

Jemseg Grand Lake Watershed Association
Finding and Reporting Eurasian Watermilfoil

by

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Our Association participated in an Invasive Plant Patrol (IPP) workshop held near Dykeman Cove in Grand Lake, New Brunswick, Canada. The workshop was led by Kristin Elton, program director with the [N.B. Invasive Species Council](#) (NBISPC). Along with Kristin, seven workshop participants from three watershed groups attended, including four participants from the Jemseg Grand Lake Watershed Association (JGLWA). Participants learned how to do a proper survey of areas of Grand Lake to submit to the NBISPC. It will take some time to communicate and teach the proper detailed method to members of the JGLWA, but those who attended will attempt this in the coming months.



Figure 1. Group photo discussing aquatic plants collected during the IPP workshop on Robertson Point, Sept. 8, 2022.

This document describes how to do a simple general survey of your area of a lake, shoreline or other water body. The best view of aquatic plants are from a low, human powered boat such as a canoe, kayak or a boat powered by oars. Using a small motorboat would work, but it is known that Eurasian Watermilfoil pieces cut off by outboard motors or jet pumps (used on jet skis) can float to other locations and start new plants. Use of motorized vessels is **not recommended**.



Figure 2. Looking for Eurasian Watermilfoil on the water, Sept. 8, 2022. The long black tube being held by one of the participants is an aquascope. An aquascope is not necessary, but helps improve underwater vision. The aquascope shown here was made by a member of the JGLWA from PVC tubing.

The following images show what Eurasian Watermilfoil plants look like in the water, and after sampling.



Figure 3. Eurasian Watermilfoil in the water on September 8, 2022, Dykeman Cove, Grand Lake, N.B.



Figure 4. Eurasian Watermilfoil in the water on September 8, 2022, Dykeman Cove, Grand Lake, N.B. Notice in the above left image how there can be long stretches without any leaves.



Figure 5. Eurasian Watermilfoil in trays containing water and on a table after sample collection.

The [N.B. Alliance of Lake Associations](#) and [Eastern Charlotte Waterways](#) created plant ID cards for help in identifying Eurasian Watermilfoil in the field. The images below are from the plant ID cards Kristin shared with the IPP workshop attendees that will help you make a positive identification of what you're finding. Maine VLMP is the Maine Volunteer Lake Monitoring Program established by the [Lake Stewards of Maine](#).



INVASIVE PLANT				
Eurasian Water-Milfoil (<i>Myriophyllum spicatum</i>)				
Plant Community	Leaf Arrangement	Leaf Type	Reproductive Structures	Other Distinguishing Features
<ul style="list-style-type: none"> submersed 	<ul style="list-style-type: none"> whorls of leaves openly spaced along the stem 3-6 leaves per whorl (most commonly 4) 	<ul style="list-style-type: none"> feather divided all leafy milfoils have feather divided leaves if you find a plant with feather divided leaves, strongly suspect milfoil 	<ul style="list-style-type: none"> emergent flower spike flowers and bracts arranged in whorl flowers larger than bracts 	<ul style="list-style-type: none"> 12-24 leaflet pairs per leaf If you count 15 or more leaflet pairs per leaf, suspect EWM

Take a large zip-lock bag with you when you head out on the water. If you find aquatic plants of interest, place some of them in the zip-lock bag with water. They will dry out quickly if left out of water for any length of time. Once back on shore, place any found samples in a shallow white dish, tray or pan, and take photos of them, noting the location where you found them, and estimating their density. The white trays shown in Figure 5 are from a dollar store. Some locations in our watershed have reported densities of plants as one every 5 m or so, with several hundred plants observed in one area. Please [email](#) our Association at jemseggrandlakewatershed@gmail.com the pictures and notes of any Eurasian Watermilfoil you find in our watershed. If you can mark on a map the areas where you found Eurasian Watermilfoil plants, and send a picture of the marked-up map with your notes, that will be very helpful. Our Association will attempt to compile that information for future use, and communicate our Association's findings to the [N.B. Invasive Species Council](#).

If you're uncertain whether the aquatic plants you're seeing are Eurasian Watermilfoil, you can take a sample either by carefully pulling the plant up or breaking off a piece of it. As discussed above, when you return to shore, place plants in shallow white trays or dishes with some water added, and then photograph them. We will send your photos to Kristin Elton, program director of the N.B. Invasive Species Council, to get her help in identifying the plant. If you keep the plant samples in the zip-lock bag in the fridge, we might be able to tell you where to send the entire plant sample for a more complete identification.

Eurasian Watermilfoil are submersed perennials, and are most abundant in 1 to 4 m (3 to 14 feet) of water, but can grow in water up to 10 m (33 feet) deep [2]. It can outcompete and replace native plant communities, reducing overall biological diversity and significantly reducing water quality. To prevent the spread of Eurasian Watermilfoil (see e.g. [3]), minimize disturbance near infested areas, and remove any plant material from boats, anchors, trailers, fishing gear, boots, and other equipment before leaving the water body. The [Canadian Council on Invasive Species](#) calls this the [Clean, Drain, Dry](#) program.

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References

- [1] N.B. Alliance of Lake Associations and Eastern Charlotte Waterways, "Plant ID Cards", a collection of coil bound, laminated 3 by 5 inch images for use in field identification of aquatic plants, circa 2015.
- [2] Smith C.G., and J.W. Barko, "[Ecology of Eurasian watermilfoil \(PDF | 1.1 MB\)](#)", Journal of Aquatic Plant Management 28:55-64, 1990.
- [3] Invasive Species Council of BC, "[Eurasian Watermilfoil Factsheet \(PDF | 2.1 MB\)](#)", April, 2019, accessed Sept. 19, 2022.