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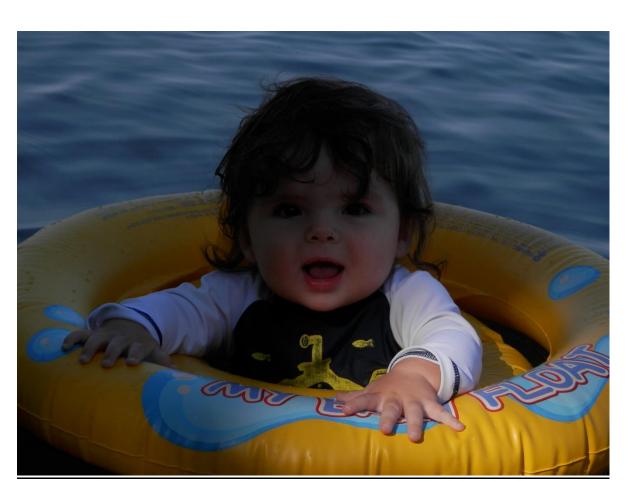
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From the Editor



Keep our lake great for future generations.

Hello members of the LMAA! It is now almost winter and memories of a lovely summer along the shores of Lake Manitou are still fresh on ones' mind. This summer went well down on Johnston Road. The garden was like a jungle with copious quantities of fresh produce starting in early June. With plenty of rain last spring there was a bumper crop of mosquitoes. But we are a hardy bunch and didn't let insects deter us from enjoying the warm summer weather.

The townships and highway roads departments were hard at work adding stone chips and oil to many sections of road around the lake. Not only does this help keep your car clean but each year the Island attracts more and more cyclists as gravel roads are converted to chip and tar, making them first-rate for biking.

It is a pleasure to send out this fall edition of *Wind Swept*, with a little something that interests everyone. LMAA member submissions to *Wind Swept* – both photos and articles – are greatly appreciated. The "Let's Keep Our Lake Great "challenge continues in 2016. Send in anything you may have done in 2015 to "Keep Our Lake Great". We need to share this information with the membership as a source of ideas, an inspiration for others, and to keep the lake great for future generations.

Rest assured winter will pass and once again the shimmering, clear cool waters of Lake Manitou will beckon us to return. *Wind Swept* will be back in Spring 2016.

Mark Harvey

Message from the President

July 2015 was our 22nd year of operation to "Keep our Lake Great!"

Season's greetings from the President, Vice-President, Directors, Committees, and Lake Stewards.

At our 22nd AGM there were 65-70 members in attendance. We had reports from Don Payne - Treasurer, Paul Moffatt -

Manitoulin Streams, Dave Anderson -Education Committee, and Mike Costigan Sr. - general AGM business. FYI - John & Rob Coulter, Mike Thompson, Timberlane Lodge, and Nancy & Dave Kains put markers on the lake in the spring, maintain and retrieve them in the fall. Nancy and Dave also do the water sampling for us in the Lake Partner Program run by the MOE (Ministry of the Environment). Don Payne and Steve Mann also attended the Manitoulin Streams AGM. Dave Anderson, as chair of our Education Committee, sets the educational meeting in August every year, and makes arrangements for our guest speakers. Our guest speakers this year were Paul Methner, with his Lake Manitou Update, and Dr. Peter Barnett, Quaternary Geologist, B.Sc., M.Sc., Ph.D., who spoke on "The Far North of Ontario - Geology and Scenery". Manitoulin Streams also had a display of Invasive Species. Thank you Paul, Peter and



Manitoulin Streams. This is just part of what your executive does on our association's behalf. All volunteer time!

Mike Costigan Sr.

P.S. Mark and Jen Harvey are our newsletter editors. It would be great if you, the members, would participate by submitting articles, cottage stories, ideas, recipes, etc.

Building One of the Concrete Sandfield Dams

The first wooden dam at Sandfield was built about 1870 by William McDonald to provide water power for a saw mill, grist mill and a weaving mill. The first concrete dam was built in 1929, with further work in 1930 and 1951. The current dam was built in 1960, as the pictures below show. These dams have changed water level from historic natural levels, likely increasing water depth and stabilizing water levels. *Photos courtesy of Linda Leeson Love Farquhar and Pat Costigan*.



[&]quot;Let's keep our lake great"

What's Your Manitoulin Story?

We encourage all cottagers on Lake Manitou to write their stories of their life on Lake Manitou. It would be wonderful to think of all of your accumulated stories and histories becoming a collection worth publishing!

Let me tell you about the Littlefield cabin on Newby's Bay. We never thought of it as a "cottage" – more of a camp – a fisherman's camp. My father, Edgar Littlefield, had always loved fishing. He often ventured from his home in Columbus, Ohio, north to the Michigan lakes. It wasn't long before he learned about Manitoulin Island. I remember the log cottage we first rented at Roy Spry's Camp, its wood cooking stove in particular, and the ice boxes, which were literally that: an insulated box for keeping food, with a section to hold a huge chunk of ice. Spry showed us the pit filled with sawdust where he stored the blocks of ice cut from the lake in winter. Of course this fascinated me (age 14 at the time). After these visits to the island in the early 50s, Edgar decided to purchase lake frontage from George Spry on Newby's Bay. This was accomplished in 1954. Our piece of lakefront was (and is) 200 feet, and goes back 166 feet from the lake's "high water mark." Our cabin was built by George Spry.

Edgar was usually not one to keep a daily journal, but he did exactly that during the summer of 1960, beginning with the day he left home in Worthington, Ohio. This was the summer he built a bathhouse. Well, we called it "the temple" because it had a front overhang and two pillars. We still call it "the temple." Major and George Newby, along with Horace Moore, did much of the foundation work and basic structure. Ollie Bond was contracted to do the plumbing and Jim Henderson, the electric. Trips into town were frequent, for food and building supplies. Gus Hare took care of car problems, and visits to Dr. McQuay were made necessary because of my dad's heart problems which, by then, had come up. One day on an errand to Little Current they met the Oxenreiders from Wooster, Ohio. It turned out that they owned "Lacodia Lodge." Guy Oxenreider claimed to know how to catch bass --- knowledge my dad hoped he would share.

Edgar and Charlotte (his second wife and my step-mom) were nature lovers. Edgar had expressed an interest in climbing up to the top of the limestone ridge north of the cabin, but abandoned the idea when he could find no one to guide him. We now know it as Cup and Saucer. They were also avid birders, and would stop anywhere to search for a particular bird, or follow someone's lead, such as the swallows at the Cox farm. They would do almost anything to add a new bird to the list and often did. While in Kagawong to do boat business with Oliver Berry, they ventured into a swamp leading to the river (one of their favorite birding places) and heard and saw a black-billed cuckoo, new for the bird list which was already quite long. Berry himself had an intense interest in wildflowers and complained that no published guide was available to him, and that he'd pay \$100 for one.

Evenings were often filled with bridge and cribbage, played with visitors and whoever else, including the Anglins. Fishing resulted in catches of sizeable Perch, Black bass (up to 13"), and Pike. Bass "hot spots" were located and exploited. One was near the Oxenreider's, another at "Uncle Jim's Boathouse," and another dubbed "Al's spot."

Visitors to the cabin included my older sister, Nancy, her husband, and baby, Susan, the first grandchild. (Susan and my son, Tom, are now owner-caretakers of the camp and property.) The Bennetts, Frank and Catherine from Columbus, also visited. The Bennetts eventually had a place across the bay from us.

Reading the journal accounts, it is obvious that the days were filled with lots of birding, fishing, running errands, playing bridge or cribbage, and just doing what was needed to maintain the place. My Dad's journal gives so much detail that cannot be covered here: fantastic local reports of lake monsters, the Manitoulin family names that became so familiar to me in my teens (Wagg, Beck, Williamson, McQuay to mention some), and local lore. Yet, even after over 60 years, it is a reality that we know Manitoulin only as a summertime place, as part of the summertime influx of visitors. We are not privy to the day-to-day social life, the trials and tribulations of its people, or to wintertime life and sports. The weekly Manitoulin Expositor keeps us informed to some extent. But still, we wouldn't dream of letting go of our special little spot on Newby's Bay.

Jane Littlefield Harding Reston, Virginia

[Much of the above information is taken from "A Place in the Woods", a journal by Edgar Littlefield written in 1960, revised and edited by Susan Aluzri, 2001, with her permission.]

Kids' Section

Below is the second installment in our very own Lake Manitou Nature Book for Children. Thanks to Chris Sailus for his take on garter snakessssssss. We welcome future contributions for this project!

Lake Manitou's Garter Snakes

Snakes get a bad rap. Whether it's getting Adam and Eve kicked out of Eden, or killing bad guys in a pit in Indiana Jones, we are raised to be fearful of snakes. The reality is that most snakes are as scared of us as we are of them. And many species – like the garter snakes in and around Lake Manitou – are relatively harmless.

If you've lived around our lake even one summer, it's likely you have seen one of these fun creatures. Their colours vary, but most are some shade of dark green or black, usually with three pale yellow stripes down its sides and back. Full grown, they can grow up to approximately 100 centimetres in length — that's longer than a baseball bat! — but they rarely get this large. Most garter snakes you see in the wild will be around 50-70 centimetres.

They stay around this size because garter snakes are preyed upon by many animals, including birds, hawks, turtles, foxes, cats, squirrels, raccoons and

other larger mammals. Unfortunately, one of the largest threats to garter snakes in Ontario is roadways, and many are hit by vehicles. If they dodge all these dangers, garter snakes can live up to 8 years. They generally dine upon mice, amphibians, small



fish, earthworms, and other small animals. When garter snakes bite they release a mild neurotoxin into their prey to help subdue their meal, which they then swallow whole. Have no fear! – this mild neurotoxin is harmless to humans.

Garter snakes are considered generalists by biologists and can be found in numerous environments, from forests to grasslands, from wetlands to rocky landscapes. They can be found all over eastern North America, from Canada to Florida. They are typically active during the day, though in colder climates like Ontario they hibernate through the winter. A rarity amongst reptiles, garter snakes give life birth to their young – typically around 20-40 at a time! – and do not care for their children after birth.

There are a couple different theories as to how garter snakes got their name. As they are typically found in gardens (you have probably seen one or two in your parents' garden!), and some think that 'garter' may be a corruption of the German word for garden, garten. A more colorful possibility is that the two stripes down the side of the garter snake resemble the 'garters' which men used to use to hold up their socks. If you don't know what those are – ask your grandpa!

Regardless of the uncertainty that surrounds their name, one thing is for certain – garter snakes make up a wonderful – and harmless – part of Lake Manitou's diverse ecosystem.

New Lake Study Could Add Historical Perspective

Across 2007-2011, Ministry of the Environment and Climate Change (MOECC) took a series of direct measurements of Lake Manitou's deepwater oxygen levels, which averaged 6.5 mg/L (milligrams/liter) in the east basin and 2.65 mg/L in the west basin. Those levels are somewhat (east basin) to considerably (west basin) below the minimum of 7 mg/L established by the MNR for the preservation of lake trout fisheries. MOECC and MNR consequently designated Lake Manitou as an 'At Capacity' lake, meaning that no further shoreline development should be allowed beyond established single lots of record. An exception was made for the McLay subdivision in Green Bay at a 2015 Ontario Municipal Board hearing.

A new study initiative was begun in 2015 with the objective "to develop new predictive tools for forecasting the impact of climate change and other anthropogenic activities on hypolimnetic dissolved oxygen concentrations ([DO]) in Lake Trout Lakes of Ontario". (Notes: (i)'hypolimnion' is the term for the deep, cold layer of lakes that become thermally stratified during the warm months. Lake trout cannot tolerate the warmer waters above, and are limited to the hypolimnion during this time. (ii) An example of "anthropogenic activities" is lakeshore development resulting in increased phosphorus loads, and loss of deepwater oxygen due to the (oxygen consuming) decomposition of biological production fueled by the phosphorus.) The new, multi-year research effort is a joint effort between MOECC, MNR and the PEARL centre at Queen's University.

The first samples for the study were taken in Lake Manitou in June or July of 2015, and we've been able to obtain some information on the undertaking and talk with a few of the people involved. The sampling involves taking cores from the lakebed sediment in the deepest parts of the lake, with subsequent analyses focusing on key indicators contained in the cores. The science is known as (...here comes a mouthful...) "paleolimnological reconstruction" (Notes: 'paleo' is historical, 'limnology' is the study of freshwater ecosystems). Basically, the objective is to establish a history of the changes that have occurred over time.

Key indicators in the sample include the remains of Chironomids and diatoms. Chironomids ('water flies', a small aquatic organism) and diatoms (species of microscopic algae) share the useful characteristic of their frustules (shells) remaining long after the organisms die. Chironomids prosper under anoxic conditions (very low oxygen), so a relative abundance of their shells would indicate low oxygen at time 'X', while relative scarcity of the shells would demonstrate that the waters were better oxygenated. Additional information on oxygen levels can apparently be obtained from the relative proportions of different parts of the shell. Diatom shells can be used to infer (with the help of established computer models) phosphorus levels at various times in history.

Each core sample is generally about 20-40 cm in length (depth of sediment), and each of those can yield 15-20 slices, representing progressive snapshots in time. The approximate date of each slice is determined by measuring (..naturally occurring..) radioactive isotopes, which decay at known rates (Lead-210 is used in this work). 2015 samples were limited to the east basin depths, as, er, "nautical" conditions prevented planned sampling of the (lower oxygen..) west basin on the same day. If not already planned, we will be encouraging the research group to return and sample the west basin.

Among the information that could come from these studies is to confirm or refute the speculation of some that, "Maybe it's always been that way" (i.e. the low oxygen levels measured across 2007-2011). That notion would suggest that the lake is insensitive to increases in shoreline development and phosphorus loading. While that is virtually impossible from basic ecological principles, wishful thinking can affect politics and management decisions, and it would be useful if these studies can confirm the lake has *not* "always been that way".

The overall study (involving a number of lakes) is expected to take 3+ years, so final results will not be available for at least that long. However, the study group has indicated a willingness and interest in providing a presentation (hopefully including any interim results), and this will hopefully be arranged for the August 9, 2016 LMAA Information Night.

-Rob Coulter
Lake Steward

Lake Partner Program Report: Lake Manitou (Manitoulin District, Township of Sandfield, Assignack)

From the Editor

At present the Phosphorus levels in Lake Manitou appear to be relatively stable. Current concentrations of phosphorus in the lake put Lake Manitou in the oligitrophic class of lakes, suitable for Lake Trout. Secchi disc readings show a steady drop in the clarity of the water. (The Secchi disk, created in 1865 by Angelo Secchi, is a plain white, circular disk, 30 cm in diameter, used to measure water transparency in bodies of water.) This drop may indicate more algae in the water. Lower secchi disc readings indicate increased turbidity, which is not usually a positive sign. This could affect oxygen levels in the lake in a negative way.

However, at this point the secchi disc readings have not been linked to any definitive specific change in water quality in the lake. A continuation of secchi disc readings indicating increasing turbidity is some cause for concern and should be monitored closely.

Why this is occurring is unclear. An analysis of the 20 year results at a future date by a limnologist or a lake water specialist might shed some light on this phenomenon.

Thank you to Anna DeSellas at the Dorset Environmental Science Center, Lake Partnership Program, Ministry of the Environment and Climate Change, for preparing the report.

The Lake Partner Program (LPP) is Ontario's Volunteer Lake Monitoring Program. Lake Manitou (LPP Stn 6451) has been monitored through the LPP for precise total phosphorus (TP) concentrations and water clarity (Secchi depth) at two locations (site 2, Moody Bay; and site 4, Sandfield Bay) on a monthly basis between May and October since 2005. In addition to TP and water clarity, spring calcium concentrations (Ca) have been monitored since 2009. This is a general report on the TP, water clarity readings and Ca for Lake Manitou. These data have been collected by volunteers through the LPP. The data can be found online.

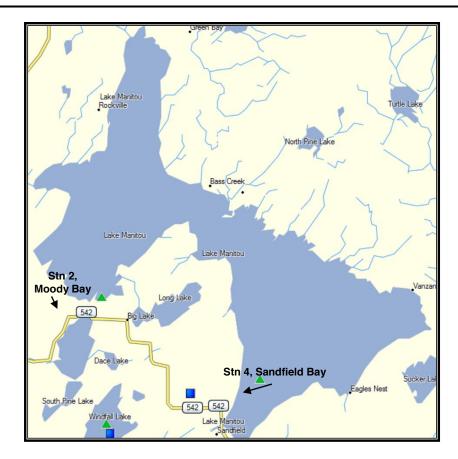


Figure 1. A map of Lake Manitou indicating the location of the two LPP sampling sites, as indicated by green triangles. The monthly sampling sites are located in Moody Bay and Sandfield Bay.

Table 1. General information pertaining to each Lake Partner Program monitoring site on Lake Manitou

Lake Name	Township	STN	Site ID	Latitude (DMS)	Longitude (DMS)	Site Description
LAKE MANITOU	SANDFIELD, ASSIGNACK	6451	2	454520	820420	W-Moody Bay
LAKE MANITOU	SANDFIFLD ASSIGNACK	6451	4	454322	815824	F-Sandfield Bay

Total Phosphorus

Phosphorus is an essential element for aquatic systems and the organisms that inhabit them. Phosphorus also controls the growth of algae in most Ontario lakes. Increases in phosphorus may stimulate algal growth, resulting in decreased water clarity, reduced deep-water oxygen concentrations, and, in some cases, cause algal blooms that may produce toxins, affect the aesthetics of the lake, and/or cause taste and odour problems in the water. Moody Bay and Sandfield Bay have been monitored for TP on a monthly basis during the ice-free season (May-October) since 2005. Based on the available LPP TP data for Lake Manitou, the following observations can be made:

- Between 2005 and 2014, the overall average ice-free TP in Moody and Sandfield Bays was 8.3 and 7.6 μ g/L, respectively (Table 2).
- The majority of Ontario lakes monitored by the LPP have an average TP concentration of 8-12 μ g/L. As a general guideline, TP concentration of less than 10 μ g/L indicates oligotrophic nutrient status, 11-20 μ g/L is mesotrophic, and 21 μ g/L or greater is eutrophic.

- The variability in ice-free (May-October) TP concentrations for both sites is presented in Figure 2.

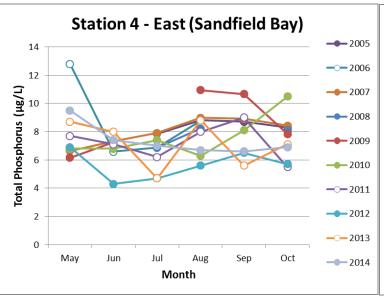
Table 2. Average total phosphorus (TP) concentrations for Lake Manitou at Site 2, Moody Bay (upper table) and Site 4, Sandfield Bay (lower table), from 2005-2014.

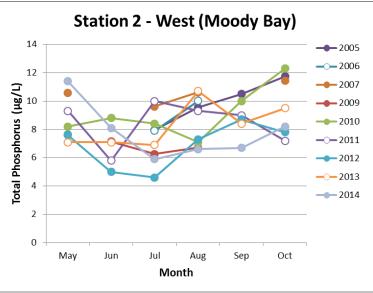
Stn 2, West, Moody Bay

				Ave	rage Ice-fr	ee TP (μg	/L)			
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
May		7.7	10.6			8.2	9.3	7.6	7.1	11.4
Jun					7.1	8.8	5.8	5.0	7.1	8.1
Jul	8.0	7.9	9.6		6.3	8.4	10.0	4.6	6.9	5.9
Aug	9.6	10.0	10.6	7.2	6.7	7.1	9.3	7.3	10.7	6.6
Sep	10.5					10.0	9.0	8.7	8.4	6.7
Oct	11.8		11.5			12.3	7.2	7.8	9.5	8.2
Average:	9.9	8.5	10.6	7.2	6.7	9.1	8.4	6.8	8.3	7.8
Overall Av	verage: 8.3	!								

Stn 4, East, Sandfield Bay

Otti +, Lus	t, Canan	cia bay								
	Average Ice-free TP (μg/L)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
May		12.8	6.6		6.1	6.8	7.7	6.9	8.7	9.5
Jun		6.6	7.3		7.2	6.8	7.1	4.3	8.0	7.4
Jul	7.9	6.9	7.9	6.9		7.4	6.2	4.7	4.7	7.0
Aug	8.8	8.8	9.0	8.2	10.9	6.3	8.0	5.6	8.8	6.7
Sep	8.7		8.9		10.7	8.1	9.0	6.5	5.6	6.6
Oct	8.3	8.2	8.4	8.1	7.8	10.5	5.5	5.7	7.1	6.9
Average:	8.4	8.6	8.0	7.7	8.6	7.7	7.3	5.6	7.2	7.4
Overall Av	erage: 7.	6								





ason total Bay, for the years

[&]quot;Let's keep our lake great"

Water Clarity

Changes in water clarity may indicate that changes are occurring in the amount of algae or dissolved organic matter and colour in a lake. Changes in the watershed can also influence water clarity.

A Secchi disc is lowered into the water to take water clarity measurements. The average Secchi disc transparencies for each year are presented in Table 3 and displayed graphically in Figure 3. The overall average water clarity from 1995-2014 for Moody Bay is 6.5 m and for Sandfield Bay is 6.3 m.

Year	Stn 2 (Moody Bay)	Stn 4 (Sandfield Ba
	Secchi (m)	Secchi (m)
1995	7.8	8.0
1996	7.4	7.7
1997		
1998	7.3	
1999	6.5	7.0
2000	7.0	6.5
2001	6.5	6.3
2002	6.0	6.0
2003	7.0	8.0
2004	7.6	7.2
2005	6.9	5.1
2006	6.9	4.9
2007	5.9	5.5
2008		5.8
2009	5.7	5.5
2010	7.2	6.1
2011	6.1	6.1
2012	5.6	6.0
2013	5.0	5.5
2014	5.3	5.9
AVERAGE	6.5	6.3

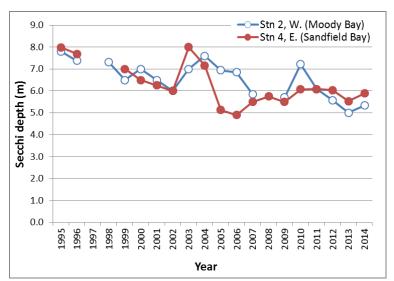


Figure 3. Ice-free (May-October) average Secchi depth in Lake Manitou, 1995-2014.

Table 3. Annual ice-free average Secchi depth readings for two LPP monitoring locations on Lake Manitou for the years 1995-2014.

Calcium

Calcium (Ca) concentrations in Lake Manitou have been measured from 2009-2014 through the LPP. The average spring Ca concentration for Moody Bay is 31.8 mg/L and for Sandfield Bay is 31.7 mg/L (Table 5). Laboratory experiments suggest crayfish and water fleas (a type of zooplankton) require a calcium concentration of 1.5 mg/L or higher for survival. See attached information sheet on calcium decline in Ontario's inland lakes for more information.

[&]quot;Let's keep our lake great"

Table 4. Spring calcium concentrations for Lake Manitou, for the years 2009-14.

Spring Ca (mg/L)	Site 2 (Moody Bay)	Site 4 (Sandfield By)
2009	32.0	31.7
2010	32.9	32.8
2011	29.4	29.3
2012	32.6	30.8
2013	31.6	33.0
2014	32.2	32.6
Average	31.8	31.7

Information on the Lake Partner Program

Information about the Lake Partner Program can be found at: http://desc.ca/programs/LPP

There is now an <u>interactive map of the Lake Partner Program sampling sites and results</u> on the Ministry of the Environment and Climate Change's Lake Partner Program website.

What this might mean for Lake Manitou

All lakes are unique and will react somewhat differently to substances in the water such as phosphorus. Things such as water temperature, clarity and depth will interact so lakes respond differently to substances such as phosphorus in the water. However, Caribou Lake along the North Shore of Lake Huron has recently developed a serious Blue Green Algae problem. This algae can make water unusable for drinking or recreation as it secretes toxins into the water. Its presence in a lake also leads to rapidly falling property values and is very hard on the tourist industry. Although Lake Manitou (limestone basin) differs significantly from Caribou Lake (shield / granite, quartzite basin) in water chemistry. The level of Phosphorous that appears to have triggered this problem in Caribou Lake is the similar to the highest yearly average reading from Moody Bay. The only thing that has changed on Caribou Lake is cottage development and the long term, cumulative effects of Phosphorus loading in the lake from these cottages. Could this happen in Manitou well I certainly hope not however no one thought this would happen in Caribou Lake either. Should we be complacent about over development on Lake Manitou and the state of cottage septic tanks? Maybe not, if you are concerned about the water you drink and swim in and the value of your property. Check out the report about Caribou Lake below.

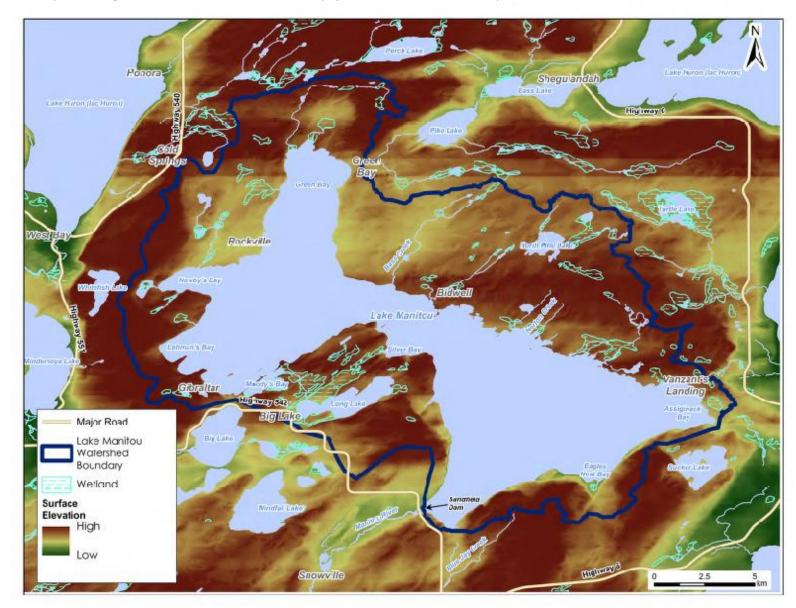
"Caribou Lake is a typical softwater, tea-stained lake (also called "dystrophic" because of its colour) on the Canadian Shield and was probably oligotrophic with comparably little nutrient concentration and no algal or cyanobacterial ("bluegreen") blooms in the past. In the last decade water quality has apparently deteriorated and highly toxic microcystin was measured during cyanobacterial blooms. While nutrient concentrations still indicate low mesotrophic conditions and Secchi transparency is comparably high considering its tannic rich water, cyanobacterial blooms have been occurring in late summer and fall. Because dissolved oxygen concentration is below saturation throughout the water column in the two available summer profiles, one explanation of the blooms is their fertilization from internal P loading from bottom sediments."

Thanks to the Algoma Fresh Water Coalition and the two scientists who w	rote the report for them on Caribou Lake.

[&]quot;Let's keep our lake great"

Lake Manitou Watershed Map

This map shows the Lake Manitou Watershed. All areas inside the blue line are within the Lake Manitou catchment basin. Activities within this area will have the most direct impact on the waters in the lake. Thanks to Danny Harvey for producing the map. For a high resolution PDF or JPG of this map, please contact Mark Harvey.



Report on LMAA Information Night

On Tuesday, August 11, approximately 70 people gathered at the Sandfield School house to attend this year's educational. Peter Barnett and his wife Anna moved to the shores of Lake Manitou in the summer of 2014. Peter is a Quaternary Geologist (recently retired), and has studied the geology of Northern Ontario. Peter gave a talk and slide presentation of many of the sites and features he has seen in Northern Ontario, everything from drumlins to polar bears.

[&]quot;Let's keep our lake great"

Paul Methner gave a review of the Blue Jay Creek Fish Culture Station activities. Lake Manitou is a very important lake for the provincial fish culture operations. It is a source of wild disease-free lake trout and walleye eggs. Paul indicated that both lake trout and walleye are doing well in Lake Manitou and natural reproduction in the lake is keeping both populations healthy. It doesn't take many trap fishing days to reach their quota of eggs. In the fall of 2014, in 6 days, they handled 1,500 adult lake trout and spawned 214 females to obtain 774,000 eggs. In the spring of 2015, walleye netting spawned 8 female walleye and obtained approximately 2.2 million eggs.

Representatives from the Invading Species Awareness Program and Manitoulin Streams were on hand to showcase their work on the Island and to answer questions.

Everyone enjoyed the door prizes!



Mother and baby loon, enjoying a morning outing after a successful hatching in Silver Bay.

If you have a topic that you would like to see covered in a future educational please feel free to contact David Anderson at 519-371-8834 or at renee.anderson@sympatico.ca. The next LMAA Information Night is August 9, 2016.

More Good Works by Manitoulin Streams

Manitoulin Streams has been hard at work this summer, with help from local citizen groups. The following article, written by Robin Burridge and published in the Manitoulin Expositor on October 28, 2015, summarizes the work the group completed this year.

KAGAWONG-Manitoulin Streams

Kagawong River rehabilitation project has ended for the season. Based on an enhancement plan for the Kagawong River, 20 key areas were identified in need of work, with three sites at the lower end of the river mouth scheduled for completion this summer. The restoration work included improving the riparian vegetation on both sides of the river, improving the canopy on both sides, repairing bank erosion, reducing the stream width and increasing the streams depth, improving center habitat, improving the edge habitat and accommodating flow fluctuations due to the hydro dams.

"A really unique and special element of the project was the partnership with 4 Elements and artist Michael Belmore who carved three rocks, one of which was placed in the river and the other two along the river trail," said Manitoulin Streams Project Coordinator Seija Deschenes. "The rock in the water, 'Replenish,' depicts two fish swimming upstream, the other two will explore turtles in the forest, laying eggs and the cycle of life," said Mr. Belmore, a Thunder Bay artist who is hoping to make Manitoulin his home. "I used a diamond grinder and wet polisher to carve the images." The carved rock art created by artist Michael Belmore adds a whole new dimension to a stroll down the hiking trail from Bridal Veil Falls. Mr. Belmore said he has explored a lot of

mediums throughout his artistic career and started carving roughly 10 years ago. "A lot of my work reflects nature, very simple things," concluded Mr. Belmore. "I figure out what medium/material would be best for the piece and then I learn the process."



Helping with the Kagawong River Restoration Project was the Windy Lake Provincial Park Stewardship Rangers and the Sudbury District Stewardship Rangers who installed a coffer dam to redirect the flow of the water down another channel to allow for in-stream work and assisted with garbage cleanup along the river trail.

Manitoulin Streams also completed work on Grimesthrope Creek and M'Chigeeng Creek this summer. "We installed page wire fencing to restrict livestock and installed a livestock water pad," said Ms. Deschenes of the work to the Grimesthrope Creek. "We also installed in-stream habitat boulders and gravel and planted native trees and shrubs." "With the M'Chigeeng River, we placed 13 yards of spawning gravel and cobble which was hauled by hand by Lakeview School students and the Stewardship Rangers planted 250-300 trees

along the shoreline and did some river clean up," added Ms. Deschenes. Ms. Deschenes pointed out that the projects this summer wouldn't have been possible without the long list of funding providers and in-kind support, along with the numerous volunteers.

For those interested in seeing the work at Kagawong first hand there is a very nice short walk on maintained trails along the Kagawong River just below Bridal Vail Falls. This is a nice outing and will be even more interesting now that Manitoulin Streams has completed this impressive project.

The LMAA is a supporter of Manitoulin Streams.

Culinary Delights

JOHNSTON ROAD ZUCCHINI CAKE

½ cup butter

½ cup oil

1 % cup sugar

2 eggs

½ cup buttermilk (put 1 T vinegar in cup, add milk to equal ½ cup)

1 tsp vanilla

¼ cup cocoa

2 ½ cup flour

1 tsp baking soda

1 tsp salt

¼ tsp cream of tartar

2 cup zucchini, grated

34 cups chocolate chips

½ cup walnuts (optional)

Cream butter, add oil and sugar, and mix well.

Add next 9 ingredients, mix well. Fold in chips and nuts by hand.

Put in greased and floured 9 X 13 pan or 2 square pans.

Bake at 325 for 1 hour or less for 2 pans.



News from the Federation of Ontario Cottagers' Associations

Bill 52, the *Protection of Public Participation Act, 2015*, is now law in Ontario. This bill was supported by FOCA. For more information, visit:

http://jbrucemcmeekinlaw.com/environmental-liability/ontario-enacts-anti-slapp-legislation/and

https://cjfe.org/resources/features/fact-sheet-bill-52-ontarios-protection-public-articipation-act

Planning some work along the shore?



Municipal authority over boathouses – DECISION
August 2015 – Crown Lands Policy branch has
informed FOCA that the Superior Court ruling* will
be eliciting a response and possible policy changes
at MNRF – some interim, and then eventually more
permanent, to address the

shortcomings/inconsistencies related to MNRF's requirements to issue permits for in-water works. FOCA is awaiting further details.

*The judge ruled that pursuant to the Regulations

under the Public Lands Act, a permit is required for anyone building a dock or boathouse over Crown lands (aka lakes) larger than 15 square metres.

Regulations for shoreline or lake bottom work have changed recently. If you are planning any sort of work in the shoreline area you may find this information about work permits useful.

Members' Notice Board for 2015

- Please forward submissions, ideas, and requests for the spring edition of Wind Swept by April 10, 2016.
- Special thanks to Jenn Sailus and Jen Harvey for editing and compiling the 2015 Fall Edition of Wind Swept.
- Special thanks to everyone who contributed to this edition.

Directors' Roster

[&]quot;Let's keep our lake great"

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