Action: Record dimensions of the pipe or trench and its elevation above the stream bed. Describe the pollutant smell colour, appearance (oily film, sudsy, etc.) if the pipe is discharging actively. DO NOT TOUCH IT!! Describe whether the pipe is on the left or right bank (facing downstream).

### Livestock Access

**Background:** Livestock that have access to the stream can cause bank erosion, damage fish habitat, and contaminate the water. The most common situations are where livestock graze along unfenced parts of the stream and where livestock cross the stream at a trail crossing or watering ramp.

Action: Measure the affected length and width of the stream, and note whether the left or right bank (facing downstream) is affected. Estimate the number and type of livestock with access to the area.

### Water Withdrawal

**Background:** There may be an intake pipe or diversion ditch that draws water from the stream for agricultural, industrial, or domestic purposes. The pipe or ditch may be screened or unscreened. Screened pipes with openings larger than 2.5 mm and unscreened pipes allow juvenile fish to pass through, resulting in fish mortalities.

Action: Record the dimensions of the intake structure, pipe, or diversion ditch. If possible, find out where the water goes (e.g., to irrigate a nearby field). Note whether the pipe is screened or unscreened. Measure the size of any mesh. Record whether the left or right bank (facing downstream) is affected.

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

## **Stream Location and Conditions**

(use a new data she	Module 1			
Stream Name/Nearest Tov	Stream Name/Nearest Town:			
		Watershed code		
Organization Name:				
Contact Name:		Phone #		
Crew Names:		Stream Segment #		
		Stream Section #		
		Length Surveyed		
Survey Start Point (when	applicable)			
Mapsheet number	Type Sc	cale		
Start Point Location (distant	nce from known stream landmark, dire	ctions to start)		

Time: Weather '	clear	shower (1-2.5 cm in 24 hr) snow
1	overcast	storm (>2.5 cm in 24 hr) rain on snow
Water turbidity (cm visibility)	1	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)

Survey End Point (when applicable)

Mapsheet number	Type Scale									
End Point Location (distance from known stream landmark)										
Time: Weather '	clear ' shower (1-2.5	cm in 24 hr) snow								
1	overcast ' storm (>2.5 cr	m in 24 hr) <b>'</b> rain on snow								
Water turbidity (cm visibility)	Temperature °C (	(leave thermometer 2 min.)								
	air v	water								
Measurements taken every	m									
Bankfull Channel width	(m) Aver	rage depth(m)								
Wetted Channel width	(m) Avera	rage depth(m)								
(Start Point) First and Last M	Measurements taken 0.1 m from	streambank edge (End Point)								
Left	Right Left	Right								

	ingin		inght.
Bank	Bank	Bank	Bank
Wetted	Wetted	Wetted	Wetted
Depth	Depth	Depth	Depth
Bankfull	Bankfull	Bankfull	Bankfull
Depth	Depth	Depth	Depth

Take measurements every 0.5m in streams less than 5m wide, every 1m in streams 5 to 15m of \_\_\_\_

Page \_\_\_\_ Page 24

Introductory Stream Habitat Survey revision - March 2000

# **Stream Reconnaissance Field Data Sheet**

### ... Additional Feature Information

Module 1

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

## **Feature Information**

Feature #	Photo #	<i>m</i> upstream of last feature	Feature Description and Size (see App. 3)	Stream- bank (L or R)	Adjacent Land Use *	Actions/Comments/ Water Quality Concerns
* Ad	jacent Lar	nd Use Codes: Un	disturbed, Agriculture, Forestry,	Residentia	l, <b>P</b> arks, Com	mercial, <b>I</b> ndustrial

Note whether feature is on the left or right bank (facing *downstream*)

Streamkeepers Module 1

Introductory Stream Habitat Survey revision - March 2000 Page

# **Stream Reconnaissance Field Data Sheet**

## **Feature Information con't**

### Module 1

r cutur		rmation con				Module 1
Feature #	Photo #	<i>m</i> upstream of last feature	Feature Description and Size (see App. 3)	Stream- bank (L or R)	Adjacent Land Use *	Actions/Comments Water Quality Concerns

General comments on this section of the stream

of

Page \_\_\_\_\_ Page 26

Introductory Stream Habitat Survey revision - March 2000

## APPENDIX 3 (revised)

## **Identifying and Describing Features**

### Note whether feature is on the left or right bank (facing *downstream*) Stream Feature Description Checklist

### **BANK EROSION**

slumping bank, undercut, upslope slide, other

• Measure length, height and slope.

#### GARBAGE

commercial/industrial source, residential/recreational source, other

• Measure length, type and quantity.

#### SIDE CHANNEL

dry channel, flowing channel, other

• Measure length, depth and width of wetted area. Take temperature readings.

### LACK OF RIPARIAN VEGETATION

human induced, natural phenomenon, other

• Measure length, width and slope.

### WETLAND

bogs, marshes, swamp, pond, other

• Measure length, depth and width. Take temperature readings.

#### WATER BODY

Tributary, wetland, ditch, other

- Measure bankfull and wetted channel widths and depths, (Optional: compass bearing 10m upstream of confluence, and 25m or at major bends. Measure gradient.)
- In water body take temperature readings 2m upstream of confluence.
- In main stem take temperature readings 2m upstream and 2m downstream of confluence.

### ENHANCEMENT

log/rock weir, fishway

• Measure length and width, and height of structure to fish access, plunge pool depth.

### **ENHANCEMENT** (con't)

riparian planting, woody debris placement, spawning gravel placement

• Measure length and width *incubation box/hatchery* 

• Measure length, width and height *constructed pond/side channel* 

• Measure length, width and depth. Take temperature.

boulder cluster

• Measure length and width and approximate size of boulders.

### **ARTIFICIAL MODIFICATION**

#### dam

- Measure length, width and height of structure, and depth of plunge pool. *dredging, channelization, retaining wall, instream crossing, fence*
- Measure length and width.

bridge

• Measure length and width, height from substrate to bridge deck, depth of water.

culvert

• Measure height/width or diameter height from substrate to bottom of structure - if flowing, temperature in flow. In main stem - 2m upstream and 2m downstream.

rip-rap

• Measure length, width, slope and approximate size of material.

other

• Measure length, width and height

### **APPENDIX 3** (revised) **OBSTRUCTION**

culvert

• Measure height/width or diameter height from substrate to bottom of structure, depth of water at base - if flowing, temperature in flow. In main stem - 2m upstream and 2m downstream.

log jam

- Measure length, width and vertical height from substrate to top of jam. *dam*
- Measure length, width and vertical height from substrate to top, depth of water at base.

beaver dam

• Measure length, width and vertical height from substrate to top, depth of water at base.

falls, cascade,canyon

• Measure length, width and vertical height and slope, depth of water at base.

fence

• Measure length, vertical height, height from substrate to bottom of fence, depth of water at base.

bridge

• Measure length and width, height from substrate to bridge deck, depth of water.

## DISCHARGE PIPE

septic effluent

- Measure height/width/diameter. Height from substrate to bottom of pipe, depth of water.
- DO NOT TOUCH! *industrial outfall*

industrial outfall

- Measure height/width/diameter. Height from substrate to bottom of pipe, depth of water.
- DO NOT TOUCH!

## Module 1

## DISCHARGE PIPE (con't)

tile drain

• Measure height/width/diameter. Height from substrate to bottom of pipe, depth of water. If discharging, take temperature in flow, then in main stem, 2m upstream and 2m downstream.

storm drain

• Measure height/width/diameter. Height from substrate to bottom of pipe, depth of water. If discharging, take temperature in flow, then in main stem, 2m upstream and 2m downstream.

trench

- Measure length/height/width.
- If discharging, take temperature in flow, then in main stem, 2m upstream and 2m downstream.

## LIVESTOCK ACCESS

streamside grazing livestock crossing

Measure affected length and width of stream.

## WATER WITHDRAWAL

screened intake

• Measure length and width of intake and mesh size.

unscreened intake

• Measure length and width of intake.

Module 10 contains specific information about increasing community awareness and working with the media.

## **References:**

- Anon. 1993. *Standard Methodology for conducting Watershed Analysis*. Section for Fish Habitat. Washington Forest Practices Board. Wash. State Dept. of Natural Resources, Olympia, WA.
- Anon 1994. *Stream Inventory Manual* (Draft Version). Prepared for Fisheries Branch, B. C. Ministry of Environment, Lands, and Parks and Department Fisheries and Oceans, Canada.
- Harrelson, C., C. Rawlins, and J. Potyondy. 1994. *Stream Channel Reference Sites: An Illustrated Guide to Field Technique*. Gen. Tech. Rep. RM-245. Fort Collins CO, US Dept. Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 61pp.
- Newbury, R. W. and M. N. Gaboury. 1994. *Stream analysis and Fish Habitat Design*. Published by Newbury Hydraulics Ltd., Gibsons, B.C. 256 pp.
- Plafkin J., et al. 1989. Rapid Bioassessment Protocols for Use in Streams and Rivers. U.S. Environmental Protection Agency / 444 / 4-89-001. Washington, DC.
- Rabe, F. W. 1992. *Streamwalk II: Learning How to Monitor our Streams*. Idaho Water Resources Research Institute, Univ. Of Idaho. 61 pp.
- Schuett-Hames, D., A. Plues, L. Bullchild, and S. Hall. 1994. *Timer-Fish-Wildlife Ambient Monitoring Program Manual*. Northwest Indian Fisheries Commission, Washington State.

(use a new data sheet for each reference site surveyed)

Module 2

Stream Name/Nearest Town:	Date			
	Watershed code			
Organization Name:				
Contact Name:	Phone #			
Crew Names:		Stream Segment #		
	Stream Section #			
		Length Surveyed		

#### **Upstream End Point**

Mapsheet	nu	mb	er					Туре_	Type Scale										
Location (distance from known stream landmark, directions to benchmark)																			
Time:		-	Wea	the	r	1		clear '		ver (1-2.5 c						1		ow	
						1	1	overcast '	stor	m (<2.5 cm	n in	24	hr)	)		1	ra	in (	on snow
Water tur	bid	ity	(cm	vis	ibi	lity	)	Te	mpera	ature °C (le	ave	the	ern	or	net	er	2 n	nin	.)
								air	·	W	vate	r							
Measurem																			
								(m)											(m)
Wetted C	'hai	nne	l wi	dth				(m)		Avera	ge o	lept	h_						_(m)
Downstre	am	E	nd P	oin	t														
Mapsheet	nu	mb	er					Туре_				Scal	e_						
								stream land	mark,	directions	to ł	oenc	chr	nai	rk)				
Time:		-	Wea	the	r	1		clear '	show	ver (1-2.5 c	m i	n 24	4 h	nr)	1		sno	W	
						1		overcast '	storr	m (<2.5 cm	in	24 ł	nr)		1		raiı	n o	n snow
Water tur	bid	ity	(cm	vis	ibi	lity	)	Te	mpera	ature °C (le	ave	the	erm	nor	net	er	2 n	nin	.)
	air water																		
Measuren																			
								(m)											(m)
Wetted C	'hai	nne	l wi	dth				(m)		Avera	ge o	lept	:h _						_(m)
(Upstrea	m)	F	First a	nd	La	st N	/lea	asurements t	aken .	1 m from st	rea	mba	ınk	ec	lge		(Ľ	<b>)</b> ow	vnstream)
Left								Right		Left									Right
Bank								Bank		Bank									Bank
Wetted								Wetted		Wetted									Wetted
Depth								Depth		Depth									Depth
Bankfull		Ţ						Bankfull		Bankfull									Bankfull
Depth								Depth		Depth									Depth

Take measurements every 0.5m in streams less than 5m wide, every 1m in streams 5 to 15m
Page \_\_\_\_ of \_\_\_\_

Streamkeepers Module 2

Advanced Stream Habitat Survey revision - March 2000

(use a new data sheet for each referen	nce site surveyed) Module 2
Stream Name	Date
Organization Name	Stream Segment # Section #
	Map Sheet #

### **STEP 1. BENCHMARK LOCATION**

Directions to benchmark

#### **STEP 2. CROSS-SECTIONAL SURVEY**

Photos taken: (yes or no)
Average bankfull depth (m)
Average wetted depth (m)

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

### **STEP 3. STREAM DISCHARGE**

Cross-sectional area of			
wetted stream (m <sup>2</sup> )	X	=	$(m^2)$
	wetted width avera	ge wetted depth	
Average Time (sec)			
[ + +	+++	_]=	5 =
trial 1 trial 2	trial 3 trial 4 trial 5	5 total trials	Average Time (sec)
Average			
Velocity (m/sec)		=	
length (m)	average time (sec)	Average Vel	ocity (m/sec)
Average Stream			
Discharge (m <sup>3</sup> /sec)	_ X	x <u>0.8</u>	=
cross sectional	average velocity	correction	Discharge
area (m <sup>2</sup> )	(m/sec)	factor	(m <sup>3</sup> /sec)

(use a new data sheet for each reference site surveyed)

Module 2

Stream Name	Date
Organization Name	Stream Seg # Section#
	Map Sheet #

#### STEP 4.1 LONGITUDINAL SURVEY, MEASUREMENTS

Length of survey site				Photos
(minimum 12 times the bankfull width)	Minimum	(m) Actual	(m)	(yes, no)
Upstream survey boundary (m upstream of benchmark)	Minimum _	(m) Actual	(m)	
Downstream boundary (m downstream of benchmark)	) Minimum _	(m) Actual	(m)	

#### \* distance **upstream** (Up) of benchmark

habitat unit type (pool or riffle)	bottom of habitat unit*	top of habitat unit*	length of habitat unit (m)	% slope	Photo Frame #
	Up	Up			
	Up	Up			
	Up	Up			
	Up	Up			
	Up	Up			
	Up	Up			
	Up	Up			

#### \* distance **downstream** (Dn) of benchmark in metres

habitat unit type (pool or riffle)	top of habitat unit*	bottom of habitat unit*	length of habitat unit (m)	% slope	Photo Frame #
	Dn	Dn			
	Dn	Dn			
	Dn	Dn			
	Dn	Dn			
	Dn	Dn			
	Dn	Dn			
	Dn	Dn			

(use a new data sheet for each reference site surveyed)

Module 2: (con't)

Date

Stream segment and section #'s

Stream Name

STEP 4.2 LONGITUDINAL SURVE	Х, Н	ABITAT QUALITY			
1. Streambed material           Collect 25 samples           1         8         15         22           2         9         16         23           3         10         17         24           4         11         18         25           5         12         19         6           6         13         20         7         14         21	<ul> <li>% fines (&lt;0-2cm) - ladybug size and smaller</li> <li>% gravel(0.2-5 cm) - ladybug to tennis ball</li> <li>% cobble (5·25cm) - tennis ball to basketball</li> <li>% boulder (&gt;25cm) - bigger then a basketball with definable edges</li> <li>% bedrock - slab of rock</li> </ul>			Fines       =       %         Gravel       =       %         Cobble       =       %         Boulder       =       %         Bedrock       =       %         Cobble       + Boulder       %         Total       =       %	
2. % embeddedness - cover of grav	el an	<i>v</i>		%	
3. Instream cover <u>LWD</u> <u>Rooted cutbank</u>	= _	# pieces LWD     # rooted cutbanks     ÷ al cover (length of reference site ÷bank	=		
<b>4. Percent pool habitat</b> survey site slope total length of reference site (m)		total length of pools (m % pool habitat	h)		
<b>5. Off channel habitat</b> (if present, describe habitat type, size, and whether it is seasonal or year-round)				PRESENT ABSENT	
<ul><li>6. Bank stability (left or right bank fadownstream)</li><li># active bank erosion</li></ul>	acing	# of sites and length of bank affected ( LEFT BANK RIGHT BANK	m)		
bank stabilization					
<ul><li># slides reaching the channel</li><li>7. Length of bank with no</li></ul>					
vegetation (m)		LEFT BANK	RIGH	IT BANK	
8. Overhead canopy		% bankfull channel covered by overhanging branches			
9. Riparian zone	-				
type and amount of vegetation		coniferous trees deciduous trees shrubs grasses		e    few    many      e    few    many      e    few    many      e    few    many	
Adjacent land use and impacts				·	

Streamkeepers Module 2

Advanced Stream Habitat Survey revision - March 2000

(use a new data sheet for each reference site surveyed)

Module 2 (con't)

Stream Name	Date
Stream segment and section #'s	

#### **STEP 5 HABITAT ASSESSMENT** (the score in bold, estimate a value within the range listed)

Characteristic	Results	Good	Acceptable	Marginal	Poor	Score
1: Streambed material:		15 - 20	10 - 15	5 - 10	0 - 5	
% boulder and cobble		50%	30-50%	10-30%	<10%	
2: Embeddedness:		15 - 20	10 - 15	5 - 10	0 - 5	
		25-0%	50-25%	75-50%	>75%	
3: Instream cover:		15 - 20	10 - 15	5 - 10	0 - 5	
		>3	2 to 3	1 to 2	<1	
4: % Pool Habitat		11 - 15	7 - 11	3 - 7	0 - 3	
<2% stream slope		>60% pool	50-60%	40-50%	<40%	
2-5% stream slope		>50% pool	40-50%	30-40%	<30%	
>5% stream slope		>40% pool	30-40%	20-30%	<20%	
5: Off-channel habitat:		11 - 15	7 - 11	3 - 7	0 - 3	
ponds, side channels with		year	seasonal,	seasonal,	little or	
protection from flood flows		round,	good	minimal	none, no	
		good	protection	protection	protection	
		protection				
6: Bank stability		11 - 15	7 - 11	3 - 7	0 - 3	
stability		stable	moderately	moderately	unstable	
			stable	unstable		
evidence of erosion or bank		none	some	some	lots	
failure (see note 1)		0.40				
7. Bank vegetation: %		8 - 10	5-8	2-5	0 - 2	
stream bank covered by		>90%	70-90%	50-70%	and <50%	
vegetation		0.10				
8. Overhead canopy: %		8 - 10	5 - 8	2 - 5	0 - 2	
bankfull channel overhung		2004	20.200/	10 200/	0.100/	
by trees and shrubs		>30%	20-30%	10-20%	0-10%	
9. Riparian zone: # bankfull channels wide		8 - 10	<b>5 - 8</b>	2 - 5	<b>0 - 2</b> 0	
# Danktun channels wide		2 or more	1 to 2	<1	U	
trees and shrubs		abundant	good	common,	sparso or	
u ces anu sintuos		on whole	species mix	few species	sparse or absent	
		floodplain	species mix	iew species	ausem	
		moouplain				
TOTAL						
SCORE		102 - 135	66 - 102	30 - 66	0 - 30	
SCORE		104 - 133	00-104	50-00	0-30	1

**Note 1:** The evidence of erosion or bank failure changes from **Good** (intact banks) to **Acceptable** (healed or banks stabilized) to **Marginal** (active erosion or extensive bank stabilization) to **Poor** (many actively eroding areas or upslope slides reaching channel).

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	Туре		Scale
Location (distance from known stream	n landma	urk)	
Time: Weather ' clear	' sho	ower (1-2.5 cm in	24 hr) ' snow
overcas	t sto	orm (<2.5 cm in 2	4 hr) ' rain on snow
Water turbidity (cm visibility)	Temp	perature °C (leave	e thermometer 2 min.)
	air		
Bankfull Channel width	_(m)	depth	(m)
Wetted Channel width	<u>(</u> m)	depth	(m)
First and Last Measurer	ments take	en .1 m from streamb	ank edge
Left			Right

Bank					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.

### Invertebrate Survey Field Data Sheet

(use a new data sh		m section survey	ed)	Module 4
Stream Name	Da	Date		
Stream Segment #     Sampling       Stream Section #     Sampling				mpling location
sampler used, mesh size, total area sampled			# (	of 30cm x 30cm samples
COLUMN A Pollution Tolerance	COLUMN B Number Counted	COLUMN ( Number of Ta		COLUMN D Common Name
CATEGORY 1 (pollution intolerant)				Caddisfly Larva ( <b>EPT</b> ) Dobsonfly (hellgrammite) Gilled Snail Mayfly Nymph ( <b>EPT</b> ) Riffle Beetle Stonefly Nymph ( <b>EPT</b> ) Water Penny
Sub-total				A 1 1 CL T
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				A
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	on surveyed) Module 4
Stream Name	Date
Stream Segment #	Sampling location
Stream Section #	
sampler used, mesh size, total area sampled	# of 30cm x 30cm samples

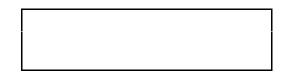
### A) ABUNDANCE AND DENSITY

ABUNDANCE: total number of organisms from Column B

**DENSITY:** invertebrate density per square meter (total # counted)  $\div$  (# 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 =

Streamkeepers Module 4

Stream Invertebrate Survey revision - March 2000 page 27

\_\_\_\_

# **Invertebrate Survey Interpretation Sheet**

(use a new data sheet for each stream section surve	eyed) Module 4
Stream Name	Date
Stream segment #	sampling location
Stream section #	
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:

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		

\_ ÷ \_

predominant

\_ = \_

total

see page 13 and 14 of Module 4 for further information