

## Aquatic Macroinvertebrates

Major group	Number of Organisms in Sample	Assigned Biotic Index (tolerance index)	Biotic Value for Group
	A		B
Stonefly larvae ( <i>P</i> )		1	
Mayfly larvae ( <i>E</i> )		2	
Caddisflies ( <b>not</b> net spinner; <i>T</i> )		2	
Gilled Snails		3	
Dobsonflies, Fishflies, Alderflies		4	
Dragonflies		4	
Crane Flies		4	
Watersnipe Flies		4	
Water Penny Beetle Larvae		4	
Whirligig Beetles		4	
Net Spinner Caddisflies ( <i>T</i> )		5	
Other Beetles		5	
Black Flies		5	
Midges		6	
Damselflies		6	
Water Mites		6	
Crayfish		6	
Clams		6	
Scuds		7	
Other Snails (not gilled)		7	
Leeches		7	
Sowbugs		8	
Aquatic Worms		9	
<b>TOTALS</b>	<b>Sum of A =</b>		<b>Sum of B =</b>

**TO OBTAIN "C"** (for next page)

**Write count here from shaded boxes above:**

Stonefly larvae ( <i>P</i> )	
Mayfly larvae ( <i>E</i> )	
Caddisflies ( <b>not</b> net spinners; <i>T</i> )	
Net Spinner Caddisflies ( <i>P</i> )	
<b>Total</b>	<b>Sum of C =</b>

Bring Sum of A, B & C to back of this page (page 4).

# Aquatic Macroinvertebrates

**Instructions:** 1) Transfer your calculated sums of *A*, *B* and *C* from page 3 to the boxes below; 2) Calculate the Biotic Index Score as instructed below; place final score in box; 3) Calculate the EPT Index Score as instructed below; place final score in box; 4) Formulate and write conclusion at bottom.

Sum of A

Sum of B

Sum of C

## How to Calculate Your Biotic Index Score

**Directions:**

1) Divide "B" by "A" to get *BIS*

$$BIS = \frac{B}{A}$$

**BIS** = Biotic Index Score  
**A** = Sum of Organisms in Sample  
**B** = Sum Biotic Values

## Your Calculated Score

**BIS =**

### Biotic Index

0.00 - 4.50	Very Good (non-impacted)
4.51 - 5.50	Good (slightly impacted)
5.51 - 7.00	Fair (moderately impacted)
7.01 - 10.00	Poor (severely impacted)

## How to Calculate Your EPT Index Score

**Directions:**

- 1) Sum all the mayflies, stoneflies & caddisflies to get "C" (done on page 3)
- 2) Divide "C" by "A" to get *EPT to Total Ratio*

$$EPT = \frac{C}{A}$$

**E** = Ephemeroptera (mayflies)  
**P** = Plecoptera (stoneflies)  
**T** = Trichoptera (caddisflies)  
**A** = Sum of Organisms in Sample  
**C** = Sum of mayflies, stoneflies & caddisflies

## Your Calculated Score

**EPT =**

### EPT Index

0.5 or more	Good (slightly to non-impacted)
0.25 - 0.49	Fair (moderately impacted)
0.24 or less	Poor (severely impacted)

## Conclusion

**BIS** indicates that this site is \_\_\_\_\_.

**EPT** indicates that this site is \_\_\_\_\_.