

Macroinvertebrate Data Sheet I

Stream #:

Recorded by:

Date of Sampling:

Percent Composition of Major Groups:

After the macroinvertebrates are sorted, tabulate the number of organisms for each of the major groups listed below and calculate their percent composition. This measure yields the relative abundance of macroinvertebrates within your sample.

$$\text{Percent Composition} = \frac{\text{Number of Organisms in Each Group}}{\text{Total Number of Organisms}}$$

Macroinvertebrates	Number of Organisms in Each Group	Percent Composition
Mayflies (Order <i>Ephemeroptera</i>)		
Stoneflies (Order <i>Plecoptera</i>)		
Caddisflies (Order <i>Trichoptera</i>)		
Dobsonflies (Order <i>Megaloptera</i>)		
Midges (Order <i>Chironomidae</i>)		
Craneflies (Order <i>Diptera</i>)		
Dragonflies (Order <i>Odonata</i>)		
Scuds (Order <i>Amphipoda</i>)		
Pouch Snails (Class <i>Gastropoda</i>)		
Tubifex Worms (Class <i>Oligochaeta</i>)		
Leeches (Class <i>Hirudinea</i>)		
Total Number of Organisms		

(Adapted from Mitchell, 1997)

Macroinvertebrate Data Sheet II

Pollution Tolerance Index

1. Place a check next to each macroinvertebrate group present in your sample. For example, whether you found one mayfly or 50 mayflies, place one check next to the mayfly line in Group 1.
2. Complete the chart for all of the macroinvertebrate groups.
3. Calculate the group scores using the multipliers provided.
4. Total all of the group scores for your Total Score.
5. Compare your Total Score with the Water Quality Assessment Chart scores and record the relative water quality rating for your stream sample.

Stream #:

Recorded by:

Date of Sampling:

Group 1 Macroinvertebrates: Very Intolerant	Group 2 Macroinvertebrates: Intolerant	Group 3 Macroinvertebrates: Tolerant	Group 4 Macroinvertebrates: Very Tolerant
___ Stoneflies ___ Mayflies ___ Caddisflies ___ Dobsonflies	___ Dragonflies ___ Scuds ___ Craneflies	___ Midges ___ Leeches	___ Pouch Snails ___ Tubifex Worms
# of checks = ___ x4 Group Score = ___	# of checks = ___ x3 Group Score = ___	# of checks = ___ x2 Group Score = ___	# of checks = ___ x1 Group Score = ___
Total Score = _____ Your Water Quality Assessment:		Water Quality Assessment Chart: ≥23 Potentially Excellent Water Quality 17-22 Potentially Good Water Quality 11-16 Potentially Fair Water Quality ≤10 Potentially Poor Water Quality	

(Adapted from Mitchell, 1997)