

Bulletin – Hand Harvesting Eurasian Watermilfoil – August 2021

Introduction

Hand harvesting is one of the many techniques used to control the growth and spread of Eurasian Watermilfoil (EWM) and other invasive aquatic plants. The DSLPOA EWM Working Group has done research regarding this technique and has also performed a controlled test this summer using a commercial dive team – we would like to share this information with property owners who are experiencing EWM growth directly in front of their property.

This bulletin about hand removal of EWM includes observations made by our volunteers and the commercial divers who have performed milfoil control work for the Drag and Spruce Lakes Property Owners' Association for the last 2 summers. The bulletin also explains the property owner's right to perform this work and offers suggestions for minimum safety considerations for those performing this work. Although we appreciate the desire on the part of some property owners to remove every EWM plant they observe near their property, we do not advise attempting to hand harvest these plants from a swimming or free diving position.

The Public Lands Act

In Ontario the Public Lands Act allows for individual property owners to remove invasive weeds, including EWM, directly in front of one's waterfront, using an imaginary extension of the side property lines into the water to set the limits of the work. If the weed growth extends beyond one property it is necessary to inform and get permission from adjacent property owners before removing plants in front of their property. The Act stipulates that this work must not be done prior to July 15th each year and must be completed by September 30. These dates are chosen to protect the fish population during spawning season. The Act also states that only invasive species are to be removed and that all debris must be removed from the water and disposed of a safe distance from the water. Refer to this [link](#) for further details.

Safety

As is always the case when working on or near water, personal safety is a primary consideration. Even though this work could be performed in shallow water, **the possibility of entanglement and drowning is a risk that must be considered and taken seriously.** The hand harvesting performed by the commercial dive team for DSLPOA was in water approximately 10 feet deep, with one air-supplied diver in the water and 3 other qualified divers assisting on the boat and work platform. Even with this level of

protection for the diver in the water, one diver described the risk of entanglement as very real and added that it made him feel uncomfortable.

These are a few of the things observed by our team of volunteers working with the professional dive team:

1. There is safety in numbers. Divers do not work alone, but rather use a system that assigns specific roles to each team member. For example, one person is pulling plants and a second is monitoring the plant pulling activity. A third is ready to perform a rescue if required.
2. Additional team members are needed to scoop or skim floating debris from the water before it floats away from the work area.
3. This is a job for adults. Individual plants can be difficult to remove, large groups of plants create an extreme entanglement and drowning hazard.
4. Rescue and lifesaving equipment, including life jackets or approved personal floatation devices, floating rescue lines, first aid equipment and a telephone must be kept on hand in case they are needed.
5. Limiting the number of individuals performing harvesting at one time is essential. There should be no more than one harvester working in the water at any time.
6. A maneuverable, non-motorized craft can be used to hold safety equipment and debris removed from the water. Boats with motors pose a risk to those in the water and may create and disperse fragments.

EWM grows in very dense beds. It can be so thick as to impede movement of boats and is an extreme risk for anyone who ventures into the weed bed. **A person's swimming ability and strength are not enough to protect them from the combined strength of these weeds.** If your weed bed appears to be very dense, do not enter the weed bed to attempt hand-pulling. There is a constant chance of entanglement in the weeds and drowning is a real possibility. If you encounter such growth, please notify the EWM Working Group and we will include the weed bed in our control program.



Final Considerations

Because of the combined risk of entanglement and drowning, the DSLPOA EWM Working Group will not ask its volunteers to perform hand harvesting. Any property owner who chooses to perform hand harvesting assumes all risks for their actions.

If you decide to perform hand harvesting, the following additional information may be of interest.

Get the Root if You Can

A successful hand harvest of EWM is achieved when a plant can be pulled, roots included, and removed from the water for containment and later for disposal on land. Any fragments of milfoil that break loose during this work should be skimmed/scooped up by other team members. The photo below shows a harvested plant, complete with long, black roots.



Weather Considerations

1. Calm water and light winds make the work much easier
2. Good ambient light aids seeing the weed growth and any team members in the water
3. Comfortably warm water will help avoid fatigue

Equipment Considerations

1. Life jackets or PFD's for all team members
2. First aid and life saving equipment
3. Proper fitting goggles or masks for the weed puller

4. Gloves for the weed puller
5. Stand up paddle board, windsurfer, kayak, canoe, row boat, etc. for observers and equipment
6. Skimmers, minnow nets, fan rakes, etc.
7. Burlap bag or equivalent for weed puller
8. Bucket or bin on the surface for containment of the weeds



Observed Harvesting Procedure

1. Our professional divers found they created the least fragmentation by coiling the milfoil stems around their hand, gathering as much as possible, working towards the bottom and right into the sand. They would then pull gently to try and take as much as possible of the root system. Everything gathered was then taken to the surface to be put in the containment bucket.
2. The team member who observes every action of the weed puller has no other duties. With a commercial dive team this is accomplished by

a video and audio link between the diver and the observer so that constant contact between the two is maintained. Hand pulling without commercial divers lacks this important safety feature.

3. Additional team members skim any loose fragments from the water as they float up so that they don't drift to other spots on the lake, take root and start a new outbreak.
4. It may not be impossible to completely remove every stem, roots and all. But taking as much as possible will weaken the plant and it will be less vigorous next year. Keep in mind that this could be an annual project.
5. Dispose of the EWM on dry land, well away from the water. It can be added to your compost or burned if you prefer.

Links

"Drag Lake Video **4**" is the one to watch to see the hand harvesting technique of the divers:

<https://www.dropbox.com/sh/2sc4ihmk1szu9yk/AABturLK8AgxNIxC9mBGPXPCa?dl=0>

How to identify EWM

https://cewf.typepad.com/How_to_Identify_EWM.pdf