



AQUATIC PLANTS

AFFECTIONATELY REFERRED TO AS
“WEEDS”

JUNE 5, 2016

AQUATIC PLANTS SUB-COMMITTEE

- Section 3.4 of Otter Lake Sustainable Lake Plan
- Two Objectives / Nine Action Items
- Two Categories: Indigenous and Invasive
- Moving ahead on all nine action items
- Article in February 2016 OLLA Newsletter – Invasive Species Update – *Prevention is the Intention*
- Education is important
- 3 Volunteers: Judy Hodgins, Ted Duffin, Doug Franks

INDIGENOUS AQUATIC PLANTS

- Absolutely necessary for healthy lake
 - Oxygenation, nutrient absorption, sun radiation filtering, food sources for fish/birds/reptiles/invertebrates, lake bottom and shoreline stabilization
- Summer 2016 – preliminary survey and inventory of Otter Lake aquatic plant species with assistance of Kaitlin Brady, RVCA and a summer student – planned during week of July 18–22.
- Summer 2017 – comprehensive survey and inventory by Carleton University honours student through Dr. Jesse Vermaire.

INDIGENOUS AQUATIC PLANTS

- Excessive aquatic plant growth causes:
 - Environment Factors:
 - sunlight, length of growing season, water levels & water chemistry
 - little to no control of these factors
 - Human Factors:
 - fertilizers, improperly functioning septic systems, run-off, detergents & soaps
 - everyone can do their part to limit or eliminate these factors.

INDIGENOUS AQUATIC PLANTS

- ❖ While on the one hand we need native aquatic plants for a healthy lake, we do not want an excessive amount as that can upset the natural balance of the lake as well as impact recreational enjoyment.
- ❖ It is also important to note that an indigenous aquatic plant that are found in other local lakes may not be native to Otter Lake and would therefore be considered an invasive plant for our lake.
- ❖ We can lessen the human impact by adopting good practices regarding chemicals, sewage and phosphates. Forget the weed free, lush lawns of an urban landscape, maintain our septic systems by regularly pumping out the tanks and checking for seepage and use phosphate free and “microbead” free detergents, soaps and shampoo.

INDIGENOUS AQUATIC PLANTS

- Excessive aquatic plant removal:
 - If absolutely necessary, steps can be taken to correctly and legally remove aquatic plants:
 - Under the authority of Ontario Ministry of Natural Resources & Forestry (MNR)
 - No work permit required in the southern region of Ontario, but strict rules apply, including maximum removal dimensions dependent on width of waterfront property owned by you.
 - In-water Work Timing Window Guidelines: Southern Area = July 16 to September 30
 - <https://www.ontario.ca/page/remove-native-aquatic-plants>
 - Call MNR District Office in Kemptonville: General Number: 613-258-8204 (totally automated). Direct Lines: Mary Dillon 613-258-8267; Lisa 613-258-8417
 - Failing to follow guidelines could result in charges under the Public Lands Act.

INDIGENOUS AQUATIC PLANTS

- ❖ There is remedial action that can be taken to deal with excessive aquatic plants directly in front of your own property but must be done correctly and legally by following government acts and regulations. There are specific maximum dimensions for removal areas dependent on the width of your waterfront property.
- ❖ OLLA neither advocates nor discourages the removal of excessive aquatic plants.
- ❖ If you feel it is necessary to undertake removal you need to follow the strict guidelines so as not to contravene the Public Lands Act (water bodies are Crown land), possibly incur charges, or cause undue harm to the lake or the waterfront of other landowners on Otter Lake through careless or improper removal.
- ❖ Before doing anything YOU must check the Ontario government's website for the latest rules and timing guidelines and call the MNRF District Office. Timing guidelines are due to fish spawning and turtle nesting times.

INVASIVE AQUATIC PLANTS

- Can have drastic effects on lake's ecosystem
- EDDMaps Aquatic Invasive Species (AIS) Monitoring System
 - Sub-Committee will survey lake twice a year (May/June and August/September) to look for invasive species.
 - All landowners should also be on look out for invasive species and report any suspected finds to the Invading Species Hotline at 1-800-563-7711 or online at <http://www.EDDMaps.org/ontario> and/or report findings to OLLA at postmaster@otterlake.org
 - MNRF also wants to be kept informed of invasive species.
 - Sub-Committee will take pictures and samples of any suspect aquatic plants and send to AIS Monitoring System for confirmation.
 - Through early detection, eradication may be possible through mechanical removal over a 3-year period.

STOP THE SPREAD

- Make sure that after using your watercraft and/or equipment (including ATVs, waders) in another water system you:
 - Always drain any water from your motor, bilge and transom wells on land, as well as remove mud and visible plant and animal material prior to leaving the other water system
 - Ensure your boat/motor/trailer and equipment are washed with hot tap water (greater than 50° C, or sprayed with a high pressure water (250 psi) at least 30 meters from shore, or dried in hot/sunny weather for at least 5 days before introducing to Otter Lake or any other body of water.
- Never release aquarium plants into or near a body of water.
- Use non-invasive plants in your gardens.
- Pets, boots, lawn chairs can all carry seeds of invasive plants.

INVASIVE AQUATIC PLANTS

- For help to identify invasive aquatic plants go to <http://www.invadingspecies.com/invaders/plants-aquatic/>
- Currently on the watch list: (pictures at end of presentation)

European Frog-bit

Water Hyacinth

European Water Chestnut

Water Soldier

Fanwort

Yellow Floating Heart

Hydrilla

Yellow Iris

Parrotfeather

Note: Eurasian Water-Milfoil is no longer on watch list as it's considered too entrenched.

ALGAL BLOOMS

- Algae blooms, including blue–green algae, occur naturally.
 - Normally not visible in the water, unless favourable conditions result in large mass or scum in the water called a bloom
 - Favourable conditions include: warmer weather/water; shallow, slow moving water; increased nutrient levels such as phosphorus and nitrogen.
 - Algae blooms have an effect on dissolved oxygen levels triggering stress on fish and other wildlife in the lake as well as affecting the chemical balance in the lake.
- The number and intensity of blooms are attributed to human activity: detergents, septic tank seepages, fertilizer runoff.
- Algae Watch: report algae blooms or large mats of aquatic plants @ <http://www.citizenwaterwatch.ca>

ALGAL BLOOMS

- ❖ Algal blooms, like aquatic plants, are affected by environmental and human factors.
- ❖ Remember, algae are critical to the life of our lakes and are the base of the food chain.
- ❖ Blooms of algae are unwanted events that can affect the appearance of a lake, result in unpleasant tastes or odours, reduce clarity and upset the chemical balance of the lake by causing fluctuations in oxygen levels.
- ❖ Some species, mostly blue-green algae, can cause sickness if contacted or ingested, and even death to children and animals.

BLUE-GREEN ALGAE

- Many blue-green algae varieties are harmless, but some can produce toxins harmful to both humans and animals.
- Blue-green algae blooms may make the water look bluish-green or like green pea soup or turquoise paint. Very dense blooms may form solid-looking clumps. Fresh blooms often smell like newly mown grass while older blooms may smell like rotting garbage.
- All blue-green algae blooms should be assumed to be toxic:
 - Avoid exposure - no swimming and restrict pet access to the water
 - Consider an alternate drinking water supply source if you get your water from your own surface water intake. Boiling the water does not remove these toxins. Contact Health Unit for information: 1-800-660-5853
 - Avoid eating fish.
- If blue-green algae suspected CALL Ontario Environment Ministry's SPILLS ACTION CENTRE at 1-800-268-6060.

BLUE-GREEN ALGAE

- ❖ Again, blue-green algae is a naturally occurring microscopic plant found in many Ontario lakes.
- ❖ Blue-green algae **BLOOMS** are the all-dreaded scourge of lakes.
- ❖ Not only are these blooms unsightly, smelly, possibly toxic (30–50% of the time) and take away the recreational enjoyment of the lake, they can have a negative impact on property values if these are regularly occurring events.
- ❖ Please invest in our lake and do what needs to be done to protect it.

BLUE-GREEN ALGAE

❖ What happens when you call the Spills Action Centre:

- The report you provide when you call the 1-800 number is forwarded to the Ottawa District Office of the Ontario Ministry of the Environment and Climate Change.
- An officer from the district office will: notify the local Health Unit of a possible blue-green bloom who will then advise Township and put out a “suspected” alert; will call person who made report if more information needed; will do a same-day site visit and take samples; if blue-green bloom confirmed as toxic the Health Unit will be further contacted and they will send out further bulletin.
- It is not recommended that landowners take samples as protocol is not to have contact with the bloom. It is probably a good idea to take pictures.
- The Ministry of the Environment and Climate Change keeps a data base of blue-green blooms.
- Note that RVCA is not involved with blue-green blooms.

BLUE-GREEN ALGAE



Picture taken at Rideau Ferry

BLUE-GREEN ALGAE



INVADING SPECIES

- Here are pictures of the nine aquatic invasive species (AIS) currently on the watch list. Be sure to visit www.invadingspecies.com/invaders/plants-aquatic/ to get more information and descriptions.

EUROPEAN FROG-BIT



EUROPEAN WATER CHESTNUT



FANWORT



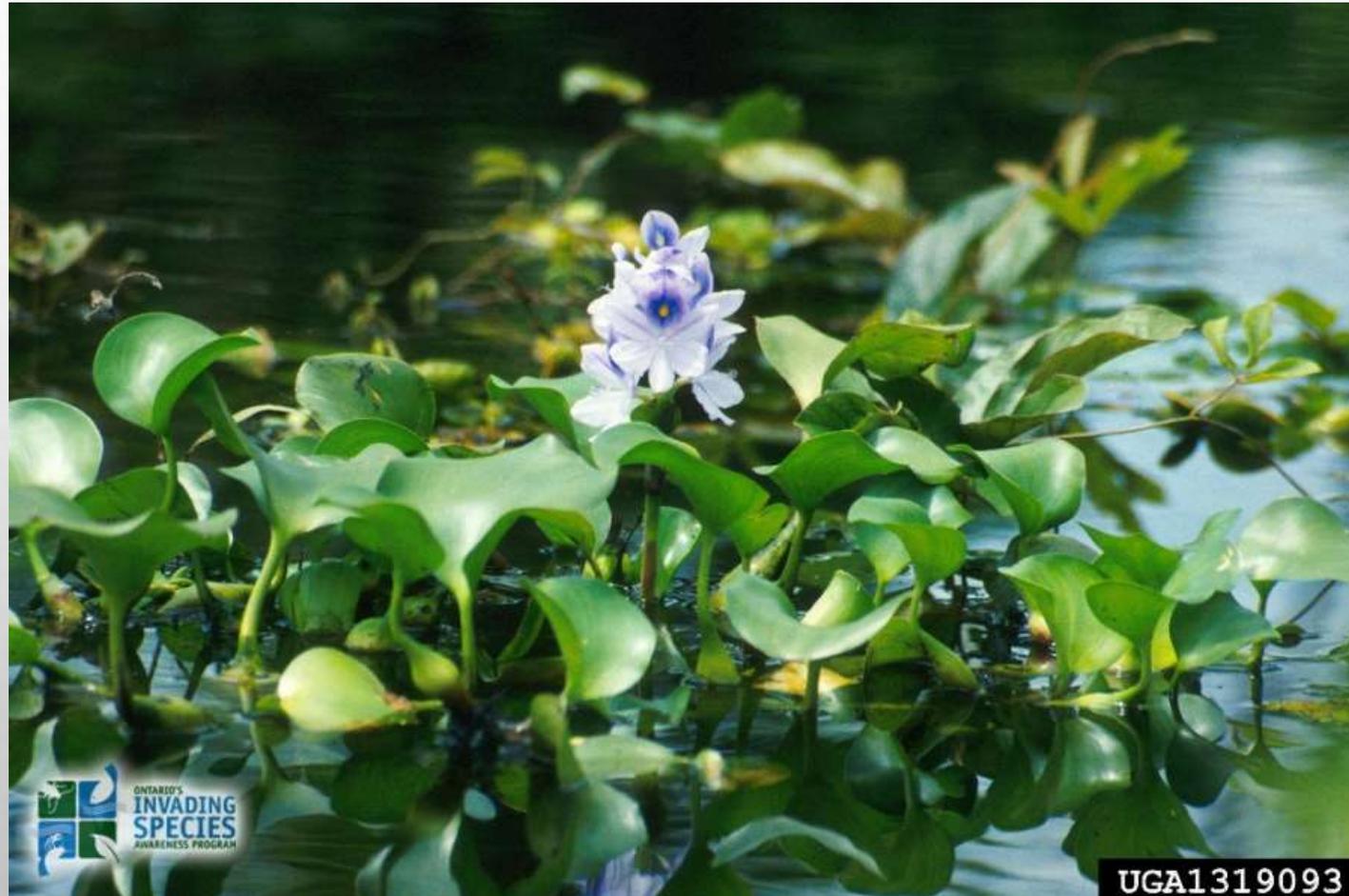
HYDRILLA



PARROTFEATHER



WATER HYACINTH



WATER SOLDIER



YELLOW FLOATING HEART



YELLOW IRIS

