Group 1: These are sensitive to pollutants. Circle each animal found.

- Stonefly Larva
- Dobsonfly Larva
- Alderfly Larva
- Water Snipe Fly Larva

No. of group 1 animals circled:

- Relative Size Key:
  - Larger than picture
  - Smaller than picture

Group 2: These are semi-sensitive to pollutants. Circle each animal found.

- Caddisfly Larva*
- Dragonfly Larva
- Water Penny
- Damselfly Larva
- Damselfly tail (side view)
- Rifflle Beetle Larva*
- Rifflle Beetle Adult*

*All Caddisfly Larva = 1
*All Rifflle Beetles = 1

Group 3: These are semi-tolerant of pollutants. Circle each animal found.

- Black Fly Larva
- Non-Red Midge Larva
- Snails: Orb or Gilled (right side opening)
- Amphipod or Scud

*All Snails = 1

Group 4: These are tolerant of pollutants. Circle each animal found.

- Pouch Snail (left side opening)
- Isopod or Aquatic Sowbug
- Bloodworm Midge Larva (red)
- Leech
- Tubifex Worm

For more information, call (608) 265-3887 or (608) 264-8948.
Download and print data sheets from watermonitoring.uwex.edu/wav/monitoring/sheets.html

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At this point, you should have collected a wide variety of aquatic macroinvertebrates from your three sites. You will now categorize your sample, using the Key to Macroinvertebrate Life in the River to help you identify the macroinvertebrates found. The number of animals found is not important; rather, the variety of types of macroinvertebrates and their tolerance to pollution tells us the biotic index score. Before you begin, check off the habitats from which you collected your sample (see right).

1. You should have removed large debris (e.g. leaves, rocks, sticks) from your sample and placed this material in a separate basin (after removing macroinvertebrates from it).

2. Check the basin with the debris to see if any aquatic macroinvertebrates crawled out. Add these animals to your prepared sample.

3. Fill the ice cube tray half-full with water.

4. Using plastic spoons or tweezers, (be careful not to kill the critters – ideally, you want to put them back in their habitat after you’re finished) sort out the macroinvertebrates and place ones that look alike together in their own ice cube tray compartments. Sorting and placing similar looking macroinvertebrates together will help insure that you find all varieties of species in the sample.

5. Refer to the Key to Macroinvertebrate Life in the River and the Citizen Monitoring Biotic Index to identify the aquatic macroinvertebrates:
   A. On the back of this page, circle the animals on the index that match those found in your sample.
   B. Count the number of types of animals that are circled in each group and write that number in the box provided. Do not count individual animals in your sample. Only count the number of types of animals circled in each group.
   C. Enter each boxed number in work area below.
   D. Multiply the entered number from each group by the group value.
   E. Do this for all groups.
   F. Total the number of animals circled.
   G. Total the calculated values for all groups.
   H. Divide the total values by the total number of types of animals that were found: TOTAL VALUES (b.) / TOTAL ANIMALS (a).
   I. Record this number.

SHOW ALL MATH (Use space below to do your math computations)

| No. of animals circled from group 1 | x 4 | = |
| No. of animals circled from group 2 | x 3 | = |
| No. of animals circled from group 3 | x 2 | = |
| No. of animals circled from group 4 | x 1 | = |

Divide totaled value (b) by total no. of animals (a) for index score:

Report your results online at [www.uwex.edu/erc/wavdb](http://www.uwex.edu/erc/wavdb) or submit your data to your local coordinator.

Call your local monitoring coordinator if you have questions about sampling or determining the Biotic Index Score.