about for more information on this program. I worked as a Steward while also completing my internship with CLWA. I felt these two experiences blended wonderfully in offering me the chance to see how the missions of FLI, CLWA, Canandaigua Lake Watershed Council (CLWC), and other partner organization cross and offer so many services and educational opportunities to the Canandaigua Lake Watershed region. I can't speak more highly about these organizations and all of the amazing individuals that work for and volunteer their time to them. It has been a wonderful experience getting to know everyone and see all that is accomplished by their efforts to help the watershed.

12,681
Boats inspected by
Watercraft Stewards

The Watercraft Steward Program continues to be one of these very successful programs offered in the Canandaigua Lake region and surrounding Finger Lakes region as well as the southern Lake Ontario bays. This program only continues to grow its presence and familiarity within the boating community. In 2019, between the two public boat launches Woodville and the Canandaigua Lake State Marine Park, and services offered by Watercraft Stewards from both FLI and NYS Office of Parks and Recreation and Historic Preservation (OPRHP), 12,681 watercrafts were inspected. Of the individuals asked to participate in the boat inspection process, 96.69% of people agreed to participate, and 93.22% have had a previous experience with the program, which are figures that truly represent the continued success of the program.

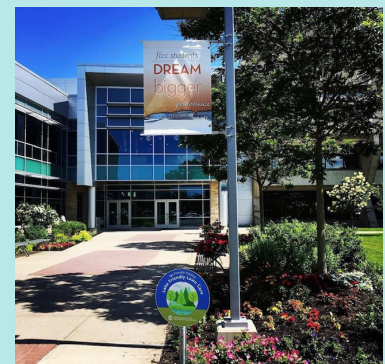
Speaking specifically to my experiences as a steward at both the Woodville and State Marine Park launches, I found people were overall very receptive and supportive of the program. Rarely did I come across a boater who preferred that I did not inspect their boat or who had not previously heard of the program. Those who were unfamiliar with the program were also generally supportive of the inspection process and curious to learn more about the program. I enjoyed being able to offer my knowledge to boaters gained from my training at the FLI about AIS and related topics when the opportunities arose, as well as just converse with them about their experiences on the lake and their love for it. I found these engagements to be very valuable in being able to relay the importance of this program and other efforts that help maintain the health of the watershed. I really enjoyed my time as a Watercraft Steward and I am so thankful for everyone that makes this program possible. A huge thank you goes out to all the boaters who participate in its mission in order to help protect this beautiful lake that we all love so much!

BE LAKE-FRIENDLY, YEAR ROUND!

By CLWA Board Member Rob Gray

The growing season has ended and you may be thinking more about snow removal than about lawn care. However, if you employ a commercial lawn care company and haven't signed a 2020 contract... DON'T! Contact the company about eliminating applications of pesticides and herbicides. These companies are concerned, first and foremost, with making a profit, and lake health is secondary. If you are a DIY home owner, and have been using the 4-Step method... STOP! Most lawns do not require fertilization and those that do may only need a single fertilization in the fall. Other steps are discussed on the CLWA website, steps which result in an attractive lawn AND help keep the lake healthy.

Perhaps you have seen the round lawn signs on large grassy areas such as Town of Canandaigua parks, the School District, the V.A., FLCC, and several churches and businesses. The signs are a reminder that you can also proudly be a lake friendly "champion" in the watershed. A smaller sign is available if you are willing to follow lake friendly practices in the future. Display it on your lawn for your neighbors to see, and encourage them to follow your lead when it comes to protecting lake health.



FLCC is one example of a Lake-Friendly leader in our community by eliminating pesticides and herbicides on grass areas and incorporating green infrastructure like bio-swales and rain gardens.

WATERSHED EDUCATION PROGRAM HAS A NEW VIDEO!

By Beth Altemus, Watershed Educator

Over a year ago, CLWA board member Katrina Busch proposed the idea of producing a video highlighting the Watershed Education Program and at the end of the summer that vision became a reality. Working with LaBarge Media, we captured a spectacular day with Seth Almekinder's fifth grade class at Naples Elementary School and the footage was used to make a short video which can be viewed on the CLWA website. This was a highly collaborative effort between LaBarge, CLWA, the watershed educators and Naples Elementary School and we are so proud of the result! You can view the film at: <https://www.canandaigualeassoc.org/science-education/education-programs/>



The show must go on, and indeed it has as we just wrapped up a busy and wonderful fall season of programming. Hundreds of aquatic macroinvertebrates were hauled to and from classrooms for sixth graders throughout the watershed to investigate for a two day water quality lab. As environmental educators we relish any opportunity to teach outside and to our delight we had an increase in field time this year as well. Fifth graders at Marcus Whitman learned about the critical functions of wetlands and we spent two days with four classes exploring the West River wetland on the Middlesex Valley Rail Trail. Mr. Almekinder's 5th grade class joined us again for an aquatic macroinvertebrate habitat comparison, collecting and identifying bugs from a newly built retention pond at the school and from Grimes Creek.

We also were thrilled to be a part of the Marcus Whitman High School's Living Environments Field Study trip. CLWA board member and Finger Lakes Institute Education Program Manager, Nadia Harvieux, collaborated with us to lead four classes through the biological and chemical aspects of stream monitoring at Grimes Creek in Naples. For the students, the stream sampling was coupled with a half day of rotating through various stations at Whitman's Comstock Ponds property on Townline Road in Middlesex. The goal was to blend each aspect of the students' days into an overall environmental comparison study.

We just squeaked by with our outside teaching before the real winter weather hit. In fact, our last field trip coincided with the first snowfall. (An inch of snow only made the day more exciting and fun for a great group of Whitman fifth graders!) Now we'll be driven back indoors for a slate of classroom programming this winter, all the while prepping for more spring adventures.

IN MEMORY OF HANK EIFFERT

William & Jodi Shea
Cheryl Taylor
Adrienne O'Brien
Jack Quinn & Kay Quinn
Sara Eck & Alan
Mark & Lauren Johnson
Muriel Burkhart
Joeleen Lacrosse
David & Ginny Saur
Ann & David Scoville
Michael Frankovich
Richard Steiner

In Memory of Albert "Bubs" Seymour

Elizabeth Bynum
Frank & Cricket Luellen

In Memory of Tyrrell C. Dryer

From Mrs. Michele Dryer

Memorial for Elaine "Baboe" Gotham

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In Honor of Janet Harris Bodwell

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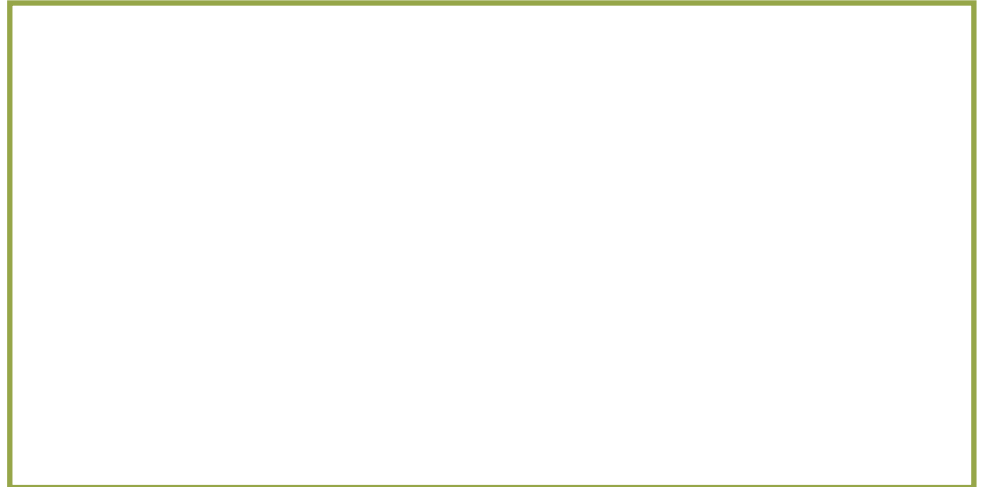
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CONTACT US:

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info@canandaigualakeassoc.org
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Our 2020 Membership Drive is in Full Swing!

The Canandaigua Lake Watershed Association has a strong base of supporters and a long history of protecting Canandaigua Lake and its watershed. Because of many complex and escalating challenges to the health of the watershed, we need YOUR support.

Please choose your tax-deductible level of support.

\$ 50 Guardian

\$ 75 Partner

\$ 100 Lake Leader

\$ 250 Watershed Steward

\$ 1000 Benefactor (your gift supports our environmental education efforts)

\$ BUSINESS MEMBER (Business Memberships start at \$100 and include a special listing in upcoming issue of The Lake Reporter)

Membership year will begin with receipt of your application and extend to the end of the calendar year. All information you provide will be used for the sole purpose of communicating with you. We will not share it with others.

Name / Business Name: _____

Principal Address: _____

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Checks can be made payable to: CLWA PO Box 323 Canandaigua, NY 14424 ... or visit our website to join online!