

Eurasian Water-milfoil at Lac des Loups

Milfoil committee

L'Association du lac des Loups

June 2019

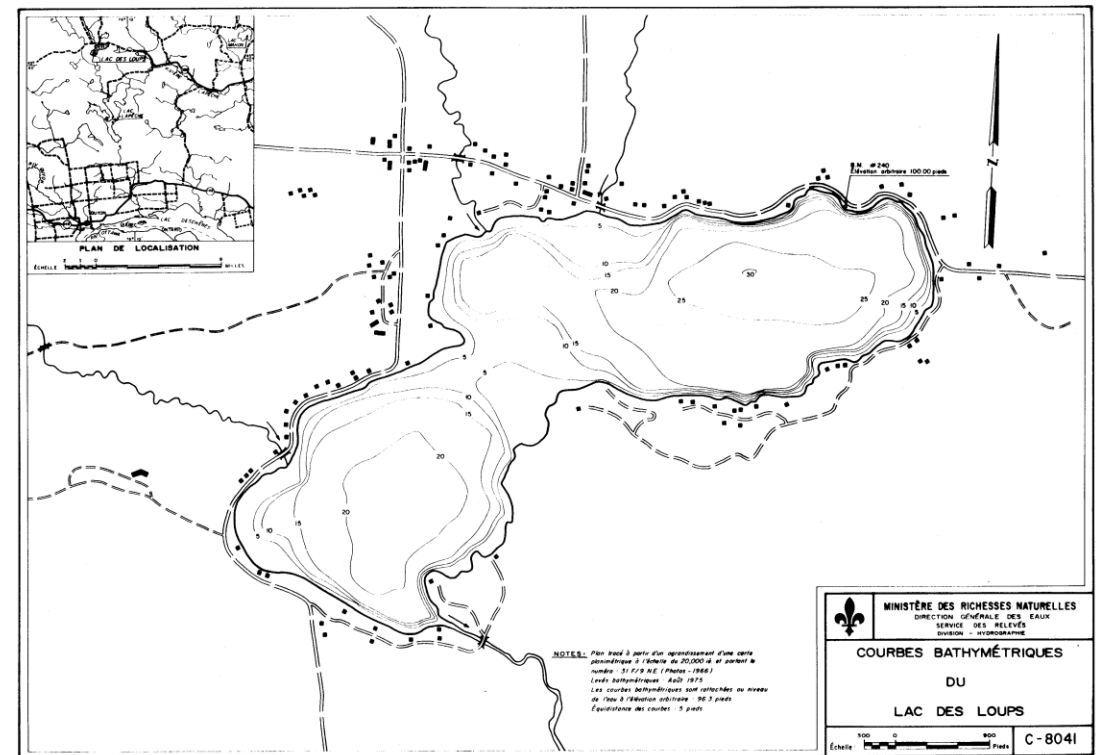
A brief recap of the situation at LDL

- A survey by the ABV-7 **confirmed** the presence of milfoil in 2016
- The ALDL **informed** residents, **installed** buoys and signage and developed a **monitoring** protocole.
- Protocole **tested** in 2017
- **Volunteers participation** in the follow-up of volunteers 😊 in 2018



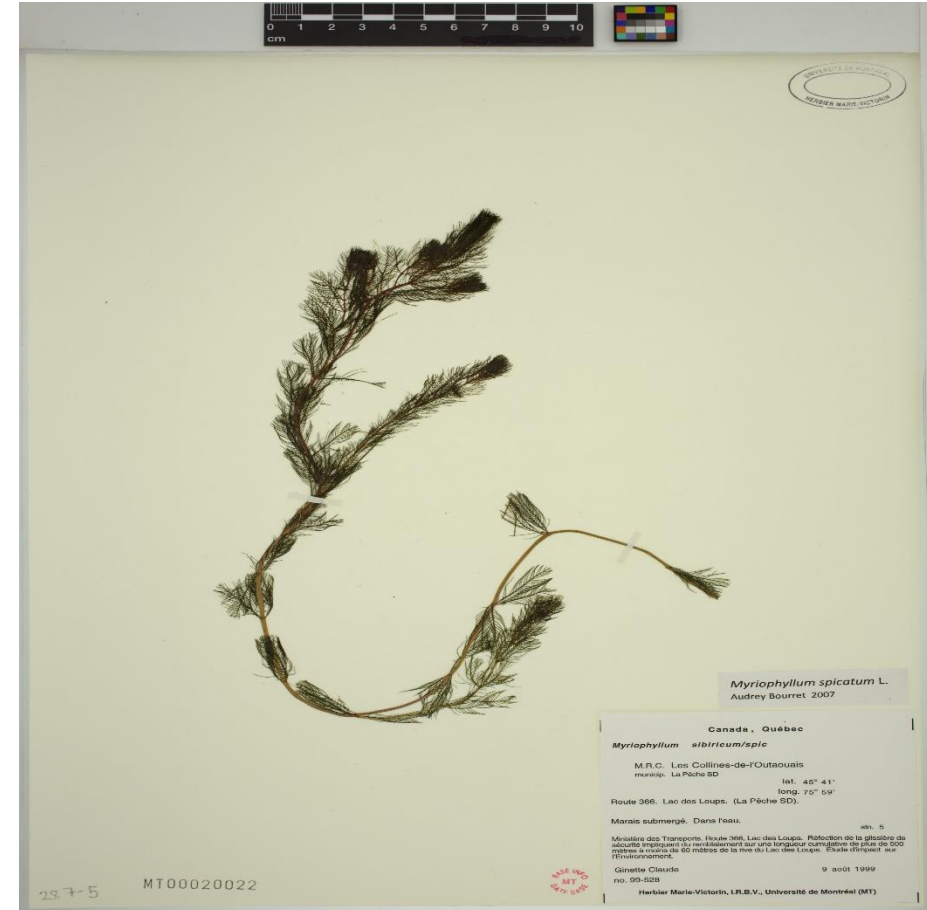
Reminder: Lac des Loups is very shallow, therefore very vulnerable to milfoil ☹️

- The Eurasian Water-milfoil can grow in depths ranging from 0,5 to 10 m (usually found between 0,5 and 4,5 m).
- The maximum depth of LDL is 9,5 m.



Our recent discovery!

- A sample of Eurasian water-milfoil at lac des Loups was found that dates back to 1999, collected during the environmental assessment of work on route 366
- Note: initially it was misidentified as a native species of milfoil



Results from the ABV des 7 survey in 2016

- **9 single-species colonies (80% or more milfoil)**
 - Covering a total of 40 000 m²
 - Mostly along the north shore of the lake
- 16 mixed colonies with a few milfoil present
- 6 colonies of native plants only (without milfoil)

Surfaces en m²
des herbiers de Myriophylle à épi monospécifiques
au lac des loups en 2015

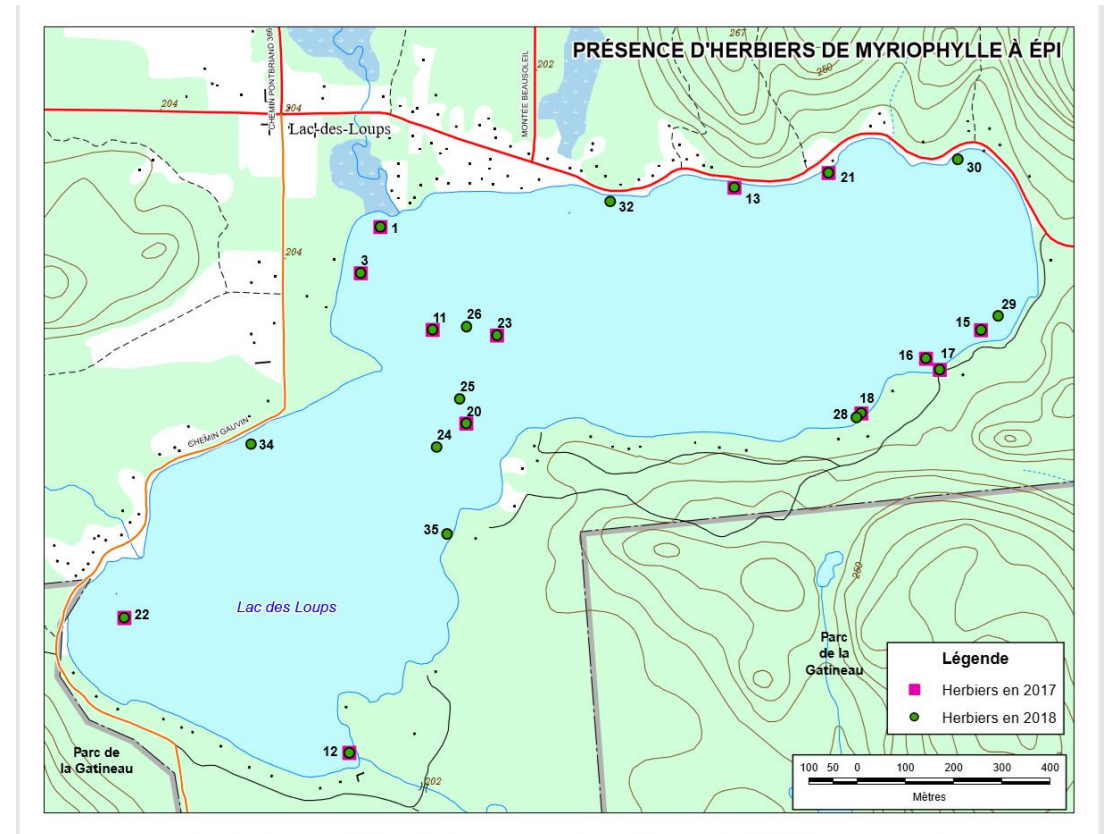


IDENTIFIANT HERBIER	SURFACE EN M ²
1	3 839
2	3 166
3	3 593
4	3 235
5	9 308
6	5 691
7	3 332
9	4 977
10	2 772

Total : environ 40 000 m²

ALDL results from 2018

- **22 single species colonies**
 - Covering a total of 11 350 m²
- Bad news:
 - No late growth
 - Colonies larger than they were in 2017
 - Single-species colonies now found everywhere including in several critical locations
 - Milfoil present in all other plant colonies, starting to form single-species nodes within the colonies



Clearly, milfoil is spreading throughout the lake

- Lots of fragmentation: difficult to control
- Buoys are not keeping boaters out of heavily infected areas



How can we manage milfoil?

- Eradication is virtually impossible; the plant can be controlled but this can be costly
- The first step is always to prevent fragmentation and recontamination

Approaches for control	
Jute canvas or geotextiles	Permits currently difficult to obtain
Manual or machine cutting	Must be repeated several times a year
Aeration	Works in deep lakes
Predators (weevils)	Experimental
Pesticides	Not permitted in Quebec
Pulling plants by the root (scuba diving)	Very intensive work, needs lots of people power!

What would need to be done if we wanted to initiate control measures?

- Consult the Ministry (MDDELCC)
- Develop an implementation plan based on the location of existing colonies
- Some lakes may need several different methods of control
- Obtain permits
- Obtain funds \$\$\$\$



<http://lacquenouille.ca/documents/MAE-EWM/MAE-ABV7-presentation-2015-06-compressed.pdf> Lac Pémichingan

Is it time to start developing an implementation plan?

- Do we have enough information?
 - Are the variations in growth rate and colony location recurring or not?
 - Can we identify priority areas for control?
- Can we minimize the risk of recontamination?
 - Can we ensure that boats are washed
 - Can we keep boats out of heavily contaminated areas
 - Can we minimize erosion?
- Can we obtain the funds?
 - ABV des 7 is developing a priority-based system for municipal decision-making pour only very limited funding will be available from the municipality

2019: a crucial year!

- Data from this year will allow us to confirm our observations:
 - Do the colonies remain in the same place
 - Is the milfoil still expanding in the lake
- By the end of the summer we should have a better idea of how to target the next steps



Your participation is key!

- Monitoring can be done by teams of two or three volunteers who will be assigned a sector of the lake
 - The ALDL will place buoys will at known dense colonies of milfoil
 - A training session of a few hours will be provided by the Association (June 16)
 - Two targetted patrols to check for milfoil presence would be needed: one at the end of July and another at the end of August. This would probably take a few hours
 - If possible, GPS measurments can be taken
 - Observation sheets would need to be filled out for both visits. These would then be collected and analysed by the Association
- **VOLUNTEERS ARE INVITED TO REGISTER IMMEDIATELY AFTER THIS MEETING. THIS MAY TAKE ABOUT 10 MINUTES**

Thank you!