

Site Description

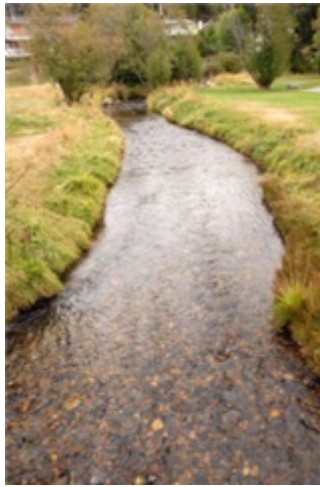
Study Name	CBWQ-Central Kootenay
Site	NGJOS02
Sampling Date	Sep 23 2007
Know Your Watershed Basin	Central Kootenay
Province / Territory	British Columbia
Terrestrial Ecological Classification	Montane Cordillera EcoZone Southern Rocky Mountain Trench EcoRegion
Coordinates (decimal degrees)	49.50194 N, 115.75472 W
Altitude	3038
Local Basin Name	Joseph Creek
	St Mary River
Stream Order	3



Figure 1. Location Map



Across Reach
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	July 29, 2013
Taxonomic Level	Family

Cabin Assessment Results

Predictive Model Variables	Depth-Avg Latitude Longitude Reg-Ice 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	0.0%	35.8%	60.8%	3.2%	0.2%
CABIN Assessment of NGJOS02 on Sep 23, 2007	Divergent				

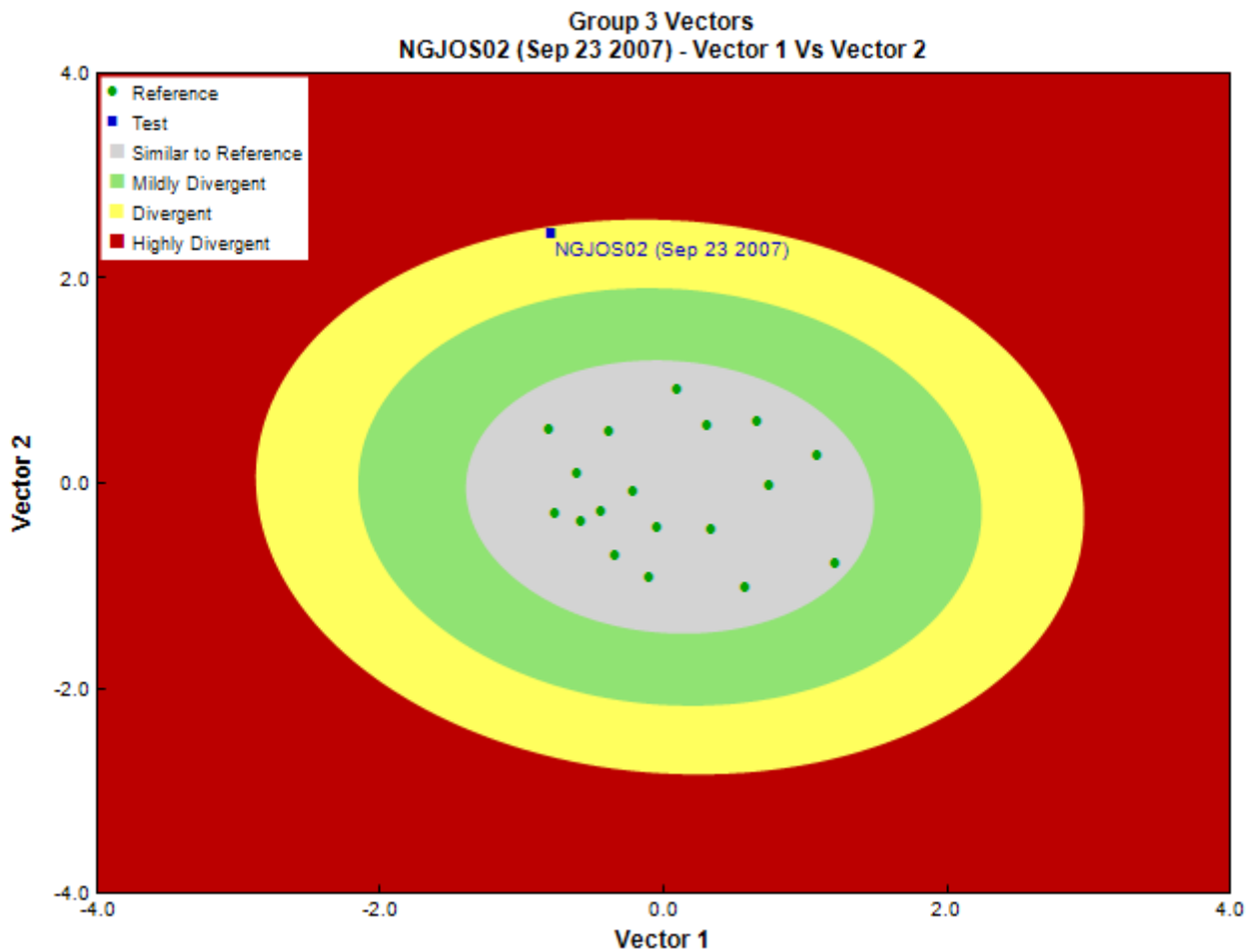


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
Mesh Size	400
Sampling Time	3
Taxonomist	Dave Langill, EcoAnalysts, Inc.
Date Taxonomy Completed	September 23, 2007
	Marchant Box
Sub-Sample Proportion	9/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes	Torrenticolidae	1	11.1
	Insecta	Coleoptera	Elmidae	288	3,200.0
		Diptera	Chironomidae	6	66.7
			Pelecophynchidae	7	77.8
			Psychodidae	1	11.1
			Tipulidae	1	11.1
		Ephemeroptera	Ephemerellidae	16	177.8
			Heptageniidae	6	66.7
			Leptophlebiidae	2	22.2
		Plecoptera	Capniidae	1	11.1
			Chloroperlidae	1	11.1
			Perlidae	5	55.5
		Trichoptera	Brachycentridae	14	155.6
			Hydropsychidae	22	244.4
			Lepidostomatidae	163	1,811.1
			Total	534	5,933.3

Metrics

Name	NGJOS02	Predicted Group Reference Mean \pm SD
Bray-Curtis Distance	0.91	0.4 \pm 0.2
Number Of Individuals		
% Chironomidae	1.1	8.2 \pm 13.6
% Ephemeroptera	4.5	43.5 \pm 15.9
% Ephemeroptera that are Baetidae	0.0	33.9 \pm 27.7
% of 2 dominant taxa	84.5	59.2 \pm 10.0
% of dominant taxa	53.9	39.7 \pm 10.9
% Plecoptera	1.3	34.8 \pm 17.8
% Trichoptera	37.3	6.9 \pm 8.6
No. EPT individuals/Chironomids+EPT Individuals	1.0	0.9 \pm 0.1
Total Abundance	5933.3	5757.3 \pm 4889.9
Richness		
Ephemeroptera taxa	3.0	3.4 \pm 0.5
EPT taxa (no)	9.0	11.5 \pm 1.2
Plecoptera taxa	3.0	5.3 \pm 0.9
Shannon-Wiener Diversity	1.3	1.9 \pm 0.3
Simpson's Diversity	0.6	0.8 \pm 0.1
Total No. of Taxa	15.0	17.1 \pm 2.4
Trichoptera taxa	3.0	2.8 \pm 1.0

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites					Probability Of Occurrence at NGJOS02
	Group 1	Group 2	Group 3	Group 4	Group 5	
Baetidae	100%	100%	100%	100%	97%	1.00
Chironomidae	100%	100%	100%	100%	95%	1.00
Chloroperlidae	78%	88%	94%	100%	100%	0.92
Ephemerellidae	78%	100%	100%	100%	100%	1.00
Heptageniidae	100%	100%	100%	100%	100%	1.00
Hydropsychidae	11%	92%	78%	92%	86%	0.83
Nemouridae	100%	100%	100%	100%	100%	1.00
Perlodidae	78%	78%	89%	92%	81%	0.85
Psychodidae	22%	65%	94%	8%	11%	0.81
Rhyacophilidae	100%	92%	100%	100%	95%	0.97
Taeniopterygidae	89%	49%	100%	92%	97%	0.81

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	13.48
RIVPACS : Observed taxa P>0.50	9.00
RIVPACS : O:E (p > 0.5)	0.67
RIVPACS : Expected taxa P>0.70	10.20

RIVPACS Ratios

RIVPACS : Observed taxa P>0.70	6.00
RIVPACS : O:E (p > 0.7)	0.59

Habitat Description

Variable	NGJOS02	Predicted Group Reference Mean ±SD
Channel		
Depth-Avg (cm)	12.2	22.5 ± 10.5
Depth-Max (cm)	17.0	32.9 ± 17.9
Discharge (m³/s)	0.230	0.000 ± 0.000
Macrophyte (PercentRange)	1	0 ± 0
Reach-%CanopyCoverage (PercentRange)	1.00	0.94 ± 0.80
Reach-%Logging (PercentRange)	0	0 ± 0
Reach-Pools (Binary)	0	0 ± 1
Reach-Rapids (Binary)	0	0 ± 1
Reach-Riffles (Binary)	1	1 ± 0
Reach-StraightRun (Binary)	1	1 ± 0
Slope (m/m)	0.0060000	0.0235102 ± 0.0284557
Veg-Coniferous (Binary)	0	1 ± 0
Veg-Deciduous (Binary)	1	1 ± 0
Veg-GrassesFerns (Binary)	1	1 ± 0
Veg-Shrubs (Binary)	1	1 ± 0
Velocity-Avg (m/s)	0.46	0.51 ± 0.25
Velocity-Max (m/s)	0.49	0.75 ± 0.28
Width-Bankfull (m)	6.4	15.6 ± 12.8
Width-Wetted (m)	4.2	10.2 ± 7.0
Landcover		
Reg-Ice (%)	0.00000	0.46949 ± 1.15785
Substrate Data		
Dominant-1st (Category(0-9))	6	6 ± 2
Dominant-2nd (Category(0-9))	5	6 ± 2
Embeddedness (Category(1-5))	4	4 ± 1
PeriphytonCoverage (Category(1-5))	2	2 ± 1
SurroundingMaterial (Category(0-9))	2	4 ± 2
Topography		
SlopeLT30% (%)	75.73000	27.92073 ± 14.83033
Water Chemistry		
General-Alkalinity (mg/L)	140.0000000	121.5944444 ± 36.7225924
General-DO (mg/L)	15.0000000	10.4922222 ± 0.8833463
General-pH (pH)	8.3	8.0 ± 0.6
General-SolidsTSS (mg/L)	21.0000000	0.5604289 ± 1.4627232
General-SpCond (µS/cm)	270.0000000	214.2437500 ± 77.1891440
General-TempWater (Degrees Celsius)	9.5000000	6.8794444 ± 1.7335020
Nitrogen-TN (mg/L)	0.0700000	0.0688889 ± 0.0759171
Phosphorus-TP (mg/L)	0.0160000	0.0032778 ± 0.0061816