

Site Description

Study Name	CBWQ-Slocan
Site	NJBON01
Sampling Date	Oct 03 2007
Know Your Watershed Basin	Slocan
Province / Territory	British Columbia
Terrestrial Ecological Classification	Montane Cordillera EcoZone Columbia Mountains and Highlands EcoRegion
Coordinates (decimal degrees)	50.10000 N, 117.48333 W
Altitude	
Local Basin Name	Slocan River
	Slocan
Stream Order	4



Figure 1. Location Map

Across Reach (No image found)
Aerial (No image found)



Down Stream
Field Sheet (No image found)
Miscellaneous (No image found)



Substrate



Up Stream

Cabin Assessment Results

Reference Model Summary	
Model	Columbia-Okanagan Preliminary March 2010
Analysis Date	September 05, 2017
Taxonomic Level	Family
Predictive Model Variables	Depth-Avg Latitude Longitude Reg-Ice Reg-SlopeLT30%
Reference Groups	
	1 2 3 4 5
Number of Reference Sites	9 43 17 12 33
Group Error Rate	22.2% 24.5% 22.2% 25.0% 32.4%
Overall Model Error Rate	26.4%
Probability of Group Membership	27.4% 4.7% 11.8% 45.3% 10.8%
CABIN Assessment of NJBON01 on Oct 03, 2007	Similar to Reference

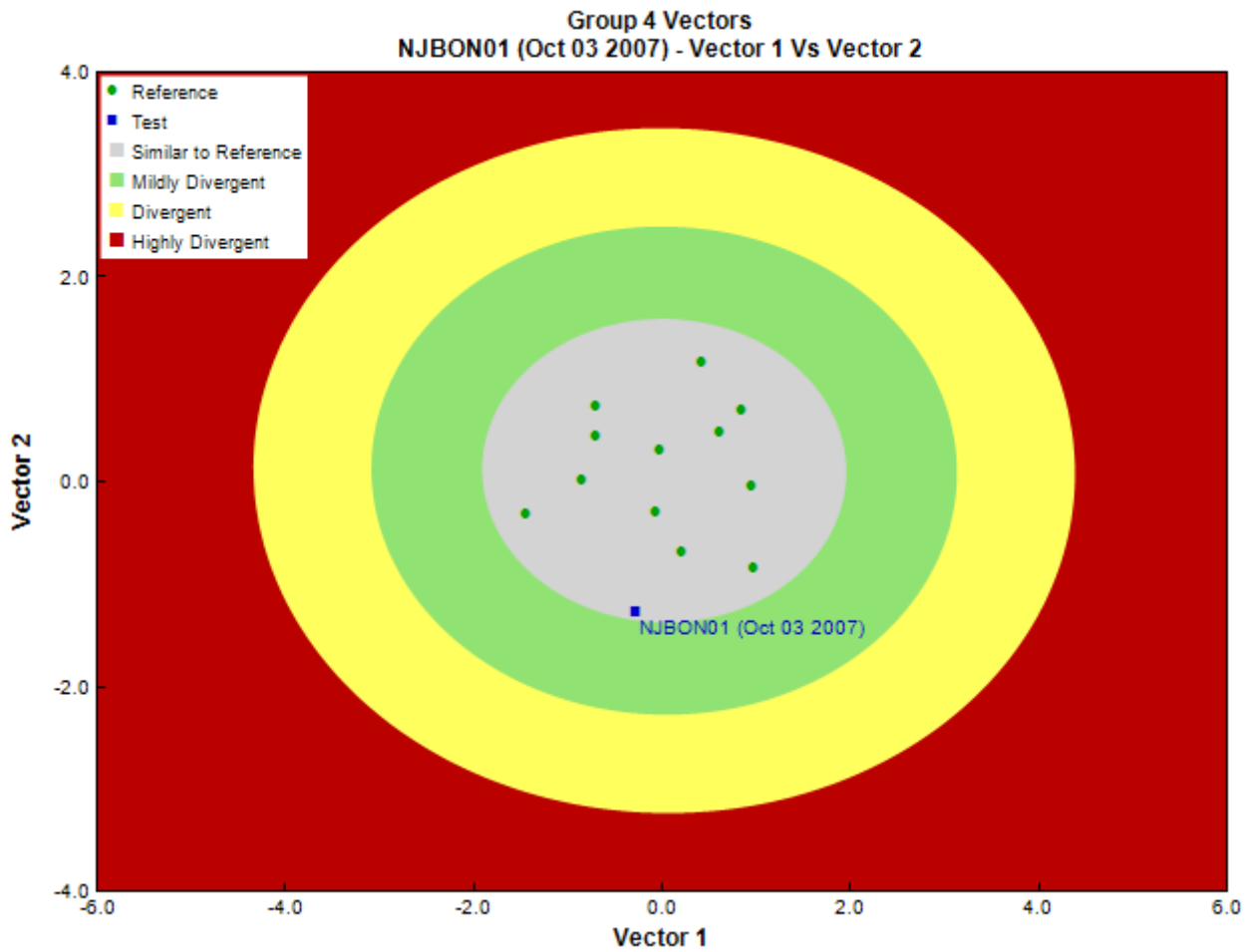


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	Gary Lester, Ecoanalysts Inc.
Date Taxonomy Completed	March 01, 2008
	Marchant Box
Sub-Sample Proportion	45/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Annelida	Oligochaeta	Enchytraeida	Enchytraeidae	1	2.2
Arthropoda	Arachnida			3	6.7
		Trombidiformes	Hygrobatidae	1	2.2
			Lebertiidae	3	6.7
			Sperchontidae	1	2.2
			Torrenticolidae	1	2.2
	Insecta	Coleoptera	Elmidae	26	57.8
		Diptera	Ceratopogonidae	1	2.2
			Chironomidae	42	93.3
			Empididae	3	6.7
			Psychodidae	2	4.4
			Simuliidae	2	4.4
			Tipulidae	2	4.4
		Ephemeroptera	Ameletidae	1	2.2
			Baetidae	50	111.1

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Ephemeroellidae	19	42.2
			Heptageniidae	24	53.3
		Plecoptera	Chloroperlidae	1	2.2
			Nemouridae	8	17.8
			Perlidae	4	8.9
			Taeniopterygidae	1	2.2
		Trichoptera	Brachycentridae	10	22.2
			Glossosomatidae	65	144.4
			Hydropsychidae	11	24.4
			Lepidostomatidae	17	37.8
			Rhyacophilidae	1	2.2
			Uenoidae	1	2.2
			Total	301	668.5

Metrics

Name	NJBON01	Predicted Group Reference Mean \pm SD
Bray-Curtis Distance	0.56	0.4 \pm 0.1
Biotic Indices		
Hilsenhoff Family index (North-West)	3.1	3.2 \pm 0.3
Intolerant taxa	--	
Long-lived taxa	2.0	2.1 \pm 1.0
Tolerant individuals (%)	--	0.8 \pm 0.3
Functional Measures		
% Filterers	7.6	2.2 \pm 1.8
% Gatherers	38.2	38.4 \pm 12.4
% Predatores	23.6	19.0 \pm 8.5
% Scrapers	56.8	63.2 \pm 19.7
% Shredder	21.3	27.6 \pm 15.2
No. Clinger Taxa	15.0	23.2 \pm 6.3
Number Of Individuals		
% Chironomidae	14.1	7.4 \pm 6.4
% Coleoptera	8.7	1.5 \pm 3.9
% Diptera + Non-insects	19.8	10.8 \pm 7.6
% Ephemeroptera	31.5	51.7 \pm 18.8
% Ephemeroptera that are Baetidae	53.2	40.6 \pm 30.0
% EPT Individuals	71.5	87.7 \pm 7.4
% Odonata	0.0	0.0 \pm 0.0
% of 2 dominant taxa	38.6	57.9 \pm 14.2
% of 5 dominant taxa	69.5	81.6 \pm 7.9
% of dominant taxa	21.8	39.8 \pm 14.9
% Plecoptera	4.7	31.4 \pm 15.4
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	10.5	27.0 \pm 26.2
% Tricoptera	35.2	4.5 \pm 2.8
No. EPT individuals/Chironomids+EPT Individuals	0.8	0.9 \pm 0.1
Total Abundance	668.8	587.4 \pm 299.1
Richness		
Chironomidae taxa (genus level only)	1.0	1.0 \pm 0.0
Coleoptera taxa	1.0	0.4 \pm 0.5
Diptera taxa	6.0	3.3 \pm 1.0
Ephemeroptera taxa	4.0	3.8 \pm 0.8
EPT Individuals (Sum)	473.3	526.0 \pm 285.8
EPT taxa (no)	14.0	13.3 \pm 2.7
Odonata taxa	0.0	0.0 \pm 0.0
Pielou's Evenness	0.7	0.7 \pm 0.1
Plecoptera taxa	4.0	6.3 \pm 1.1
Shannon-Wiener Diversity	2.4	1.9 \pm 0.4
Simpson's Diversity	0.9	0.8 \pm 0.1
Simpson's Evenness	0.3	0.3 \pm 0.1
Total No. of Taxa	26.0	19.3 \pm 3.7
Trichoptera taxa	6.0	3.2 \pm 1.4

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites					Probability Of Occurrence at NJBON01
	Group 1	Group 2	Group 3	Group 4	Group 5	
Baetidae	100%	100%	100%	100%	97%	1.00
Capniidae	78%	55%	50%	92%	68%	0.79
Chironomidae	100%	100%	100%	100%	95%	0.99
Chloroperlidae	78%	88%	94%	100%	100%	0.93
Ephemerellidae	78%	100%	100%	100%	100%	0.94
Heptageniidae	100%	100%	100%	100%	100%	1.00
Nemouridae	100%	100%	100%	100%	100%	1.00
Perlodidae	78%	78%	89%	92%	81%	0.86
Rhyacophilidae	100%	92%	100%	100%	95%	0.99
Taeniopterygidae	89%	49%	100%	92%	97%	0.90

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	13.96
RIVPACS : Observed taxa P>0.50	15.00
RIVPACS : O:E (p > 0.5)	1.07
RIVPACS : Expected taxa P>0.70	9.40
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	0.85

Habitat Description

Variable	NJBON01	Predicted Group Reference Mean \pm SD
Channel		
Depth-Avg (cm)	50.0	23.6 \pm 11.1
Reach-%CanopyCoverage (PercentRange)	3.00	1.33 \pm 0.78
Reach-%Logging (PercentRange)	1	0 \pm 0
Reach-Pools (Binary)	0	1 \pm 0
Reach-Rapids (Binary)	0	0 \pm 0
Reach-Riffles (Binary)	1	1 \pm 0
Reach-StraightRun (Binary)	0	1 \pm 1
Veg-Coniferous (Binary)	1	1 \pm 0
Veg-Deciduous (Binary)	1	1 \pm 0
Veg-GrassesFerns (Binary)	0	1 \pm 0
Veg-Shrubs (Binary)	1	1 \pm 0
Velocity-Avg (m/s)	1.13	0.48 \pm 0.22
Velocity-Max (m/s)	1.20	0.76 \pm 0.36
Width-Bankfull (m)	9.9	13.4 \pm 9.9
Width-Wetted (m)	8.7	8.5 \pm 5.8
XSEC-VelMethod (Category (1-3))	3	1 \pm 0
Landcover		
Reg-Ice (%)	0.00000	0.02487 \pm 0.06034
Substrate Data		
Dominant-1st (Category(0-9))	7	7 \pm 1
Dominant-2nd (Category(0-9))	8	7 \pm 1
Embeddedness (Category(1-5))	4	5 \pm 1
SurroundingMaterial (Category(0-9))	3	4 \pm 1
Topography		
Reg-SlopeLT30% (%)	28.34000	18.88386 \pm 9.29866
Water Chemistry		
General-Alkalinity (mg/L)	61.6000000	71.7000000 \pm 53.9231440
General-Hardness (mg/L)	153.9000000	84.2750000 \pm 70.6251066
General-pH (pH)	7.6	7.9 \pm 0.4
General-SolidsTSS (mg/L)	11.4000000	0.8849836 \pm 1.2378575
General-SpCond (μ S/cm)	144.0000000	168.9833333 \pm 123.7858182
General-TempWater (Degrees Celsius)	7.5000000	7.3183333 \pm 2.7240839
General-Turbidity (NTU)	1.4000000	0.2020000
Nitrogen-TN (mg/L)	0.1300000	0.0883333 \pm 0.0521943
Phosphorus-TP (mg/L)	0.0170000	0.0045833 \pm 0.0049992