

Macroinvertebrate Sampling - Wetlands

Time – 40 minutes

Persons – 2

Materials -

- kick net
- plastic pan
- transfer pipettes
- plastic petri dishes
- magnifying glasses
- dichotomous key
- ruler

OPTIONAL

- 5 gallon bucket for decanting
- waders

Step 1 - Choose your sample site

Select sampling reaches that are safe and easily accessed by everyone in your group.

Step 2 - Collect your sample

1. Wade into the water and scoop material from the wetland bottom. Be sure to not scoop up too much sediment with your sample.
2. Push and pull the net through aquatic vegetation.
3. Hand pick organisms from sticks and other structures.
4. Continue this process until you have approximately 100 organisms.

Step 3 - Empty your sample

1. Hold your sampling net over a plastic pan and use a bucket of water to wash the material into the pan.
2. If your sample contains a lot of sediment, stir the sample in the pan to suspend the animals, and then pour the suspended material back into your net. Rinse the sediment from the pan, and then wash the animals from the net back into the pan.

Step 4 - Sort out 100 macroinvertebrates

1. Pour most of the water from the pan so that materials and animals are no longer floating. Distribute the material evenly in the bottom of the pan.
2. Take a ruler and divide the material in half. Remove one half of the material from the pan.
3. Redistribute the material again over the bottom of the pan and divide this material again with a ruler.
4. Continue this process until you have a sample with about 100 organisms total.
5. Add some stream water back into the pan for easier sorting.
6. Sort and identify the macroinvertebrates using the key, petri dishes, and pipettes.
7. Keep track of the number of the types of organisms on the macroinvertebrate sorting worksheet. For example, if you collect two mayflies, but they have distinct differences, then you have two types of mayflies.