

Critter Quality

What insects and other creatures can tell us about the water in which they live

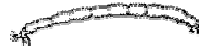
Mayfly

Unpolluted lakes, ponds and streams



Fly

Can tolerate a wide variety of conditions



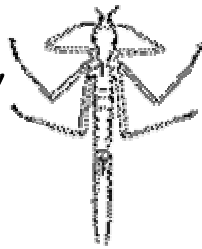
Scud

Needs high number of plants for cover



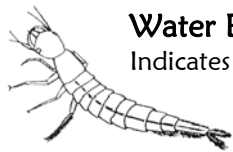
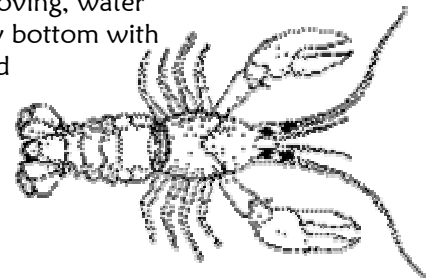
Dragonfly and Damselfly

Needs high oxygen



Crayfish

Prefers moving, water and rocky bottom with some mud

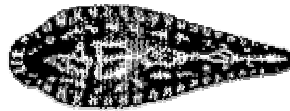


Water Beetle

Indicates unpolluted water

Leech

Prefers dark, muddy water with plants as cover



Stonefly

Cool clear streams, needs high oxygen

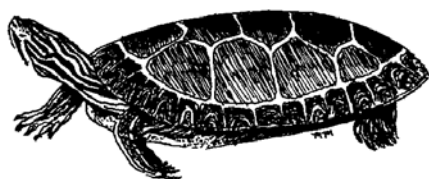
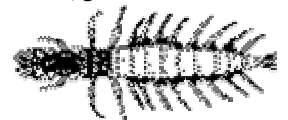


Giant Water Bug

Needs plenty of plants for cover and insects for food

Dobsonfly

Often on logs, can tolerate low oxygen



Painted Turtle

Prefers muddy ponds and lakes



Backswimmer and Water Boatman

Can live under many conditions

Doing the Tests

pH testing

1. Get strip of pH paper from leader
2. Hold one end, dip other directly in pond water
3. Wait 15 seconds
4. Compare to color chart for pH number
5. Write result on worksheet, place paper strip in waste jar

Phosphate testing

1. Fill small cup to 25 mL mark
2. Add 2 drops from small bottle, put on black cap and lightly shake
3. Put on goggles
4. Put pointed end of glass tube into bottom of cup and snap off tip. (Pond water is automatically pulled into tube.)
5. Dump cup's remaining liquid into waste jar, return cup and goggles
6. Tip glass tube back a forth a few times to mix chemical and pond water
7. Wait 2 minutes, compare with other color tubes at station
8. Write result on worksheet, then put entire glass tube into waste jar at station

Nitrate testing

1. Fill test tube to half way (5mL) mark with pond water
2. Add one "Nitrate #1" tablet, put on cap, and mix until dissolves
3. Add one "Nitrate #2" tablet, put on cap, and mix until dissolves
4. Wait 5 minutes (place used foil packets in waste jar at station)
5. Use color viewer at station to get result
6. Write result on worksheet, dump liquid in tube into waste jar, then return tube

Oxygen testing

1. Fill small cup to 25 mL mark
2. Put on goggles
3. Put pointed end of glass tube into bottom of cup and snap off tip. (Pond water is automatically pulled into tube.)
4. Dump cup's remaining liquid into waste jar, return cup and goggles
5. Tip glass tube back a forth a few times to mix chemical and pond water
6. Wait 2 minutes, compare with other color tubes at station
7. Write result on worksheet, then put entire glass tube into waste jar at station