2020
Regular Coalition Meetings
April 9
July 9
October 8
At 10:00 AM
Harrisville Library

PINE RIVER VAN ETTEN LAKE
WATERSHED COALITION

Working Together to Restore and Protect Our Natural Resources

Project Planning for 2020

A Typical Creek Scene in the Watershed

When looking ahead to a new season of monitoring the watershed, the PRVEL board relies heavily on the formal management plan put together in 2003, updated in 2008, and reviewed each year to assist in prioritizing conservation projects.

Working with organizations like Huron Pines, Alcona County Road Commission, US Forest Service, EGLE (previously DNR and DEQ), and county conservation districts, meetings are held to discuss how best to accomplish our goals for any particular year.

Projected projects for this coming season include: a) road/stream crossing restoration for at least one site in the eastern section of the watershed, b) field work to identify and eradicate invasive plants (phragmites, autumn olive, purple loosestrife, in particular), 3) partnering with local school systems to bring environmental issues into the classroom more effectively, and 4) improving our outreach through social media and community involvement.

Our established programs will continue (in-stream temperature loggers to assist in stream assessments, recording of water levels at road/stream crossings – Crowd Hydrology program, water quality sampling, and outreach presentations) except for our macro-sampling, which is currently being evaluated for possible revision.

The all volunteer PRVEL board is always open to input from members on how best to manage the watershed and is eager to welcome new members to board positions at the April 9th meeting. Please consider joining in our conservation efforts and help us to manage the large area that makes up our beautiful watershed.

The Kirkland Warbler, a Watershed Native, courtesy of Pixabay

Measuring Water Quality Through Macro-invertebrate Sampling

For several years now, on an every five year rotation, staff from Michigan Dept of Environment, Great Lakes, and Energy (EGLE), which most of us know as the DEQ and DNR, have been sampling the streams in the Pine River Watershed for aquatic insects, which they then score to indicate the water quality of that stream. PRVEL has been attempting to assist them in their sampling efforts by conducting a similar program annually, involving volunteers from our membership along with high school students.

Sampling at the Pine River Campground

So how does this program help to determine water quality in our streams? Let's start with the basics. Macro-invertebrates are organisms that lack a spine and are big enough to be seen, although some require a microscope. Examples are mayflies, dragonflies, crayfish, snails, and beetles.

These "water bugs" have tolerance levels for habitat, based on a number of factors which include the following: the amount of oxygen in the water, sediment content, water temperature, nutrients, as well as toxic metals or chemicals. Macro-invertebrates with a low tolerance for these factors can serve as indicators, because if they are few in number, this can indicate higher levels of water pollution or low levels of dissolved oxygen in that stream. Ideally, they like to live in clear, cold water, with highly dissolved oxygen content, low nutrient levels, well shaded, and relatively undisturbed habitat.

The last survey conducted by EGLE in our watershed was in 2017 with results listed below. Categories include Excellent to Poor ratings.

- VanEtten Creek at F-41 — Acceptable
- South Branch Pine — Excellent
- Pine River at Somers Rd — Acceptable
- Duvall Creek — Excellent

The spring program for PRVEL volunteers in 2019 sampled two sites not sampled by EGLE and results have not yet been tabulated. However, data from previous samplings over the past few years have reportedly ranged from good to excellent. More information on stream sampling for the Pine can be viewed online at *micorps.net*.

Over the past several years of sampling, PRVEL has relied heavily on students to assist in collection of samples as volunteers have been difficult to find due to a variety of factors. The PRVEL board will be discussing continuation of the program or seeking other alternatives.

If you have an interest in this program and would like to volunteer to help out, please contact us by email as shown on the last page or come to next meeting as shown on the first page.

Students Sorting Marco-invertebrates

E. COLI SAMPLING UPDATE

by Dan Stock, Water Quality Monitor

Samples were taken monthly from April through October at five locations on the Pine River system in 2019. The five base locations are: the Pine at the county line, the East/West confluence at F-30, West and South Branches and Van Etten Creek.

Table 1 - Pine River Watershed E. Coli Monitoring

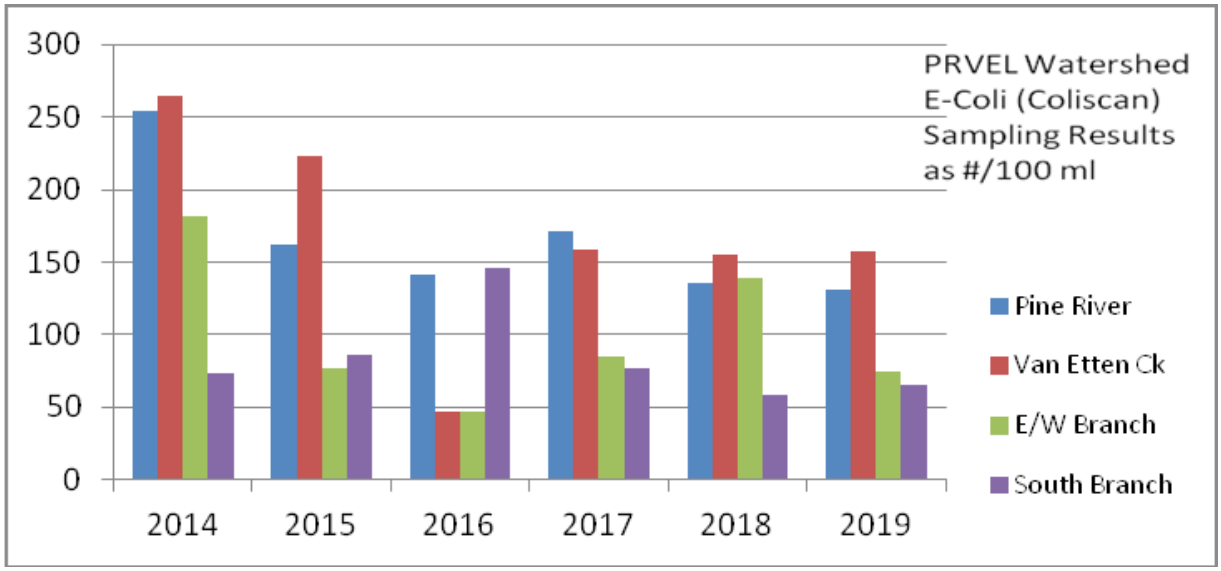
Location	Site No	2019				14-year Combined Results			
			No./100 ml				No./100 ml		
Pine River and Tributaries		No	Mean	Max	Min	No.	Mean	Max	Min
Pine River @ County Line Road	01	6	131	290	20	69	99	3500	1
South Branch @ Cruzen Road	04	6	68	180	10	66	65	2600	1
Van Etten Creek @ Barlow Road S.	11	6	158	660	30	65	136	3600	1
E/W Pine River @ F-30 Road	31	6	74	180	20	61	104	3800	1
E. Branch of Pine @ Tait Road	32	0				5	170	340	60
W. Br Pine @ Cruzen Road	41	6	65	210	20	42	80	1450	1

All results are expressed as CFU (colony forming units)/100 ml

Observations

1. The geometric means for two of the five sites sampled in 2019 had means higher than 130 CFU/100 ml state standard for swimming waters and only one site exceeded the 300 CFU/100 ml single sample concentration for the same standard. These higher results for the annual mean of the 2019 samples are not significantly different from the long term means.
2. The bacteriological quality of the streams in the watershed continues to be acceptable with no indicators of gross pollution.
3. A continuation of the sampling program at these base sampling points is planned for 2020.

FIGURE 1
TRENDS FOR FOUR SAMPLING SITES



Managing Large Woody Debris

In recent years, many land owners have witnessed the huge die-off of ash trees killed by ash borer infestation. If this dead wood is near a waterbody and eventually falls into the river or stream, it can be considered a good event, since this occurrence is a natural and important part of a healthy aquatic ecosystem and thus, can be seen as providing more benefit than harm (food and cover for fish and insects, improved fish habitat by slowing down or re-directing flow, provide erosion control). That is, unless the amount of debris is so large that it leads to blocked navigation, increased soil erosion related to stream flow patterns being altered, or poses a hazard near culverts or bridges.

Large woody debris (LWD) presents a challenge when considering how best to manage it in keeping with solid conservation principles. In addition to the above considerations, the logistics of actually getting necessary equipment/machinery to their location near or on the water remains an obstacle in many cases – if, in fact, this is needed, versus a few volunteers with chain saws, ropes, and muscle. Wading into a stream to relocate woody debris does not require a EGLE permit if the project involves floating debris and/or trees that are not embedded in the stream bottom or banks, but otherwise a permit needs to be obtained. Best management practices for LWD removal should include the following:

- Minimize the amount of debris taken out of a stream to take advantage of its benefit to the waterbody
- Manipulate the remaining wood to best achieve goals to improve fish habitat and enhance stream flow
- Place removed wood far away from the river/stream so that it does not re-enter the water during high flows
- Minimize disturbance of surrounding habitat

For further information regarding this topic, contact the district conservationist in Tawas City by emailing Kurt Dalman at *kurt.dalman@usda.gov*.

CROWD HYDROLOGY

Over 100 gauge readings were submitted to the CrowdHydrology web site from the six gauges in the watershed in 2019. The most popular site was the one at the Pine River Campground where 27 readings were taken, many by campers. This is an encouraging use of the crowd sourcing concept. Gauges are located at the following locations:

MI1055	Pine River @ the County Line
MI1056	Van Etten Creek @ Pine River Trail
MI1057	E/W Pine Junction @ F-30
MI1058	South Branch @ Cruzen Rd
MI1059	West Branch @ Cruzen Rd
MI1060	Pine River Campground

While driving around the watershed this spring with your bird watching binoculars, also take some water level readings.

For the fourth year, the Pine River/Van Etten Lake Watershed Coalition (PRVEL) was selected as one of 60 community non-profits to participate in Giving Tuesday Northeast Michigan. The event, which was held December 3, 2019, brought in $1455 in donations to assist PRVEL in its mission to promote stewardship and education in the Pine River Watershed.

Giving Tuesday, through the Community Foundation of Northeast Michigan, raises funds for local non-profits, which provide services that are vital to our community. The event occurs the Tuesday after Thanksgiving, tapping into the holiday giving season.

PRVEL is honored to have been selected for this annual fundraising campaign. Thank you to all who donated and to those who participate in PRVEL's programs and projects. Volunteers are always welcome!

GIVE

#GIVINGTUESDAYNEMI

WATERSHED WILDLIFE WATCH
The Red-winged Blackbird

Red-winged Blackbird on a perch, courtesy of Pixabay

Male red-winged blackbirds are easy to spot with glossy black bodies, red/yellow shoulder badges, and sharp, pointed bills. Females however, are not black, but rather dark brown in color with notable streaks highlighting their smaller shape. Habitat includes fresh and salt water marshes, along water-ways and wet roadsides as well as drier meadows, crop fields, and pastures. They have been considered an agricultural pest by farmers in many areas and measures are taken to kill them off.

These birds rank among the best-studied wild bird species in the world. Because of this, there are many online sites that give great detail on this species, including videos with sound to highlight the bird's distinctive call. They are known to aggressively defend their territory against other animals and may even swoop at humans who encroach upon their nesting territory during breeding season. Average life span of these often sited birds is 15 years.

OUR 2019 TREASURY REPORT

January 1, 2019 Balance	$6599.02
Income	
Donations	1,005.00
VELA	500.00
Grants	0.00
Interest	4.31
Subtotal -	$1549.31
Program Expenses	
Meetings	43.97
Newspaper Ads	60.00
Macro Sampling	0.00
Temperature Logging	648.00
Coliform Sampling	129.96
Crowd Hydrology	0.00
Invasives Program	0.00
Huron Pines	1000.00
P/TSS Sampling	757.60
River Clearance	0.00
River Keepers	0.00
Administration Expenses	
Chamber Dues	100.00
MICORPS Conf.	45.00
Macro Brochure	28.92
Giving Tuesday	126.75
Supplies, Newsletter	87.10
MI Nonprofit Fee	20.00
PO Box Rental	76.00
Audubon Donation	100.00
Subtotal -	$3223.30
December 31, 2019 Balance	$4925.03

Mark Your Calendars!

Michigan Lake Stewardship Associations 59th Annual Conference

Friday & Saturday May 1 & 2, 2020 at the Crystal Mountain Resort, Thompsonville, MI

For more information visit the ML&SA 59th Annual Conference web page at *https://www.mymlsa.org*

PRVEL Coalition Board

Chair - Carole Plunkey	caroleplunkey@charter.net
Treasurer - Dan Stock	dstock4239@charter.net
Secretary - Deb Miller	higgins.deborah@sbcglobal.net
Scott Lingo	scott@targetrealestate.com
Arnie Leriche	aleriche526@gmail.com
Russell Williams	jrusswill@gmail.com

Non-Voting Advisors

US Forest Service	Huron Pines RC&D
USDA-NRCS	EGLE/Fisheries/Water Division
US Fish & Wildlife	

HOW CAN I VOLUNTEER FOR PRVEL?

Our conservation group is comprised totally of volunteers, all working together to make things happen for the benefit of the watershed. Please step forward and make 2020 the year you help us make a difference in your neck of the woods.

Ways you can volunteer:

- Macro invertebrate sampling program – Spring and Fall
- Monitoring fishery – place temp loggers
- Invasive species monitoring
- Water quality monitoring
- River Keepers/monitor watershed out in the field
- Write articles for the newsletter
- Serve on the watershed board of directors

Contact any board member for program details

Visit us on Facebook at www.facebook.com/pineriverwatershed and please "like" and "share" the page to help support the watershed.

Yes! I wish to support the water resource improvement efforts in the Pine River Van Etten Lake Watershed with my tax deductible contribution.

Please make your check payable to PRVEL Watershed Coalition and send to:

PRVEL Watershed Coalition
PO Box 680
Oscoda, MI 48750

Name _____

Street _____

City _____

State/Zip _____

Phone _____

E-mail _____