

send the data to: Streamkeepers Database, Department of Fisheries and Oceans,  
 Suite 400, 555 W. Hastings Street, Station 321, Vancouver, B.C. V6B 5G3  
 fax to (604) 666-0292

## Stream Location and Conditions

(use a new data sheet for each stream segment surveyed)

### Module 4

Stream Name/Nearest Town	Date
	Watershed code
Organization Name	Stream Segment #
	Stream Section #
Contact Name	Phone #

### Survey Location

Mapsheet number	Type	Scale
Location (distance from known stream landmark)		
Time: _____ Weather ' clear ' shower (1-2.5 cm in 24 hr) ' snow ' overcast ' storm (<2.5 cm in 24 hr) ' rain on snow		
Water turbidity (cm visibility)		Temperature °C (leave thermometer 2 min.)
		air _____ water _____
Bankfull Channel	width _____ (m)	depth _____ (m)
Wetted Channel	width _____ (m)	depth _____ (m)

First and Last Measurements taken .1 m from streambank edge

<b>Left Bank</b>										<b>Right Bank</b>
Wetted Depth										Wetted Depth
Bankfull Depth										Bankfull Depth

Take measurements every 0.5m in streams less than 5m. wide, every 1m in streams 5 to 15m.

**Invertebrate Survey Field Data Sheet**

(use a new data sheet for each stream section surveyed)

**Module 4**

Stream Name		Date	
Stream Segment # Stream Section #		Sampling location	
sampler used, mesh size, total area sampled		# of 30cm x 30cm samples	
<b>COLUMN A</b> <b>Pollution Tolerance</b>	<b>COLUMN B</b> <b>Number Counted</b>	<b>COLUMN C</b> <b>Number of Taxa</b>	<b>COLUMN D</b> <b>Common Name</b>
<b>CATEGORY 1</b>  (pollution intolerant)			Caddisfly Larva (EPT)
			Dobsonfly (hellgrammite)
			Gilled Snail
			Mayfly Nymph (EPT)
			Riffle Beetle
			Stonefly Nymph (EPT)
			Water Penny
<b>Sub-total</b>			
<b>CATEGORY 2</b>  (somewhat tolerant of pollution)			Alderfly Larva
			Aquatic Beetle
			Aquatic Sowbug
			Clam, Mussel
			Crane fly Larva
			Crayfish
			Damselfly Larva
			Dragonfly Larva
			Fishfly Larva
			Scud
			Watersnipe Larva
<b>Sub-total</b>			
<b>CATEGORY 3</b>  (pollution tolerant)			Aquatic Worm
			Blackfly Larva
			Leech
			Midge Larva (chironomid)
			Planarian
			Pouch and Pond Snails
			True Bug Adult
			Water Mite
<b>Sub-total</b>			
<b>TOTAL</b>			

### Invertebrate Survey Interpretation Sheet

(use a new data sheet for each stream section surveyed)

### Module 4

Stream Name	Date
Stream Segment # Stream Section #	Sampling location
sampler used, mesh size, total area sampled	# of 30cm x 30cm samples

#### A) ABUNDANCE AND DENSITY

**ABUNDANCE:** total number of organisms from **Column B**

=

**DENSITY:** invertebrate density per square meter

(total # counted) ÷ (# of 30cm x 30cm samples x .09m<sup>2</sup>)

=

\_\_\_\_\_ ÷ ( \_\_\_\_\_ ) = \_\_\_\_\_

#### B) PREDOMINANT TAXON

#### C) WATER QUALITY ASSESSMENTS

**POLLUTION TOLERANCE INDEX:** use the **total number of broad** taxonomic groups found in each tolerance category, from Field Data Sheet (**Column D**)

POLLUTION TOLERANT INDEX			
Good	Acceptable	Marginal	Poor
>22	22-17	16-11	<11

3 x (# of category 1)

+ 2 x (# of category 2)

+ (# of category 3)

=

**EPT INDEX:** total number of **EPT** taxa from **Column C**, Field Data Sheet

EPT INDEX			
Good	Acceptable	Marginal	Poor
>8	5-8	2-5	0-1

**EPT** are stonefly,

caddisfly and mayfly

=

**EPT TO TOTAL RATIO:** total number of **EPT** organisms from **Column B**, Field Data Sheet divided by the total number of organisms

EPT TO TOTAL RATIO			
Good	Acceptable	Marginal	Poor
0.75 - 1.00	0.5 - 0.75	0.25 - 0.50	0 - 0.25

# of **EPT** \_\_\_\_\_ ÷ total =

# Invertebrate Survey Interpretation Sheet

(use a new data sheet for each stream section surveyed)

## Module 4

Stream Name	Date
Stream segment # Stream section #	sampling location
sampler used, mesh size, total area sampled	# of 30cm x 30cm samples

### D) DIVERSITY ASSESSMENT

**TOTAL NUMBER OF TAXA:** from Column C, Field Data Sheet

**PREDOMINANT TAXON RATIO:** divide the **number** of invertebrate in the **predominant taxon** by the **total number of invertebrates** counted:

$$\frac{\text{predominant}}{\text{total}} = \text{_____}$$

PREDOMINANT TAXON RATIO			
Good	Acceptable	Marginal	Poor
0 - 0.40	0.40 - 0.60	0.60 - 0.80	0.80 - 1.0

### E) SITE ASSESSMENT

#### RATING:

Assign a rating between 1 and 4 to each index or ratio, then average the results to produce a general site assessment.

SITE ASSESSMENT RATING			
Good	Acceptable	Marginal	Poor
4	3	2	1

General Comments -  
Unknown Bugs

SITE ASSESSMENT RATING	
Index or Ratio	Rating
Pollution Tolerance Index	
EPT Index	
EPT to Total Ratio	
Predominant Taxon Ratio	
Total	
Average	

see page 13 and 14 of Module 4 for further information