

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 #
	Email:
Contact Name	Phone #

Survey Location

GPS: Latitude	Longitude
Survey Start Time:	Survey End Time:
Location (distance from known stream landmark, directions to benchmark)	
Weather	<input type="checkbox"/> clear <input type="checkbox"/> shower (1-2.5 cm in 24 hr.) <input type="checkbox"/> snow <input type="checkbox"/> overcast <input type="checkbox"/> storm (<2.5 cm in 24 hr.) <input type="checkbox"/> rain on snow
Water turbidity (cm visibility)	Temperature °C (leave thermometer 2 min.) air _____ water _____
Measurements taken every _____	m
Bankfull Channel width	(m) Average depth (m)
Wetted Channel width	(m) Average depth (m)

First and Last Measurements taken 0.1 m from streambank edge

Left Bank	0.10																			Right Bank
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

Total Survey Hours (H.mm) _____

Invertebrate Survey Field Data Sheet

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

Module 4

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

Invertebrate Survey Interpretation Sheet

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

Module 4

Stream Name	Date
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
 # of 30cm x 30cm samples x 0.09m² = Density =
 (____ x 0.09) = _____ m² Density
 _____ ÷ _____ = _____
 Total Counted m² Density

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)
 3 x _____ = _____
 + 2 x (# of category 2)
 2 x _____ = _____
 + (# 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	2-4	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 - 0.74	0.25 - 0.49	0 - 0.24

_____ ÷ _____ =
 # of EPT total

Invertebrate Survey Interpretation Sheet

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

Module 4

Stream Name	Date
Stream segment #	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:

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

PREDOMINANT TAXON RATIO			
Good	Acceptable	Marginal	Poor
0 - 0.39	0.40 - 0.59	0.60 - 0.79	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