Newsletter Volume 41, No 2, Spring 2022

Message from the President

Welcome to the 2022 cottage season. We had quite the start this year. Our spring was cold and wet with hints of warmer weather to come. The water level at the lake is good, however the amount of rain lately has raised it with some concerns of flooding downstream.

The biggest event for our lake was the severe thunderstorm that hit our area on May 21, 2022. The damage from that event was widespread, with many trees down and extensive power outages. While Big Gull Lake sustained some damage, we were relatively fortunate compared to surrounding lakes. Thankfully no one was hurt. Thank you to all who helped those in need during this hard time.

Hydro One has been working around the clock to restore power. Parts of the lake are back on the grid, while others are waiting patiently for it to return. At the time of writing, our power on Helen Lane is scheduled to come back on 13 days after the storm. I know that South Shore Road is still awaiting the return of their power as well. While looking at the Hydro One map, it looks as though there are multiple crews on the North Shore Road so fingers crossed your power will be back on very soon. Kudos to Hydro One workers who have worked nonstop since the storm to get everyone back on the grid.

Over the winter I was asked to join the Federation of Ontario Cottage Associations (FOCA) as a director, which became official at the Spring Seminar and Annual General Meeting. I look forward to becoming more aware of what is happening across Ontario, as well as having the opportunity to represent Eastern Ontario at the provincial level.

Themes and Topics for the day included Septic System Inspections, Short Term Rentals, Insurance Options and First Aid at the cottage. Excellent summaries are available at foca.on.ca and click on AGM and Spring Seminar. Your member name is (Focamember) and your password is Foc@M3mb3$2014.

Whiteduck Update

Negotiations regarding Whiteduck Provincial Park have concluded with all parties agreeing to recommend the lands southeast of Big Gull Lake be added to the existing Hungry Lake Conservation Reserve. Thank you to everyone who provided feedback and helped us achieve a great result for our lake. Your support and comments assisted in achieving the best possible outcome for Big Gull Lake.

2022 Calendar

I would like to take this opportunity to say a special Thank You to Karen Saer, Debbie Bird, Greg Best and Keith Rowe for doing an amazing job on our calendar. Congratulations on a job well done.

Activities for Summer 2022
While Covid limited our activities last year, we were able to hold the AGM in person. Unfortunately the picnic was not part of the AGM due to Covid restrictions. Regardless, it was wonderful to see old friends in person. We are hoping to be able to run some modified activities over the course of the summer. We are still in need of an organizer for the Fishing Derby so if you would like to become involved, please contact any of the executive members.

Just a reminder that all the news and events regarding Big Gull Lake East End Cottage Association can be found on our Website at www.bgleeca.ca.

Fall Municipal Election
There will be a municipal election on October 24. As a taxpayer of North Frontenac, you have the right to vote in this election. You do not have to vote in person, with the option of voting electronically. I will send out more information as we get closer to the election. Please take the time to become familiar with those who have put their name forward. Your vote is important.

One of our most active members is leaving the lake. Dave Cox has sold his cottage and will no longer be part of the BGLEECA community. Dave has contributed countless hours ensuring that the road system on the north shore was always in great shape. His help at the AGM was key, ensuring that all of the required equipment was transported to the site. Dave, on behalf of the members on the lake, I want to let you know how much we appreciate all that you have done for Big Gull and that you will be sorely missed. Hopefully you will continue to come and visit your friends on the lake.

We are looking for some storage space for BGLEECA paraphernalia. It has to be dry and mice free. If you have such a space and are willing to store our stuff, please contact me as soon as possible.

On a sad note, Marion Commerford, wife of Jack Commerford passed away last Fall. Alfred Bailey, husband of Gladys Bailey passed away this spring.

Stay safe and healthy and hopefully we will see you at the lake this summer.

Donna Commerford
President

Lake Partner Program – Big Gull Lake

FOCA has partnered for many years with the Ministry of the Environment, Conservation and Parks on volunteer water-quality monitoring programs.

The goal of the Lake Partner Program is to better understand and protect the quality of Ontario's inland lakes by involving citizens in a volunteer-based water quality monitoring program.

Lake Morphology	
Coordinates	44°50'08.0"N 76°56'02.8"W
Lake Surface Area	Unknown
Maximum Depth	Unknown
Average Depth	Unknown

Municipal and Association Facts	
Municipality	North Frontenac
Watershed	Central Ottawa-Mississippi
Lake Associations	Big Gull Lake Estates Lane Cottagers' Association Big Gull Lake (West) Cottage Association Big Gull Lake (East End) Cottage Association Pinnacle Point Cottagers' Association
Conservation Authority	Mississippi Valley Conservation

Fish Species		
Fish Species	**Sighted by MNRF**	**Sighted by the Public**
Brook Trout		
Brown Bullhead	**X**	
Brown Trout		
Burbot	**X**	
Lake Trout		
Lake Whitefish	**X**	
Largemouth Bass	**X**	**X**
Muskellunge	**X**	
Northern Pike	**X**	**X**
Pumpkinseed	**X**	
Rainbow Trout		
Rock Bass	**X**	**X**
Round Whitefish		
Smallmouth Bass	**X**	**X**
Walleye	**X**	**X**
Yellow Perch	**X**	**X**

Monitoring and Management

Sites currently monitored through the Lake Partner Program

Lake Partner Program Data – Total Phosphorus (ug/L)					
Site	Target	Average 2002-2005	Average 2006-2009	Average 2010-2013	Average 2014-2017
1	< 20	12.6	10.6	11.0	15.3
3	< 20	12.0	8.8	6.5	9.2
4	< 20	10.9	9.9	7.0	7.4
5	<20	13.5	10.9	12.2	11.9
All Sites Averaged	< 20	12.2	10.1	9.0	11.2
The Ontario Provincial Water Quality Objectives states: "To avoid nuisance concentrations of algae in lakes, average total phosphorus concentrations for the ice-free period should not exceed 20 µg/L. A high level of protection against aesthetic deterioration will be provided by a total phosphorus concentration for the ice-free period of 10 µg/L or less. This should apply to all lakes naturally below this value."					

The Table above shows phosphorus levels for our lake. The average of 11.2 is below the recommended level to prevent nuisance algae but above the recommended level to avoid aesthetic levels of algae. There is a higher concentration of phosphorous in the east end of the lake than there is in the central part of Big Gull Lake.

Lake Partner Program Data – Secchi Depth (m)					
Site	Target	Average 2002-2005	Average 2006-2009	Average 2010-2013	Average 2014-2017
1	> 1.2	4.4	4.3	4.5	4.3
3	> 1.2	4.4	4.1	4.4	4.4
4	> 1.2	4.2	4.1	3.9	4.1
5	>1.2	3.6	3.8	3.8	3.8
All Sites Averaged	> 1.2	4.1	4.1	4.2	4.1
Typical Secchi depths by lake trophic status *Oligotrophic:* ***2-4m*** *Mesotrophic:* ***1-2m*** *Eutrophic:* ***less than 1m***					

A secchi disc is used to measure the transparency of water. The secchi disc Table above shows that our lake is better than the Ontario Ministry target and has been relatively constant since 2002.

Lake Partner Program Data – Calcium (mg/L)					
Site	Target	Average 2002-2005	Average 2006-2009	Average 2010-2013	Average 2014-2017
1	> 2	NA	9.1	7.0	9.8
3	> 2	NA	NA	9.2	10.0
4	> 2	NA	NA	9.2	9.5
5	>2	NA	10.9	11.0	10.7
All Sites Averaged	> 2	NA	10.3	9.0	10.0
Laboratory experiments have shown that the reproduction of most Daphnia species (a species of zooplankton that are a primary food source for many fish species) is jeopardized at lake calcium concentrations below 1.5-2.0 mg/L.					

The Calcium Table above indicates that calcium levels in the lake remain at a good level.

Click here to learn more about Lake Partner Program and what makes a healthy lake.

Lake Steward Report

Septic Reinspection:
The Municipality of North Frontenac has been running a voluntary septic reinspection program for more than 15 years. Last year the North Frontenac Lake Association Alliance conducted a review of the program and concluded that it was **ineffective** across the Municipality. We presented our findings to the current Council, and they decided to stay with the voluntary program. The basic response was: "it isn't broken, don't fix it" . Last year there were 38 requests for reinspection. This represents about 1 inspection per lake across the upper Mississippi Valley Watershed. The consequences are that you and I need to manage our own septic system. If we believe there are problems, we need to take action to remedy the problem. Your contact to request a septic reinspection is Eric Kholsmith Mississippi Valley Conservation Authority at 613 253 0006.

On a related topic, remember that our municipal elections are coming up and our current municipal government is loath to put measures in place to ensure that our lakes remain clean, phosphorous free, potable, etc.. Global warming, algae blooms, and increased development are already stressing many lakes and some in the Mississippi Valley Watershed. Ask your local Councillor what they are doing to keep our waterways clean and problem free for the future.

Ken Grant, Lake Steward

Financial Report

A full financial report will be sent to all members when the financial review has been completed before the AGM on Saturday August 27, 2022.

Fund Revenue and Expense Summary, April 1, 2021 to March 31, 2022

	General Fund	Calendar Fund	Environment Fund	Totals
Beginning Balance	17,038	7,396	15,142	39,576
Total Revenues	3,647	3,772	550	7,969
Total Expenses	2,372	3,130	2,193	7,695
Current Balance	**18,314**	**8,038**	**13,499**	**39,851**

Total Net Gain **$ 275**

Fund Revenue and Expense Summary, April 1, 2022 to May 31, 2022

	General Fund	Calendar Fund	Environment Fund	Totals
Beginning Balance	18,314	8,038	13,499	39,851
Total Revenues	1,275	125	-	1,400
Total Expenses	1,608	3,896	-	5,505
Current Balance	**17,981**	**4,266**	**13,499**	**35,746**

LISTEN, LOOK & LEARN

Spring is the best time for a hike in the woods around the cottage. With no leaves on the trees yet, you can see well into the forest and often discover something interesting.

My favorite plant in the forest is the Lady Slipper, which has a bright pink flower on the top of a long stalk. It is a member of the orchid family. This plant is truly remarkable and will take ten years to produce a flower. The ground it lives in must be acidic and sandy, with a ground cover made of pine needles and decomposing leaves, which is called humus.

To begin to talk about a lady slipper life cycle we'll start with a seed, which is carried from the plant in late summer by the wind, until it falls to the ground. This is where our story begins. You see the ground where a lady slipper grows is very unique, as long strains of fungi threads live in the humus where the seed comes to rest and this is how the seed begins to grow. The fungi threads attach to the seed and begin to deliver nutrients from the soil.

The seed will not develop roots, so it relies entirely on the fungi threads to feed it. Over several years the plant grows its root system, all the while being fed by the fungi.

Over a period of ten years the seed will increase in size and mature until a bulb is formed. When the winter snow melts away the ground begins to warm up, and the bulb wakes up, and with help of spring sunlight two green leaves begin to push up against the forest floor and break the surface.

As the leaves continue to grow, a stalk begins to appear from the bulb and begins to stretch up to the sunlight. It will reach a height of 40cm and a flower will begin to reveal itself and reach a size of 6cm. It is now the end of June and time for the next step in its life cycle, pollination.

The lady slipper is a tricky plant, as it does not have any nectar to reward insects, so deception and entrapment take over. A bee is attracted to the flower by its bright pink colour and it climbs inside the plant petals looking for nectar. As soon as the bee is inside, the flower closes the entrance at the bottom and the bee is trapped. Inside the flower are tiny hairs which tickle the bee as it wiggles around trying to find a way out. The only exit is at the top of the plant where the reproductive organs are found. The bee will now pass by the flower's stigma depositing any pollen the bee may have been carrying before it climbed inside this lady slipper. As the bee leaves the opening or exit, it brushes past the antlers which are very sticky and rubs the plant's own pollen on the bee just before it flies away.

If the lady slipper is successful and a bee manages to pollinate it, the plant begins to grow fruit called a capsule, which contains seeds. Without pollination, it will die off and not grow the seed capsule.

As the summer heat becomes more intense, the capsule turns colour as it ripens becoming yellow. The capsule contains thousands of seeds and will split open in late summer, casting the seeds into the wind.

So there you have it, life cycle complete! Remember, the fungi threads we talked about earlier… a lady slipper will grow into colonies if the ground is not disturbed and the flowers stalk does not get broken. You may find many lady slippers in close proximity to each other, because the threads of fungi connect to each plant feeding them. A single plant could live for one hundred years

If your family would like to take a day trip to visit a conservation area with thousands of lady slippers, head to Purdon Conservation Area, within the Mississippi Valley Conservation Authority. Typical blooming season when you will see the most flowers is between the third weekend in June and mid July. Purdon has the largest collection of lady slippers in Canada and has a 2.5km hiking trail. Bring a picnic lunch and make it a day trip, it's just outside of McDonalds Corners.

By Keith Rowe