



# Captain Otty's Log

The Newsletter of the Otty Lake Association February 2015

## President's Message

from  
**Robert Cosh**

Here's to a Happy New Year! Opinion Poll: If the forecast is for freezing rain, and your driveway is already ankle-deep with snow, should you plow now, or wait until the rain stops? Half of those surveyed stated that the best solution was to head south until the crocuses are in bloom and it's safe to return to the lake. What do you think? Perhaps you prefer to stay home and enjoy winter at the lake, with its dramatic scenery and varied wildlife.

Attention Snow Birds! After surfing the waves in Florida, surf the web to keep up with events at home. Visit the OLA site at <http://www.ottylakeassociation.ca/>. Thanks to Barb Hicks for maintaining our site, and bringing you this edition of Cap'n Otty's Log. Great job, Barb, and thanks also to all those who contributed articles.

Would you like to have an article published in our newsletter? Contact the editor, Barb Hicks. Also, if you have ideas for OLA plans, activities, or priorities, or wish to get involved, visit us at <http://www.ottylakeassociation.ca>. Click on "contact us." You can direct your email with your thoughts to a particular Board member or to the Board in general.

On that note, thanks to the OLA Board and other volunteers who



*Photo: Gail Read*

organize OLA activities in collaboration with our community partners throughout the year for the benefit of our shoreline community. We have lots planned for 2015, including continuation of our Shoreline Planting Program, the Pitch-In cleanup program, and many others. We will host the annual Otty Lake picnic mid summer, which is open to members and non-members alike, with lots of fun for all ages. Contact us if you have ideas for activities, or wish to help.

If you like what the OLA is doing on your behalf, help us continue our programs by mailing in your OLA dues (\$20), payable to the OLA, Box 20122, Perth, ON, K7H 3M6.

Mark your calendars: OLA 2015 AGM, July 11, at the Perth Legion.

Have a great 2015 on the lake,

and enjoy what winter has to offer. Summer will be here soon. You know it will. Really.

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# Around the Lake

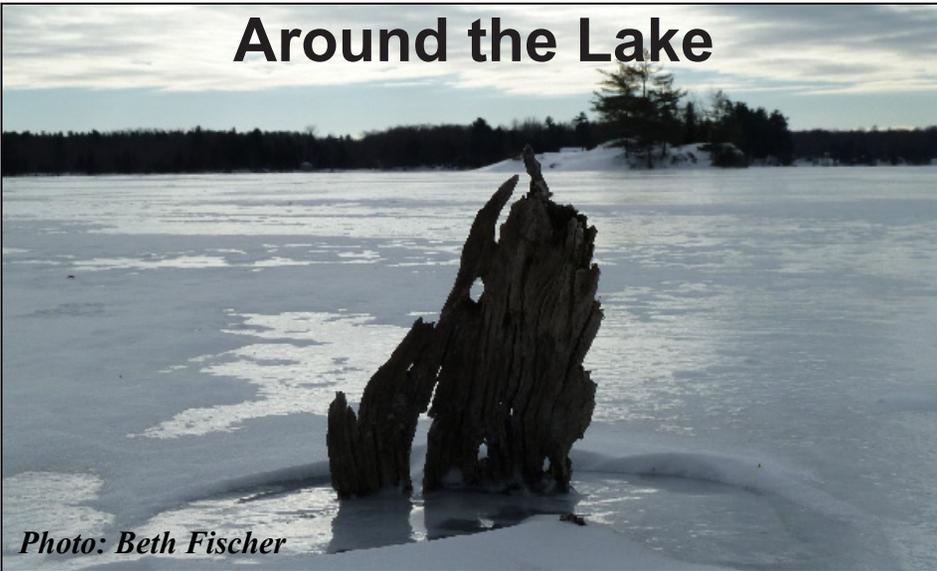


Photo: Beth Fischer

## Board Changes

We regret that longtime Board member Chris Harrison, a cottager from the southwest shore, has resigned, but are happy that he is continuing as Area 1 counsellor. Chris has been a key organizer of the Otty Lake Family Picnic.

Filling the vacancy is Ian McDonald. Ian lived in BurgessWood for many years, where he held various positions with the BurgessWood Property Owners' Association. Ian recently married another OLA Board member, Gail Read, and now lives on the other side of the lake, where he has wasted no time getting involved in the McKay Farm Road Association as treasurer. He will be heading up a new Lake Activities Planning Group for the OLA.

## Winter Emergency Vehicle Access

It is important that a fire truck or ambulance can use your laneway when responding to an emergency call at your house or cottage. Owners are responsible for maintaining access from the travelled portion of the road to the building.

Laneways, including private roads, should be snowplowed and sanded when required. A minimum clearance width of 16' (5m) is suggested (which includes road width), with an overhead clearance of 20' (6m). Any turns or corners must be

wide enough to allow trucks to drive directly to the residence. Also, please ensure that your blue and white civic address sign is clearly visible.

(Source: TVT)

## Longtime Otty Lake Cottager Recognized for Lake Work

Congratulations to Judi Brouse, recipient of the 2014 Latornell Leadership Award for her extensive watershed health work in the District Municipality of Muskoka. Beginning in the late 1960s, Judi's family owned a cottage on Otty Lake Southwest Shore Road. Her father, Lorne Gold, was a former OLA president and dedicated lake steward for many years. Judi has maintained her interest in Otty and neighbouring lakes by providing input on the Otty Lake Management Plan, contributing to this newsletter, and presenting at the Lake Links Workshop in 2011.

## Carbon Monoxide Detectors Required by Law

As of October 2014, carbon monoxide (CO) alarms are now required near sleeping areas in all residential homes in Ontario. This includes summer cottages, cabins, RVs, trailers, and boats with sleeping quarters. CO is a colourless, odourless, tasteless, toxic gas that enters the body through the lungs and can lead to death. People are most at risk while they sleep. CO comes from the

incomplete burning of carbon-based fuels, including wood, propane, natural gas, and heating oil. The average, mid-range, plug-in/battery backup detector/alarm costs \$35-40, and has a life span of five or six years—check the date on the unit. Batteries should be tested monthly and replaced yearly. Read more at: <http://www.safeathome.ca/wp-content/uploads/2014/06/CottageFire-CarbonMonoxide-safetyguide-DS.pdf>.

[Or see these questions and answers](#)

## Beware of Thin Ice

Cap'n Otty would like to remind everyone to stay safe while on the ice. Ice thickness is not consistent across the lake, so get informed, ask seasoned residents about local conditions, and be observant. The Red Cross recommends a minimum ice thickness of 6" (15cm) for walking or skating alone, 8" (20cm) for skating parties or games, and 10" (25cm) for snowmobiles. Grey ice is not safe, as it indicates the presence of water. Avoid all wet patches. They may look like surface melt, but they may also indicate areas where spring water has melted the ice from underneath.

For more safety tips: <http://www.redcross.ca/what-we-do/swimming-and-water-safety/swimming,-boating-and-water-safety-tips/ice-safety>.

## Pitch-In, April 19–May 2

While spring melt can be a joyful sight, it also reveals all the rubbish that thoughtless people have strewn on our roads over the winter months. Help us clean up, by joining Pitch-In, which will occur between Sunday, April 19, and Saturday, May 2, as weather permits. To get bags, contact Elizabeth at (613) 706-3562, or [lizofthelake44@gmail.com](mailto:lizofthelake44@gmail.com). Please take some pictures of your haul for possible inclusion in Cap'n Otty's Log.

## Lake Links Discuss Reasons for Increased Algae



*Green filamentous algae*  
Photo: Derek Smith

Algal blooms and aquatic growth have been an ongoing concern of lake residents and those who work in the field of lake health. The 2014 Lake Links Workshop, held October 25 in Perth, made this a focus by including several scientists who research the topic. The day-long session had a strong turnout, including six OLA directors.

Dr. Andrew Paterson, an inland lakes research scientist with the Ontario Ministry of the Environment and Climate Change (MOECC), delivered a presentation, entitled, Challenges to Local Lakes.

Algal bloom is an excessive growth of one or more species of algae. The blooms are synonymous with reduced water clarity, foul taste, and odour, and sometimes the presence of toxins, which can be harmful to humans and pets. Algal blooms can even affect land prices. One study showed that property values rise 6% for every metre in improved water clarity.

So the science behind why these bloom occur, and whether they will reoccur, are of interest. Dr. Paterson has been studying lake sediments to see how they can be used to track algae over the centuries.

Lake of the Woods has severe algal blooms every year, which began occurring prior to major human settlement. While the perception existed that algal blooms had since increased, oddly enough, the phosphorus loading in from Rainy River had decreased. The reason for increased blooms appears directly related to climate change. The winter/spring temperature has increased by 3°C, and the ice-free season is now four weeks longer than in the recent past.

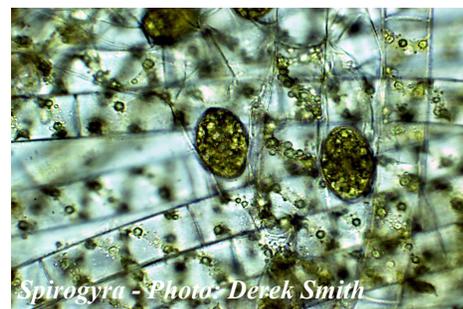
Minnesota has conducted extensive studies of lakes and algal blooms. It was noted that all lakes have blue-green algae, but certain conditions will favour a major bloom, or scum. A severe bloom will not necessarily lead to a bloom

the next year. In fact, the climate has a greater effect. Severe blooms often result from conditions that include lots of sun, high temperatures, and low wind. In predicting blooms, Dr. Paterson used radio as an analogy, where phosphorus is the volume control, nitrogen the tuning knob, and climate the aerial.

Dr. Vermaire, a paleolimnologist and ecologist from Carleton University, discussed the Trillium Foundation-funded study currently underway in eastern Ontario. The study aims to determine drivers of the reported increase in algal concentrations and macrophyte biomass in the region by examining three possibilities: nutrient loading, climate change, and invasive species. In 2014, lake sediment cores were taken from 20 lakes, including Otty, to examine algae and phosphorus changes in the last 150 years. An echosounder was used to assess aquatic plant biovolume in half the lakes sampled. The public are also being encouraged to participate in Citizen Water Watch, a tool for reporting locations and posting photos of algal blooms. Results should be published this summer.

You can view the PowerPoint presentations, as well as the lake management planning presentation made by Randy French and Gord Rodgers, on the Sustainable Watersheds website: <http://watersheds.ca/lake-links-2014/>

*Cathy Kari*



*Spirogyra* - Photo: Derek Smith

# Dissolved Oxygen in Lake Water—Why It Matters

## Animal Life

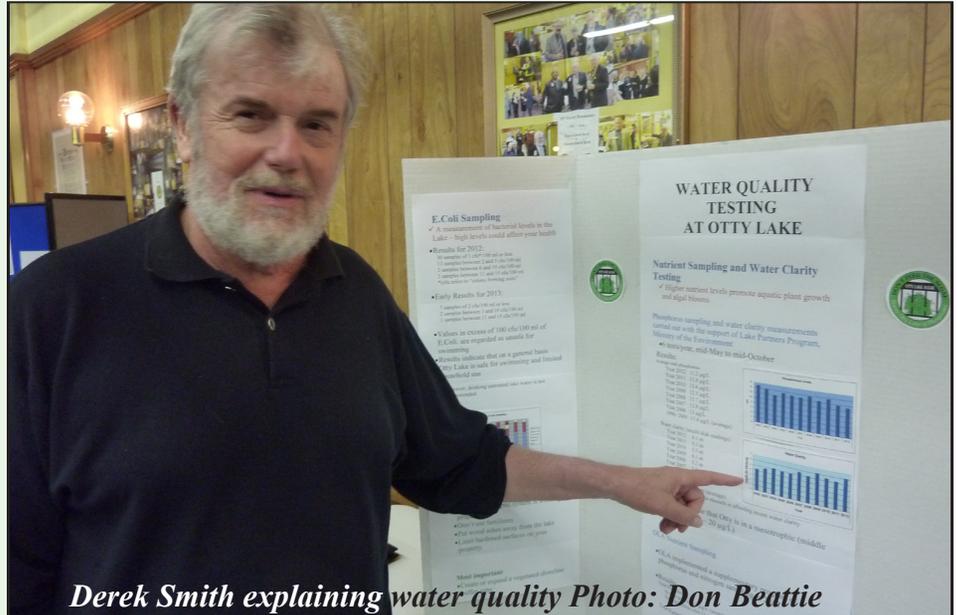
An important aspect of a lake's health is the amount of dissolved oxygen found in the lake water at various depths. Dissolved oxygen is essential to support a range of species, from fish and insects to zooplankton. Some species, such as trout, require larger amounts of dissolved oxygen, particularly at depth. Other species, such as carp and many types of zooplankton, have adapted to live with low amounts of dissolved oxygen.

## Oxygen from Air Exposure

Generally, oxygen is dissolved in the lake water from exposure to air. For the climate at Otty Lake, there is no exposure of the lake to air during the winter months, due to ice cover, and no dissolved oxygen is added. During this period, the lake water is at a near-constant temperature of 4°C, except near the top, where it is colder. Immediately after ice break-up, the lake water mixes completely and the dissolved oxygen is generally uniform from top to bottom.

## The Thermocline

About a week or two after ice break-up, the upper portion of the lake begins to warm up. As the warmer water is less dense, and Otty is sufficiently deep, stratification (spring overturn) of the lake occurs with an upper layer of warmer water forming with a much colder layer below. The upper, warmer layer is continually oxygenated during the ice-out period, as wind mixes this water, bringing it in contact with the air. The dividing line between the warmer and colder layers is called the thermocline, and for Otty, this is at about 23' or 26' (7 or 8m) of depth, depending on the time of year.



*Derek Smith explaining water quality Photo: Don Beattie*

Colder water is capable of holding more dissolved oxygen than warmer water. Nevertheless, the dissolved oxygen in the colder, lower layer of the lake will become depleted throughout the summer. It is isolated from the atmosphere, and the dissolved oxygen here is consumed by various organisms, including fungi and bacteria, which break down dead material lying on the lake bottom. Generally, the dissolved oxygen in the lower portion of a lake like Otty will continue to decline until the fall. Cooler air temperatures will then cause the upper water layer to cool, causing a complete mixing of the lake (fall overturn) when the temperature in the upper layer falls to that of the lower layer. At this time the thermocline disappears. This mixing will continue for a few weeks until ice forms on the lake surface.

## RVCA Sampling

The RVCA undertakes water quality sampling and measurements on Otty and McLaren Lakes with the assistance of OLA volunteers. Among these tests, the RVCA

measures dissolved oxygen/temperature (DO/T) profiles at a mid-lake deep point at Otty and McLaren Lakes, four times a year.

You may view the charts showing [DO/T profiles](#) for 2014 on our website. You will see that in the May and June measurements at Otty, the lower, colder layer is still well oxygenated. However, the August and September measurements show the dissolved oxygen in the lower layer have depleted.

## What You Can Do to Help

We have discussed how the addition of nutrients from human activities entering a lake will lead to increased algal blooms and profuse aquatic vegetation. This also indirectly leads to a decrease in dissolved oxygen in the lake water, as dissolved oxygen is consumed when the algae and aquatic plants die and subsequently decay.

To reduce nutrients entering the lake, ensure your septic system is functioning properly, avoid the use of fertilizers, and enlarge your vegetated shoreline buffer.

*Murray Hunt*

## Where Do the Water Birds Go in Winter?



*Hooded mergansers in flight - Simon Lunn*

Many of the birds we enjoy watching at Otty during the summer don't stick around for the winter. They migrate to warmer climates where food is more readily available. However, not all migrating birds head south; some fly to the East Coast, or even to the Great Lakes, where there is open water. So, where do the loons, ospreys, herons, gulls, swans, and ducks we see at Otty go?

### Loons

Common loons leave late October / early November, and return in late April / early May. Loons from this area head south to the Atlantic or Gulf Coasts, or to large, inland waterbodies in Florida. A few may head for the open water of the Great Lakes. The adults leave first, as the younger ones need more time to mature before migration. However, they must leave before the ice freezes, as they need long stretches of open water to take off.

In spring, you may see flocks of migrating loons while lakes are still ice-covered. The loons frequently come north earlier and congregate on available open water and wait until the ice has thawed at their destination. This explains why loons can reappear within hours after ice-out. The males arrive first to check out nesting spots. The young loons

do not return to their hatching place until they are two or three years old.

### Great Blue Herons

Great blue herons nest in small groups or colonies, and take a similar strategy when they migrate. Some take off alone, some in groups of three to 12, and some in groups of up to 100. They head south mid-September to late October, and return to Canada in April. According to Hinterland's Who's Who, banded Canadian blue herons have been found in Mexico, Honduras, and Cuba.

### Ospreys

Ospreys overwinter in coastal areas of the southern United States, Central America, and northern South America. But they do not all return in spring. Year-olds stay in the wintering grounds the first year. Two-year-olds may or may not return to their summer homes. Three-year-olds are ready to breed, and will return to their hatching site. Nesting platforms for ospreys have been constructed at BurgessWood and many other locations along the Rideau.

### Gulls

While there are more than 20 species of gulls in North America, the most common on Otty Lake is the ring-billed gull. Occasionally, you might see a herring gull or a great

black-backed gull. (For a summary of gull species, see <http://www.spwickstrom.com/seagull/>.) Most eastern Canadian gulls migrate to the Eastern Seaboard and further down the coast to Florida and the Caribbean, where they congregate on beaches. They return as early as March, and have laid their eggs by mid-May.

### Ducks

Some ducks, such as mallards, hooded mergansers, and wood ducks, nest at Otty in the summer and then fly south for the winter. If you see a duck flying among the trees on your lakeside property in spring, it is likely a wood duck looking for a tree cavity in which to establish a nest. Other ducks, such as the common merganser, common goldeneye, and bufflehead, breed north of our region and migrate through Otty in the late fall and early spring.

On occasion, you may see large numbers of common mergansers on Otty during migration. Common mergansers are a large diving duck. The males have black heads, long red bills, and black and white bodies. The females are greyish brown. During the 2009 Christmas Bird Count, Otty had a lot of open water and several hundred common mergansers were observed off Whip-poorwill Point near Maple Glen. It was a majestic sight, especially as the mergansers were being patrolled by a pair of bald eagles.

### Swans

Many people at Otty are delighted to observe mute and trumpeter swans. Mute swans can be identified by the orange on their bills, while trumpeter swans have a mostly black beak. Swans head for open water, such as the Great Lakes, during the winter months.

## Where Have All The Freshwater Clams Gone?



*Muskrat with a snack - Simon Lunn*

When was the last time you saw a live, freshwater clam in Otty Lake? Clams were very common here a few years ago, with a half dozen or so native varieties. However, as the zebra mussel population increased, the native clam population decreased, until now we have millions of zebra mussels and few, if any, native clams.

The freshwater clams have a complex reproduction process. The males discharge sperm into the water, where the females siphon it in, after which the fertilized eggs develop to a stage called glochidium. The mature glochidia are released by the mother clam and attach to the gills and fins of fish where they encyst into the fish's tissue. After a few weeks, the glochidia develop into juvenile clams and drop off the fish. Clams may live from 20 to 100 years, depending on the species.

The glochidia of each clam species attach to a specific fish species. One species shoots her glochidia into the mouth of the smallmouth bass.

Zebra mussels use a different reproduction strategy. They have free-swimming larvae called veligers, which drift in the water for several weeks before they attach to a hard surface, such as a stone or freshwater clam. After being attached for six or seven weeks, they start to reproduce. Zebra mussels can live from four to five years and can produce more than a million

eggs per year, meaning it doesn't take long for them to saturate their habitat. When zebra mussels attach to a freshwater clam, they reduce the clam's ability to move, feed, and breed, and eventually the clam dies.

Many of us can remember seeing piles of freshwater clam shells along the shore. These were left by muskrats when they collected the clams from the lake bottom and took them to their feeding stations to eat. Muskrats have since found that zebra mussels are also tasty, so now you can see piles of those shells beside their feeding stations. Crayfish also eat small zebra mussels, and can consume more than 100 a day; smallmouth bass are also known to eat zebra mussels.

*Roger Nuttall*



## 200th Anniversary Celebrations Planned

In 2016, the townships of Tay Valley, Drummond/North Elmsley, and Beckwith, along with the town of Perth, will celebrate the 200th anniversary of the founding of the Perth Military Settlement, following the War of 1812. Activities are slated to take place in all four municipalities, beginning this fall through 2016, and include car and bike rallies, food history, a commemorative quilting exhibition, pioneer era re-enactments, winter carnivals, the Perth Kilt Run, Tay River and Canal activities, and musical and theatre events. Some events will be delivered jointly by all of the municipalities, including a Homecoming Program to welcome expatriates, house tours, and a Settlers Trail designation. It promises to be a remarkable celebration of the area's rich history that will honour forebears, celebrate accomplishments, and recognize the hardships and dedication of the pioneers. If you would like to get involved, please contact your local anniversary committee:

- Tay Valley 200 Working Group <http://www.tayvalleytwp.ca/en/municipal-government/200th-anniversary-working-group.asp>
- DNE 200th Anniversary Committee <http://www.dnetownship.ca/content/200th-anniversary-celebrations>

*Susan Code McDougall*

# Community Partnerships Bring Results

Do you know how many community partners the OLA has? Can you list some of the work done with them? No doubt you'd be as amazed as I was at what the OLA has accomplished in conjunction with these organizations. We, as part of the Otty Lake community, have benefited greatly from the partnerships our dedicated volunteers have forged through the years by participating, sharing information, and networking with other organizations. These relationships will continue to be nurtured and supported.

In order to understand the work the OLA has accomplished with its 29 community partners, I studied the [Five Year Review Report of the Otty Lake Management Plan](#) which was organized by these 12 issues: surface water quality, aquatic vegetation, ground water quality and quantity, water levels, development pressures, fish and wildlife health, mining, shoreline protection and health, impacts of boating, responsibility in protecting lake health, partnerships in lake management, and climate change. This report shows that many concerns remain to be addressed if the lake is to stay healthy, especially as new challenges emerge.

In preparing an [OLA Community Partners chart](#) (available on our website), I gained a better under-



*RVCA Staff, 2010 BioBlitz  
Photo: Don Beattie*

standing of the special relationships the OLA has developed and their benefits. For example, the septic re-inspection programs that are now in place have come from our relationship with Drummond/North Elmsley, Tay Valley and other local lake associations. There is now increased municipal awareness of the importance of protecting wetlands, lakes, and shorelines during development discussions. Other co-operative projects that have come from these relationships include:

- Trillium-funded Aquatic Vegetation and Algae Project (Friends of the Tay Watershed)
- Turtle habitat and wetland identification workshops (Toronto Zoo)
- 2010 and 2012 BioBlitz (Stewardship Council, MNR)
- Otty Lake Shoreline Handbook and Love Your Lake program (Centre for

Sustainable Watersheds)

- Otty Lake total phosphorus data, since 1996 (MOECC and Lake Partners Program)
- Watershed Watch Program and Otty Lake Bass Habitat Enhancement Project, Phases I and II (RVCA)

It is essential that Otty Lake residents, the OLA, local governments, and NGOs continue to accept their shared responsibility for the health of this special lake and nurture strong partnerships.

If you would like to assist with any ongoing or future community partnership projects, please feel free to get in touch with me ([christinek@xplornet.ca](mailto:christinek@xplornet.ca)), or Ian McDonald, Lake Activities Projects Co-ordinator ([india.mike51@gmail.com](mailto:india.mike51@gmail.com)).

*Christine Kilburn*

**C**APTAIN OTTY'S LOG is produced by the Otty Lake Association (OLA) three times a year, and is distributed by e-mail or Canada Post to all Otty Lake cottagers and residents. Contributions to the Log are welcome.

**Coordinator:** Barb Hicks

**Layout:** Peter Dillon-Parkin

**Proofing:** Susan Code McDougall

**Distribution:** Robert Cosh, Shari and Don Beattie

To find out more about the OLA, or to see past issues, please see:

[www.ottylakeassociation.ca](http://www.ottylakeassociation.ca). Or

write to: **The OLA, Box 20122, Perth ON K7H 3M6.**



*Family hockey - David Reesor*

## Explore and Contribute to our Website

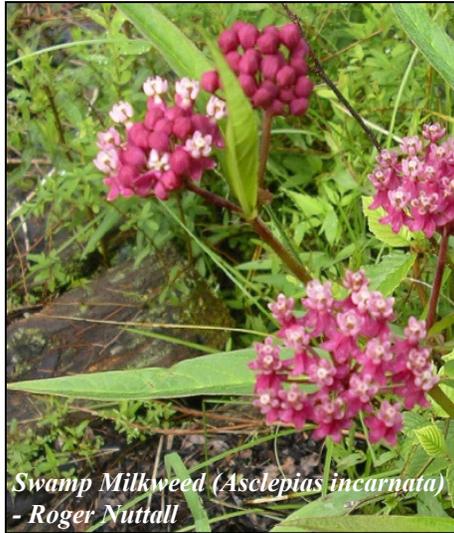
Be sure to check the [OLA website](#) for news and activities, as well as other information on our lake, the environment, our community, and the OLA; past newsletters; and other interesting references in the sidebars. We welcome contributions from the Otty Lake community for our photo gallery and historical section, including observations of flora and fauna specific to Otty Lake. You can find the OLA on [Facebook](#) as well. Ask to join the group.

## Shoreline Planting Returns to Otty Lake

Wildflowers and shoreline shrubs will once again be available to the Otty Lake community.

This year's wildflower selection from Philip Fry's Old Field Wildflower Nursery, Oxford Station, includes: cardinal flower, swamp milkweed, blue flag iris, obedience plant, and Canada anemone. The shrubs, from Ferguson Forest, Kemptville, include: ninebark, sweet gale, grey dogwood, smooth arrowwood, and Bebb's willow.

OLA will subsidize 50% of the cost. The price for OLA members is \$4 per 5.5" potted plant of wildflowers, and \$4 per 1-gal. pot for shoreline shrubs. Orders are limited to three wildflowers and three shrubs



per residence, and will be available on a first-come, first-served basis. OLA members can pick up their plants on Saturday, July 4, 9

a.m.–1 p.m., at 126 Sutcliffe Lane (take Elm Grove Road to McKay Farm Road, and follow the signs).

- To order wildflowers, please contact Evelyn Dore, [edore01@rogers.com](mailto:edore01@rogers.com).
- For shoreline shrubs, contact Gail Read [read2read@outlook.com](mailto:read2read@outlook.com)

In order to sustain this valuable shoreline program, we invite residents to take part in the OLA shrub and wildflower survival initiative. This initiative would include photographing the planting and providing protection for the tender plants from foraging critters. Gail and Evelyn will even assist the property owner with these initiatives to obtain successful results.



## Otty Lake Association 2015 Membership Renewal

Your prompt renewal would be much appreciated, as our expenses occur year round. The completed form and a cheque for \$20 can be mailed to the **Otty Lake Association, Box 20122, Perth ON K7H 3M6.**

Please complete the following so we can ensure our records are correct:

Name(s) \_\_\_\_\_

Lake Address: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Email Address: \_\_\_\_\_

City: \_\_\_\_\_ Prov/State: \_\_\_\_\_ Postal/Zip Code \_\_\_\_\_

Check your delivery preference for Captain Otty's Log Newsletter:

- Canada Post     email     Log by Canada Post, e-mail updates  
 Call me about volunteering for the OLA.

*Thanks for supporting the OLA!*