

ID Day Instructions for Experts

Your Mission: Help people report their sampling results by identifying the invertebrates found in their sorted collections.

1. Find a person ready for ID.
 - Check the list on the dry-erase board.
 - Erase the name of the person you choose.
2. The bugs should not need further sorting – hopefully.
 - The volunteers sort the bugs. But they often can't tell the difference in regards to some families so you may need to sort out some of these harder bugs.
3. Please check the debris piles for any small invertebrates left behind.
4. Checks the data sheet and jars to ensure that all the jars, and only the jars, from that collection are present.
5. Identify each group of individuals but do not count them (mostly we identify to family)
 - Write the letter of the sorting compartment next to the name of each taxon you identify on the yellow Count List.
 - Place a computer-printed label (available on the supply table) with any group that is not in a labeled compartment.
 - High-powered microscopes are available for you to use.
 - Many aquatic invertebrate keys are available for your use.
 - There is a reference collection of most of the insects found in the Huron. Feel free to look through it and use it to confirm identifications.
6. It is not your job to count the bugs!
 - They will count them when you are done.
7. We do NOT include any pupae, empty shells or cases, or terrestrial taxa.
8. If you are unsure about a particular insect, please place it in an empty jar and add one of the old site labels to the jar. This “unknown” jar will be rubberbanded to the final sample jar. We can identify challenging insects later today or another day.

Help yourself to Refreshments. Take breaks as needed because this is a tiring job!

Don't stress about any identification- HRWC staff recheck every sample- especially when unusual taxa are found.

Common ID Errors to Avoid

I. Do NOT count pupae, empty clam or snail shells, empty cases, or terrestrial taxa.

II. Common Sorting Errors:

Try not to miss these tiny critters:

- Hydracarina – little round water mites; often red or bluish
- Collembola – springtails
- Small amphipods
- Tiny Tricorythidae mayflies

The volunteers often mix less common bugs with piles of more abundant taxa:

- Polycentropodidae, Philopotamidae, Psychomyiidae – other caddisflies mixed in with Hydropsychidae
- Coenagrionidae – another damselfly often mixed in with Calopterygidae
- Leptophlebiidae – another mayfly mixed in with Baetidae
- Elmidae (Coleoptera) is often mixed with Velidae (Hemiptera)

III. Common misidentifications:

- Perlodidae vs. Perlidae (Plecoptera)
 - Perlidae: branched thoracic gills present
 - Perlodidae: thoracic gills absent or small and unbranched
- Elmidae vs. Dryopidae adults (Coleoptera)
 - Adult elmids can have very short antennae
 - Dryopid antennae are close to the head and brush-like.
- Caenidae vs. Tricorythidae (Ephemeroptera)
 - Caenids have square operculate gills, while tricorythids' are triangular
- Dixidae vs. Culicidae (Diptera)
 - Dixids have prolegs; culicids do not
- Leptophlebiidae vs. Baetidae (Ephemeroptera)
 - Leptophlebiid gills are forked; baetid gills are ovate.
- Physidae vs. Right-handed snail
 - “Handedness” is determined with the tip of the shell pointed away from you, with the opening up. If the opening is on the right, it's right-handed; on the left, it's left-handed (Physidae).
- Polycentropodidae vs. Psychomyiidae (Trichoptera)
 - Similar, except trochantin (forward-projecting plate at the base of the foreleg) is shaped differently – pointed in Polycentropodidae, broad at apex in Psychomyiidae.
- Scirtidae vs. Elmidae (Coleoptera) larvae
- Velidae (Hemiptera) vs. Elmidae (Coleoptera) adults
- Hydrophilidae (Coleoptera)
 - Have clubbed antennae – sometimes tricky to find
 - Often have a ventral spine



Scirtid (marsh beetle) larva