

# Benthic Bio-Monitoring

U-Links 2019



# What is Benthic Biomonitoring

- ↻ Ontario Benthic Biomonitoring Network Protocols (OBBN), is a set of guidelines to help assist in the collection of samples from lakes streams and wetlands
- ↻ The protocol creates a standardized way of collecting the invertebrates that allows for accurate data and minimal impact to the environment
- ↻ Depending on the objectives of the organization, benthic biomonitoring can be done biannually, annually or every two years.



# Collection

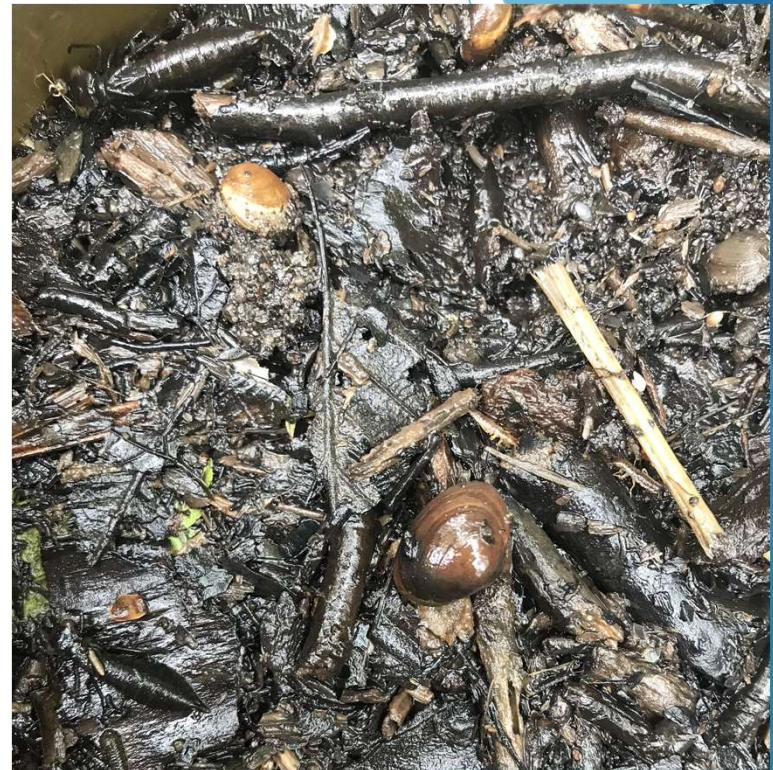
- ↻ First you must determine sites on the lake
- ↻ These include areas with good access for collection, a reference site of pristine quality, and areas where contamination or disruption may be present
- ↻ Following OBBN protocol, the kick sweep method will be used to collect substrate and invertebrates
- ↻ Once sample is collected, sub sampled are picked through by eye and microscope to remove 100 invertebrates from the sample
- ↻ Species are record at this time





# The Objective

- ↻ Benthic invertebrates are sensitive to changes in water quality and therefore act as indicators of changes to the environment
- ↻ By picking 100 invertebrates for each replicate the community composition can be evaluated and possible stressors may be indicated
- ↻ By collecting annually you can monitor changes the environment and analyze trends in data



## What does this mean for your lake

- ↻ An assessment of the possible stressors and threats to your lakes health will be assessed ahead of time
- ↻ Yearly updates on the benthic community will be available, providing insight to threats to the lakes health
- ↻ Long term data will be available about the changing trends
- ↻ Management plans can be created to help control these stressors and work to ensure a healthy lakes system



## How can you help

- ↻ U-Links needs insight on possible stressors that may be imposing on the lake, areas of concern for the cottagers as well as potential reference sights
- ↻ We will need volunteers to help students access the lake
- ↻ Over the long term it can be beneficial to get members of the lake association to help assist students in biomonitoring and picking of the bugs.

