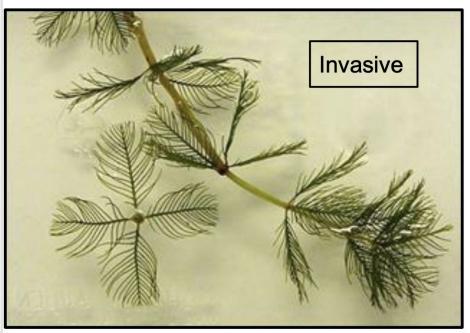


How to Identify Eurasian Watermilfoil





- Usually 12-21 leaflet pairs per leaf
- Delicate, feather like leaves
- Leaflets are typically the same length
- Leaves are limp when out of water

- Usually 7-10 leaflet pairs per leaf
- Rigid, feather like leaves
- Bottom leaflets are typically longer
- Leaves will remain rigid and spread from the stem when out of water

Mouth of Ardoch Lake

2018



- Area: ~ 570 Sq Metres
- High density with less dense areas as you move away from the centre of the patch
- One burlap mat laid

2019



- Area: ~ 2090 Sq Metres
- The density of the patch ranges from low to high
- Six more burlap mats were laid

Drone Flight Requirements





Clearance

 We must have special permission to fly in specific areas near the lake to to the Tomvale airstrip.

Posting

 Lake members and visitors must be made aware of all drone operations as a safety precaution

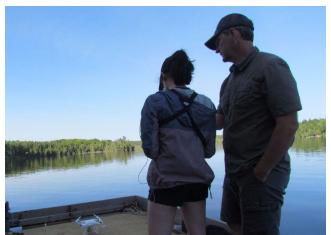
Ground crew/ boat crew

- The drone must stay within visual line of sight at all times. Observers are placed around the flight area to ensure the drone is always in VLOS.
- Boat crews must intercept boat traffic heading into the flight zone and be prepared to recover a "downed" drone.

Light filters

- Polarization filters are used to reduce unwanted light that may cause the imagery to be washed out or create a glare
- Stats that affect flights ie. wind velocity, cloud coverage, precipitation



















Data Collection

Carleton University



 Collecting and analyzing sampling data to help determine factors which promote EWM growth as well as determine if and how benthic barriers alter the lake.

Drone operations



- Collecting valuable data relating to the Eurasian Water Milfoil infestation in the form of orthomosaics and aerial imagery.
- Theses maps are used to track patch size, volume, density, plant health, and elevation.

Controlling strategies

Hand pulling



- Hand pulling is efficient in shallow water.
- When removing the plant it is important to remove the roots and place the plant away from the water as it can re-root within days.



The goal is to test whether burlap

- smothers the EWM making recreational use of the lake possible.
- The first sheet of burlap was laid in September 2018 at the mouth of Ardoch.
 - 14 more sheets of biodegradable burlap were laid in June this year.

Weevils



- The mifloil weevil chews away at the stem and cortex of the EWM plant.
- It is suggested that 100-200 weevils per square metre may be required to see a decline in patch size.