

Field Collection Tips

- ❑ Work as part of a team, but try to become familiar with each of the collection methods. Each team should have at least one person that's somewhat familiar with the collection methods and can help with the surveys.
- ❑ Have two people in your team collect and process the kick net sample by placing the net in a riffle and then kicking upstream of the net and letting the bugs drift back to the net. Don't start kicking too far upstream of the net as some of the bug will be bouncing along the bottom and "drift" far. Wash the contents of the net into a wash bucket (wire screen on the bottom) and then pour this into a plastic bucket for processing.
- ❑ Sweep net samples are pretty straight forward, but look for buggy-looking habitat along the banks in the current. Fine root hairs or macrophytes along the bank can be productive.
- ❑ The leaves for a leaf pack sample are best from areas in the current and look a little decayed. Put the leaves in a net or wash bucket and elutriate (wash) the leaves from the net leaving mostly bugs. But be careful not to throw away specimens.
- ❑ Process all of the samples by backwashing the samples into a plastic bucket and then placing a small amount of this into a picking pan. Looking through a lot of material isn't a good way to see the insects.
- ❑ Keep all of the bugs from each habitat type (kick, sweep, leaf pack) in separate vials. This will help us get a feel for the quality of the various habitats at each location.
- ❑ Pick out all of the EPT organisms that you recognize and preserved them in vials. If you can't recognize the EPTs by using the keys in your workbook or by asking your team leader, toast them anyway.
- ❑ It's best to keep the vials full of alcohol during transit, as fragile structures (gills of mayflies) are less likely to fall off.



Identification Tips

- ❑ Once your back in the lab assign team members responsibility for each of the collections. For example someone start with the kick net sample, someone else does the sweep, etc.
- ❑ I've found that the best way to get the insects out of the vial is to put your thumb on the top and turn the vial upside down. If there's a bug or two left on the vial a little gentle shaking will help get it out.
- ❑ Start by grouping all of the mayflies, stoneflies and caddisflies into look-alike groups. Once you've done this then start keying the groups to family.
- ❑ The Brigham and Brigham key is provided in your workbook, but if you would like to try to use Merritt and Cummins or other keys – feel free to do so.
- ❑ Be sure to keep track of the number of organisms in each family because you'll use this information when you calculate the biotic index values for your site.
- ❑ I'll keep track of what each of the groups are collecting.

