

Collecting Invertebrates

For those of you who have not yet attended a “Mini-Monster Mayhem,” the annual kid’s watersheds and water quality workshop; we spend a morning talking about water and water quality, watching some fun demonstrations, and collecting critters in the Creek, usually behind my house in Springtown. The kids have a great time, and the parents usually enjoy themselves too.

If you don’t have time to come out and see us in action, you and your kids can still go out and collect some mini-monsters yourselves. All you need are a few simple items, most of which you probably already have.

- A light colored plastic dishpan, preferably white
- A plastic ice cube tray, preferably white
- Some plastic cups, either clear or white
- Some small jars with lids (I use glass baby food jars, but any small clear jar will work), remove the labels
- Some plastic pipettes (check at Rite Aid) or clear straws
- A magnifying glass
- A 4 foot long piece of fiberglass window screen
- Two 3-4 foot dowels (six inches longer than the screen is tall) or small scrap lumber (I like to use broom handles)
- The key included in this issue placed into a Ziploc bag
- Water shoes or boots

To assemble the net, use a shop stapler to attach the screen to the handles and then roll the screen onto each handle. Have the handles flush at the bottom and leave about six inches at the top so you can hold it without wrinkling the screen.

Now, take your hunting kit and head out to the Creek! Once you get there, take a look at the water. Find where the water is moving fast over the rocks and where it is still and quiet. The fast area is called a riffle, and the quiet area is called a pool. You want to start hunting at the bottom of a riffle and work your way upstream. Walk in below where you want to start and find a spot where you can easily stand and easily reach the bottom.

Have one person unroll the net (leaving a few inches rolled on each handle) and work the bottom edge into the substrate. Hold the net at a slight angle toward you. Have another person stand upstream of the net and disturb the rocks and gravel with your hands, taking care to scrub the rocks and stir the gravel and sand under them. After a couple minutes, ease the net up out of the water and work the net so that all the debris it collected is in as small a spot as you can manage. Scrape this stuff into the dishpan with some clean water. Remove large rocks and sticks and let the sediment settle out.

Using the pipette or straw (or a stick) stir the material gently and watch carefully. The larvae and nymphs (and maybe crayfish, amphipods, salamanders and minnows) will soon swim about. Observe them as they are, or capture the mini monsters with the pipettes or straw and transfer them to cups, jars or the ice cube tray and take a closer look. Using the key, try to determine what you have found. Make a game of finding as many different creatures as you can. Take samples from different parts of the riffle, and when done there, try the pool. Sampling in the pool is trickier as you have to move the net

and stir the bottom with your feet. Or you can work the net through grass, or under the banks, or under woody debris.

When you are done, return everything to the Creek. Most stream invertebrates cannot tolerate warm water, so don't try to keep them long. If you really find something you want to keep, bring it back to the house and place it in a clean container with some rubbing alcohol diluted to 70%. Keep this sealed of course.

If you want to see a power point of this article with photos of the equipment and collecting, go to our website at www.cookscreekpa.org.