

## BASIC BIOSURVEY KIT

1. **STUDENT GRADE KICK-NET:** The kick-net is used to collect **benthic macroinvertebrates** from riffle or run habitats; it requires at least two persons, three are better
2. **BOX MAGNIFIERS:** Provides about 2x magnifications making it easy to identify to the level of order or class
3. **10X MAGNIFYING LOUPE:** Provides 5-10x magnification so more specific features can be distinguished; with practice the user can identify many common families in the field
4. **EZ STRAINER:** Used to help sort macroinvertebrates from buckets after the kick-net is rinsed; this device fits perfectly into a 5 or 3½ gallon bucket and comes in a variety of mesh sizes
5. **LARVAL TRAY:** A temporary holding pan to keep the macroinvertebrates alive while they are being counted and identified; **ice-cube trays** are also effective
6. **PH TEST STRIPS:** A wide range litmus paper for estimating pH
7. **FEATHERWEIGHT FORCEPS:** Very flexible forceps, which are excellent for handling and capturing delicate specimens
8. **TURKEY BASTER:** This simple device makes it easy to capture fast-moving macroinvertebrates from the larval tray
9. **SUBMERSIBLE THERMOMETER:** A non-mercury thermometer for measuring stream temperature; can be placed under the water

Below are additional items that are needed to complete the basic kit (Note: These items are the responsibility of the volunteer monitoring group). Other test kits such as dissolved oxygen, nutrients and bacteria should be added as needed.

- **5-GALLON BUCKET** and perhaps a **SMALLER BUCKET:** Used to collect macroinvertebrates that are rinsed from the kick-net; also an excellent device for carrying supplies and equipment
- **OPEN-REEL TAPE MEASURES:** (100 and/or 300 feet): Used to measure stream width and determine your reach boundary
- **SPRAY BOTTLE:** Used to wash the EZ-strainer so that the small macroinvertebrates are easier to see
- **SCRUBBING BRUSH:** A small vegetable brush for scrubbing cobble-size rocks during sample collections
- **STRAIGHT EDGE (36 x 2):** A device for measuring stream depth and velocity; velocity is determined by how much the water rises

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