

Site: Upstream or Downstream (circle one)

TA & Lab Section:

Table 1. Macroinvertebrate taxa in the sample.

ORDER	FAMILY	Number of Individuals
COLEOPTERA		
<i>Beetles</i> –(adults may be terrestrial or aquatic)	Elmidae (Riffle beetles, aquatic adults)	
DIPTERA		
<i>Flies</i>	Chironomidae (Midge larvae)	
	Empididae (Dance flies)	
	Simulidae (Blackfly larvae)	
	Tipulidae (Cranefly larvae)	
EPHEMEROPTERA		
<i>Mayflies</i>	Baetidae (streamlined body; gills along side of abdomen)	
	Ephemerellidae (gills on dorsal side of abdomen)	
	Hetageniidae (flattened body)	
	Leptophlebiidae (forked gills on abdomen)	
	Siphonuridae (similar to Baetidae; long hairs on cerci)	
	Tricorythidae (opercular gills cover succeeding gills)	
ODONATA		
<i>Dragonflies & Damselflies</i>	Zygoptera (damselflies)	
	Anisoptera (dragonflies)	

PLECOPTERA		
<i>Stoneflies</i>	Nemouridae	
	Chloroperlidae (short cerci)	
	Perlidae (large; branched gills on thorax and last abdominal segment)	
	Perlodidae (relatively long cerci; often with striped abdomen)	
	Pteronarcyidae (large; branched gills on thorax and first 2-3 abdominal segments)	
TRICHOPTERA		
<i>Caddisflies</i>	Brachycentridae (square case of twigs or round case of sand grains)	
	Glossosomatidae (case of sand grains, shaped like a turtle shell)	
	Hydropsychidae (no case; gills on abdomen)	
	Leptoceridae (case of sand grains, long delicate legs)	
	Ryacophilidae (often green in color, no case, gills on abdomen)	
MISC TAXA		
GASTROPODA (snails)		
HEMIPTERA (True bugs)	beak-like sucking mouthparts, many are semi-aquatic	
NEMATODA	body not segmented; usually quite small	
OLIGOCHAETA (earthworms and leeches)	body segmented	

After you have added the number of taxa that fall into each group below, multiply the entered value by the group's value. Sum the total value (b) and then divide the total by the total number of taxa that you circled on the sheet (a).

No. of taxa circled from group 1 _____ x 4 = _____
No. of taxa circled from group 2 _____ x 3 = _____
No. of taxa circled from group 3 _____ x 2 = _____
No. of taxa circled from group 4 _____ x 1 = _____

Total # of taxa (a): _____ Total value(b): _____

Total value (b) divided by # of taxa (a) = _____ (INDEX SCORE)

How healthy is the stream?

Excellent.....3.6+
Good.....2.6 – 3.5
Fair.....2.1 – 2.5
Poor.....1.0 – 2.0

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



Stonefly Larva



Dobsonfly Larva



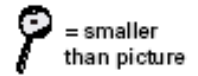
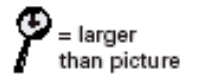
Alderfly Larva



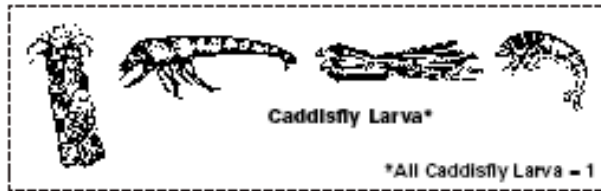
Water Snipe Fly Larva

No. of group 1 animals circled:

Relative Size Key:



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



Caddisfly Larva*

*All Caddisfly Larva = 1



Dragonfly Larva



Water Penny



Crawfish



Crane Fly Larvae



Freshwater Mussel or Fingernail clam



Mayfly Larva



Damselfly Larva

Damselfly tail (side view)



Riffle Beetle Larva*

Riffle Beetle Adult*

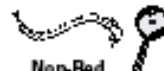
*All Riffle Beetles = 1

No. of group 2 animals circled:

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

No. of group 3 animals circled:

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



Pouch Snail (left side opening)



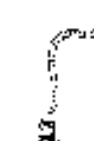
Isopod or Aquatic Sowbug



Bloodworm Midge Larva (red)



Leech



Tubifex Worm

No. of group 4 animals circled:

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