

# The Grapevine

## Newsletter of the HONEOYE VALLEY ASSOCIATION

Volume 37

One Lake One Community

Spring 2019

### Mission Statement

The Honeoye Valley Association is a not-for-profit, volunteer organization that works in a variety of ways to protect and preserve the environmental quality of the Honeoye Lake watershed.

The HVA acts as an advocate for the protection and improvement of the Honeoye Lake Watershed. Activities include communicating with governmental agencies and political representatives, educational outreach, monitoring of the lake ecosystem, and acting as a clearinghouse for information related to these activities.

Pg. 1 2018 HVA Secchi Disk Volunteer Pilot Program: Terry Gronwall

Pg. 2 Summary of the Honeoye lake Population of Invasive Zebra Mussels: Dr. Bruce Gillman FLCC

Pg. 3 Roadside Cleanup

Pg. 4 Honeoye Lake Shoreline Stabilization Project

Pg. 5 Picture The Valley Photo Contest

Pg. 6 NYSDEC Honeoye Lake Draft Total Maximum Daily Load (TMDL)

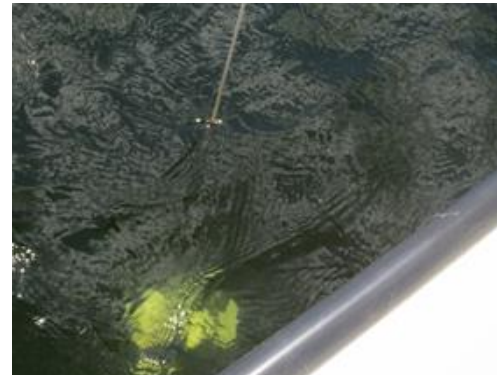
Pg. 7 Multi-Year Forest Management Program at Sandy Bottom Park

Back Cover Honeoye Valley Association Membership form

## 2018 HVA Secchi Disk Volunteer Pilot Program

Last July the HVA initiated a Pilot Secchi Disk volunteer program to start collecting weekly near shore water clarity, surface water temperature, and additional HAB data to augment the water quality information being collected at four deep water locations and ten HAB near shore HAB monitoring locations.

Six volunteers participated in our pilot Secchi Disk program last summer. Two volunteers in the Northern Lake Basin and four volunteers in the Southern lake basin. We thank and recognize these volunteers for their dedication.



We are looking for 2 more Secchi Disk volunteers for the Northern Lake Basin along the east shore for the summer of 2019.

Also, we would like to expand our “Eyes on the Lake” volunteer program for this summer. You would be sending us a visual HAB observation report every weekend June - September. If your report indicates the likelihood of an HAB, then we would check it out on Monday morning and take a sample for DEC testing if warranted.

Please let us know if you are interested in learning more about these volunteer opportunities by contacting us at [watershedtaskforce@gmail.com](mailto:watershedtaskforce@gmail.com)

# Summary of the Honeoye Lake Population Study of Invasive Zebra Mussels

By Dr. Bruce Gilman, Finger Lakes Community College

Impacts of invasive zebra mussels (food-web disruption, altered nutrient cycles, role in algal blooms, changes in lake ecology, human health issues) make it desirable to periodically monitor their population levels. This past summer, four near-shore sampling locations (Sandy Bottom Beach, gravelly point south of Trident Marine, large embayment at Young's home south of California Point, and small embayment north of Forest View) were selected as representative of the range of environmental conditions within Honeoye Lake. Dredge samples were taken at three different depths from each location yielding twelve samples. Three additional samples were collected in deep water of the north central basin, south central basin, and maximum depth zone (30 feet) in the lake. Samples were processed by tallying total number, measuring up to 100 shell lengths per sample with digital calipers, and weighing total sample biomass. Additional organisms found in the samples were noted. Total count, mean sample density, mean total biomass, mean individual biomass as well as statistical shell size class analyses were completed. Shell length was used as a proxy for mussel age, with maximum length for first year growth validated by shell lengths of 40 mussels collected off a residential dock that is annually removed prior to complete winter ice formation across the lake surface.



Variable density estimates are expected for organisms with a known, spatially clumped distribution pattern like that exhibited by zebra mussels. Some mussels occurred as individuals but most grew as variably layered colonies attached to sparsely distributed hard bottom materials or as “necklace” colonies on macrophyte stems of several different aquatic plant species. Among these common aquatic plants, coontail stem fragments overwinter beneath the ice and may serve as a refugium from which zebra mussels colonize the next year. Mussels also successfully overwinter on gravel bottoms associated with major points along the lake shore. Cont. Page 3

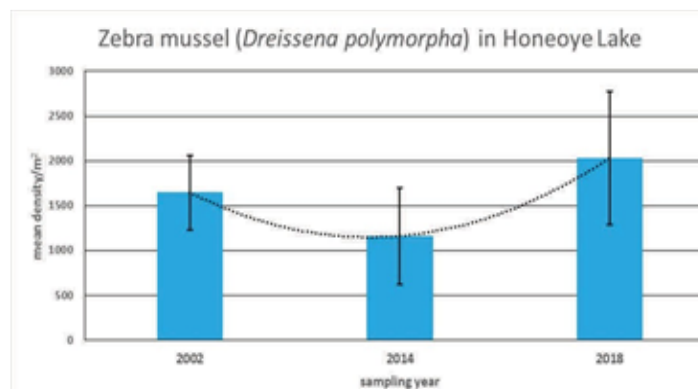
Photo Credits:  
Terry Groanwall

Continued from page 2, Summary of the Honeoye Lake Population Study of Invasive Zebra Mussels

Zebra mussels were not detected below 5 meters of water depth due to the softness of the muddy bottom. Sample total biomass of zebra mussels ranged from 0 to 653.92 grams/m<sup>2</sup> in 2018, with mean sample total biomass of 234.7 grams/m<sup>2</sup>. Mean individual zebra mussel weight was 0.102 grams. In 2018, one-year-old zebra mussels had a maximum shell length of approximately 2.5 centimeters. Banded mystery snails and ram's horn snails were often collected in the samples. Our sampling did not detect other invasive species like Asian clams and quagga mussels in Honeoye Lake.

Comparing this year's data to that collected at the same locations in 2002 and 2014 demonstrates a subtle "boom and bust" cycle in population structure, that is, population density increases slightly in some years followed by decreases in subsequent years (see Figure 1).

Figure 1: Changes in estimates of zebra mussel mean population density ( $\pm$  SE)



Zebra mussel density is influenced by many factors including intraspecific competition for the proportion of the plankton community that they find palatable (varies each year and monthly within any given year), the concentration of dissolved calcium in the water (required for their shell formation), the availability of hard substrates where they can connect and grow (may be decreasing with the decline of native pearly mussels in the lake), limited overwintering opportunities, and the level of predation on zebra mussels by fish (zebra mussels are found in stomach contents of several fish species).

Fortunately, most zebra mussels in Honeoye Lake only live one year, and their population density never reaches the nuisance levels seen elsewhere in the Finger Lakes region.

The 2019 Honeoye Valley Roadside Cleanup will be held on Saturday, May 11th from 8 AM - Noon.

The event will start off with a free hot breakfast from 8 AM - 9 AM sponsored by and at the United Church of Christ 8758 Main St. Honeoye, NY.

HVA volunteers will distribute garbage bags and coordinate road assignments from 8AM - 9 AM at the UCC.

Families and community groups are encouraged to participate in this annual spring cleaning event to make our valley shine. Debris collected during the event will be accepted for disposal at no cost from 8AM - Noon at the Richmond Town Hall with the cooperation of K&D Disposal.

Please start to plan on what road you would like to work on and communicate that information to the clean-up coordinator. Some roads are already assigned. Groups that have had past road assignments can expect to have the same routes as in the past. For more information or to request a road assignment for your family or group please contact new HVA roadside clean-up coordinator Jerry Passer at 229-5474 or [honeoye5@yahoo.com](mailto:honeoye5@yahoo.com)



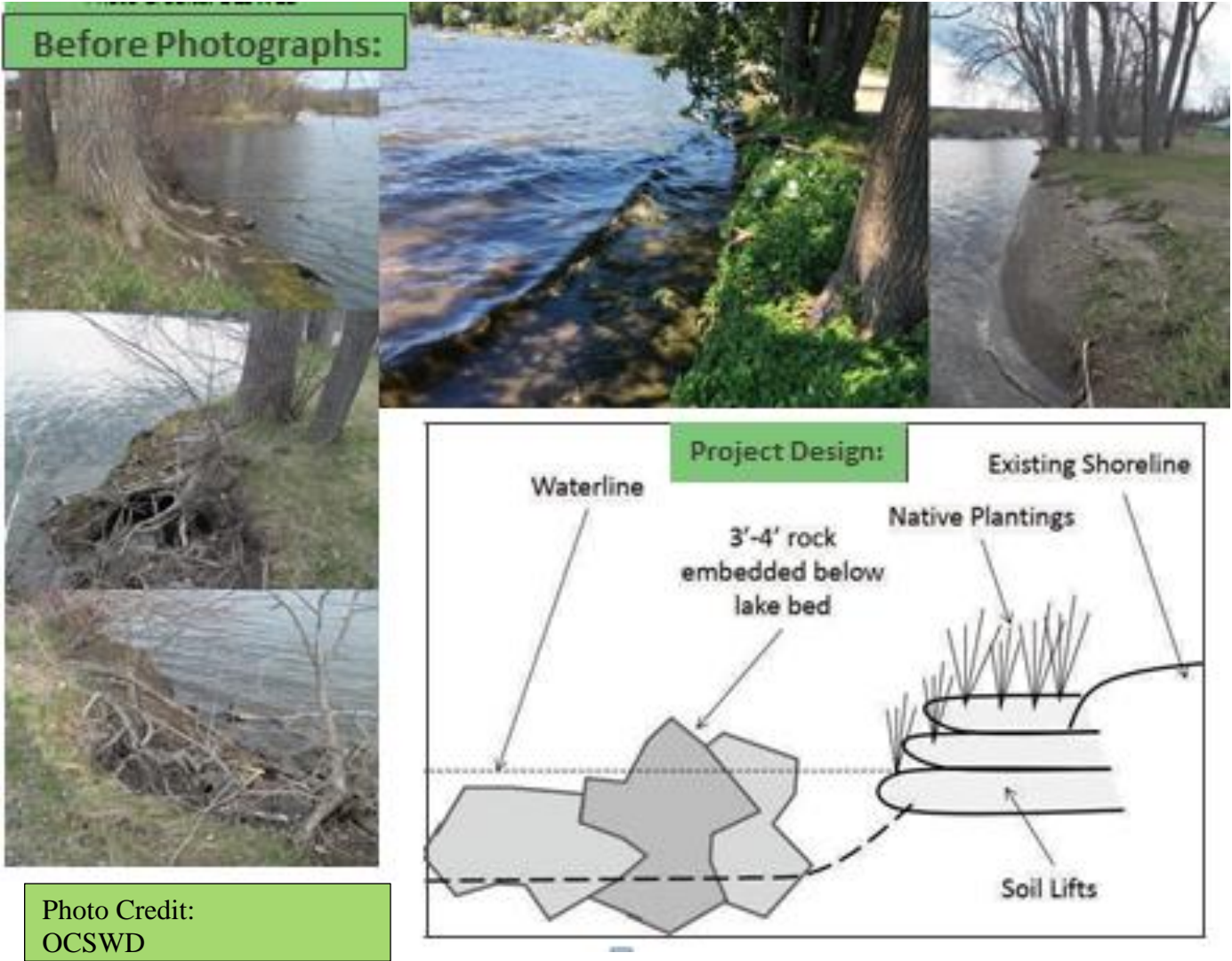


Photo Credit:  
OCSWD

## Honeoye Lake Shoreline Stabilization Project

The Ontario County Soil & Water Conservation District received funding to complete the Honeoye Lake Shoreline Stabilization Project! Through the New York State Sea Grant, they received funding to pay for the engineering and design of the project. Through the New York State Department of Environmental Conservation Water Quality Improvement Project Round 15, they received additional funding to install the shoreline stabilization project on Honeoye Lake. This project aims to stabilize 150 feet of shoreline in Sandy Bottom Park adjacent to the public swimming beach. Nature based shoreline protection practices will be implemented as part of this project. These practices have been proven to increase ecosystem resiliency to climate change, increase the availability of native habitat and reduce the negative impacts to waterbodies caused by erosion and sediment deposition. In Sandy Bottom Park, the design includes a series of soil lifts protected by erosion control fabric and native plantings to stabilize the eroding shoreline (as seen in the below design photo). In front of these structures, large rock will be placed in the water to disperse energy from wave action and ice movement before reaching the shoreline. We are very excited for this project to be implemented!

# Picture the Valley PHOTO CONTEST

The Honeoye Valley Association wants to see your FAVORITE views of the valley for our 2<sup>nd</sup> annual Photo Contest!



2018 entry by Robert Ryer

**Enter to win**  
*Great Local Prizes!*

**Email your photos to:**  
honeoyephotos@gmail.com  
By July 6<sup>th</sup>, 2019



## Here's how to enter:

- Capture photos that show the beauty of the Honeoye valley. The HVA encourages photos of the lake, hills, tributaries, and waterfalls around the Honeoye Lake watershed. Get creative!
- Submit jpg images to [honeoyephotos@gmail.com](mailto:honeyephotos@gmail.com). Include your name, address, phone number, email address and title of the photo. HVA will also accept printed images mailed to: PO Box 165 Honeoye, NY 14471.
- Submit up to two photos per person. Contest is open to amateur photographers of all ages.
- Enter by July 6th, 2019
- Voting will take place at the HVA Annual Meeting in July. Attendees will vote and choose their favorites!
- 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place winners will receive GREAT local prizes!
- Entries may be used in future publications by the HVA, with full credit given to the photographer.



2018 entry by David Scribner



## NYSDEC Honeoye Lake Draft Total Maximum Daily Load (TMDL) Community Meeting February 4<sup>th</sup>, 2019

Honeoye Lake was listed on New York State's 303(d) list impaired waterbody's for excessive levels of phosphorus in 2006. The EPA requires the state to develop a TMDL for lakes on the 303(d) list to determine the maximum amount of phosphorus reaching the lake from the various sources that will keep the level of algae blooms to an acceptable level (4 ug/L). The CE-QUAL-W2 Lake computer model was used for this analysis. The lake model takes land use, weather, water flow rates, etc. into account. The model was calibrated with actual lake water quality data and weather data for 2007-2014. The lake model indicated that the sources of phosphorus reaching the lake was ~93% from the lake's bottom sediments and ~7% from the watershed during rain storm events.

The NYSDEC set targets to reduce the watershed's phosphorus contribution by 10% and the lake bottom's phosphorus by 100%. Recommended watershed actions are to create riparian buffers, vegetative swales, stabilize shoreline banks, proper ditch maintenance procedures, use of yard fertilizers without phosphorus, etc. Recommend actions to reduce the lake bottom's contribution of phosphorus are an Alum Treatment and/or an Aeration System.

Alum binds with the phosphorus instead of the iron and maintains that bond under anoxic (no dissolved oxygen) conditions. An aeration system keeps the bottom water with enough dissolved oxygen to keep the phosphorus bound to iron naturally.

The NYSDEC has contracted with Princeton Hydro to prepare a feasibility study to evaluate the effectiveness, cost, and life expectancy of an Alum Treatment and/or an Aeration System. This feasibility study is expected to be completed in the next few months. Once the NYSDEC has publicly released this study, we will share the details with you.

Actual implementation of the TMDL recommendations will be made after the feasibility study has been released and the necessary NYSDEC permits are obtained along with the required project funding is secured.

Additional TMDL information can be found at:

TMDL Report:

[http://www.dec.ny.gov/docs/water\\_pdf/tmdlhoneoyelk19.pdf](http://www.dec.ny.gov/docs/water_pdf/tmdlhoneoyelk19.pdf)

TMDL Meeting Charts:

[http://www.dec.ny.gov/docs/water\\_pdf/honeoyepres.final.pdf](http://www.dec.ny.gov/docs/water_pdf/honeoyepres.final.pdf)

TMDL Meeting Video:

<https://www.youtube.com/watch?v=Nggal8Q-On8>

## Saving Sandy Bottom Park from the Emerald Ash Borer

With the infestation of Sandy Bottom Park Ash trees the Town of Richmond has embarked on a multi-year forestry management program to manage the parks wetland environment and remove dead and dying trees from the floodplain. The infested dying ash trees pose a liability risk to the town and danger to the public walking in the park.

Damage caused by the ash borer prevents the tree from transferring nutrition from the root system to the limbs severely compromising the shear strength of the entire tree. Canopy die back has been observed within the park for a few years and is one of the first signs of forest infestation. Infested trees shed limbs randomly and will collapse with no warning. Experts have warned it will be more costly and dangerous to remove a heavily infested, dead, and unpredictable tree than a live infested ash tree.



The Ash tree salvage sale was a messy operation community members should be aware that restoring the forest will be an ongoing process for at least the next three years. Although the park will have less trees for a few years, it is necessary in order to return the park to a vibrant wetland without the infected and dangerous ash trees.

With the support of Richmond's Parks and Recreation Committee and Friends of Sandy Bottom Park, the Town has secured a Trees for Tributaries Grant to replant Sandy Bottom Park with native species. Planned planting dates coming up are National Trails Day on: June 1, 2019 and Make a Difference Day: October 26, 2019.

The Sandy Bottom Park Forest is being managed in accordance with a NYS Department of Environmental Conservation Forest Stewardship Plan for Sandy Bottom Park. Following a Forest Stewardship Plan has multiple added benefits for optimizing forest health, wildlife, recreation, and aesthetics within Sandy Bottom Park.

It is the desire of the Town of Richmond to keep Sandy Bottom Park safe for its residents and visitors, and to protect existing park infrastructure. To get the latest park updates and forthcoming information on volunteer opportunities, including tree replanting days, follow Town of Richmond and Friends of Sandy Bottom Park on Facebook.



Read more about work underway at Sandy Bottom, and management of trees affected by the emerald ash borer on the town website:  
<https://townrichmond.digitaltowpath.org:10135/content/Generic/View/224>

Read more about the signs and symptoms of the Emerald Ash Borer:  
[http://www.dec.ny.gov/docs/lands\\_forests\\_pdf/eabsymptoms.pdf](http://www.dec.ny.gov/docs/lands_forests_pdf/eabsymptoms.pdf)

VA Membership Form please print clearly or join online! <http://www.hvaweb.org>

Today's Date: \_\_\_\_\_ Email Address: \_\_\_\_\_

Last Name: \_\_\_\_\_ First name: \_\_\_\_\_

Mailing Address		Lake Address	
		<input type="checkbox"/> <i>Check box if same as mailing address</i>	
Street:			
City:			
State:	Zip:		Zip:
Phone #:			

<input type="checkbox"/>	Single Membership	\$ 20.00	Individual, single vote
<input type="checkbox"/>	Family Membership	\$ 30.00	Two adults and children living in same household; each adult eligible for a single vote
<input type="checkbox"/>	Business Membership	\$ 50.00	No votes; recognition of membership on website

Cash       Check \_\_\_\_\_       Please invoice me

Additional tax-deductible donation for lake projects: \$ \_\_\_\_\_

I am interested in assisting with HVA activities, please contact me. My area of interest/expertise is: \_\_\_\_\_ (optional)

**Please mail form and payment to: Honeoye Valley Association / PO Box 165 / Honeoye, NY 14471**

Honeoye Valley Association  
P. O. Box 165  
Honeoye, New York 14471

=====