Fall 2020

CHAUTAUQUA LAKE ASSOCIATION, INC.
429 EAST TERRACE AVE.
LAKEWOOD, NY 14750
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ChautauquaLakeAssociation.org

CLA APPLIES FOR GRANT TO ADDRESS CURLY LEAF PONDWEED CONTROL

Every June curly leaf pondweed grows to the surface causing nuisance conditions. It then dies off in early July. The CLA has applied for a grant to fund harvesting of the nuisance growth. Harvesting is a better control method because harvesting leaves sub-surface growth that serves as fish and aquatic life habitat, leaves roots that stabilize the soil thereby lessening lake turbidity, provides cover so that beneficial later arriving native plants that would otherwise be forced out by early arriving Eurasian watermilfoil can get a growing start and surface harvesting does not affect non-target plants at that time of year.

RECORD NUMBER OF BOATERS ENJOY CHAUTAUQUA LAKE

ABOVE: ZEKE OLSON, MAYVILLE LAUNCH

WOW... What a summer! CLA Boat Stewards saw a HUGE increase in boat activity this summer. Various times over the 5 years that I've supervised the boat steward program for the CLA, I have lightheartedly referred to the lake as my "summer office." This year that seemed to be true for many others as well. One can assume, with so many working from home this year, that residents discovered a "floating office" and enjoyed the beautiful lake as often as they could. Final reports are not yet complete, however in August we already recorded over 16,000 boater surveys (8,791 surveys were recorded in 2019). Stewards worked from May - September at public launches on Chautauqua Lake, Cassadaga Lake and two sites on Lake Erie. Final reports will be available at the end of October. The boat steward program is a spread prevention program; offering education and awareness of aquatic invasive species to the public. Visual inspections are offered, and data is recorded in a statewide database. This program is funded through a NY State Grant and is not part of the CLA's regular budget.

CLA REMOVES 13 MILLION POUNDS

Despite the many challenges 2020 has brought to say we had a successful season is an understatement. CLA crews were harvesting and cleaning shoreline beginning the week of June 8th. Week #2 was our biggest week of the season with 82 large truckloads removed! As the season continued so did the obstacles but we sailed on averaging 46 loads per week. We initiated a weekly work plan following circular routes ensuring all areas were visited. Plans were posted every Monday on FB and our website. It took some getting used to as does all changes however the results were very positive. We also began using a GPS system on our equipment allowing us to track crew progress and better document our locations on weekly reports. We partnered with the Town of Chautauqua's Mobi-Trac program this summer. That program focused on near shore needs removing 1,655,000 pounds of buildup. We had great, hardworking employees once again this summer which made the season even better. Notes are already being reviewed for next year to increase our efficiency and coverage. Thank you to those of you that commented on FB or called the office expressing your concerns and satisfaction. It was nice to have more "happy notes" than complaints. Please feel free to reach out to our office with any suggestions or ideas as we begin planning for 2021.

TO READ ABOUT WHERE THE WEEDS GO ... SCAN THIS CODE WITH YOUR SMART PHONE!

CLA In-Lake Maintenance Activity: Summer 2020

This year CLA installed GPS units on all in-lake equipment to use as a management tool and to establish more accurate weekly reports. This data was also used to develop ongoing weekly work plans that were posted to our website.

The heat map, shown at left, represents activity of CLA harvesters and shore crews. The greater the intensity means more time spent in an area by our crews.

Our GPS equipment investment is incorporated into our two-way radio system which connects with our office computer system. This allows for real-time analysis of GPS data both in the office and by our supervisors out in the field.

TO VIEW FULL SIZE MAPS, SCAN THE CODE BELOW USING THE CAMERA ON YOUR SMARTPHONE

2020 BY THE TON

2420
LAKEWOOD CREW

2575
LONG POINT CREW

WE HAVE THE EXPERIENCE. WE HAVE THE EQUIPMENT. WE HAVE THE MANPOWER.

WITH YOUR SUPPORT, WE WILL GET RESULTS!

If you have not already, please consider supporting the Chautauqua Lake Association by making a donation today. Your support directly benefits our lake maintenance program.

THIS YEAR, I HEREBY PLEDGE A TAX DEDUCTIBLE CONTRIBUTION OF:

○ **$1000** ○ **$500** ○ **$250** ○ **$100** ○ **$50** ○ **$25** ○ **OTHER** _____

AMOUNT PAID _____ **CONTRIBUTORS SIGNATURE** _____ **DATE**_____

○ **MY EMPLOYER WITH MATCH MY CONTRIBUTION** _____

MY EMAIL ADDRESS _____

Mail checks to: Chautauqua Lake Association, Inc., 429 East Terrace Ave., Lakewood, NY 14750

SECURE ONLINE DONATIONS CAN BE MADE USING ANY CREDIT CARD. SCAN THE CODE BELOW TO VISIT OUR WEBSITE

CLA is a 501(c)3 organization

CLA HOSTS PILOT PROGRAM ON ALGAL BLOOM REMEDIATION

During August the CLA headquarters facility in Lakewood hosted the AECOM contractor component of the US Army Corps of Engineers HABITATS (Harmful Algal Bloom Interception, Treatment and Transformation System) pilot study. A new technology for removing and disposing of HAB bluegreen algae was being efficiency tested and evaluated for possible improvements. Scientists from AECOM and the Corps were in residence at the CLA evaluating the shore-based component. CLA Executive Director Douglas Conroe comments that "This pilot study offers realistic hope for producing an environmentally friendly, no chemical option for removing localized HABs along with removing phosphorus and nitrogen nutrients from our over-abundant nutrient-laden lake."

1510
MAYVILLE CREW

827.5
MOBI SUPPORT

6505
TOTAL TONS REMOVED

CLA FOCUSES ON HABS

Again in 2020 the CLA implemented a multi-faceted approach to understand and address challenges presented by Harmful Algal Blooms.

ACTIONS INCLUDED:

+ Serving as a Trusted Reporter to the state Department of Environmental Conservation's NYHABS web-based program that documents and reports on the presence of HABs
+ Informing the county Health & Human Services Department of discovered HABs
+ Maintaining general HAB information on our website for public viewing
+ Collecting samples from suspected HAB locations to document conditions
+ Interacting with lakeside property owners about algal bloom conditions at their locations
+ Maintaining open communication with HAB experts
+ Participating in the CSLAP (Citizens Statewide Lake Assessment Program) along with collaborating with other scientific programs

CLA'S HAB MONITORING PROGRAM INCLUDED IN SCIENTIFIC PUBLICATION

This fall's issue of *Toxins* includes an article based upon a three-year analysis of Chautauqua Lake algal blooms. CLA Executive Director Douglas Conroe has been collaborating with SUNY's College of Environmental Science and Forestry (ESF) since 2013 to develop an understanding of algal blooms along with documenting in-lake Harmful Algal Bloom conditions. The article observes that Chautauqua Lake is a highly productive lake with a historical record of algal blooms extending for more than a century. While primary productivity of microorganisms has helped fuel a productive and diverse ecosystem, cyanobacteria in the lake produce several toxins, including the liver-toxic microcystins, neurotoxic anatoxins and paralytic shellfish poisoning toxins (saxitoxins). Dense blooms of cyanobacteria can lead to high concentrations of these toxins and may pose danger to humans and animals when consumed. The study evaluated by lake basin the human health risks from these toxins, as well as the physical and chemical features related to the presence of cyanobacterial blooms and toxins along with other parameters. The study noted that blooms in the North Basin tended to be infrequent but could be dense and widespread, and nutrient control strategies there may be effective in limiting their extent. In contrast, blooms in the South Basin were frequent but less dense relative to the North Basin, and nutrient control strategies there may not be as effective in limiting their scope. The risks to humans from cyanotoxins in drinking water are low, while there are higher risks to humans and animals through recreational contact. The study's findings are being elaborated upon at October 24th's Federation of Lakes Association WNY Division's Annual Workshop which is being hosted on Chautauqua Institution's virtual programs platform. The complete report can be obtained on-line at https://www.mdpi.com/2072-6651/12/9/559/pdf.

Other collaborations with SUNY ESF include the current collection of algal bloom samples from throughout the lake. The samples will be utilized to test a new real-time phosphorus sensor that is currently under development. The project is an aspect of an NSF and NIH grant that is being managed by the Bowling Green State University (Ohio) Lake Erie Center for Freshwater and Human Health.

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