

Data Collection Worksheet

Name of Group _____ Date _____

Name of river, stream, etc. _____ City _____

Latitude _____ Longitude _____ Time _____ Air Temperature _____

Water Temperature _____ pH _____ Depth _____

Current Weather: CLEAR PARTLY CLOUDY FOG OVERCAST RAIN

Recent weather conditions (last 72 hrs): _____

Surface Conditions: CALM LIGHT CHOP HEAVY CHOP SWELLS

Description of adjacent shoreline: _____

Condition of river, stream, lake, or pond _____

Color and odor of the water: _____

Clarity or amount of suspended material in the water: _____

Wildlife Observations: _____

Macroinvertebrate Count

Use the stream monitoring instructions to conduct a macroinvertebrate count. Use letter codes (A= 1-9, B=10-99, C=100 or more) to record the numbers of organisms found in a 3 foot by 3 foot area. Add up the number of letters in each column and multiply by the indicated index value. The following columns are divided based on the organism's sensitivity to pollution.

Sensitive	Somewhat Sensitive	Tolerant
_____ Mayfly larvae _____ Stonefly larvae _____ Caddisfly larvae _____ Dobsonfly (hellgrammite) _____ Riffle Beetle (adult) _____ Water Penny larvae _____ Planaria (flatworm) _____ Gilled snail	_____ Alderfly larvae _____ Crane fly larvae _____ Fishfly larvae _____ Watersnipe fly larvae _____ Damselfly larvae _____ Dragonfly larvae _____ Riffle Beetle larvae _____ Whirligig Beetle larvae _____ Clam or Mussel _____ Crayfish _____ Scuds _____ Sowbug	_____ Midge Fly larvae _____ Black fly larvae _____ Chironomid larvae _____ Aquatic worms _____ Lung snails _____ Leeches
_____ # letters times 3 = _____ index value	_____ # letters times 2 = _____ index value	_____ # letters times 1 = _____ index value

Now add together the three index values from each column for your total index values. Total index value = _____
 Compare the total index value to the following ranges of numbers to determine the water quality of your stream. Good water quality is indicated by a variety of different kinds of organisms, with no one kind making up the majority of the sample. Although the A, B, and C ratings do not contribute to the water quality rating. Keep track of them to see how your macroinvertebrate populations change over time.

Water Quality Rating

_____ >22 Excellent _____ 17-22 Good _____ 11-16 Fair _____ <11 Poor