

**Site Description**

<b>Study Name</b>	CBWQ-Slocan
<b>Site</b>	NJSLO01
<b>Sampling Date</b>	Sep 29 2005
<b>Know Your Watershed Basin</b>	Slocan
<b>Province / Territory</b>	British Columbia
<b>Terrestrial Ecological Classification</b>	Montane Cordillera EcoZone Columbia Mountains and Highlands EcoRegion
<b>Coordinates (decimal degrees)</b>	49.43389 N, 117.53850 W
<b>Altitude</b>	469
<b>Local Basin Name</b>	Slocan
	Columbia
<b>Stream Order</b>	5



Figure 1. Location Map

- Across Reach (No image found)
- Aerial (No image found)
- Down Stream (No image found)
- Field Sheet (No image found)
- Miscellaneous (No image found)
- Substrate (No image found)
- Up Stream (No image found)

**Cabin Assessment Results**

		<b>Reference Model Summary</b>				
<b>Model</b>	Columbia-Okanagan Preliminary March 2010					
<b>Analysis Date</b>	September 05, 2017					
<b>Taxonomic Level</b>	Family					
<b>Predictive Model Variables</b>	Depth-Avg Latitude Longitude Reg-Ice Reg-SlopeLT30%					
<b>Reference Groups</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
<b>Number of Reference Sites</b>	9	43	17	12	33	
<b>Group Error Rate</b>	22.2%	24.5%	22.2%	25.0%	32.4%	
<b>Overall Model Error Rate</b>	26.4%					
<b>Probability of Group Membership</b>	7.6%	6.5%	7.0%	75.5%	3.4%	
<b>CABIN Assessment of NJSLO01 on Sep 29, 2005</b>	Divergent					

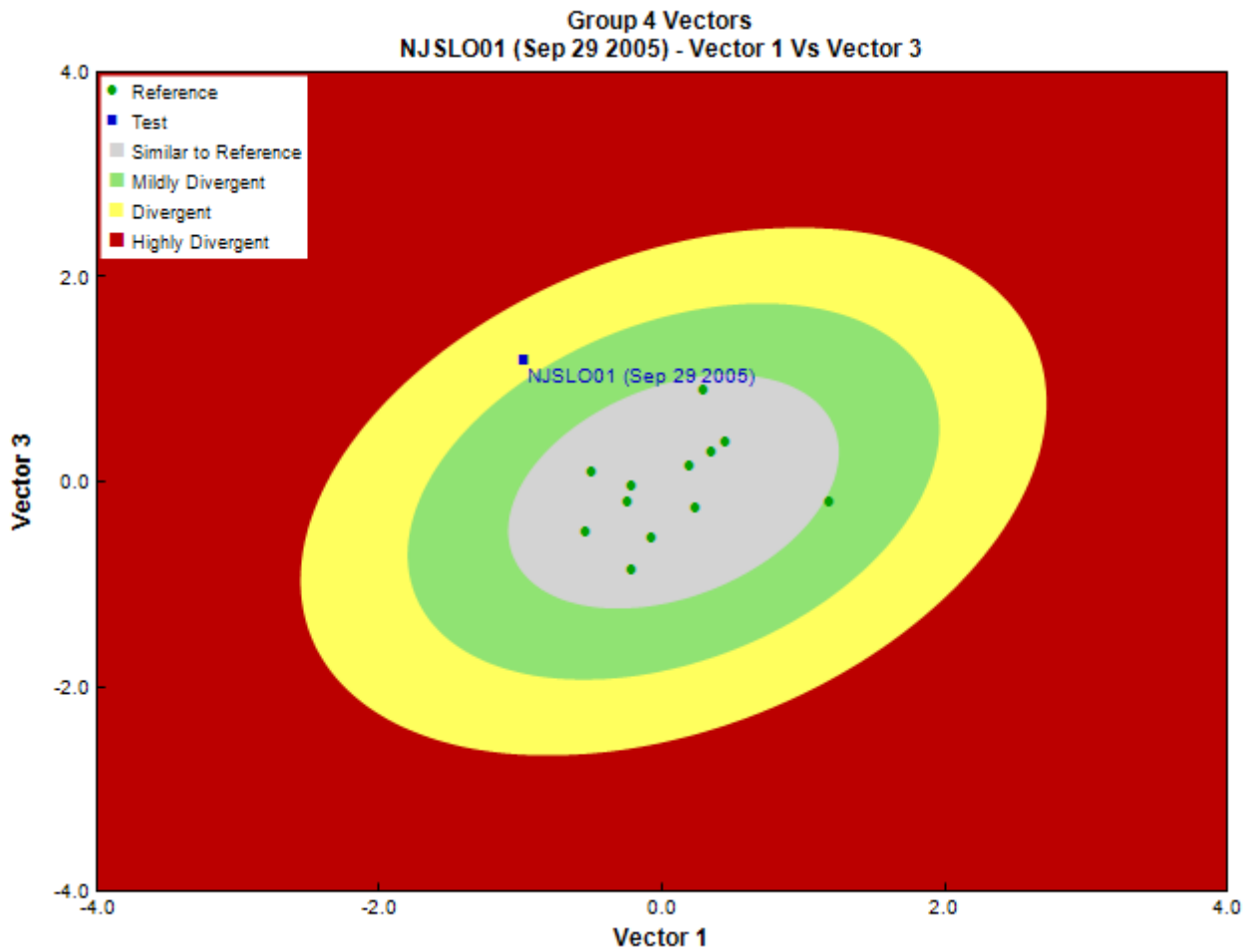


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

**Sample Information**

<b>Sampling Device</b>	Kick Net
<b>Mesh Size</b>	400
<b>Sampling Time</b>	3
<b>Taxonomist</b>	-
<b>Date Taxonomy Completed</b>	-
	-
<b>Sub-Sample Proportion</b>	1/1

**Community Structure**

Phylum	Class	Order	Family	Raw Count	Total Count
Annelida				1	1.0
Arthropoda	Arachnida			17	17.0
			Trombidiformes	17	17.0
	Insecta	Coleoptera	Elmidae	33	33.0
		Diptera	Chironomidae	204	204.0
			Simuliidae	26	26.0
			Thaumaleidae	28	28.0
			Tipulidae	5	5.0
		Ephemeroptera	Baetidae	103	103.0
			Ephemerellidae	22	22.0
			Metretopodidae	1	1.0
		Plecoptera	Chloroperlidae	9	9.0
			Perlidae	1	1.0
		Perlodidae	11	11.0	
	Trichoptera	Brachycentridae	1	1.0	

## Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Hydropsychidae	106	106.0
			Hydroptilidae	7	7.0
			Lepidostomatidae	15	15.0
			Psychomyiidae	2	2.0
			Rhyacophilidae	41	41.0
Cnidaria	Hydrozoa			1	1.0
Mollusca	Bivalvia			4	4.0
			Total	655	655.0

## Metrics

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bray-Curtis Distance</b>	0.66	0.4 $\pm$ 0.1
<b>Biotic Indices</b>		
<b>Hilsenhoff Family index (North-West)</b>	4.3	3.2 $\pm$ 0.3
<b>Intolerant taxa</b>	1.0	
<b>Long-lived taxa</b>	2.0	2.1 $\pm$ 1.0
<b>Tolerant individuals (%)</b>	--	0.8 $\pm$ 0.3
<b>Functional Measures</b>		
<b>% Filterers</b>	20.3	2.2 $\pm$ 1.8
<b>% Gatherers</b>	43.4	38.4 $\pm$ 12.4
<b>% Predators</b>	60.8	19.0 $\pm$ 8.5
<b>% Scrapers</b>	31.5	63.2 $\pm$ 19.7
<b>% Shredder</b>	8.2	27.6 $\pm$ 15.2
<b>No. Clinger Taxa</b>	15.0	23.2 $\pm$ 6.3
<b>Number Of Individuals</b>		
<b>% Chironomidae</b>	33.2	7.4 $\pm$ 6.4
<b>% Coleoptera</b>	5.4	1.5 $\pm$ 3.9
<b>% Diptera + Non-insects</b>	42.8	10.8 $\pm$ 7.6
<b>% Ephemeroptera</b>	20.5	51.7 $\pm$ 18.8
<b>% Ephemeroptera that are Baetidae</b>	81.7	40.6 $\pm$ 30.0
<b>% EPT Individuals</b>	51.9	87.7 $\pm$ 7.4
<b>% Odonata</b>	0.0	0.0 $\pm$ 0.0
<b>% of 2 dominant taxa</b>	50.4	57.9 $\pm$ 14.2
<b>% of 5 dominant taxa</b>	79.2	81.6 $\pm$ 7.9
<b>% of dominant taxa</b>	33.2	39.8 $\pm$ 14.9
<b>% Plecoptera</b>	3.4	31.4 $\pm$ 15.4
<b>% Tribe Tanyatarisini</b>	--	
<b>% Trichoptera that are Hydropsychida</b>	61.6	27.0 $\pm$ 26.2
<b>% Tricoptera</b>	28.0	4.5 $\pm$ 2.8
<b>No. EPT individuals/Chironomids+EPT Individuals</b>	0.6	0.9 $\pm$ 0.1
<b>Total Abundance</b>	655.0	587.4 $\pm$ 299.1
<b>Richness</b>		
<b>Chironomidae taxa (genus level only)</b>	1.0	1.0 $\pm$ 0.0
<b>Coleoptera taxa</b>	1.0	0.4 $\pm$ 0.5
<b>Diptera taxa</b>	4.0	3.3 $\pm$ 1.0
<b>Ephemeroptera taxa</b>	3.0	3.8 $\pm$ 0.8
<b>EPT Individuals (Sum)</b>	319.0	526.0 $\pm$ 285.8
<b>EPT taxa (no)</b>	12.0	13.3 $\pm$ 2.7
<b>Odonata taxa</b>	0.0	0.0 $\pm$ 0.0
<b>Pielou's Evenness</b>	0.7	0.7 $\pm$ 0.1
<b>Plecoptera taxa</b>	3.0	6.3 $\pm$ 1.1
<b>Shannon-Wiener Diversity</b>	2.1	1.9 $\pm$ 0.4
<b>Simpson's Diversity</b>	0.8	0.8 $\pm$ 0.1
<b>Simpson's Evenness</b>	0.3	0.3 $\pm$ 0.1
<b>Total No. of Taxa</b>	17.0	19.3 $\pm$ 3.7
<b>Trichoptera taxa</b>	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 NJSLO01
	Group 1	Group 2	Group 3	Group 4	Group 5	
Baetidae	100%	100%	100%	100%	97%	1.00
Capniidae	78%	55%	50%	92%	68%	0.84
Chironomidae	100%	100%	100%	100%	95%	1.00
Chloroperlidae	78%	88%	94%	100%	100%	0.97
Ephemerellidae	78%	100%	100%	100%	100%	0.98
Heptageniidae	100%	100%	100%	100%	100%	1.00
Hydropsychidae	11%	92%	78%	92%	86%	0.84
Nemouridae	100%	100%	100%	100%	100%	1.00
Perlidae	11%	84%	33%	100%	3%	0.84
Perlodidae	78%	78%	89%	92%	81%	0.89
Rhyacophilidae	100%	92%	100%	100%	95%	0.99
Taeniopterygidae	89%	49%	100%	92%	97%	0.89

## RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	13.70
RIVPACS : Observed taxa P>0.50	9.00
RIVPACS : O:E (p > 0.5)	0.66
RIVPACS : Expected taxa P>0.70	11.26
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	0.71

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bedrock Geology</b>		
Alluvium (%)	0.00000	0.00000 $\pm$ 0.00000
Intrusive (%)	56.80740	11.07346 $\pm$ 28.63466
Metamorphic (%)	24.93025	17.96649 $\pm$ 35.53463
Sedimentary (%)	17.39867	70.96005 $\pm$ 44.90394
Ultramafic (%)	0.00000	0.00000 $\pm$ 0.00000
Volcanic (%)	0.86368	0.00000 $\pm$ 0.00000
<b>Channel</b>		
Depth-Avg (cm)	50.0	23.6 $\pm$ 11.1
Depth-BankfullMinusWetted (cm)	50.00	51.38 $\pm$ 29.42
Depth-Max (cm)	50.0	34.6 $\pm$ 12.3
Macrophyte (PercentRange)	1	0 $\pm$ 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.33 $\pm$ 0.78
Reach-%Logging (PercentRange)	3	0 $\pm$ 0
Reach-DomStreamsideVeg (Category (1-4))	4	4 $\pm$ 1
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)	1.97	0.48 $\pm$ 0.22
Velocity-Max (m/s)	2.10	0.76 $\pm$ 0.36
XSEC-VelMethod (Category (1-3))	3	1 $\pm$ 0
<b>Climate</b>		
Precip01_JAN (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip02_FEB (mm)	108.33333	83.66667 $\pm$ 27.10278
Precip03_MAR (mm)	98.15789	77.23611 $\pm$ 27.15950
Precip04_APR (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip05_MAY (mm)	82.47368	71.65833 $\pm$ 17.81753
Precip06_JUN (mm)	91.70175	78.56667 $\pm$ 15.58521
Precip07_JUL (mm)	73.33333	64.39167 $\pm$ 10.41611
Precip08_AUG (mm)	69.92982	60.53056 $\pm$ 10.43373
Precip09_SEP (mm)	67.14035	56.91944 $\pm$ 10.91783

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Precip10_OCT (mm)	82.21053	65.08056 $\pm$ 14.41229
Precip11_NOV (mm)	130.33333	105.93889 $\pm$ 25.04104
Precip12_DEC (mm)	145.94737	116.84444 $\pm$ 29.80954
PrecipTotal_ANNUAL (mm)	1162.75439	952.64722 $\pm$ 226.04690
Temp01_JANMax (Degrees Celsius)	-4.40351	-4.39167 $\pm$ 2.51268
Temp01_JANmin (Degrees Celsius)	-10.36842	-11.40833 $\pm$ 3.53951
Temp02_FEBmax (Degrees Celsius)	-1.82456	-1.70000 $\pm$ 2.12945
Temp02_FEBmin (Degrees Celsius)	-8.54386	-9.17500 $\pm$ 3.33361
Temp03_MARmax (Degrees Celsius)	1.68421	2.50556 $\pm$ 2.87525
Temp03_MARmin (Degrees Celsius)	-5.98246	-6.14167 $\pm$ 2.98556
Temp04_APRmax (Degrees Celsius)	6.26316	7.12222 $\pm$ 3.48771
Temp04_APRmin (Degrees Celsius)	-2.64912	-2.71667 $\pm$ 2.22785
Temp05_MAYmax (Degrees Celsius)	11.14035	12.03889 $\pm$ 3.55434
Temp05_MAYmin (Degrees Celsius)	0.82456	1.04722 $\pm$ 2.08663
Temp06_JUNMax (Degrees Celsius)	14.75439	15.72500 $\pm$ 3.40030
Temp06_JUNmin (Degrees Celsius)	3.96491	4.00278 $\pm$ 2.41085
Temp07_JULmax (Degrees Celsius)	18.61404	19.56111 $\pm$ 3.47275
Temp07_JULmin (Degrees Celsius)	6.43860	6.35833 $\pm$ 2.28332
Temp08_AUGmax (Degrees Celsius)	18.57895	19.52222 $\pm$ 3.51100
Temp08_AUGmin (Degrees Celsius)	6.29825	6.19167 $\pm$ 2.34422
Temp09_SEPmax (Degrees Celsius)	13.38596	14.04444 $\pm$ 3.03456
Temp09_SEPmin (Degrees Celsius)	2.29825	2.04722 $\pm$ 2.37208
Temp10_OCTmax (Degrees Celsius)	6.03509	6.88889 $\pm$ 2.71577
Temp10_OCTmin (Degrees Celsius)	-1.26316	-1.46111 $\pm$ 1.64316
Temp11_NOVmax (Degrees Celsius)	-1.17544	-0.79722 $\pm$ 2.43512
Temp11_NOVmin (Degrees Celsius)	-6.33333	-6.68056 $\pm$ 2.97163
Temp12_DECmax (Degrees Celsius)	-4.59649	-4.66389 $\pm$ 2.69757
Temp12_DECmin (Degrees Celsius)	-10.03509	-10.65833 $\pm$ 3.71739
TempANNUALmax (Degrees Celsius)	6.24561	6.96389 $\pm$ 3.06157
TempANNUALmean (Degrees Celsius)	1.77193	2.25278 $\pm$ 2.66574
TempANNUALmin (Degrees Celsius)	-1.82456	-2.18056 $\pm$ 2.41152
<b>Hydrology</b>		
Drainage-Area (km <sup>2</sup> )	3425.62950	124.42081 $\pm$ 200.99192
Perimeter (Km)	549.09302	64.71360 $\pm$ 56.15436
StreamDensity (m/km <sup>2</sup> )	2190.93040	2246.06682 $\pm$ 604.89962
StreamLength (m)	7505315.81	302226.63 $\pm$ 500983.26
<b>Landcover</b>		
Natl-AnnCrops (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Barren (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafOpen (%)	2.85345	1.19263 $\pm$ 2.03874
Natl-BroadleafSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Coniferous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ConiferousDense (%)	0.48215	0.64845 $\pm$ 0.37668
Natl-ConiferousOpen (%)	52.58342	54.62780 $\pm$ 18.30692
Natl-ConiferousSparse (%)	1.36876	0.94121 $\pm$ 1.53621
Natl-Deciduous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Developed (%)	0.06762	0.00000 $\pm$ 0.00000
Natl-ExposedLand (%)	17.02159	13.20054 $\pm$ 11.11850
Natl-Grassland (%)	1.03581	1.87556 $\pm$ 1.68508
Natl-Herb (%)	6.93168	5.75738 $\pm$ 2.89836
Natl-MixedForest (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodOpen (%)	0.09444	0.04060 $\pm$ 0.10208
Natl-MixedwoodSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-PerennCropsPast (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Rock/Rubble (%)	0.59550	1.56403 $\pm$ 2.75979
Natl-Shrubland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ShrubLow (%)	1.76236	4.98298 $\pm$ 3.22579
Natl-ShrubTall (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-SnowIce (%)	0.16345	0.08491 $\pm$ 0.15475
Natl-Water (%)	2.70893	0.22916 $\pm$ 0.36834

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Natl-Wetland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-WetlandHerb (%)	0.08869	0.12918 $\pm$ 0.35193
Natl-WetlandShrub (%)	0.01338	0.00000 $\pm$ 0.00000
Natl-WetlandTreed (%)	0.00345	0.00000 $\pm$ 0.00000
Reg-Ice (%)	0.06587	0.02487 $\pm$ 0.06034
<b>Substrate Data</b>		
Dominant-1st (Category(0-9))	7	7 $\pm$ 1
Dominant-2nd (Category(0-9))	6	7 $\pm$ 1
Embeddedness (Category(1-5))	4	5 $\pm$ 1
SurroundingMaterial (Category(0-9))	3	4 $\pm$ 1
<b>Topography</b>		
ElevationMax (m)	3015.00000	2634.66667 $\pm$ 309.54023
ElevationMin (m)	457.00000	913.41667 $\pm$ 271.25180
ElevationStdev (m)	501.21029	349.02363 $\pm$ 92.12445
Reg-SlopeLT30% (%)	22.30933	18.88386 $\pm$ 9.29866
Slope30-50% (%)	28.01461	29.00215 $\pm$ 6.33837
Slope50-60% (%)	13.73378	13.91808 $\pm$ 1.91315
SlopeAvg (%)	49.22843	52.79851 $\pm$ 8.68755
SlopeGT60% (%)	32.28474	35.47207 $\pm$ 13.39684
SlopeLT30% (%)	25.96687	21.60770 $\pm$ 8.54172
SlopeMax (%)	574.77527	298.94390 $\pm$ 146.30679
SlopeMin (%)	0.00000	0.19777 $\pm$ 0.29213
SlopeStdev (%)	27.85578	26.57529 $\pm$ 4.62351
<b>Water Chemistry</b>		
General-Alkalinity (mg/L)	55.0000000	71.7000000 $\pm$ 53.9231440
General-DO (mg/L)	10.0000000	11.4175000 $\pm$ 0.7986708
General-Hardness (mg/L)	41.6000000	84.2750000 $\pm$ 70.6251066
General-pH (pH)	7.5	7.9 $\pm$ 0.4
General-SpCond ( $\mu$ S/cm)	90.0000000	168.9833333 $\pm$ 123.7858182
General-TempAir (Degrees Celsius)	26.0	26.0
General-TempLakeBottom (Degrees Celsius)	11.6000000	0.0000000 $\pm$ 0.0000000
General-TempWater (Degrees Celsius)	11.7000000	7.3183333 $\pm$ 2.7240839
General-Turbidity (NTU)	0.4500000	0.2020000

**Site Description**

<b>Study Name</b>	CBWQ-Slocan
<b>Site</b>	NJSLO01
<b>Sampling Date</b>	Sep 14 2006
<b>Know Your Watershed Basin</b>	Slocan
<b>Province / Territory</b>	British Columbia
<b>Terrestrial Ecological Classification</b>	Montane Cordillera EcoZone Columbia Mountains and Highlands EcoRegion
<b>Coordinates (decimal degrees)</b>	49.43389 N, 117.53850 W
<b>Altitude</b>	1538
<b>Local Basin Name</b>	Slocan
	Columbia
<b>Stream Order</b>	5



Figure 1. Location Map

- Across Reach (No image found)
- Aerial (No image found)
- Down Stream (No image found)
- Field Sheet (No image found)
- Miscellaneous (No image found)
- Substrate (No image found)
- Up Stream (No image found)

**Cabin Assessment Results**

		<b>Reference Model Summary</b>				
<b>Model</b>	Columbia-Okanagan Preliminary March 2010					
<b>Analysis Date</b>	September 05, 2017					
<b>Taxonomic Level</b>	Family					
<b>Predictive Model Variables</b>	Depth-Avg Latitude Longitude Reg-Ice Reg-SlopeLT30%					
<b>Reference Groups</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
<b>Number of Reference Sites</b>	9	43	17	12	33	
<b>Group Error Rate</b>	22.2%	24.5%	22.2%	25.0%	32.4%	
<b>Overall Model Error Rate</b>	26.4%					
<b>Probability of Group Membership</b>	7.6%	6.5%	7.0%	75.5%	3.4%	
<b>CABIN Assessment of NJSLO01 on Sep 14, 2006</b>	Mildly Divergent					

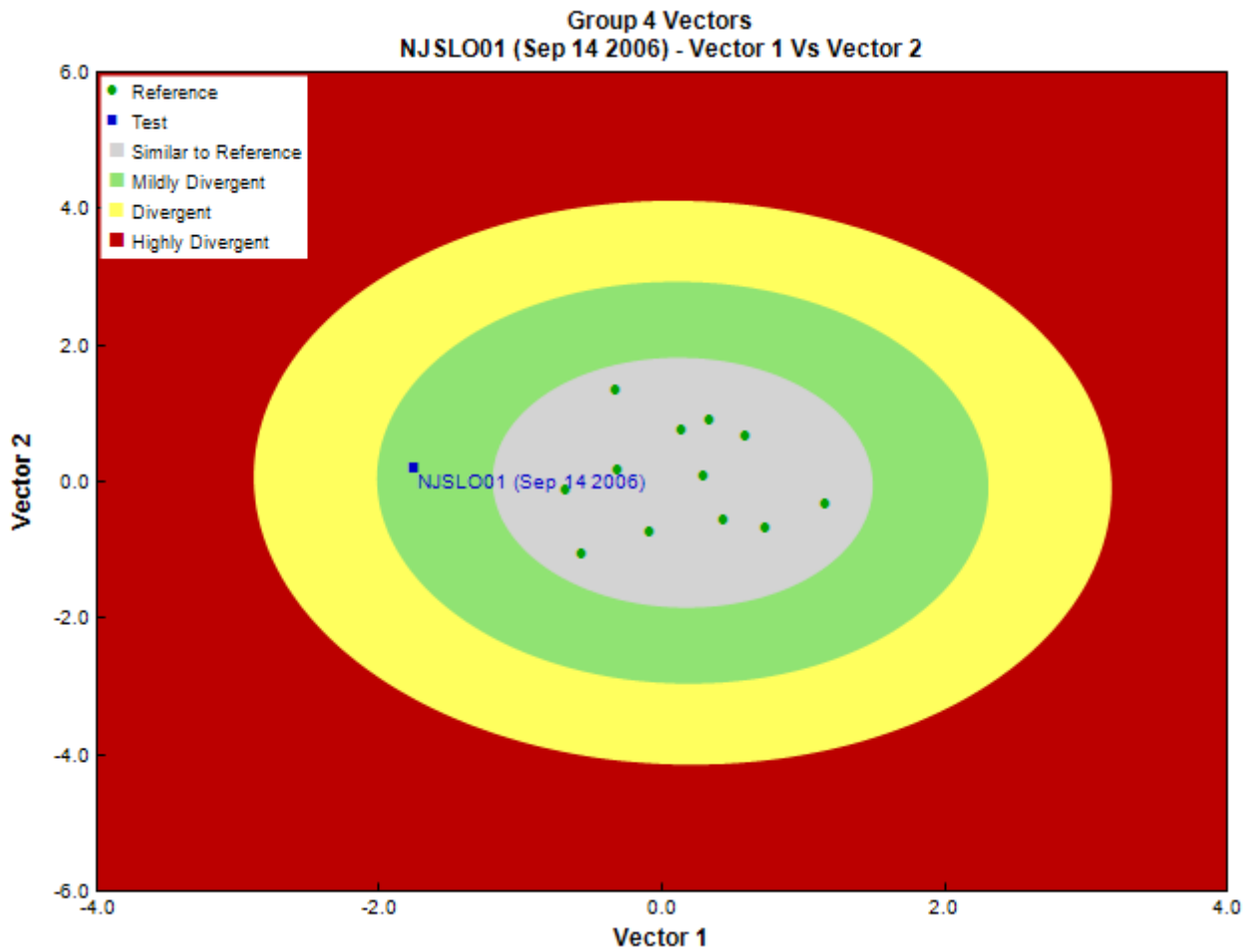


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

**Sample Information**

<b>Sampling Device</b>	Kick Net
<b>Mesh Size</b>	400
<b>Sampling Time</b>	3
<b>Taxonomist</b>	Dave Langill, EcoAnalysts, Inc.
<b>Date Taxonomy Completed</b>	February 13, 2007
	-
<b>Sub-Sample Proportion</b>	100/100

**Community Structure**

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda				1	1.0
	Arachnida	Trombidiformes	Hydryphantidae	1	1.0
			Lebertiidae	1	1.0
			Sperchontidae	9	9.0
			Torrencolidae	12	12.0
	Insecta	Coleoptera	Elmidae	16	16.0
		Diptera	Chironomidae	157	157.0
			Empididae	1	1.0
			Simuliidae	37	37.0
			Tipulidae	3	3.0
		Ephemeroptera	Baetidae	96	96.0
			Ephemerellidae	12	12.0
			Heptageniidae	1	1.0
		Plecoptera	Nemouridae	1	1.0
			Perlodidae	4	4.0



## Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
		Trichoptera	Glossosomatidae	2	2.0
			Hydropsychidae	17	17.0
			Hydroptilidae	13	13.0
			Lepidostomatidae	29	29.0
Mollusca	Bivalvia			3	3.0
			Total	416	416.0

## Metrics

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Bray-Curtis Distance	0.67	0.4 $\pm$ 0.1
<b>Biotic Indices</b>		
Hilsenhoff Family index (North-West)	4.8	3.2 $\pm$ 0.3
Intolerant taxa	--	
Long-lived taxa	1.0	2.1 $\pm$ 1.0
Tolerant individuals (%)	--	0.8 $\pm$ 0.3
<b>Functional Measures</b>		
% Filterers	13.0	2.2 $\pm$ 1.8
% Gatherers	48.6	38.4 $\pm$ 12.4
% Predatores	57.5	19.0 $\pm$ 8.5
% Scrapers	39.7	63.2 $\pm$ 19.7
% Shredder	11.8	27.6 $\pm$ 15.2
No. Clinger Taxa	11.0	23.2 $\pm$ 6.3
<b>Number Of Individuals</b>		
% Chironomidae	38.1	7.4 $\pm$ 6.4
% Coleoptera	3.9	1.5 $\pm$ 3.9
% Diptera + Non-insects	53.6	10.8 $\pm$ 7.6
% Ephemeroptera	26.5	51.7 $\pm$ 18.8
% Ephemeroptera that are Baetidae	88.1	40.6 $\pm$ 30.0
% EPT Individuals	42.5	87.7 $\pm$ 7.4
% Odonata	0.0	0.0 $\pm$ 0.0
% of 2 dominant taxa	61.4	57.9 $\pm$ 14.2
% of 5 dominant taxa	81.6	81.6 $\pm$ 7.9
% of dominant taxa	38.1	39.8 $\pm$ 14.9
% Plecoptera	1.2	31.4 $\pm$ 15.4
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	27.9	27.0 $\pm$ 26.2
% Tricoptera	14.8	4.5 $\pm$ 2.8
No. EPT individuals/Chironomids+EPT Individuals	0.5	0.9 $\pm$ 0.1
Total Abundance	416.0	587.4 $\pm$ 299.1
<b>Richness</b>		
Chironomidae taxa (genus level only)	1.0	1.0 $\pm$ 0.0
Coleoptera taxa	1.0	0.4 $\pm$ 0.5
Diptera taxa	4.0	3.3 $\pm$ 1.0
Ephemeroptera taxa	3.0	3.8 $\pm$ 0.8
EPT Individuals (Sum)	175.0	526.0 $\pm$ 285.8
EPT taxa (no)	9.0	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	2.0	6.3 $\pm$ 1.1
Shannon-Wiener Diversity	1.9	1.9 $\pm$ 0.4
Simpson's Diversity	0.8	0.8 $\pm$ 0.1
Simpson's Evenness	0.3	0.3 $\pm$ 0.1
Total No. of Taxa	18.0	19.3 $\pm$ 3.7
Trichoptera taxa	4.0	3.2 $\pm$ 1.4

## Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites					Probability Of Occurrence at NJSLO01
	Group 1	Group 2	Group 3	Group 4	Group 5	
Baetidae	100%	100%	100%	100%	97%	1.00
Capniidae	78%	55%	50%	92%	68%	0.84

### Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites					Probability Of Occurrence at NJSLO01
	Group 1	Group 2	Group 3	Group 4	Group 5	
Chironomidae	100%	100%	100%	100%	95%	1.00
Chloroperlidae	78%	88%	94%	100%	100%	0.97
Ephemereididae	78%	100%	100%	100%	100%	0.98
Heptageniidae	100%	100%	100%	100%	100%	1.00
Hydropsychidae	11%	92%	78%	92%	86%	0.84
Nemouridae	100%	100%	100%	100%	100%	1.00
Perlidae	11%	84%	33%	100%	3%	0.84
Perlodidae	78%	78%	89%	92%	81%	0.89
Rhyacophilidae	100%	92%	100%	100%	95%	0.99
Taeniopterygidae	89%	49%	100%	92%	97%	0.89

### RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	13.70
RIVPACS : Observed taxa P>0.50	10.00
RIVPACS : O:E (p > 0.5)	0.73
RIVPACS : Expected taxa P>0.70	11.26
RIVPACS : Observed taxa P>0.70	7.00
RIVPACS : O:E (p > 0.7)	0.62

### Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bedrock Geology</b>		
Alluvium (%)	0.00000	0.00000 $\pm$ 0.00000
Intrusive (%)	56.80740	11.07346 $\pm$ 28.63466
Metamorphic (%)	24.93025	17.96649 $\pm$ 35.53463
Sedimentary (%)	17.39867	70.96005 $\pm$ 44.90394
Ultramafic (%)	0.00000	0.00000 $\pm$ 0.00000
Volcanic (%)	0.86368	0.00000 $\pm$ 0.00000
<b>Channel</b>		
Depth-Avg (cm)	50.0	23.6 $\pm$ 11.1
OrganicMatter-Detritus (Category (0-2))	2	0 $\pm$ 0
OrganicMatter-WoodyDebris (Category (0-2))	2	0 $\pm$ 0
Reach-%CanopyCoverage (PercentRange)	1.00	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)	1	1 $\pm$ 1
Riparian-Zone1Left (Category (1-6))	5	0 $\pm$ 0
Riparian-Zone1Right (Category (1-6))	2	0 $\pm$ 0
Riparian-Zone2Left (Category (1-6))	4	0 $\pm$ 0
Riparian-Zone2Right (Category (1-6))	3	0 $\pm$ 0
Riparian-Zone3Left (Category (1-6))	5	0 $\pm$ 0
Riparian-Zone3Right (Category (1-6))	6	0 $\pm$ 0
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)	0.67	0.48 $\pm$ 0.22
Velocity-Max (m/s)	0.77	0.76 $\pm$ 0.36
<b>Climate</b>		
Precip01_JAN (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip02_FEB (mm)	108.33333	83.66667 $\pm$ 27.10278
Precip03_MAR (mm)	98.15789	77.23611 $\pm$ 27.15950
Precip04_APR (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip05_MAY (mm)	82.47368	71.65833 $\pm$ 17.81753
Precip06_JUN (mm)	91.70175	78.56667 $\pm$ 15.58521
Precip07_JUL (mm)	73.33333	64.39167 $\pm$ 10.41611
Precip08_AUG (mm)	69.92982	60.53056 $\pm$ 10.43373

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Precip09_SEP (mm)	67.14035	56.91944 $\pm$ 10.91783
Precip10_OCT (mm)	82.21053	65.08056 $\pm$ 14.41229
Precip11_NOV (mm)	130.33333	105.93889 $\pm$ 25.04104
Precip12_DEC (mm)	145.94737	116.84444 $\pm$ 29.80954
PrecipTotal_ANNUAL (mm)	1162.75439	952.64722 $\pm$ 226.04690
Temp01_JANMax (Degrees Celsius)	-4.40351	-4.39167 $\pm$ 2.51268
Temp01_JANmin (Degrees Celsius)	-10.36842	-11.40833 $\pm$ 3.53951
Temp02_FEBmax (Degrees Celsius)	-1.82456	-1.70000 $\pm$ 2.12945
Temp02_FEBmin (Degrees Celsius)	-8.54386	-9.17500 $\pm$ 3.33361
Temp03_MARmax (Degrees Celsius)	1.68421	2.50556 $\pm$ 2.87525
Temp03_MARmin (Degrees Celsius)	-5.98246	-6.14167 $\pm$ 2.98556
Temp04_APRmax (Degrees Celsius)	6.26316	7.12222 $\pm$ 3.48771
Temp04_APRmin (Degrees Celsius)	-2.64912	-2.71667 $\pm$ 2.22785
Temp05_MAYmax (Degrees Celsius)	11.14035	12.03889 $\pm$ 3.55434
Temp05_MAYmin (Degrees Celsius)	0.82456	1.04722 $\pm$ 2.08663
Temp06_JUNMax (Degrees Celsius)	14.75439	15.72500 $\pm$ 3.40030
Temp06_JUNMin (Degrees Celsius)	3.96491	4.00278 $\pm$ 2.41085
Temp07_JULmax (Degrees Celsius)	18.61404	19.56111 $\pm$ 3.47275
Temp07_JULmin (Degrees Celsius)	6.43860	6.35833 $\pm$ 2.28332
Temp08_AUGmax (Degrees Celsius)	18.57895	19.52222 $\pm$ 3.51100
Temp08_AUGmin (Degrees Celsius)	6.29825	6.19167 $\pm$ 2.34422
Temp09_SEPmax (Degrees Celsius)	13.38596	14.04444 $\pm$ 3.03456
Temp09_SEPmin (Degrees Celsius)	2.29825	2.04722 $\pm$ 2.37208
Temp10_OCTmax (Degrees Celsius)	6.03509	6.88889 $\pm$ 2.71577
Temp10_OCTmin (Degrees Celsius)	-1.26316	-1.46111 $\pm$ 1.64316
Temp11_NOVmax (Degrees Celsius)	-1.17544	-0.79722 $\pm$ 2.43512
Temp11_NOVmin (Degrees Celsius)	-6.33333	-6.68056 $\pm$ 2.97163
Temp12_DECmax (Degrees Celsius)	-4.59649	-4.66389 $\pm$ 2.69757
Temp12_DECmin (Degrees Celsius)	-10.03509	-10.65833 $\pm$ 3.71739
TempANNUALmax (Degrees Celsius)	6.24561	6.96389 $\pm$ 3.06157
TempANNUALmean (Degrees Celsius)	1.77193	2.25278 $\pm$ 2.66574
TempANNUALmin (Degrees Celsius)	-1.82456	-2.18056 $\pm$ 2.41152
<b>Hydrology</b>		
Drainage-Area (km <sup>2</sup> )	3425.62950	124.42081 $\pm$ 200.99192
Perimeter (Km)	549.09302	64.71360 $\pm$ 56.15436
StreamDensity (m/km <sup>2</sup> )	2190.93040	2246.06682 $\pm$ 604.89962
StreamLength (m)	7505315.81	302226.63 $\pm$ 500983.26
<b>Landcover</b>		
Natl-AnnCrops (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Barren (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafOpen (%)	2.85345	1.19263 $\pm$ 2.03874
Natl-BroadleafSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Coniferous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ConiferousDense (%)	0.48215	0.64845 $\pm$ 0.37668
Natl-ConiferousOpen (%)	52.58342	54.62780 $\pm$ 18.30692
Natl-ConiferousSparse (%)	1.36876	0.94121 $\pm$ 1.53621
Natl-Deciduous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Developed (%)	0.06762	0.00000 $\pm$ 0.00000
Natl-ExposedLand (%)	17.02159	13.20054 $\pm$ 11.11850
Natl-Grassland (%)	1.03581	1.87556 $\pm$ 1.68508
Natl-Herb (%)	6.93168	5.75738 $\pm$ 2.89836
Natl-MixedForest (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodOpen (%)	0.09444	0.04060 $\pm$ 0.10208
Natl-MixedwoodSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-PerennCropsPast (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Rock/Rubble (%)	0.59550	1.56403 $\pm$ 2.75979
Natl-Shrubland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ShrubLow (%)	1.76236	4.98298 $\pm$ 3.22579
Natl-ShrubTall (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-SnowIce (%)	0.16345	0.08491 $\pm$ 0.15475

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Natl-Water (%)	2.70893	0.22916 $\pm$ 0.36834
Natl-Wetland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-WetlandHerb (%)	0.08869	0.12918 $\pm$ 0.35193
Natl-WetlandShrub (%)	0.01338	0.00000 $\pm$ 0.00000
Natl-WetlandTreed (%)	0.00345	0.00000 $\pm$ 0.00000
Reg-Ice (%)	0.06587	0.02487 $\pm$ 0.06034
<b>Substrate Data</b>		
Diameter-Mean (cm)	7	0 $\pm$ 0
Dominant-1st (Category(0-9))	6	7 $\pm$ 1
Dominant-2nd (Category(0-9))	7	7 $\pm$ 1
Embeddedness (Category(1-5))	4	5 $\pm$ 1
SurroundingMaterial (Category(0-9))	3	4 $\pm$ 1
<b>Topography</b>		
ElevationMax (m)	3015.00000	2634.66667 $\pm$ 309.54023
ElevationMin (m)	457.00000	913.41667 $\pm$ 271.25180
ElevationStdev (m)	501.21029	349.02363 $\pm$ 92.12445
Reg-SlopeLT30% (%)	22.30934	18.88386 $\pm$ 9.29866
Slope30-50% (%)	28.01461	29.00215 $\pm$ 6.33837
Slope50-60% (%)	13.73378	13.91808 $\pm$ 1.91315
SlopeAvg (%)	49.22843	52.79851 $\pm$ 8.68755
SlopeGT60% (%)	32.28474	35.47207 $\pm$ 13.39684
SlopeLT30% (%)	25.96687	21.60770 $\pm$ 8.54172
SlopeMax (%)	574.77527	298.94390 $\pm$ 146.30679
SlopeMin (%)	0.00000	0.19777 $\pm$ 0.29213
SlopeStdev (%)	27.85578	26.57529 $\pm$ 4.62351
<b>Water Chemistry</b>		
General-Alkalinity (mg/L)	47.8000000	71.7000000 $\pm$ 53.9231440
General-DO (mg/L)	10.0000000	11.4175000 $\pm$ 0.7986708
General-Hardness (mg/L)	41.6000000	84.2750000 $\pm$ 70.6251066
General-pH (pH)	7.5	7.9 $\pm$ 0.4
General-TempWater (Degrees Celsius)	19.0000000	7.3183333 $\pm$ 2.7240839

**Site Description**

<b>Study Name</b>	CBWQ-Slocan
<b>Site</b>	NJSLO01
<b>Sampling Date</b>	Sep 28 2007
<b>Know Your Watershed Basin</b>	Slocan
<b>Province / Territory</b>	British Columbia
<b>Terrestrial Ecological Classification</b>	Montane Cordillera EcoZone Columbia Mountains and Highlands EcoRegion
<b>Coordinates (decimal degrees)</b>	49.43389 N, 117.53850 W
<b>Altitude</b>	469
<b>Local Basin Name</b>	Slocan
	Columbia
<b>Stream Order</b>	5



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**

<b>Reference Model Summary</b>	
<b>Model</b>	Columbia-Okanagan Preliminary March 2010
<b>Analysis Date</b>	September 05, 2017
<b>Taxonomic Level</b>	Family
<b>Predictive Model Variables</b>	Depth-Avg Latitude Longitude Reg-Ice Reg-SlopeLT30%
<b>Reference Groups</b>	<b>1</b> <b>2</b> <b>3</b> <b>4</b> <b>5</b>
<b>Number of Reference Sites</b>	9            43            17            12            33
<b>Group Error Rate</b>	22.2%      24.5%      22.2%      25.0%      32.4%
<b>Overall Model Error Rate</b>	26.4%
<b>Probability of Group Membership</b>	10.3%      6.1%      6.7%      73.6%      3.3%
<b>CABIN Assessment of NJSLO01 on Sep 28, 2007</b>	Divergent

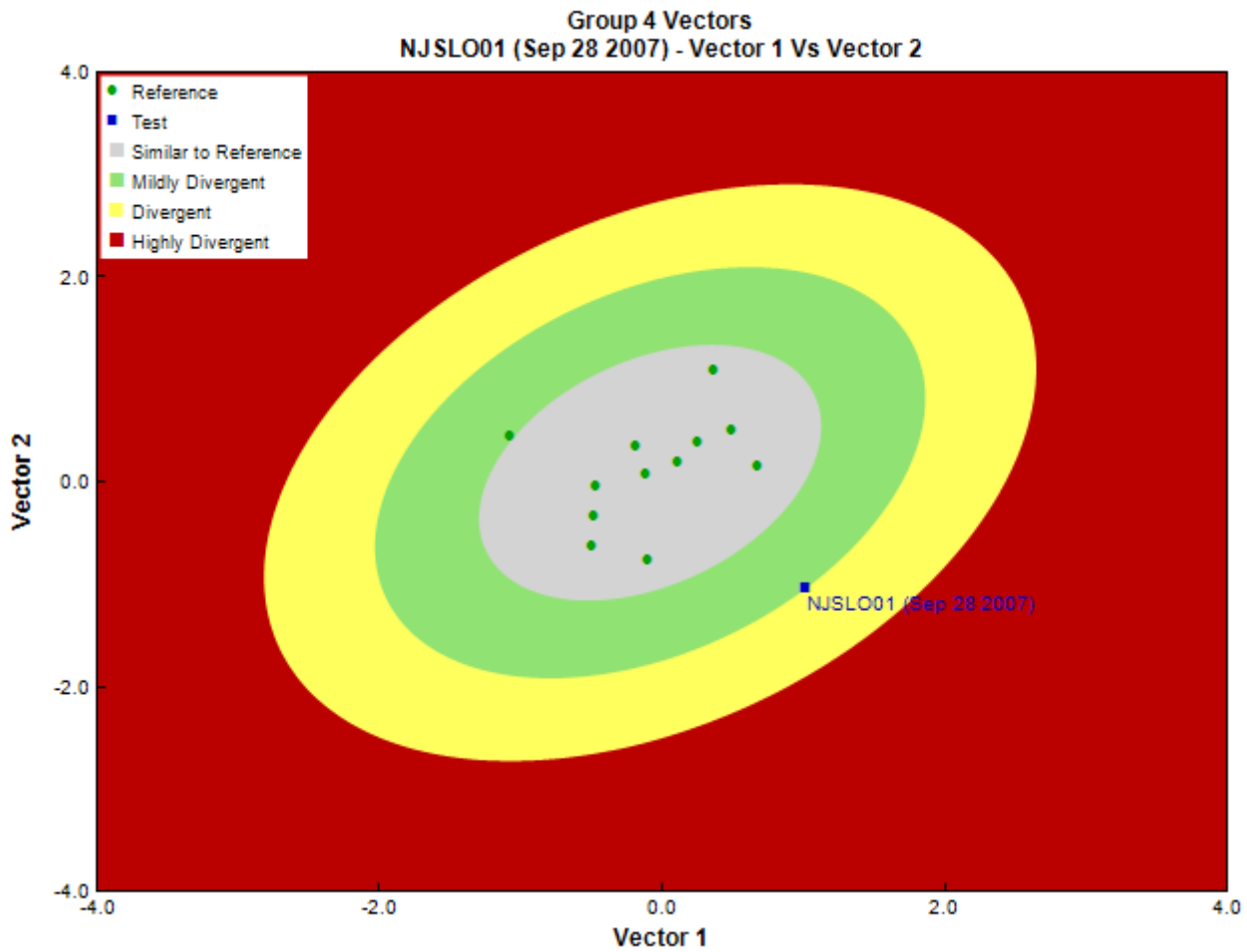


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

**Sample Information**

<b>Sampling Device</b>	Kick Net
<b>Mesh Size</b>	400
<b>Sampling Time</b>	3
<b>Taxonomist</b>	Gary Lester, Ecoanalysts Inc.
<b>Date Taxonomy Completed</b>	March 01, 2008
	Marchant Box
<b>Sub-Sample Proportion</b>	37/100

**Community Structure**

Phylum	Class	Order	Family	Raw Count	Total Count
Annelida	Oligochaeta	Enchytraeida	Enchytraeidae	1	2.7
Arthropoda	Arachnida			1	2.7
		Trombidiformes	Sperchontidae	8	21.6
			Torrenticolidae	4	10.8
	Insecta	Coleoptera	Elmidae	9	24.3
		Diptera	Chironomidae	66	178.4
			Empididae	1	2.7
			Simuliidae	10	27.0
			Tipulidae	1	2.7
		Ephemeroptera	Baetidae	44	118.9
			Ephemerellidae	29	78.4
			Heptageniidae	3	8.1
			Leptophlebiidae	1	2.7
		Plecoptera	Nemouridae	1	2.7
			Perlidae	1	2.7

## Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Perlodidae	2	5.4
		Trichoptera	Brachycentridae	13	35.1
			Glossosomatidae	1	2.7
			Hydropsychidae	17	45.9
			Hydroptilidae	12	32.4
			Lepidostomatidae	12	32.4
			Rhyacophilidae	1	2.7
			Total	238	643.0

## Metrics

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bray-Curtis Distance</b>	0.65	0.4 $\pm$ 0.1
<b>Biotic Indices</b>		
<b>Hilsenhoff Family index (North-West)</b>	4.0	3.2 $\pm$ 0.3
<b>Intolerant taxa</b>	--	
<b>Long-lived taxa</b>	2.0	2.1 $\pm$ 1.0
<b>Tolerant individuals (%)</b>	--	0.8 $\pm$ 0.3
<b>Functional Measures</b>		
<b>% Filterers</b>	16.8	2.2 $\pm$ 1.8
<b>% Gatherers</b>	55.9	38.4 $\pm$ 12.4
<b>% Predators</b>	46.2	19.0 $\pm$ 8.5
<b>% Scrapers</b>	33.2	63.2 $\pm$ 19.7
<b>% Shredder</b>	15.1	27.6 $\pm$ 15.2
<b>No. Clinger Taxa</b>	15.0	23.2 $\pm$ 6.3
<b>Number Of Individuals</b>		
<b>% Chironomidae</b>	27.9	7.4 $\pm$ 6.4
<b>% Coleoptera</b>	3.8	1.5 $\pm$ 3.9
<b>% Diptera + Non-insects</b>	38.4	10.8 $\pm$ 7.6
<b>% Ephemeroptera</b>	32.5	51.7 $\pm$ 18.8
<b>% Ephemeroptera that are Baetidae</b>	57.1	40.6 $\pm$ 30.0
<b>% EPT Individuals</b>	57.8	87.7 $\pm$ 7.4
<b>% Odonata</b>	0.0	0.0 $\pm$ 0.0
<b>% of 2 dominant taxa</b>	46.4	57.9 $\pm$ 14.2
<b>% of 5 dominant taxa</b>	71.3	81.6 $\pm$ 7.9
<b>% of dominant taxa</b>	27.9	39.8 $\pm$ 14.9
<b>% Plecoptera</b>	1.7	31.4 $\pm$ 15.4
<b>% Tribe Tanyatarisini</b>	--	
<b>% Trichoptera that are Hydropsychida</b>	30.4	27.0 $\pm$ 26.2
<b>% Tricoptera</b>	23.6	4.5 $\pm$ 2.8
<b>No. EPT individuals/Chironomids+EPT Individuals</b>	0.7	0.9 $\pm$ 0.1
<b>Total Abundance</b>	643.2	587.4 $\pm$ 299.1
<b>Richness</b>		
<b>Chironomidae taxa (genus level only)</b>	1.0	1.0 $\pm$ 0.0
<b>Coleoptera taxa</b>	1.0	0.4 $\pm$ 0.5
<b>Diptera taxa</b>	4.0	3.3 $\pm$ 1.0
<b>Ephemeroptera taxa</b>	4.0	3.8 $\pm$ 0.8
<b>EPT Individuals (Sum)</b>	370.2	526.0 $\pm$ 285.8
<b>EPT taxa (no)</b>	13.0	13.3 $\pm$ 2.7
<b>Odonata taxa</b>	0.0	0.0 $\pm$ 0.0
<b>Pielou's Evenness</b>	0.8	0.7 $\pm$ 0.1
<b>Plecoptera taxa</b>	3.0	6.3 $\pm$ 1.1
<b>Shannon-Wiener Diversity</b>	2.3	1.9 $\pm$ 0.4
<b>Simpson's Diversity</b>	0.9	0.8 $\pm$ 0.1
<b>Simpson's Evenness</b>	0.3	0.3 $\pm$ 0.1
<b>Total No. of Taxa</b>	21.0	19.3 $\pm$ 3.7
<b>Trichoptera taxa</b>	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 NJSLO01
	Group 1	Group 2	Group 3	Group 4	Group 5	
Baetidae	100%	100%	100%	100%	97%	1.00
Capniidae	78%	55%	50%	92%	68%	0.84
Chironomidae	100%	100%	100%	100%	95%	1.00
Chloroperlidae	78%	88%	94%	100%	100%	0.97
Ephemerellidae	78%	100%	100%	100%	100%	0.98
Heptageniidae	100%	100%	100%	100%	100%	1.00
Hydropsychidae	11%	92%	78%	92%	86%	0.82
Nemouridae	100%	100%	100%	100%	100%	1.00
Perlidae	11%	84%	33%	100%	3%	0.82
Perlodidae	78%	78%	89%	92%	81%	0.89
Rhyacophilidae	100%	92%	100%	100%	95%	0.99
Taeniopterygidae	89%	49%	100%	92%	97%	0.90

### RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	13.64
RIVPACS : Observed taxa P>0.50	11.00
RIVPACS : O:E (p > 0.5)	0.81
RIVPACS : Expected taxa P>0.70	11.21
RIVPACS : Observed taxa P>0.70	9.00
RIVPACS : O:E (p > 0.7)	0.80

### Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bedrock Geology</b>		
Alluvium (%)	0.00000	0.00000 $\pm$ 0.00000
Intrusive (%)	56.80740	11.07346 $\pm$ 28.63466
Metamorphic (%)	24.93025	17.96649 $\pm$ 35.53463
Sedimentary (%)	17.39867	70.96005 $\pm$ 44.90394
Ultramafic (%)	0.00000	0.00000 $\pm$ 0.00000
Volcanic (%)	0.86368	0.00000 $\pm$ 0.00000
<b>Channel</b>		
Depth-Avg (cm)	52.0	23.6 $\pm$ 11.1
Discharge (m <sup>3</sup> /s)	23.300	0.000 $\pm$ 0.000
Reach-%CanopyCoverage (PercentRange)	1.00	1.33 $\pm$ 0.78
Reach-%Logging (PercentRange)	1	0 $\pm$ 0
Reach-Pools (Binary)	1	1 $\pm$ 0
Reach-Rapids (Binary)	0	0 $\pm$ 0
Reach-Riffles (Binary)	1	1 $\pm$ 0
Reach-StraightRun (Binary)	1	1 $\pm$ 1
Veg-Coniferous (Binary)	1	1 $\pm$ 0
Veg-Deciduous (Binary)	1	1 $\pm$ 0
Veg-GrassesFerns (Binary)	1	1 $\pm$ 0
Veg-Shrubs (Binary)	1	1 $\pm$ 0
Velocity-Avg (m/s)	0.86	0.48 $\pm$ 0.22
Velocity-Max (m/s)	1.10	0.76 $\pm$ 0.36
<b>Climate</b>		
Precip01_JAN (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip02_FEB (mm)	108.33333	83.66667 $\pm$ 27.10278
Precip03_MAR (mm)	98.15789	77.23611 $\pm$ 27.15950
Precip04_APR (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip05_MAY (mm)	82.47368	71.65833 $\pm$ 17.81753
Precip06_JUN (mm)	91.70175	78.56667 $\pm$ 15.58521
Precip07_JUL (mm)	73.33333	64.39167 $\pm$ 10.41611
Precip08_AUG (mm)	69.92982	60.53056 $\pm$ 10.43373
Precip09_SEP (mm)	67.14035	56.91944 $\pm$ 10.91783
Precip10_OCT (mm)	82.21053	65.08056 $\pm$ 14.41229
Precip11_NOV (mm)	130.33333	105.93889 $\pm$ 25.04104
Precip12_DEC (mm)	145.94737	116.84444 $\pm$ 29.80954
PrecipTotal_ANNUAL (mm)	1162.75439	952.64722 $\pm$ 226.04690

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Temp01_JANMax (Degrees Celsius)	-4.40351	-4.39167 $\pm$ 2.51268
Temp01_JANmin (Degrees Celsius)	-10.36842	-11.40833 $\pm$ 3.53951
Temp02_FEBmax (Degrees Celsius)	-1.82456	-1.70000 $\pm$ 2.12945
Temp02_FEBmin (Degrees Celsius)	-8.54386	-9.17500 $\pm$ 3.33361
Temp03_MARmax (Degrees Celsius)	1.68421	2.50556 $\pm$ 2.87525
Temp03_MARmin (Degrees Celsius)	-5.98246	-6.14167 $\pm$ 2.98556
Temp04_APRmax (Degrees Celsius)	6.26316	7.12222 $\pm$ 3.48771
Temp04_APRmin (Degrees Celsius)	-2.64912	-2.71667 $\pm$ 2.22785
Temp05_MAYmax (Degrees Celsius)	11.14035	12.03889 $\pm$ 3.55434
Temp05_MAYmin (Degrees Celsius)	0.82456	1.04722 $\pm$ 2.08663
Temp06_JUNMax (Degrees Celsius)	14.75439	15.72500 $\pm$ 3.40030
Temp06_JUNMin (Degrees Celsius)	3.96491	4.00278 $\pm$ 2.41085
Temp07_JULmax (Degrees Celsius)	18.61404	19.56111 $\pm$ 3.47275
Temp07_JULmin (Degrees Celsius)	6.43860	6.35833 $\pm$ 2.28332
Temp08_AUGmax (Degrees Celsius)	18.57895	19.52222 $\pm$ 3.51100
Temp08_AUGmin (Degrees Celsius)	6.29825	6.19167 $\pm$ 2.34422
Temp09_SEPmax (Degrees Celsius)	13.38596	14.04444 $\pm$ 3.03456
Temp09_SEPmin (Degrees Celsius)	2.29825	2.04722 $\pm$ 2.37208
Temp10_OCTmax (Degrees Celsius)	6.03509	6.88889 $\pm$ 2.71577
Temp10_OCTmin (Degrees Celsius)	-1.26316	-1.46111 $\pm$ 1.64316
Temp11_NOVmax (Degrees Celsius)	-1.17544	-0.79722 $\pm$ 2.43512
Temp11_NOVmin (Degrees Celsius)	-6.33333	-6.68056 $\pm$ 2.97163
Temp12_DECmax (Degrees Celsius)	-4.59649	-4.66389 $\pm$ 2.69757
Temp12_DECmin (Degrees Celsius)	-10.03509	-10.65833 $\pm$ 3.71739
TempANNUALmax (Degrees Celsius)	6.24561	6.96389 $\pm$ 3.06157
TempANNUALmean (Degrees Celsius)	1.77193	2.25278 $\pm$ 2.66574
TempANNUALmin (Degrees Celsius)	-1.82456	-2.18056 $\pm$ 2.41152
<b>Hydrology</b>		
Drainage-Area (km <sup>2</sup> )	3425.62950	124.42081 $\pm$ 200.99192
Perimeter (Km)	549.09302	64.71360 $\pm$ 56.15436
StreamDensity (m/km <sup>2</sup> )	2190.93040	2246.06682 $\pm$ 604.89962
StreamLength (m)	7505315.81	302226.63 $\pm$ 500983.26
<b>Landcover</b>		
Natl-AnnCrops (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Barren (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafOpen (%)	2.85345	1.19263 $\pm$ 2.03874
Natl-BroadleafSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Coniferous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ConiferousDense (%)	0.48215	0.64845 $\pm$ 0.37668
Natl-ConiferousOpen (%)	52.58342	54.62780 $\pm$ 18.30692
Natl-ConiferousSparse (%)	1.36876	0.94121 $\pm$ 1.53621
Natl-Deciduous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Developed (%)	0.06762	0.00000 $\pm$ 0.00000
Natl-ExposedLand (%)	17.02159	13.20054 $\pm$ 11.11850
Natl-Grassland (%)	1.03581	1.87556 $\pm$ 1.68508
Natl-Herb (%)	6.93168	5.75738 $\pm$ 2.89836
Natl-MixedForest (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodOpen (%)	0.09444	0.04060 $\pm$ 0.10208
Natl-MixedwoodSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-PerennCropsPast (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Rock/Rubble (%)	0.59550	1.56403 $\pm$ 2.75979
Natl-Shrubland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ShrubLow (%)	1.76236	4.98298 $\pm$ 3.22579
Natl-ShrubTall (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-SnowIce (%)	0.16345	0.08491 $\pm$ 0.15475
Natl-Water (%)	2.70893	0.22916 $\pm$ 0.36834
Natl-Wetland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-WetlandHerb (%)	0.08869	0.12918 $\pm$ 0.35193
Natl-WetlandShrub (%)	0.01338	0.00000 $\pm$ 0.00000
Natl-WetlandTreed (%)	0.00345	0.00000 $\pm$ 0.00000

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Reg-Ice (%)	0.06587	0.02487 $\pm$ 0.06034
<b>Substrate Data</b>		
Dominant-1st (Category(0-9))	6	7 $\pm$ 1
Dominant-2nd (Category(0-9))	7	7 $\pm$ 1
Embeddedness (Category(1-5))	4	5 $\pm$ 1
SurroundingMaterial (Category(0-9))	2	4 $\pm$ 1
<b>Topography</b>		
ElevationMax (m)	3015.00000	2634.66667 $\pm$ 309.54023
ElevationMin (m)	457.00000	913.41667 $\pm$ 271.25180
ElevationStdev (m)	501.21029	349.02363 $\pm$ 92.12445
Reg-SlopeLT30% (%)	22.30933	18.88386 $\pm$ 9.29866
Slope30-50% (%)	28.01461	29.00215 $\pm$ 6.33837
Slope50-60% (%)	13.73378	13.91808 $\pm$ 1.91315
SlopeAvg (%)	49.22843	52.79851 $\pm$ 8.68755
SlopeGT60% (%)	32.28474	35.47207 $\pm$ 13.39684
SlopeLT30% (%)	25.96687	21.60770 $\pm$ 8.54172
SlopeMax (%)	574.77527	298.94390 $\pm$ 146.30679
SlopeMin (%)	0.00000	0.19777 $\pm$ 0.29213
SlopeStdev (%)	27.85578	26.57529 $\pm$ 4.62351
<b>Water Chemistry</b>		
Al (mg/L)	0.0200000	0.0049000
B (mg/L)	0.0000000	0.0500000
Ba (mg/L)	0.0250000	0.0682000
Be (mg/L)	0.0000000	0.0000100
Bi (mg/L)	0.0000000	0.0000050
Ca (mg/L)	13.3000000	21.1083333 $\pm$ 16.8005659
Cd (mg/L)	0.0000400	0.0000050
Co (mg/L)	0.0000000	0.0000100
Cr (mg/L)	0.0000000	0.0001000
Cu (mg/L)	0.0003000	0.0001000
Fe (mg/L)	0.0430000	0.0080000
General-Alkalinity (mg/L)	54.7000000	71.7000000 $\pm$ 53.9231440
General-DO (mg/L)	10.5000000	11.4175000 $\pm$ 0.7986708
General-Hardness (mg/L)	51.3000000	84.2750000 $\pm$ 70.6251066
General-pH (pH)	6.8	7.9 $\pm$ 0.4
General-SolidsTSS (mg/L)	1.8000000	0.8849836 $\pm$ 1.2378575
General-SpCond ( $\mu$ S/cm)	91.4000000	168.9833333 $\pm$ 123.7858182
General-TempWater (Degrees Celsius)	11.5000000	7.3183333 $\pm$ 2.7240839
General-Turbidity (NTU)	0.3500000	0.2020000
Hg (ng/L)	0.0000000	0.0000000 $\pm$ 0.0000000
K (mg/L)	0.0000000	0.6141667 $\pm$ 0.4056971
Li (mg/L)	0.0000000	0.0011000
Mg (mg/L)	1.8800000	7.6666667 $\pm$ 7.9748848
Mn (mg/L)	0.0040000	0.0006100
Na (mg/L)	1.3700000	1.5383333 $\pm$ 1.2751459
Ni (mg/L)	0.0000000	0.0003000
Nitrogen-TN (mg/L)	0.0700000	0.0883333 $\pm$ 0.0521943
Pb (mg/L)	0.0000000	0.0000520
S (mg/L)	2.2000000	5.0000000
Sb (mg/L)	0.0000000	0.0000700
Se (mg/L)	0.0000000	0.0001200
Si (mg/L)	2.8700000	3.1516667 $\pm$ 1.2277017
Sn (mg/L)	0.0000000	0.0000100
Sr (mg/L)	0.1770000	0.0443000
Ti (mg/L)	0.0000000	0.0005000
Tl (mg/L)	0.0000000	0.0000020
U (mg/L)	0.0005000	0.0011700
V (mg/L)	0.0000000	0.0002000
Zn (mg/L)	0.0090000	0.0010000
Zr (mg/L)	0.0000000	0.0000000 $\pm$ 0.0000000

**Site Description**

<b>Study Name</b>	CBWQ-Slocan
<b>Site</b>	NJSLO01
<b>Sampling Date</b>	Oct 02 2008
<b>Know Your Watershed Basin</b>	Slocan
<b>Province / Territory</b>	British Columbia
<b>Terrestrial Ecological Classification</b>	Montane Cordillera EcoZone Columbia Mountains and Highlands EcoRegion
<b>Coordinates (decimal degrees)</b>	49.43389 N, 117.53850 W
<b>Altitude</b>	469
<b>Local Basin Name</b>	Slocan
	Columbia
<b>Stream Order</b>	5



Figure 1. Location Map

- Across Reach (No image found)
- Aerial (No image found)
- Down Stream (No image found)
- Field Sheet (No image found)
- Miscellaneous (No image found)
- Substrate (No image found)
- Up Stream (No image found)

**Cabin Assessment Results**

		<b>Reference Model Summary</b>				
<b>Model</b>	Columbia-Okanagan Preliminary March 2010					
<b>Analysis Date</b>	September 05, 2017					
<b>Taxonomic Level</b>	Family					
<b>Predictive Model Variables</b>	Depth-Avg Latitude Longitude Reg-Ice Reg-SlopeLT30%					
<b>Reference Groups</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
<b>Number of Reference Sites</b>	9	43	17	12	33	
<b>Group Error Rate</b>	22.2%	24.5%	22.2%	25.0%	32.4%	
<b>Overall Model Error Rate</b>	26.4%					
<b>Probability of Group Membership</b>	0.8%	9.3%	7.9%	77.8%	4.1%	
<b>CABIN Assessment of NJSLO01 on Oct 02, 2008</b>	Mildly Divergent					

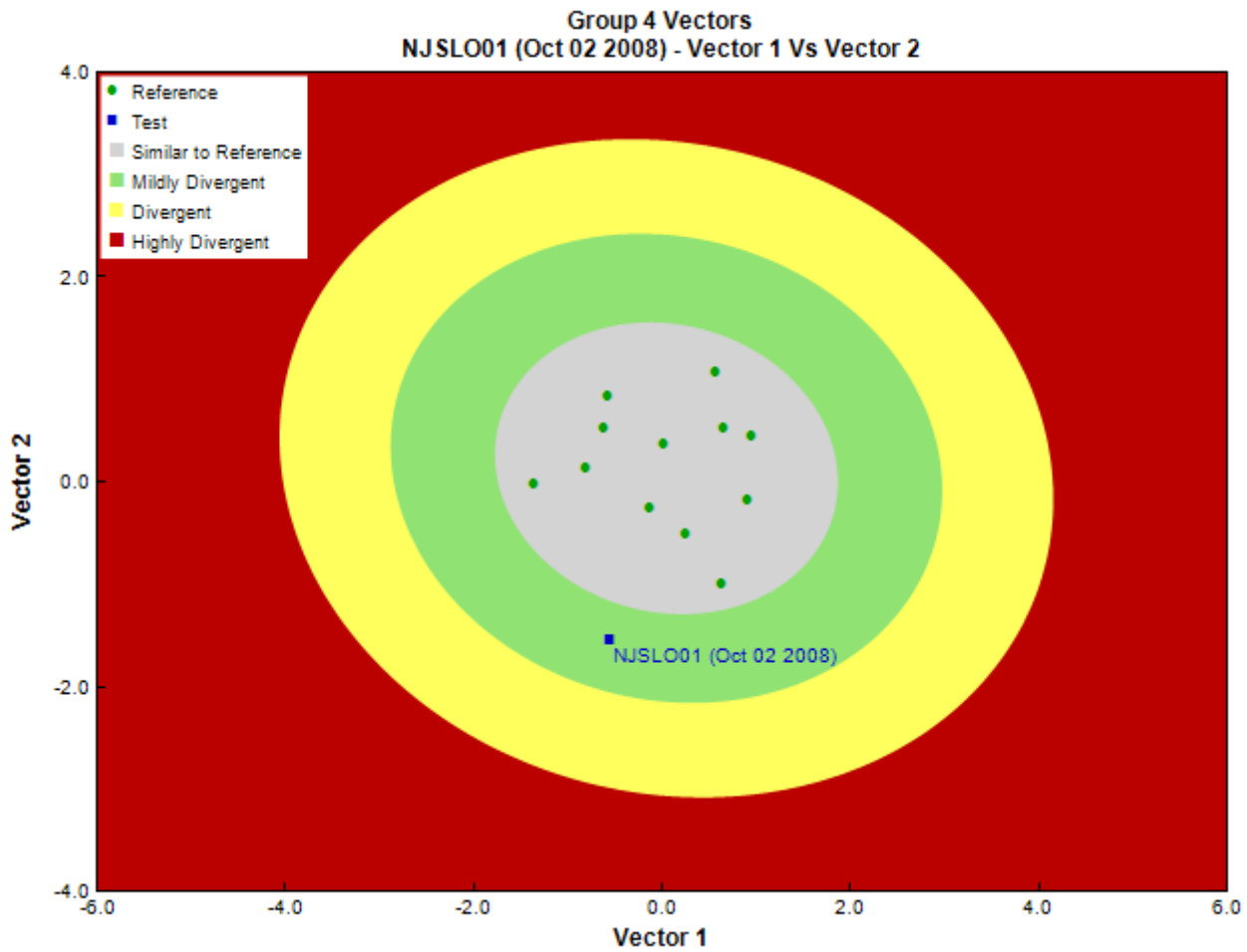


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

**Sample Information**

<b>Sampling Device</b>	Kick Net
<b>Mesh Size</b>	400
<b>Sampling Time</b>	3
<b>Taxonomist</b>	Gary Lester, Ecoanalysts Inc.
<b>Date Taxonomy Completed</b>	October 02, 2008
	Visual Estimate
<b>Sub-Sample Proportion</b>	100/100

**Community Structure**

Phylum	Class	Order	Family	Raw Count	Total Count	
Annelida				7	7.0	
Arthropoda	Arachnida			41	41.0	
		Insecta				
			Coleoptera	Elmidae	27	27.0
			Diptera	Chironomidae	37	37.0
				Empididae	2	2.0
				Simuliidae	1	1.0
				Tipulidae	2	2.0
			Ephemeroptera	Baetidae	47	47.0
				Ephemerellidae	16	16.0
				Heptageniidae	11	11.0
				Leptophlebiidae	1	1.0
			Plecoptera	Chloroperlidae	6	6.0
				Nemouridae	1	1.0
				Perlidae	4	4.0
			Perlodidae	7	7.0	

## Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
			Taeniopterygidae	1	1.0
		Trichoptera	Brachycentridae	2	2.0
			Glossosomatidae	25	25.0
			Hydropsychidae	117	117.0
			Hydroptilidae	3	3.0
			Lepidostomatidae	79	79.0
			Rhyacophilidae	1	1.0
			Total	438	438.0

## Metrics

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Bray-Curtis Distance	0.71	0.4 $\pm$ 0.1
<b>Biotic Indices</b>		
Hilsenhoff Family index (North-West)	3.5	3.2 $\pm$ 0.3
Intolerant taxa	--	
Long-lived taxa	2.0	2.1 $\pm$ 1.0
Tolerant individuals (%)	--	0.8 $\pm$ 0.3
<b>Functional Measures</b>		
% Filterers	27.4	2.2 $\pm$ 1.8
% Gatherers	21.9	38.4 $\pm$ 12.4
% Predators	40.0	19.0 $\pm$ 8.5
% Scrapers	27.6	63.2 $\pm$ 19.7
% Shredder	25.6	27.6 $\pm$ 15.2
No. Clinger Taxa	17.0	23.2 $\pm$ 6.3
<b>Number Of Individuals</b>		
% Chironomidae	9.5	7.4 $\pm$ 6.4
% Coleoptera	6.9	1.5 $\pm$ 3.9
% Diptera + Non-insects	10.8	10.8 $\pm$ 7.6
% Ephemeroptera	19.2	51.7 $\pm$ 18.8
% Ephemeroptera that are Baetidae	62.7	40.6 $\pm$ 30.0
% EPT Individuals	82.3	87.7 $\pm$ 7.4
% Odonata	0.0	0.0 $\pm$ 0.0
% of 2 dominant taxa	50.3	57.9 $\pm$ 14.2
% of 5 dominant taxa	78.7	81.6 $\pm$ 7.9
% of dominant taxa	30.0	39.8 $\pm$ 14.9
% Plecoptera	4.9	31.4 $\pm$ 15.4
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	51.5	27.0 $\pm$ 26.2
% Tricoptera	58.2	4.5 $\pm$ 2.8
No. EPT individuals/Chironomids+EPT Individuals	0.9	0.9 $\pm$ 0.1
Total Abundance	438.0	587.4 $\pm$ 299.1
<b>Richness</b>		
Chironomidae taxa (genus level only)	1.0	1.0 $\pm$ 0.0
Coleoptera taxa	1.0	0.4 $\pm$ 0.5
Diptera taxa	4.0	3.3 $\pm$ 1.0
Ephemeroptera taxa	4.0	3.8 $\pm$ 0.8
EPT Individuals (Sum)	321.0	526.0 $\pm$ 285.8
EPT taxa (no)	15.0	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	5.0	6.3 $\pm$ 1.1
Shannon-Wiener Diversity	2.1	1.9 $\pm$ 0.4
Simpson's Diversity	0.8	0.8 $\pm$ 0.1
Simpson's Evenness	0.3	0.3 $\pm$ 0.1
Total No. of Taxa	20.0	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 NJSLO01
	Group 1	Group 2	Group 3	Group 4	Group 5	
Baetidae	100%	100%	100%	100%	97%	1.00
Capniidae	78%	55%	50%	92%	68%	0.84
Chironomidae	100%	100%	100%	100%	95%	1.00
Chloroperlidae	78%	88%	94%	100%	100%	0.98
Ephemerellidae	78%	100%	100%	100%	100%	1.00
Heptageniidae	100%	100%	100%	100%	100%	1.00
Hydropsychidae	11%	92%	78%	92%	86%	0.90
Nemouridae	100%	100%	100%	100%	100%	1.00
Perlidae	11%	84%	33%	100%	3%	0.88
Perlodidae	78%	78%	89%	92%	81%	0.90
Rhyacophilidae	100%	92%	100%	100%	95%	0.99
Taeniopterygidae	89%	49%	100%	92%	97%	0.89

### RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	14.31
RIVPACS : Observed taxa P>0.50	14.00
RIVPACS : O:E (p > 0.5)	0.98
RIVPACS : Expected taxa P>0.70	11.37
RIVPACS : Observed taxa P>0.70	11.00
RIVPACS : O:E (p > 0.7)	0.97

### Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bedrock Geology</b>		
Alluvium (%)	0.00000	0.00000 $\pm$ 0.00000
Intrusive (%)	56.80740	11.07346 $\pm$ 28.63466
Metamorphic (%)	24.93025	17.96649 $\pm$ 35.53463
Sedimentary (%)	17.39867	70.96005 $\pm$ 44.90394
Ultramafic (%)	0.00000	0.00000 $\pm$ 0.00000
Volcanic (%)	0.86368	0.00000 $\pm$ 0.00000
<b>Channel</b>		
Depth-Avg (cm)	36.0	23.6 $\pm$ 11.1
Reach-%CanopyCoverage (PercentRange)	1.00	1.33 $\pm$ 0.78
Reach-%Logging (PercentRange)	2	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)	1	1 $\pm$ 0
Veg-Shrubs (Binary)	1	1 $\pm$ 0
Velocity-Avg (m/s)	0.86	0.48 $\pm$ 0.22
Velocity-Max (m/s)	1.10	0.76 $\pm$ 0.36
<b>Climate</b>		
Precip01_JAN (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip02_FEB (mm)	108.33333	83.66667 $\pm$ 27.10278
Precip03_MAR (mm)	98.15789	77.23611 $\pm$ 27.15950
Precip04_APR (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip05_MAY (mm)	82.47368	71.65833 $\pm$ 17.81753
Precip06_JUN (mm)	91.70175	78.56667 $\pm$ 15.58521
Precip07_JUL (mm)	73.33333	64.39167 $\pm$ 10.41611
Precip08_AUG (mm)	69.92982	60.53056 $\pm$ 10.43373
Precip09_SEP (mm)	67.14035	56.91944 $\pm$ 10.91783
Precip10_OCT (mm)	82.21053	65.08056 $\pm$ 14.41229
Precip11_NOV (mm)	130.33333	105.93889 $\pm$ 25.04104
Precip12_DEC (mm)	145.94737	116.84444 $\pm$ 29.80954
PrecipTotal_ANNUAL (mm)	1162.75439	952.64722 $\pm$ 226.04690
Temp01_JANMax (Degrees Celsius)	-4.40351	-4.39167 $\pm$ 2.51268

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Temp01_JANmin (Degrees Celsius)	-10.36842	-11.40833 $\pm$ 3.53951
Temp02_FEBmax (Degrees Celsius)	-1.82456	-1.70000 $\pm$ 2.12945
Temp02_FEBmin (Degrees Celsius)	-8.54386	-9.17500 $\pm$ 3.33361
Temp03_MARmax (Degrees Celsius)	1.68421	2.50556 $\pm$ 2.87525
Temp03_MARmin (Degrees Celsius)	-5.98246	-6.14167 $\pm$ 2.98556
Temp04_APRmax (Degrees Celsius)	6.26316	7.12222 $\pm$ 3.48771
Temp04_APRmin (Degrees Celsius)	-2.64912	-2.71667 $\pm$ 2.22785
Temp05_MAYmax (Degrees Celsius)	11.14035	12.03889 $\pm$ 3.55434
Temp05_MAYmin (Degrees Celsius)	0.82456	1.04722 $\pm$ 2.08663
Temp06_JUNMax (Degrees Celsius)	14.75439	15.72500 $\pm$ 3.40030
Temp06_JUNMin (Degrees Celsius)	3.96491	4.00278 $\pm$ 2.41085
Temp07_JULmax (Degrees Celsius)	18.61404	19.56111 $\pm$ 3.47275
Temp07_JULmin (Degrees Celsius)	6.43860	6.35833 $\pm$ 2.28332
Temp08_AUGmax (Degrees Celsius)	18.57895	19.52222 $\pm$ 3.51100
Temp08_AUGmin (Degrees Celsius)	6.29825	6.19167 $\pm$ 2.34422
Temp09_SEPmax (Degrees Celsius)	13.38596	14.04444 $\pm$ 3.03456
Temp09_SEPmin (Degrees Celsius)	2.29825	2.04722 $\pm$ 2.37208
Temp10_OCTmax (Degrees Celsius)	6.03509	6.88889 $\pm$ 2.71577
Temp10_OCTmin (Degrees Celsius)	-1.26316	-1.46111 $\pm$ 1.64316
Temp11_NOVmax (Degrees Celsius)	-1.17544	-0.79722 $\pm$ 2.43512
Temp11_NOVmin (Degrees Celsius)	-6.33333	-6.68056 $\pm$ 2.97163
Temp12_DECmax (Degrees Celsius)	-4.59649	-4.66389 $\pm$ 2.69757
Temp12_DECmin (Degrees Celsius)	-10.03509	-10.65833 $\pm$ 3.71739
TempANNUALmax (Degrees Celsius)	6.24561	6.96389 $\pm$ 3.06157
TempANNUALmean (Degrees Celsius)	1.77193	2.25278 $\pm$ 2.66574
TempANNUALmin (Degrees Celsius)	-1.82456	-2.18056 $\pm$ 2.41152
<b>Hydrology</b>		
Drainage-Area (km <sup>2</sup> )	3425.62950	124.42081 $\pm$ 200.99192
Perimeter (Km)	549.09302	64.71360 $\pm$ 56.15436
StreamDensity (m/km <sup>2</sup> )	2190.93040	2246.06682 $\pm$ 604.89962
StreamLength (m)	7505315.81	302226.63 $\pm$ 500983.26
<b>Landcover</b>		
Natl-AnnCrops (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Barren (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafOpen (%)	2.85345	1.19263 $\pm$ 2.03874
Natl-BroadleafSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Coniferous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ConiferousDense (%)	0.48215	0.64845 $\pm$ 0.37668
Natl-ConiferousOpen (%)	52.58342	54.62780 $\pm$ 18.30692
Natl-ConiferousSparse (%)	1.36876	0.94121 $\pm$ 1.53621
Natl-Deciduous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Developed (%)	0.06762	0.00000 $\pm$ 0.00000
Natl-ExposedLand (%)	17.02159	13.20054 $\pm$ 11.11850
Natl-Grassland (%)	1.03581	1.87556 $\pm$ 1.68508
Natl-Herb (%)	6.93168	5.75738 $\pm$ 2.89836
Natl-MixedForest (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodOpen (%)	0.09444	0.04060 $\pm$ 0.10208
Natl-MixedwoodSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-PerennCropsPast (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Rock/Rubble (%)	0.59550	1.56403 $\pm$ 2.75979
Natl-Shrubland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ShrubLow (%)	1.76236	4.98298 $\pm$ 3.22579
Natl-ShrubTall (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-SnowIce (%)	0.16345	0.08491 $\pm$ 0.15475
Natl-Water (%)	2.70893	0.22916 $\pm$ 0.36834
Natl-Wetland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-WetlandHerb (%)	0.08869	0.12918 $\pm$ 0.35193
Natl-WetlandShrub (%)	0.01338	0.00000 $\pm$ 0.00000
Natl-WetlandTreed (%)	0.00345	0.00000 $\pm$ 0.00000
Reg-Ice (%)	0.06587	0.02487 $\pm$ 0.06034



## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Substrate Data</b>		
Dominant-1st (Category(0-9))	6	7 $\pm$ 1
Dominant-2nd (Category(0-9))	5	7 $\pm$ 1
Embeddedness (Category(1-5))	4	5 $\pm$ 1
PeriphytonCoverage (Category(1-5))	1	1 $\pm$ 0
SurroundingMaterial (Category(0-9))	2	4 $\pm$ 1
<b>Topography</b>		
ElevationMax (m)	3015.00000	2634.66667 $\pm$ 309.54023
ElevationMin (m)	457.00000	913.41667 $\pm$ 271.25180
ElevationStdev (m)	501.21029	349.02363 $\pm$ 92.12445
Reg-SlopeLT30% (%)	22.30933	18.88386 $\pm$ 9.29866
Slope30-50% (%)	28.01461	29.00215 $\pm$ 6.33837
Slope50-60% (%)	13.73378	13.91808 $\pm$ 1.91315
SlopeAvg (%)	49.22843	52.79851 $\pm$ 8.68755
SlopeGT60% (%)	32.28474	35.47207 $\pm$ 13.39684
SlopeLT30% (%)	25.96687	21.60770 $\pm$ 8.54172
SlopeMax (%)	574.77527	298.94390 $\pm$ 146.30679
SlopeMin (%)	0.00000	0.19777 $\pm$ 0.29213
SlopeStdev (%)	27.85578	26.57529 $\pm$ 4.62351
<b>Water Chemistry</b>		
Ca (mg/L)	13.4000000	21.1083333 $\pm$ 16.8005659
General-Alkalinity (mg/L)	32.0000000	71.7000000 $\pm$ 53.9231440
General-DO (mg/L)	11.0000000	11.4175000 $\pm$ 0.7986708
General-Hardness (mg/L)	41.0000000	84.2750000 $\pm$ 70.6251066
General-pH (pH)	7.4	7.9 $\pm$ 0.4
General-SolidsTSS (mg/L)	2.1000000	0.8849836 $\pm$ 1.2378575
General-SpCond ( $\mu$ S/cm)	76.0000000	168.9833333 $\pm$ 123.7858182
General-TempWater (Degrees Celsius)	5.2000000	7.3183333 $\pm$ 2.7240839
General-Turbidity (NTU)	0.3000000	0.2020000
Mg (mg/L)	1.8700000	7.6666667 $\pm$ 7.9748848
Nitrogen-TN (mg/L)	0.0400000	0.0883333 $\pm$ 0.0521943

**Site Description**

<b>Study Name</b>	CBWQ-Slocan
<b>Site</b>	NJSLO01 [Q2]
<b>Sampling Date</b>	Sep 29 2009
<b>Know Your Watershed Basin</b>	Slocan
<b>Province / Territory</b>	British Columbia
<b>Terrestrial Ecological Classification</b>	Montane Cordillera EcoZone Columbia Mountains and Highlands EcoRegion
<b>Coordinates (decimal degrees)</b>	49.44972 N, 117.53472 W
<b>Altitude</b>	1512
<b>Local Basin Name</b>	Slocan
	Columbia
<b>Stream Order</b>	5



Figure 1. Location Map

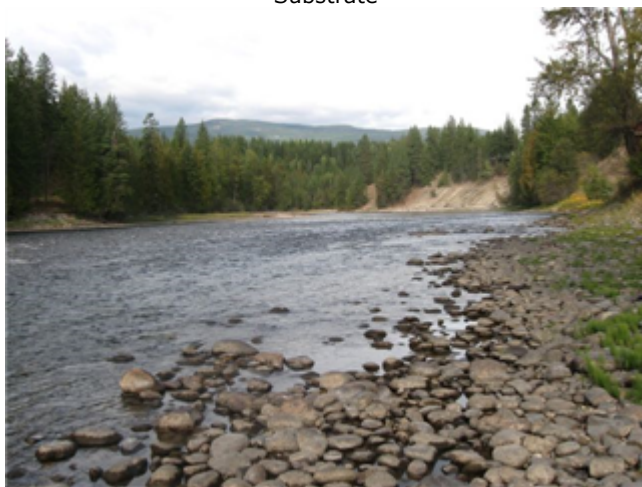
Across Reach  
Aerial (No image found)



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



Substrate



Up Stream

### Cabin Assessment Results

Reference Model Summary	
<b>Model</b>	Columbia-Okanagan Preliminary March 2010
<b>Analysis Date</b>	September 05, 2017
<b>Taxonomic Level</b>	Family

**Cabin Assessment Results**

<b>Predictive Model Variables</b>	Depth-Avg Latitude Longitude Reg-Ice Reg-SlopeLT30%				
<b>Reference Groups</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Number of Reference Sites</b>	9	43	17	12	33
<b>Group Error Rate</b>	22.2%	24.5%	22.2%	25.0%	32.4%
<b>Overall Model Error Rate</b>	26.4%				
<b>Probability of Group Membership</b>	2.2%	8.0%	7.8%	78.0%	4.0%
<b>CABIN Assessment of NJSLO01 on Sep 29, 2009</b>	Mildly Divergent				

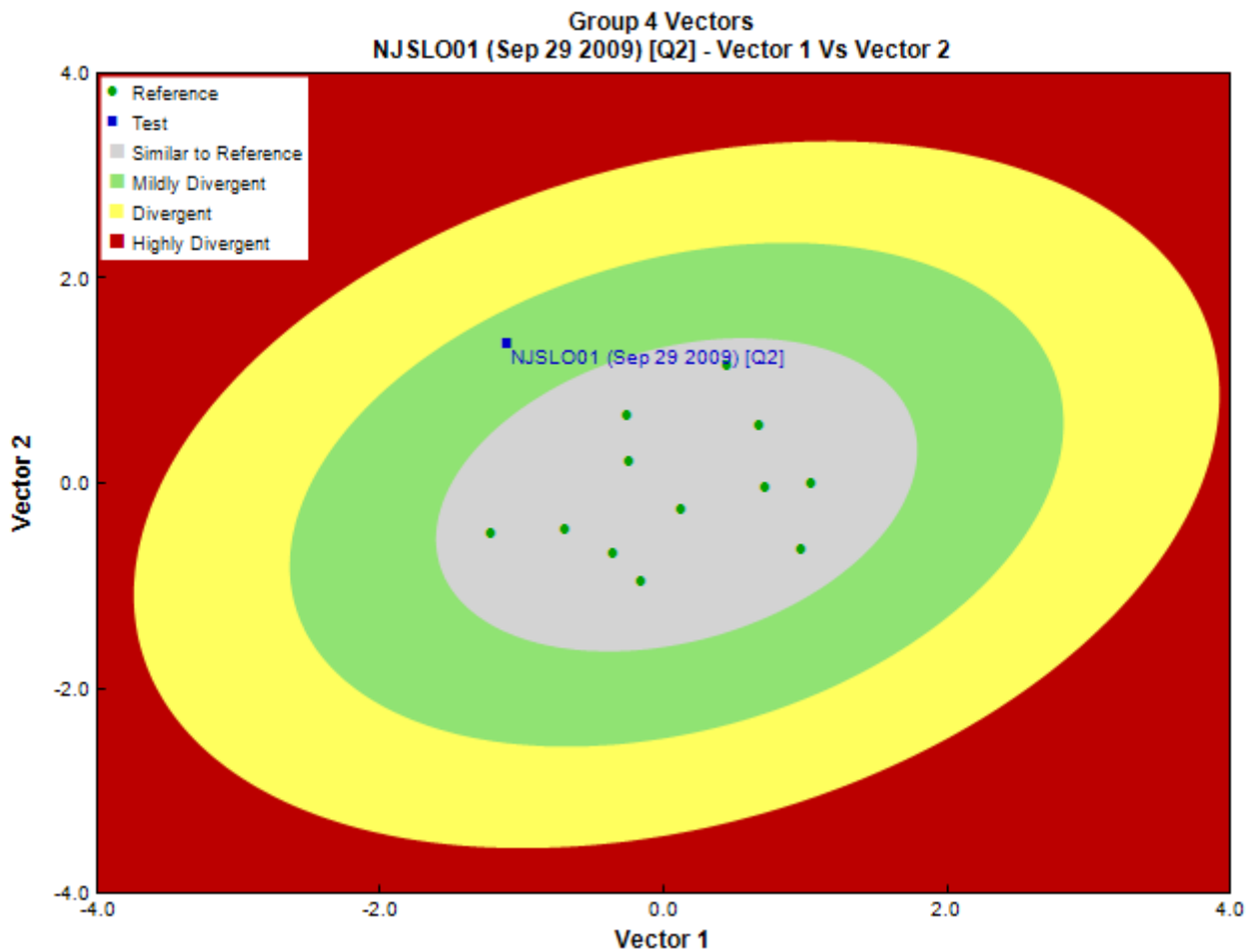


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

**Sample Information**

<b>Sampling Device</b>	Kick Net
<b>Mesh Size</b>	400
<b>Sampling Time</b>	3
<b>Taxonomist</b>	Eco Analysts, EcoAnalysts
<b>Date Taxonomy Completed</b>	January 06, 2010
	Marchant Box
<b>Sub-Sample Proportion</b>	27/100

## Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida			62	229.6
	Insecta	Coleoptera	Elmidae	22	81.5
		Diptera	Chironomidae	54	200.0
			Empididae	1	3.7
			Simuliidae	5	18.5
			Tipulidae	3	11.1
		Ephemeroptera	Baetidae	15	55.5
			Ephemerellidae	11	40.7
			Heptageniidae	2	7.4
		Plecoptera	Chloroperlidae	3	11.1
			Perlidae	4	14.8
			Perlodidae	6	22.2
		Trichoptera	Glossosomatidae	7	25.9
			Hydropsychidae	59	218.5
			Hydroptilidae	3	11.1
			Lepidostomatidae	71	263.0
			Total	328	1,214.6

## Metrics

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bray-Curtis Distance</b>	0.81	0.4 $\pm$ 0.1
<b>Biotic Indices</b>		
<b>Hilsenhoff Family index (North-West)</b>	3.8	3.2 $\pm$ 0.3
<b>Intolerant taxa</b>	--	
<b>Long-lived taxa</b>	2.0	2.1 $\pm$ 1.0
<b>Tolerant individuals (%)</b>	--	0.8 $\pm$ 0.3
<b>Functional Measures</b>		
<b>% Filterers</b>	19.5	2.2 $\pm$ 1.8
<b>% Gatherers</b>	29.3	38.4 $\pm$ 12.4
<b>% Predatores</b>	40.2	19.0 $\pm$ 8.5
<b>% Scrapers</b>	17.4	63.2 $\pm$ 19.7
<b>% Shredder</b>	29.3	27.6 $\pm$ 15.2
<b>No. Clinger Taxa</b>	12.0	23.2 $\pm$ 6.3
<b>Number Of Individuals</b>		
<b>% Chironomidae</b>	20.3	7.4 $\pm$ 6.4
<b>% Coleoptera</b>	8.3	1.5 $\pm$ 3.9
<b>% Diptera + Non-insects</b>	23.7	10.8 $\pm$ 7.6
<b>% Ephemeroptera</b>	10.5	51.7 $\pm$ 18.8
<b>% Ephemeroptera that are Baetidae</b>	53.6	40.6 $\pm$ 30.0
<b>% EPT Individuals</b>	68.0	87.7 $\pm$ 7.4
<b>% Odonata</b>	0.0	0.0 $\pm$ 0.0
<b>% of 2 dominant taxa</b>	48.9	57.9 $\pm$ 14.2
<b>% of 5 dominant taxa</b>	83.1	81.6 $\pm$ 7.9
<b>% of dominant taxa</b>	26.7	39.8 $\pm$ 14.9
<b>% Plecoptera</b>	4.9	31.4 $\pm$ 15.4
<b>% Tribe Tanyatarisini</b>	--	
<b>% Trichoptera that are Hydropsychida</b>	42.1	27.0 $\pm$ 26.2
<b>% Tricoptera</b>	52.6	4.5 $\pm$ 2.8
<b>No. EPT individuals/Chironomids+EPT Individuals</b>	0.8	0.9 $\pm$ 0.1
<b>Total Abundance</b>	1214.7	587.4 $\pm$ 299.1
<b>Richness</b>		
<b>Chironomidae taxa (genus level only)</b>	1.0	1.0 $\pm$ 0.0
<b>Coleoptera taxa</b>	1.0	0.4 $\pm$ 0.5
<b>Diptera taxa</b>	4.0	3.3 $\pm$ 1.0
<b>Ephemeroptera taxa</b>	3.0	3.8 $\pm$ 0.8
<b>EPT Individuals (Sum)</b>	670.3	526.0 $\pm$ 285.8
<b>EPT taxa (no)</b>	10.0	13.3 $\pm$ 2.7
<b>Odonata taxa</b>	0.0	0.0 $\pm$ 0.0
<b>Pielou's Evenness</b>	0.8	0.7 $\pm$ 0.1
<b>Plecoptera taxa</b>	3.0	6.3 $\pm$ 1.1
<b>Shannon-Wiener Diversity</b>	2.0	1.9 $\pm$ 0.4

**Metrics**

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Simpson's Diversity	0.8	0.8 $\pm$ 0.1
Simpson's Evenness	0.4	0.3 $\pm$ 0.1
Total No. of Taxa	15.0	19.3 $\pm$ 3.7
Trichoptera taxa	4.0	3.2 $\pm$ 1.4

**Frequency and Probability of Taxa Occurrence**

Reference Model Taxa	Frequency of Occurrence in Reference Sites					Probability Of Occurrence at NJSLO01
	Group 1	Group 2	Group 3	Group 4	Group 5	
Baetidae	100%	100%	100%	100%	97%	1.00
Capniidae	78%	55%	50%	92%	68%	0.84
Chironomidae	100%	100%	100%	100%	95%	1.00
Chloroperlidae	78%	88%	94%	100%	100%	0.98
Ephemerellidae	78%	100%	100%	100%	100%	1.00
Heptageniidae	100%	100%	100%	100%	100%	1.00
Hydropsychidae	11%	92%	78%	92%	86%	0.89
Nemouridae	100%	100%	100%	100%	100%	1.00
Perlidae	11%	84%	33%	100%	3%	0.88
Perlodidae	78%	78%	89%	92%	81%	0.90
Rhyacophilidae	100%	92%	100%	100%	95%	0.99
Taeniopterygidae	89%	49%	100%	92%	97%	0.89

**RIVPACS Ratios**

RIVPACS : Expected taxa P>0.50	13.79
RIVPACS : Observed taxa P>0.50	10.00
RIVPACS : O:E (p > 0.5)	0.73
RIVPACS : Expected taxa P>0.70	11.36
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	0.70

**Habitat Description**

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bedrock Geology</b>		
Alluvium (%)	0.00000	0.00000 $\pm$ 0.00000
Intrusive (%)	56.80740	11.07346 $\pm$ 28.63466
Metamorphic (%)	24.93025	17.96649 $\pm$ 35.53463
Sedimentary (%)	17.39867	70.96005 $\pm$ 44.90394
Ultramafic (%)	0.00000	0.00000 $\pm$ 0.00000
Volcanic (%)	0.86368	0.00000 $\pm$ 0.00000
<b>Channel</b>		
Depth-Avg (cm)	42.0	23.6 $\pm$ 11.1
Depth-Max (cm)	46.0	34.6 $\pm$ 12.3
Discharge (m <sup>3</sup> /s)	27.000	0.000 $\pm$ 0.000
Macrophyte (PercentRange)	1	0 $\pm$ 0
Reach-%CanopyCoverage (PercentRange)	2.00	1.33 $\pm$ 0.78
Reach-%Logging (PercentRange)	4	0 $\pm$ 0
Reach-DomStreamsideVeg (Category (1-4))	2	4 $\pm$ 1
Reach-Pools (Binary)	0	1 $\pm$ 0
Reach-Rapids (Binary)	0	0 $\pm$ 0
Reach-Riffles (Binary)	1	1 $\pm$ 0
Reach-StraightRun (Binary)	1	1 $\pm$ 1
Veg-Coniferous (Binary)	1	1 $\pm$ 0
Veg-Deciduous (Binary)	1	1 $\pm$ 0
Veg-GrassesFerns (Binary)	1	1 $\pm$ 0
Veg-Shrubs (Binary)	1	1 $\pm$ 0
Velocity-Avg (m/s)	0.66	0.48 $\pm$ 0.22
Velocity-Max (m/s)	0.89	0.76 $\pm$ 0.36
Width-Bankfull (m)	30.0	13.4 $\pm$ 9.9
Width-Wetted (m)	25.0	8.5 $\pm$ 5.8

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
XSEC-VelMethod (Category (1-3))	1	1 $\pm$ 0
<b>Climate</b>		
Precip01_JAN (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip02_FEB (mm)	108.33333	83.66667 $\pm$ 27.10278
Precip03_MAR (mm)	98.15789	77.23611 $\pm$ 27.15950
Precip04_APR (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip05_MAY (mm)	82.47368	71.65833 $\pm$ 17.81753
Precip06_JUN (mm)	91.70175	78.56667 $\pm$ 15.58521
Precip07_JUL (mm)	73.33333	64.39167 $\pm$ 10.41611
Precip08_AUG (mm)	69.92982	60.53056 $\pm$ 10.43373
Precip09_SEP (mm)	67.14035	56.91944 $\pm$ 10.91783
Precip10_OCT (mm)	82.21053	65.08056 $\pm$ 14.41229
Precip11_NOV (mm)	130.33333	105.93889 $\pm$ 25.04104
Precip12_DEC (mm)	145.94737	116.84444 $\pm$ 29.80954
PrecipTotal_ANNUAL (mm)	1162.75439	952.64722 $\pm$ 226.04690
Temp01_JANMax (Degrees Celsius)	-4.40351	-4.39167 $\pm$ 2.51268
Temp01_JANmin (Degrees Celsius)	-10.36842	-11.40833 $\pm$ 3.53951
Temp02_FEBmax (Degrees Celsius)	-1.82456	-1.70000 $\pm$ 2.12945
Temp02_FEBmin (Degrees Celsius)	-8.54386	-9.17500 $\pm$ 3.33361
Temp03_MARmax (Degrees Celsius)	1.68421	2.50556 $\pm$ 2.87525
Temp03_MARmin (Degrees Celsius)	-5.98246	-6.14167 $\pm$ 2.98556
Temp04_APRmax (Degrees Celsius)	6.26316	7.12222 $\pm$ 3.48771
Temp04_APRmin (Degrees Celsius)	-2.64912	-2.71667 $\pm$ 2.22785
Temp05_MAYmax (Degrees Celsius)	11.14035	12.03889 $\pm$ 3.55434
Temp05_MAYmin (Degrees Celsius)	0.82456	1.04722 $\pm$ 2.08663
Temp06_JUNMax (Degrees Celsius)	14.75439	15.72500 $\pm$ 3.40030
Temp06_JUNMin (Degrees Celsius)	3.96491	4.00278 $\pm$ 2.41085
Temp07_JULmax (Degrees Celsius)	18.61404	19.56111 $\pm$ 3.47275
Temp07_JULmin (Degrees Celsius)	6.43860	6.35833 $\pm$ 2.28332
Temp08_AUGmax (Degrees Celsius)	18.57895	19.52222 $\pm$ 3.51100
Temp08_AUGmin (Degrees Celsius)	6.29825	6.19167 $\pm$ 2.34422
Temp09_SEPmax (Degrees Celsius)	13.38596	14.04444 $\pm$ 3.03456
Temp09_SEPmin (Degrees Celsius)	2.29825	2.04722 $\pm$ 2.37208
Temp10_OCTmax (Degrees Celsius)	6.03509	6.88889 $\pm$ 2.71577
Temp10_OCTmin (Degrees Celsius)	-1.26316	-1.46111 $\pm$ 1.64316
Temp11_NOVmax (Degrees Celsius)	-1.17544	-0.79722 $\pm$ 2.43512
Temp11_NOVmin (Degrees Celsius)	-6.33333	-6.68056 $\pm$ 2.97163
Temp12_DECmax (Degrees Celsius)	-4.59649	-4.66389 $\pm$ 2.69757
Temp12_DECmin (Degrees Celsius)	-10.03509	-10.65833 $\pm$ 3.71739
TempANNUALmax (Degrees Celsius)	6.24561	6.96389 $\pm$ 3.06157
TempANNUALmean (Degrees Celsius)	1.77193	2.25278 $\pm$ 2.66574
TempANNUALmin (Degrees Celsius)	-1.82456	-2.18056 $\pm$ 2.41152
<b>Hydrology</b>		
Drainage-Area (km <sup>2</sup> )	3425.62950	124.42081 $\pm$ 200.99192
Perimeter (Km)	549.09302	64.71360 $\pm$ 56.15436
StreamDensity (m/km <sup>2</sup> )	2190.93040	2246.06682 $\pm$ 604.89962
StreamLength (m)	7505315.81	302226.63 $\pm$ 500983.26
<b>Landcover</b>		
Natl-AnnCrops (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Barren (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafOpen (%)	2.85345	1.19263 $\pm$ 2.03874
Natl-BroadleafSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Coniferous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ConiferousDense (%)	0.48215	0.64845 $\pm$ 0.37668
Natl-ConiferousOpen (%)	52.58342	54.62780 $\pm$ 18.30692
Natl-ConiferousSparse (%)	1.36876	0.94121 $\pm$ 1.53621
Natl-Deciduous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Developed (%)	0.06762	0.00000 $\pm$ 0.00000
Natl-ExposedLand (%)	17.02159	13.20054 $\pm$ 11.11850
Natl-Grassland (%)	1.03581	1.87556 $\pm$ 1.68508
Natl-Herb (%)	6.93168	5.75738 $\pm$ 2.89836

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Natl-MixedForest (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodOpen (%)	0.09444	0.04060 $\pm$ 0.10208
Natl-MixedwoodSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-PerennCropsPast (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Rock/Rubble (%)	0.59550	1.56403 $\pm$ 2.75979
Natl-Shrubland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ShrubLow (%)	1.76236	4.98298 $\pm$ 3.22579
Natl-ShrubTall (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-SnowIce (%)	0.16345	0.08491 $\pm$ 0.15475
Natl-Water (%)	2.70893	0.22916 $\pm$ 0.36834
Natl-Wetland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-WetlandHerb (%)	0.08869	0.12918 $\pm$ 0.35193
Natl-WetlandShrub (%)	0.01338	0.00000 $\pm$ 0.00000
Natl-WetlandTreed (%)	0.00345	0.00000 $\pm$ 0.00000
Reg-Forest (%)	30.00000	0.00000 $\pm$ 0.00000
Reg-Ice (%)	0.06587	0.02487 $\pm$ 0.06034
Reg-NonprodForest (%)	30.00000	0.00000 $\pm$ 0.00000
Reg-UnregenForest (%)	40.00000	0.00000 $\pm$ 0.00000
<b>Substrate Data</b>		
%Bedrock (%)	0	0 $\pm$ 0
%Boulder (%)	3	9 $\pm$ 9
%Cobble (%)	87	51 $\pm$ 15
%Gravel (%)	1	3 $\pm$ 3
%Pebble (%)	9	37 $\pm$ 20
%Sand (%)	0	0 $\pm$ 0
%Silt+Clay (%)	0	0 $\pm$ 0
D50 (cm)	10.50	15.12 $\pm$ 14.26
Dg (cm)	10.3	8.2 $\pm$ 2.8
Dominant-1st (Category(0-9))	6	7 $\pm$ 1
Dominant-2nd (Category(0-9))	7	7 $\pm$ 1
Embeddedness (Category(1-5))	4	5 $\pm$ 1
PeriphytonCoverage (Category(1-5))	2	1 $\pm$ 0
SurroundingMaterial (Category(0-9))	3	4 $\pm$ 1
<b>Topography</b>		
ElevationMax (m)	3015.00000	2634.66667 $\pm$ 309.54023
ElevationMin (m)	457.00000	913.41667 $\pm$ 271.25180
ElevationStdev (m)	501.21029	349.02363 $\pm$ 92.12445
Reg-SlopeLT30% (%)	22.30934	18.88386 $\pm$ 9.29866
Slope30-50% (%)	28.01461	29.00215 $\pm$ 6.33837
Slope50-60% (%)	13.73378	13.91808 $\pm$ 1.91315
SlopeAvg (%)	49.22843	52.79851 $\pm$ 8.68755
SlopeGT60% (%)	32.28474	35.47207 $\pm$ 13.39684
SlopeLT30% (%)	25.96687	21.60770 $\pm$ 8.54172
SlopeMax (%)	574.77527	298.94390 $\pm$ 146.30679
SlopeMin (%)	0.00000	0.19777 $\pm$ 0.29213
SlopeStdev (%)	27.85578	26.57529 $\pm$ 4.62351
<b>Water Chemistry</b>		
General-DO (mg/L)	11.0000000	11.4175000 $\pm$ 0.7986708
General-pH (pH)	7.5	7.9 $\pm$ 0.4
General-SpCond ( $\mu$ S/cm)	188.6000000	168.9833333 $\pm$ 123.7858182
General-TempAir (Degrees Celsius)	26.0	26.0
General-TempWater (Degrees Celsius)	15.0000000	7.3183333 $\pm$ 2.7240839
General-Turbidity (NTU)	0.2000000	0.2020000



**Site Description**

<b>Study Name</b>	CBWQ-Slocan
<b>Site</b>	NJSLO01
<b>Sampling Date</b>	Sep 29 2009
<b>Know Your Watershed Basin</b>	Slocan
<b>Province / Territory</b>	British Columbia
<b>Terrestrial Ecological Classification</b>	Montane Cordillera EcoZone Columbia Mountains and Highlands EcoRegion
<b>Coordinates (decimal degrees)</b>	49.44972 N, 117.53472 W
<b>Altitude</b>	1512
<b>Local Basin Name</b>	Slocan
	Columbia
<b>Stream Order</b>	5



Figure 1. Location Map

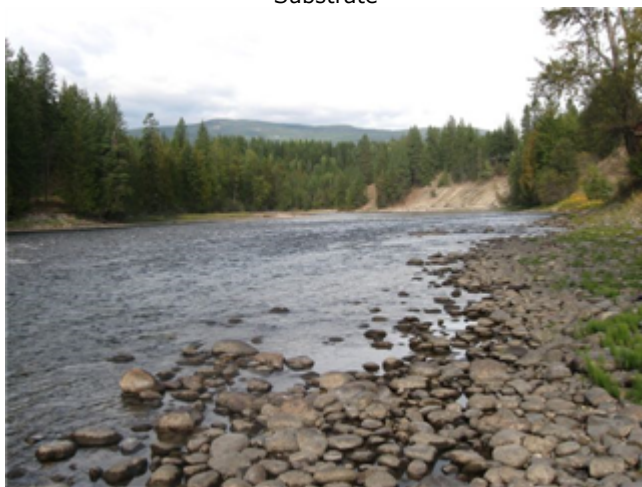
Across Reach  
Aerial (No image found)



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



Substrate



Up Stream

### Cabin Assessment Results

Reference Model Summary	
<b>Model</b>	Columbia-Okanagan Preliminary March 2010
<b>Analysis Date</b>	September 05, 2017
<b>Taxonomic Level</b>	Family

**Cabin Assessment Results**

<b>Predictive Model Variables</b>	Depth-Avg Latitude Longitude Reg-Ice Reg-SlopeLT30%				
<b>Reference Groups</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Number of Reference Sites</b>	9	43	17	12	33
<b>Group Error Rate</b>	22.2%	24.5%	22.2%	25.0%	32.4%
<b>Overall Model Error Rate</b>	26.4%				
<b>Probability of Group Membership</b>	2.2%	8.0%	7.8%	78.0%	4.0%
<b>CABIN Assessment of NJSLO01 on Sep 29, 2009</b>	Divergent				

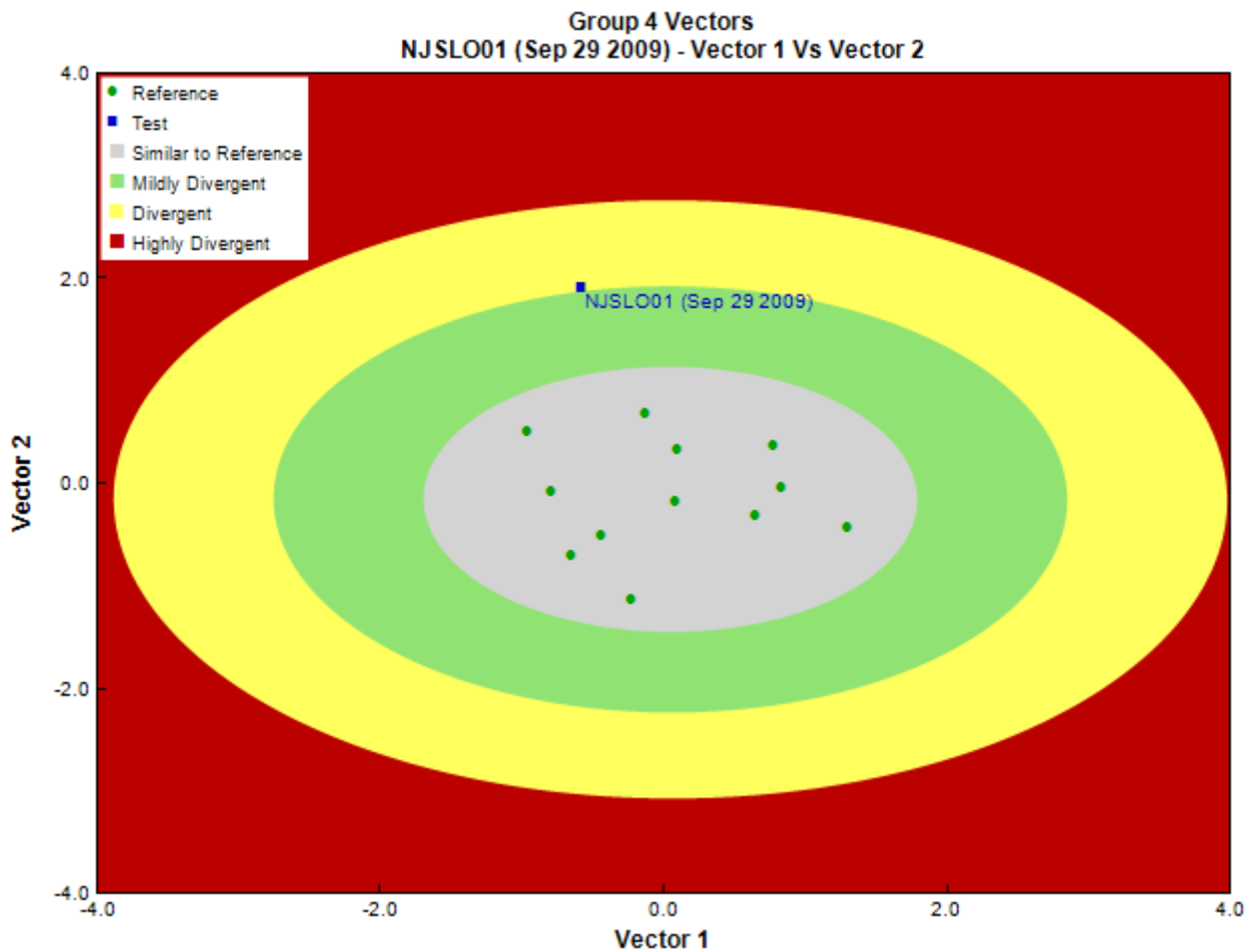


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

**Sample Information**

<b>Sampling Device</b>	Kick Net
<b>Mesh Size</b>	400
<b>Sampling Time</b>	3
<b>Taxonomist</b>	Eco Analysts, EcoAnalysts
<b>Date Taxonomy Completed</b>	January 05, 2010
	Marchant Box
<b>Sub-Sample Proportion</b>	50/100

## Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida			117	234.0
	Insecta	Coleoptera	Elmidae	68	136.0
		Diptera		5	10.0
			Chironomidae	34	68.0
			Empididae	1	2.0
			Simuliidae	9	18.0
		Ephemeroptera	Baetidae	7	14.0
			Ephemeridae	7	14.0
		Plecoptera	Chloroperlidae	2	4.0
			Perlodidae	2	4.0
			Pteronarcyidae	1	2.0
			Taeniopterygidae	2	4.0
		Trichoptera	Brachycentridae	1	2.0
			Hydropsychidae	36	72.0
			Lepidostomatidae	22	44.0
			Leptoceridae	1	2.0
			Rhyacophilidae	1	2.0
			Total	316	632.0

## Metrics

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Bray-Curtis Distance	0.86	0.4 $\pm$ 0.1
<b>Biotic Indices</b>		
Hilsenhoff Family index (North-West)	4.2	3.2 $\pm$ 0.3
Intolerant taxa	--	
Long-lived taxa	1.0	2.1 $\pm$ 1.0
Tolerant individuals (%)	--	0.8 $\pm$ 0.3
<b>Functional Measures</b>		
% Filterers	14.6	2.2 $\pm$ 1.8
% Gatherers	34.2	38.4 $\pm$ 12.4
% Predatores	29.1	19.0 $\pm$ 8.5
% Scrapers	28.2	63.2 $\pm$ 19.7
% Shredder	30.1	27.6 $\pm$ 15.2
No. Clinger Taxa	12.0	23.2 $\pm$ 6.3
<b>Number Of Individuals</b>		
% Chironomidae	17.5	7.4 $\pm$ 6.4
% Coleoptera	35.1	1.5 $\pm$ 3.9
% Diptera + Non-insects	22.7	10.8 $\pm$ 7.6
% Ephemeroptera	7.2	51.7 $\pm$ 18.8
% Ephemeroptera that are Baetidae	50.0	40.6 $\pm$ 30.0
% EPT Individuals	42.3	87.7 $\pm$ 7.4
% Odonata	0.0	0.0 $\pm$ 0.0
% of 2 dominant taxa	53.6	57.9 $\pm$ 14.2
% of 5 dominant taxa	87.1	81.6 $\pm$ 7.9
% of dominant taxa	35.1	39.8 $\pm$ 14.9
% Plecoptera	3.6	31.4 $\pm$ 15.4
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	59.0	27.0 $\pm$ 26.2
% Tricoptera	31.4	4.5 $\pm$ 2.8
No. EPT individuals/Chironomids+EPT Individuals	0.7	0.9 $\pm$ 0.1
Total Abundance	632.0	587.4 $\pm$ 299.1
<b>Richness</b>		
Chironomidae taxa (genus level only)	1.0	1.0 $\pm$ 0.0
Coleoptera taxa	1.0	0.4 $\pm$ 0.5
Diptera taxa	3.0	3.3 $\pm$ 1.0
Ephemeroptera taxa	2.0	3.8 $\pm$ 0.8
EPT Individuals (Sum)	164.0	526.0 $\pm$ 285.8
EPT taxa (no)	11.0	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

**Metrics**

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Shannon-Wiener Diversity	1.9	1.9 $\pm$ 0.4
Simpson's Diversity	0.8	0.8 $\pm$ 0.1
Simpson's Evenness	0.3	0.3 $\pm$ 0.1
Total No. of Taxa	15.0	19.3 $\pm$ 3.7
Trichoptera taxa	5.0	3.2 $\pm$ 1.4

**Frequency and Probability of Taxa Occurrence**

Reference Model Taxa	Frequency of Occurrence in Reference Sites					Probability Of Occurrence at NJSLO01
	Group 1	Group 2	Group 3	Group 4	Group 5	
Baetidae	100%	100%	100%	100%	97%	1.00
Capniidae	78%	55%	50%	92%	68%	0.84
Chironomidae	100%	100%	100%	100%	95%	1.00
Chloroperlidae	78%	88%	94%	100%	100%	0.98
Ephemeroptera	78%	100%	100%	100%	100%	1.00
Heptageniidae	100%	100%	100%	100%	100%	1.00
Hydropsychidae	11%	92%	78%	92%	86%	0.89
Nemouridae	100%	100%	100%	100%	100%	1.00
Perlidae	11%	84%	33%	100%	3%	0.88
Perlodidae	78%	78%	89%	92%	81%	0.90
Rhyacophilidae	100%	92%	100%	100%	95%	0.99
Taeniopterygidae	89%	49%	100%	92%	97%	0.89

**RIVPACS Ratios**

RIVPACS : Expected taxa P>0.50	13.79
RIVPACS : Observed taxa P>0.50	8.00
RIVPACS : O:E (p > 0.5)	0.58
RIVPACS : Expected taxa P>0.70	11.36
RIVPACS : Observed taxa P>0.70	7.00
RIVPACS : O:E (p > 0.7)	0.62

**Habitat Description**

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bedrock Geology</b>		
Alluvium (%)	0.00000	0.00000 $\pm$ 0.00000
Intrusive (%)	56.80740	11.07346 $\pm$ 28.63466
Metamorphic (%)	24.93025	17.96649 $\pm$ 35.53463
Sedimentary (%)	17.39867	70.96005 $\pm$ 44.90394
Ultramafic (%)	0.00000	0.00000 $\pm$ 0.00000
Volcanic (%)	0.86368	0.00000 $\pm$ 0.00000
<b>Channel</b>		
Depth-Avg (cm)	42.0	23.6 $\pm$ 11.1
Depth-Max (cm)	46.0	34.6 $\pm$ 12.3
Discharge (m <sup>3</sup> /s)	27.000	0.000 $\pm$ 0.000
Macrophyte (PercentRange)	1	0 $\pm$ 0
Reach-%CanopyCoverage (PercentRange)	2.00	1.33 $\pm$ 0.78
Reach-%Logging (PercentRange)	4	0 $\pm$ 0
Reach-DomStreamsideVeg (Category (1-4))	2	4 $\pm$ 1
Reach-Pools (Binary)	0	1 $\pm$ 0
Reach-Rapids (Binary)	0	0 $\pm$ 0
Reach-Riffles (Binary)	1	1 $\pm$ 0
Reach-StraightRun (Binary)	1	1 $\pm$ 1
Veg-Coniferous (Binary)	1	1 $\pm$ 0
Veg-Deciduous (Binary)	1	1 $\pm$ 0
Veg-GrassesFerns (Binary)	1	1 $\pm$ 0
Veg-Shrubs (Binary)	1	1 $\pm$ 0
Velocity-Avg (m/s)	0.66	0.48 $\pm$ 0.22
Velocity-Max (m/s)	0.89	0.76 $\pm$ 0.36
Width-Bankfull (m)	30.0	13.4 $\pm$ 9.9

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Width-Wetted (m)	25.0	8.5 $\pm$ 5.8
XSEC-VelMethod (Category (1-3))	1	1 $\pm$ 0
<b>Climate</b>		
Precip01_JAN (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip02_FEB (mm)	108.33333	83.66667 $\pm$ 27.10278
Precip03_MAR (mm)	98.15789	77.23611 $\pm$ 27.15950
Precip04_APR (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip05_MAY (mm)	82.47368	71.65833 $\pm$ 17.81753
Precip06_JUN (mm)	91.70175	78.56667 $\pm$ 15.58521
Precip07_JUL (mm)	73.33333	64.39167 $\pm$ 10.41611
Precip08_AUG (mm)	69.92982	60.53056 $\pm$ 10.43373
Precip09_SEP (mm)	67.14035	56.91944 $\pm$ 10.91783
Precip10_OCT (mm)	82.21053	65.08056 $\pm$ 14.41229
Precip11_NOV (mm)	130.33333	105.93889 $\pm$ 25.04104
Precip12_DEC (mm)	145.94737	116.84444 $\pm$ 29.80954
PrecipTotal_ANNUAL (mm)	1162.75439	952.64722 $\pm$ 226.04690
Temp01_JANMax (Degrees Celsius)	-4.40351	-4.39167 $\pm$ 2.51268
Temp01_JANmin (Degrees Celsius)	-10.36842	-11.40833 $\pm$ 3.53951
Temp02_FEBmax (Degrees Celsius)	-1.82456	-1.70000 $\pm$ 2.12945
Temp02_FEBmin (Degrees Celsius)	-8.54386	-9.17500 $\pm$ 3.33361
Temp03_MARmax (Degrees Celsius)	1.68421	2.50556 $\pm$ 2.87525
Temp03_MARmin (Degrees Celsius)	-5.98246	-6.14167 $\pm$ 2.98556
Temp04_APRmax (Degrees Celsius)	6.26316	7.12222 $\pm$ 3.48771
Temp04_APRmin (Degrees Celsius)	-2.64912	-2.71667 $\pm$ 2.22785
Temp05_MAYmax (Degrees Celsius)	11.14035	12.03889 $\pm$ 3.55434
Temp05_MAYmin (Degrees Celsius)	0.82456	1.04722 $\pm$ 2.08663
Temp06_JUNMax (Degrees Celsius)	14.75439	15.72500 $\pm$ 3.40030
Temp06_JUNMin (Degrees Celsius)	3.96491	4.00278 $\pm$ 2.41085
Temp07_JULmax (Degrees Celsius)	18.61404	19.56111 $\pm$ 3.47275
Temp07_JULmin (Degrees Celsius)	6.43860	6.35833 $\pm$ 2.28332
Temp08_AUGmax (Degrees Celsius)	18.57895	19.52222 $\pm$ 3.51100
Temp08_AUGmin (Degrees Celsius)	6.29825	6.19167 $\pm$ 2.34422
Temp09_SEPmax (Degrees Celsius)	13.38596	14.04444 $\pm$ 3.03456
Temp09_SEPmin (Degrees Celsius)	2.29825	2.04722 $\pm$ 2.37208
Temp10_OCTmax (Degrees Celsius)	6.03509	6.88889 $\pm$ 2.71577
Temp10_OCTmin (Degrees Celsius)	-1.26316	-1.46111 $\pm$ 1.64316
Temp11_NOVmax (Degrees Celsius)	-1.17544	-0.79722 $\pm$ 2.43512
Temp11_NOVmin (Degrees Celsius)	-6.33333	-6.68056 $\pm$ 2.97163
Temp12_DECmax (Degrees Celsius)	-4.59649	-4.66389 $\pm$ 2.69757
Temp12_DECmin (Degrees Celsius)	-10.03509	-10.65833 $\pm$ 3.71739
TempANNUALmax (Degrees Celsius)	6.24561	6.96389 $\pm$ 3.06157
TempANNUALmean (Degrees Celsius)	1.77193	2.25278 $\pm$ 2.66574
TempANNUALmin (Degrees Celsius)	-1.82456	-2.18056 $\pm$ 2.41152
<b>Hydrology</b>		
Drainage-Area (km <sup>2</sup> )	3425.62950	124.42081 $\pm$ 200.99192
Perimeter (Km)	549.09302	64.71360 $\pm$ 56.15436
StreamDensity (m/km <sup>2</sup> )	2190.93040	2246.06682 $\pm$ 604.89962
StreamLength (m)	7505315.81	302226.63 $\pm$ 500983.26
<b>Landcover</b>		
Natl-AnnCrops (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Barren (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafOpen (%)	2.85345	1.19263 $\pm$ 2.03874
Natl-BroadleafSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Coniferous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ConiferousDense (%)	0.48215	0.64845 $\pm$ 0.37668
Natl-ConiferousOpen (%)	52.58342	54.62780 $\pm$ 18.30692
Natl-ConiferousSparse (%)	1.36876	0.94121 $\pm$ 1.53621
Natl-Deciduous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Developed (%)	0.06762	0.00000 $\pm$ 0.00000
Natl-ExposedLand (%)	17.02159	13.20054 $\pm$ 11.11850
Natl-Grassland (%)	1.03581	1.87556 $\pm$ 1.68508

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Natl-Herb (%)	6.93168	5.75738 $\pm$ 2.89836
Natl-MixedForest (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodOpen (%)	0.09444	0.04060 $\pm$ 0.10208
Natl-MixedwoodSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-PerennCropsPast (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Rock/Rubble (%)	0.59550	1.56403 $\pm$ 2.75979
Natl-Shrubland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ShrubLow (%)	1.76236	4.98298 $\pm$ 3.22579
Natl-ShrubTall (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-SnowIce (%)	0.16345	0.08491 $\pm$ 0.15475
Natl-Water (%)	2.70893	0.22916 $\pm$ 0.36834
Natl-Wetland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-WetlandHerb (%)	0.08869	0.12918 $\pm$ 0.35193
Natl-WetlandShrub (%)	0.01338	0.00000 $\pm$ 0.00000
Natl-WetlandTreed (%)	0.00345	0.00000 $\pm$ 0.00000
Reg-Forest (%)	30.00000	0.00000 $\pm$ 0.00000
Reg-Ice (%)	0.06587	0.02487 $\pm$ 0.06034
Reg-NonprodForest (%)	30.00000	0.00000 $\pm$ 0.00000
Reg-UnregenForest (%)	40.00000	0.00000 $\pm$ 0.00000
<b>Substrate Data</b>		
%Bedrock (%)	0	0 $\pm$ 0
%Boulder (%)	3	9 $\pm$ 9
%Cobble (%)	87	51 $\pm$ 15
%Gravel (%)	1	3 $\pm$ 3
%Pebble (%)	9	37 $\pm$ 20
%Sand (%)	0	0 $\pm$ 0
%Silt+Clay (%)	0	0 $\pm$ 0
D50 (cm)	10.50	15.12 $\pm$ 14.26
Dg (cm)	10.3	8.2 $\pm$ 2.8
Dominant-1st (Category(0-9))	6	7 $\pm$ 1
Dominant-2nd (Category(0-9))	7	7 $\pm$ 1
Embeddedness (Category(1-5))	4	5 $\pm$ 1
PeriphytonCoverage (Category(1-5))	2	1 $\pm$ 0
SurroundingMaterial (Category(0-9))	3	4 $\pm$ 1
<b>Topography</b>		
ElevationMax (m)	3015.00000	2634.66667 $\pm$ 309.54023
ElevationMin (m)	457.00000	913.41667 $\pm$ 271.25180
ElevationStdev (m)	501.21029	349.02363 $\pm$ 92.12445
Reg-SlopeLT30% (%)	22.30934	18.88386 $\pm$ 9.29866
Slope30-50% (%)	28.01461	29.00215 $\pm$ 6.33837
Slope50-60% (%)	13.73378	13.91808 $\pm$ 1.91315
SlopeAvg (%)	49.22843	52.79851 $\pm$ 8.68755
SlopeGT60% (%)	32.28474	35.47207 $\pm$ 13.39684
SlopeLT30% (%)	25.96687	21.60770 $\pm$ 8.54172
SlopeMax (%)	574.77527	298.94390 $\pm$ 146.30679
SlopeMin (%)	0.00000	0.19777 $\pm$ 0.29213
SlopeStdev (%)	27.85578	26.57529 $\pm$ 4.62351
<b>Water Chemistry</b>		
General-DO (mg/L)	11.0000000	11.4175000 $\pm$ 0.7986708
General-pH (pH)	7.5	7.9 $\pm$ 0.4
General-SpCond ( $\mu$ S/cm)	188.6000000	168.9833333 $\pm$ 123.7858182
General-TempAir (Degrees Celsius)	26.0	26.0
General-TempWater (Degrees Celsius)	15.0000000	7.3183333 $\pm$ 2.7240839
General-Turbidity (NTU)	0.2000000	0.2020000



**Site Description**

<b>Study Name</b>	CBWQ-Slocan
<b>Site</b>	NJSLO01
<b>Sampling Date</b>	Sep 21 2011
<b>Know Your Watershed Basin</b>	Slocan
<b>Province / Territory</b>	British Columbia
<b>Terrestrial Ecological Classification</b>	Montane Cordillera EcoZone Columbia Mountains and Highlands EcoRegion
<b>Coordinates (decimal degrees)</b>	49.43000 N, 117.53300 W
<b>Altitude</b>	1748
<b>Local Basin Name</b>	Slocan
	Columbia
<b>Stream Order</b>	5



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	
<b>Model</b>	Columbia-Okanagan Preliminary March 2010
<b>Analysis Date</b>	September 05, 2017
<b>Taxonomic Level</b>	Family

**Cabin Assessment Results**

<b>Predictive Model Variables</b>	Depth-Avg Latitude Longitude Reg-Ice Reg-SlopeLT30%				
<b>Reference Groups</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Number of Reference Sites</b>	9	43	17	12	33
<b>Group Error Rate</b>	22.2%	24.5%	22.2%	25.0%	32.4%
<b>Overall Model Error Rate</b>	26.4%				
<b>Probability of Group Membership</b>	25.6%	4.4%	5.4%	62.1%	2.5%
<b>CABIN Assessment of NJSLO01 on Sep 21, 2011</b>	Mildly Divergent				

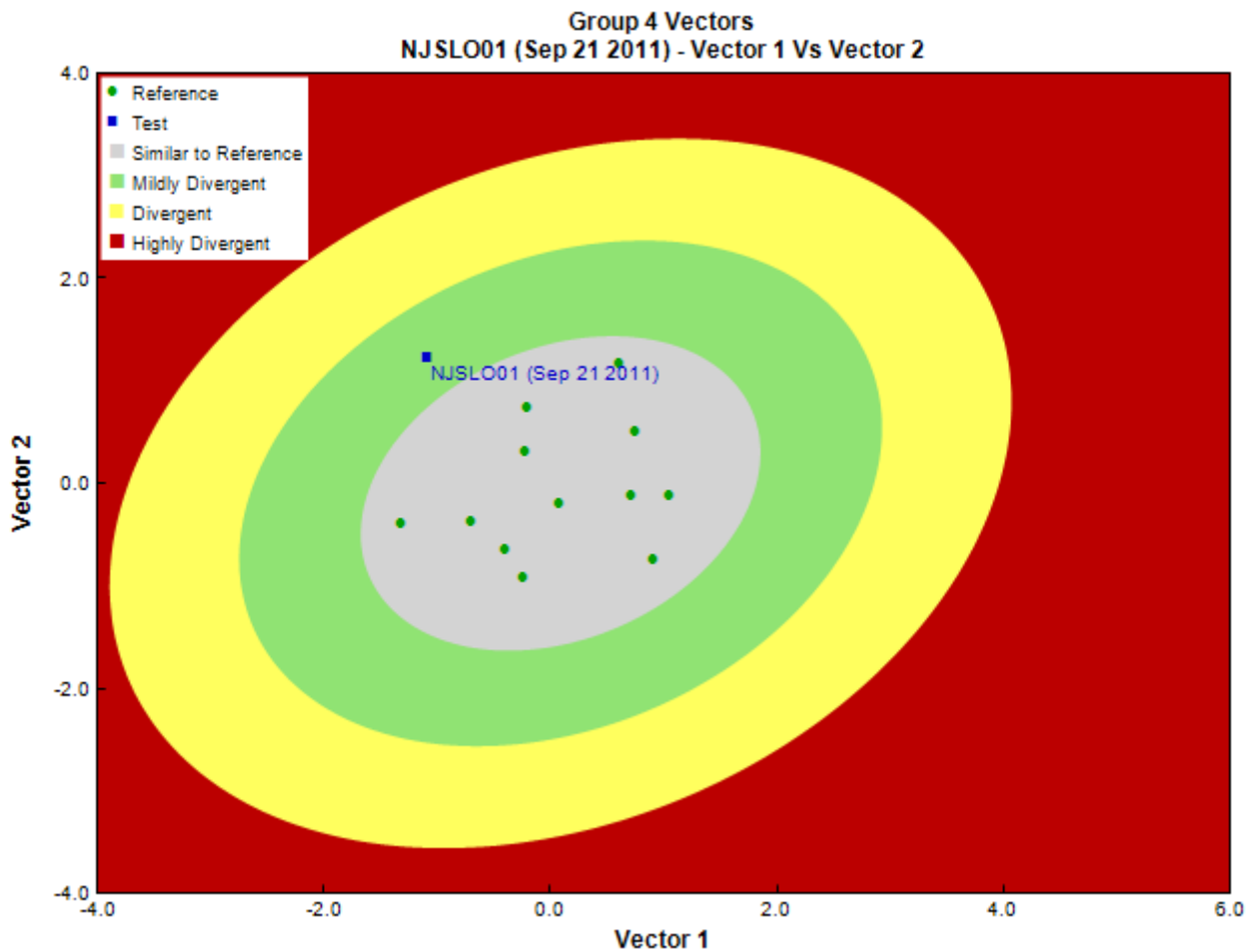


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

**Sample Information**

<b>Sampling Device</b>	Kick Net
<b>Mesh Size</b>	400
<b>Sampling Time</b>	3
<b>Taxonomist</b>	Eco Analyts, EcoAnalysts
<b>Date Taxonomy Completed</b>	January 17, 2012
	Marchant Box
<b>Sub-Sample Proportion</b>	41/100

## Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida			46	112.2
	Insecta	Coleoptera	Elmidae	38	92.7
		Diptera	Chironomidae	40	97.6
			Empididae	4	9.8
			Simuliidae	4	9.8
			Tipulidae	2	4.9
		Ephemeroptera	Baetidae	47	114.6
			Ephemerellidae	13	31.7
			Heptageniidae	2	4.9
		Plecoptera	Chloroperlidae	2	4.9
			Nemouridae	2	4.9
			Perlidae	3	7.3
			Perlodidae	23	56.1
			Pteronarcyidae	1	2.4
		Trichoptera	Brachycentridae	2	4.9
			Glossosomatidae	38	92.7
			Hydropsychidae	73	178.0
			Lepidostomatidae	44	107.3
			Rhyacophilidae	2	4.9
			Total	386	941.6

## Metrics

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Bray-Curtis Distance	0.69	0.4 $\pm$ 0.1
<b>Biotic Indices</b>		
Hilsenhoff Family index (North-West)	3.4	3.2 $\pm$ 0.3
Intolerant taxa	--	
Long-lived taxa	2.0	2.1 $\pm$ 1.0
Tolerant individuals (%)	--	0.8 $\pm$ 0.3
<b>Functional Measures</b>		
% Filterers	20.5	2.2 $\pm$ 1.8
% Gatherers	25.6	38.4 $\pm$ 12.4
% Predatores	39.1	19.0 $\pm$ 8.5
% Scrapers	34.2	63.2 $\pm$ 19.7
% Shredder	23.1	27.6 $\pm$ 15.2
No. Clinger Taxa	15.0	23.2 $\pm$ 6.3
<b>Number Of Individuals</b>		
% Chironomidae	11.8	7.4 $\pm$ 6.4
% Coleoptera	11.2	1.5 $\pm$ 3.9
% Diptera + Non-insects	14.7	10.8 $\pm$ 7.6
% Ephemeroptera	18.2	51.7 $\pm$ 18.8
% Ephemeroptera that are Baetidae	75.8	40.6 $\pm$ 30.0
% EPT Individuals	74.1	87.7 $\pm$ 7.4
% Odonata	0.0	0.0 $\pm$ 0.0
% of 2 dominant taxa	35.3	57.9 $\pm$ 14.2
% of 5 dominant taxa	71.2	81.6 $\pm$ 7.9
% of dominant taxa	21.5	39.8 $\pm$ 14.9
% Plecoptera	9.1	31.4 $\pm$ 15.4
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	45.9	27.0 $\pm$ 26.2
% Tricoptera	46.8	4.5 $\pm$ 2.8
No. EPT individuals/Chironomids+EPT Individuals	0.9	0.9 $\pm$ 0.1
Total Abundance	941.3	587.4 $\pm$ 299.1
<b>Richness</b>		
Chironomidae taxa (genus level only)	1.0	1.0 $\pm$ 0.0
Coleoptera taxa	1.0	0.4 $\pm$ 0.5
Diptera taxa	4.0	3.3 $\pm$ 1.0
Ephemeroptera taxa	3.0	3.8 $\pm$ 0.8
EPT Individuals (Sum)	614.5	526.0 $\pm$ 285.8
EPT taxa (no)	13.0	13.3 $\pm$ 2.7
Odonata taxa	0.0	0.0 $\pm$ 0.0

**Metrics**

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Pielou's Evenness	0.8	0.7 $\pm$ 0.1
Plecoptera taxa	5.0	6.3 $\pm$ 1.1
Shannon-Wiener Diversity	2.3	1.9 $\pm$ 0.4
Simpson's Diversity	0.9	0.8 $\pm$ 0.1
Simpson's Evenness	0.4	0.3 $\pm$ 0.1
Total No. of Taxa	18.0	19.3 $\pm$ 3.7
Trichoptera taxa	5.0	3.2 $\pm$ 1.4

**Frequency and Probability of Taxa Occurrence**

Reference Model Taxa	Frequency of Occurrence in Reference Sites					Probability Of Occurrence at NJSLO01
	Group 1	Group 2	Group 3	Group 4	Group 5	
Baetidae	100%	100%	100%	100%	97%	1.00
Capniidae	78%	55%	50%	92%	68%	0.84
Chironomidae	100%	100%	100%	100%	95%	1.00
Chloroperlidae	78%	88%	94%	100%	100%	0.93
Ephemerellidae	78%	100%	100%	100%	100%	0.94
Heptageniidae	100%	100%	100%	100%	100%	1.00
Hydropsychidae	11%	92%	78%	92%	86%	0.70
Nemouridae	100%	100%	100%	100%	100%	1.00
Perlidae	11%	84%	33%	100%	3%	0.70
Perlodidae	78%	78%	89%	92%	81%	0.87
Rhyacophilidae	100%	92%	100%	100%	95%	1.00
Taeniopterygidae	89%	49%	100%	92%	97%	0.90

**RIVPACS Ratios**

RIVPACS : Expected taxa P>0.50	14.32
RIVPACS : Observed taxa P>0.50	12.00
RIVPACS : O:E (p > 0.5)	0.84
RIVPACS : Expected taxa P>0.70	10.88
RIVPACS : Observed taxa P>0.70	10.00
RIVPACS : O:E (p > 0.7)	0.92

**Habitat Description**

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bedrock Geology</b>		
Alluvium (%)	0.00000	0.00000 $\pm$ 0.00000
Intrusive (%)	56.80740	11.07346 $\pm$ 28.63466
Metamorphic (%)	24.93025	17.96649 $\pm$ 35.53463
Sedimentary (%)	17.39867	70.96005 $\pm$ 44.90394
Ultramafic (%)	0.00000	0.00000 $\pm$ 0.00000
Volcanic (%)	0.86368	0.00000 $\pm$ 0.00000
<b>Channel</b>		
Depth-Avg (cm)	58.6	23.6 $\pm$ 11.1
Depth-Max (cm)	69.0	34.6 $\pm$ 12.3
Macrophyte (PercentRange)	1	0 $\pm$ 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.33 $\pm$ 0.78
Reach-Pools (Binary)	0	1 $\pm$ 0
Reach-Rapids (Binary)	1	0 $\pm$ 0
Reach-Riffles (Binary)	1	1 $\pm$ 0
Reach-StraightRun (Binary)	1	1 $\pm$ 1
Veg-Coniferous (Binary)	1	1 $\pm$ 0
Veg-Deciduous (Binary)	1	1 $\pm$ 0
Veg-GrassesFerns (Binary)	1	1 $\pm$ 0
Veg-Shrubs (Binary)	1	1 $\pm$ 0
Velocity-Avg (m/s)	0.66	0.48 $\pm$ 0.22
Velocity-Max (m/s)	1.25	0.76 $\pm$ 0.36
Width-Bankfull (m)	30.0	13.4 $\pm$ 9.9
Width-Wetted (m)	25.0	8.5 $\pm$ 5.8

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Climate</b>		
Precip01_JAN (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip02_FEB (mm)	108.33333	83.66667 $\pm$ 27.10278
Precip03_MAR (mm)	98.15789	77.23611 $\pm$ 27.15950
Precip04_APR (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip05_MAY (mm)	82.47368	71.65833 $\pm$ 17.81753
Precip06_JUN (mm)	91.70175	78.56667 $\pm$ 15.58521
Precip07_JUL (mm)	73.33333	64.39167 $\pm$ 10.41611
Precip08_AUG (mm)	69.92982	60.53056 $\pm$ 10.43373
Precip09_SEP (mm)	67.14035	56.91944 $\pm$ 10.91783
Precip10_OCT (mm)	82.21053	65.08056 $\pm$ 14.41229
Precip11_NOV (mm)	130.33333	105.93889 $\pm$ 25.04104
Precip12_DEC (mm)	145.94737	116.84444 $\pm$ 29.80954
PrecipTotal_ANNUAL (mm)	1162.75439	952.64722 $\pm$ 226.04690
Temp01_JANMax (Degrees Celsius)	-4.40351	-4.39167 $\pm$ 2.51268
Temp01_JANmin (Degrees Celsius)	-10.36842	-11.40833 $\pm$ 3.53951
Temp02_FEBmax (Degrees Celsius)	-1.82456	-1.70000 $\pm$ 2.12945
Temp02_FEBmin (Degrees Celsius)	-8.54386	-9.17500 $\pm$ 3.33361
Temp03_MARmax (Degrees Celsius)	1.68421	2.50556 $\pm$ 2.87525
Temp03_MARmin (Degrees Celsius)	-5.98246	-6.14167 $\pm$ 2.98556
Temp04_APRmax (Degrees Celsius)	6.26316	7.12222 $\pm$ 3.48771
Temp04_APRmin (Degrees Celsius)	-2.64912	-2.71667 $\pm$ 2.22785
Temp05_MAYmax (Degrees Celsius)	11.14035	12.03889 $\pm$ 3.55434
Temp05_MAYmin (Degrees Celsius)	0.82456	1.04722 $\pm$ 2.08663
Temp06_JUNMax (Degrees Celsius)	14.75439	15.72500 $\pm$ 3.40030
Temp06_JUNMin (Degrees Celsius)	3.96491	4.00278 $\pm$ 2.41085
Temp07_JULmax (Degrees Celsius)	18.61404	19.56111 $\pm$ 3.47275
Temp07_JULmin (Degrees Celsius)	6.43860	6.35833 $\pm$ 2.28332
Temp08_AUGmax (Degrees Celsius)	18.57895	19.52222 $\pm$ 3.51100
Temp08_AUGmin (Degrees Celsius)	6.29825	6.19167 $\pm$ 2.34422
Temp09_SEPmax (Degrees Celsius)	13.38596	14.04444 $\pm$ 3.03456
Temp09_SEPmin (Degrees Celsius)	2.29825	2.04722 $\pm$ 2.37208
Temp10_OCTmax (Degrees Celsius)	6.03509	6.88889 $\pm$ 2.71577
Temp10_OCTmin (Degrees Celsius)	-1.26316	-1.46111 $\pm$ 1.64316
Temp11_NOVmax (Degrees Celsius)	-1.17544	-0.79722 $\pm$ 2.43512
Temp11_NOVmin (Degrees Celsius)	-6.33333	-6.68056 $\pm$ 2.97163
Temp12_DECmax (Degrees Celsius)	-4.59649	-4.66389 $\pm$ 2.69757
Temp12_DECmin (Degrees Celsius)	-10.03509	-10.65833 $\pm$ 3.71739
TempANNUALmax (Degrees Celsius)	6.24561	6.96389 $\pm$ 3.06157
TempANNUALmean (Degrees Celsius)	1.77193	2.25278 $\pm$ 2.66574
TempANNUALmin (Degrees Celsius)	-1.82456	-2.18056 $\pm$ 2.41152
<b>Hydrology</b>		
Drainage-Area (km <sup>2</sup> )	3425.62950	124.42081 $\pm$ 200.99192
Perimeter (Km)	549.09302	64.71360 $\pm$ 56.15436
StreamDensity (m/km <sup>2</sup> )	2190.93040	2246.06682 $\pm$ 604.89962
StreamLength (m)	7505315.81	302226.63 $\pm$ 500983.26
<b>Landcover</b>		
Natl-AnnCrops (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Barren (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafOpen (%)	2.85345	1.19263 $\pm$ 2.03874
Natl-BroadleafSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Coniferous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ConiferousDense (%)	0.48215	0.64845 $\pm$ 0.37668
Natl-ConiferousOpen (%)	52.58342	54.62780 $\pm$ 18.30692
Natl-ConiferousSparse (%)	1.36876	0.94121 $\pm$ 1.53621
Natl-Deciduous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Developed (%)	0.06762	0.00000 $\pm$ 0.00000
Natl-ExposedLand (%)	17.02159	13.20054 $\pm$ 11.11850
Natl-Grassland (%)	1.03581	1.87556 $\pm$ 1.68508
Natl-Herb (%)	6.93168	5.75738 $\pm$ 2.89836
Natl-MixedForest (%)	0.00000	0.00000 $\pm$ 0.00000

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Natl-MixedwoodDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodOpen (%)	0.09444	0.04060 $\pm$ 0.10208
Natl-MixedwoodSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-PerennCropsPast (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Rock/Rubble (%)	0.59550	1.56403 $\pm$ 2.75979
Natl-Shrubland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ShrubLow (%)	1.76236	4.98298 $\pm$ 3.22579
Natl-ShrubTall (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-SnowIce (%)	0.16345	0.08491 $\pm$ 0.15475
Natl-Water (%)	2.70893	0.22916 $\pm$ 0.36834
Natl-Wetland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-WetlandHerb (%)	0.08869	0.12918 $\pm$ 0.35193
Natl-WetlandShrub (%)	0.01338	0.00000 $\pm$ 0.00000
Natl-WetlandTreed (%)	0.00345	0.00000 $\pm$ 0.00000
Reg-Ice (%)	0.06580	0.02487 $\pm$ 0.06034
<b>Sediment Chemistry</b>		
Ag (ppm)	0.025	0.000
Al (ppm)	24600.000	0.005
As (ppm)	2.500	0.000
Ba (ppm)	22.600	0.068
Be (ppm)	0.200	0.000
Bi (ppm)	0.050	0.000
Ca (ppm)	111000.000	21.108 $\pm$ 16.801
Cd (ppm)	0.250	0.000
Co (ppm)	2.000	0.000
Cr (ppm)	5.000	0.000
Cu (ppm)	2.500	0.000
Fe (ppm)	75000.000	0.008
Hg (ppm)	0.050	0.000 $\pm$ 0.000
K (ppm)	4600.000	0.614 $\pm$ 0.406
Li (ppm)	6.000	0.001
Mg (ppm)	13000.000	7.667 $\pm$ 7.975
Mn (ppm)	123.000	0.001
Mo (ppm)	0.200	0.001
Na (ppm)	1000.000	1.538 $\pm$ 1.275
Ni (ppm)	3.900	0.000
Pb (ppm)	2.800	0.000
Sb (ppm)	0.050	0.000
Se (ppm)	0.250	0.000
Sn (ppm)	0.100	0.000
Sr (ppm)	13.000	0.044
Ti (ppm)	205.000	0.001
Tl (ppm)	0.025	0.000
TP (ppm)	307.000	0.000 $\pm$ 0.000
U (ppm)	0.830	0.001
V (ppm)	14.000	0.000
Y (ppm)	65.000	0.000 $\pm$ 0.000
Zr (ppm)	0.250	0.000 $\pm$ 0.000
<b>Substrate Data</b>		
%Bedrock (%)	0	0 $\pm$ 0
%Boulder (%)	4	9 $\pm$ 9
%Cobble (%)	59	51 $\pm$ 15
%Gravel (%)	0	3 $\pm$ 3
%Pebble (%)	37	37 $\pm$ 20
%Sand (%)	0	0 $\pm$ 0
%Silt+Clay (%)	0	0 $\pm$ 0
D50 (cm)	8.00	15.12 $\pm$ 14.26
Dg (cm)	7.8	8.2 $\pm$ 2.8
Dominant-1st (Category(0-9))	6	7 $\pm$ 1
Dominant-2nd (Category(0-9))	7	7 $\pm$ 1
Embeddedness (Category(1-5))	4	5 $\pm$ 1
PeriphytonCoverage (Category(1-5))	2	1 $\pm$ 0

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Topography</b>		
<b>ElevationMax (m)</b>	3015.00000	2634.66667 $\pm$ 309.54023
<b>ElevationMin (m)</b>	457.00000	913.41667 $\pm$ 271.25180
<b>ElevationStdev (m)</b>	501.21029	349.02363 $\pm$ 92.12445
<b>Reg-SlopeLT30% (%)</b>	22.30900	18.88386 $\pm$ 9.29866
<b>Slope30-50% (%)</b>	28.01461	29.00215 $\pm$ 6.33837
<b>Slope50-60% (%)</b>	13.73378	13.91808 $\pm$ 1.91315
<b>SlopeAvg (%)</b>	49.22843	52.79851 $\pm$ 8.68755
<b>SlopeGT60% (%)</b>	32.28474	35.47207 $\pm$ 13.39684
<b>SlopeLT30% (%)</b>	25.96687	21.60770 $\pm$ 8.54172
<b>SlopeMax (%)</b>	574.77527	298.94390 $\pm$ 146.30679
<b>SlopeMin (%)</b>	0.00000	0.19777 $\pm$ 0.29213
<b>SlopeStdev (%)</b>	27.85578	26.57529 $\pm$ 4.62351
<b>Water Chemistry</b>		
<b>General-Alkalinity (mg/L)</b>	40.5000000	71.7000000 $\pm$ 53.9231440
<b>General-DO (mg/L)</b>	12.0000000	11.4175000 $\pm$ 0.7986708
<b>General-pH (pH)</b>	6.1	7.9 $\pm$ 0.4
<b>General-SpCond (<math>\mu</math>S/cm)</b>	87.9000000	168.9833333 $\pm$ 123.7858182
<b>General-TempAir (Degrees Celsius)</b>	24.0	26.0
<b>General-TempWater (Degrees Celsius)</b>	14.1200000	7.3183333 $\pm$ 2.7240839
<b>General-Turbidity (NTU)</b>	0.3500000	0.2020000
<b>Nitrogen-NO2 (mg/L)</b>	0.0025000	0.0027500 $\pm$ 0.0062831
<b>Nitrogen-NO2+NO3 (mg/L)</b>	0.0600000	0.0690000
<b>Nitrogen-NO3 (mg/L)</b>	0.0600000	0.0546667 $\pm$ 0.0498148
<b>Phosphorus-OrthoP (mg/L)</b>	0.0025000	0.0002727 $\pm$ 0.0004671

## Site Description

<b>Study Name</b>	CBWQ-Slocan
<b>Site</b>	NJSLO01
<b>Sampling Date</b>	Oct 17 2013
<b>Know Your Watershed Basin</b>	Slocan
<b>Province / Territory</b>	British Columbia
<b>Terrestrial Ecological Classification</b>	Montane Cordillera EcoZone Columbia Mountains and Highlands EcoRegion
<b>Coordinates (decimal degrees)</b>	49.43333 N, 117.53333 W
<b>Altitude</b>	1514
<b>Local Basin Name</b>	Slocan
	Columbia
<b>Stream Order</b>	5



Figure 1. Location Map

Across Reach (No image found)  
 Aerial (No image found)  
 Down Stream (No image found)  
 Field Sheet (No image found)  
 Miscellaneous (No image found)  
 Substrate (No image found)  
 Up Stream (No image found)

## Cabin Assessment Results

		<b>Reference Model Summary</b>				
<b>Model</b>	Columbia-Okanagan Preliminary March 2010					
<b>Analysis Date</b>	September 05, 2017					
<b>Taxonomic Level</b>	Family					
<b>Predictive Model Variables</b>	Depth-Avg Latitude Longitude Reg-Ice Reg-SlopeLT30%					
<b>Reference Groups</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
<b>Number of Reference Sites</b>	9	43	17	12	33	
<b>Group Error Rate</b>	22.2%	24.5%	22.2%	25.0%	32.4%	
<b>Overall Model Error Rate</b>	26.4%					
<b>Probability of Group Membership</b>	0.9%	9.1%	8.0%	77.9%	4.1%	
<b>CABIN Assessment of NJSLO01 on Oct 17, 2013</b>	Divergent					



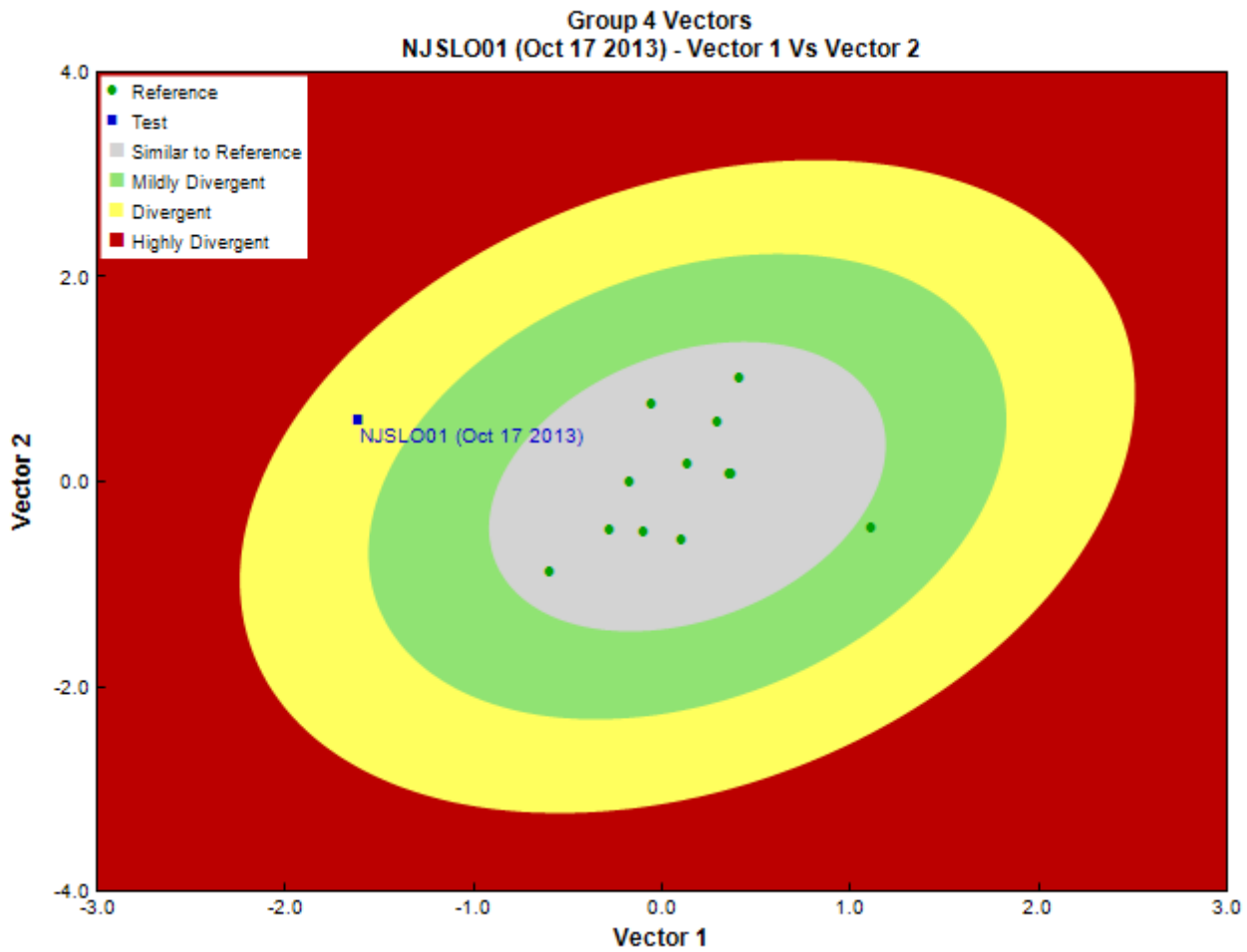


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

**Sample Information**

<b>Sampling Device</b>	Kick Net
<b>Mesh Size</b>	400
<b>Sampling Time</b>	3
<b>Taxonomist</b>	Pina Viola, Consultant
<b>Date Taxonomy Completed</b>	March 09, 2013
	Marchant Box
<b>Sub-Sample Proportion</b>	12/100

**Community Structure**

Phylum	Class	Order	Family	Raw Count	Total Count
Annelida	Oligochaeta			5	41.7
		Lumbriculida	Lumbriculidae	1	8.3
Arthropoda	Arachnida	Trombidiformes	Hydryphantidae	1	8.3
			Lebertiidae	3	25.0
			Sperchontidae	4	33.3
			Torrenticolidae	1	8.3
	Insecta	Coleoptera	Elmidae	11	91.6
		Diptera	Chironomidae	44	366.7
			Empidiidae	2	16.6
			Simuliidae	4	33.3
		Ephemeroptera	Ameletidae	1	8.3
			Baetidae	11	91.7
			Ephemerellidae	41	341.7
			Heptageniidae	12	100.0
			Leptophlebiidae	2	16.7

## Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
		Plecoptera	Nemouridae	2	16.7
			Perlidae	1	8.3
			Perlodidae	10	83.4
			Pteronarcyidae	1	8.3
		Trichoptera	Brachycentridae	1	8.3
			Glossosomatidae	4	33.3
			Hydropsychidae	44	366.7
			Hydroptilidae	63	525.0
			Lepidostomatidae	90	750.0
			Total	359	2,991.5

## Metrics

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Bray-Curtis Distance	0.84	0.4 $\pm$ 0.1
<b>Biotic Indices</b>		
Hilsenhoff Family index (North-West)	3.6	3.2 $\pm$ 0.3
Intolerant taxa	--	
Long-lived taxa	3.0	2.1 $\pm$ 1.0
Tolerant individuals (%)	--	0.8 $\pm$ 0.3
<b>Functional Measures</b>		
% Filterers	13.6	2.2 $\pm$ 1.8
% Gatherers	46.2	38.4 $\pm$ 12.4
% Predatores	31.8	19.0 $\pm$ 8.5
% Scrapers	29.5	63.2 $\pm$ 19.7
% Shredder	29.2	27.6 $\pm$ 15.2
No. Clinger Taxa	22.0	23.2 $\pm$ 6.3
<b>Number Of Individuals</b>		
% Chironomidae	12.4	7.4 $\pm$ 6.4
% Coleoptera	3.1	1.5 $\pm$ 3.9
% Diptera + Non-insects	16.9	10.8 $\pm$ 7.6
% Ephemeroptera	18.9	51.7 $\pm$ 18.8
% Ephemeroptera that are Baetidae	16.4	40.6 $\pm$ 30.0
% EPT Individuals	79.9	87.7 $\pm$ 7.4
% Odonata	0.0	0.0 $\pm$ 0.0
% of 2 dominant taxa	43.2	57.9 $\pm$ 14.2
% of 5 dominant taxa	79.7	81.6 $\pm$ 7.9
% of dominant taxa	25.4	39.8 $\pm$ 14.9
% Plecoptera	4.0	31.4 $\pm$ 15.4
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	21.8	27.0 $\pm$ 26.2
% Tricoptera	57.1	4.5 $\pm$ 2.8
No. EPT individuals/Chironomids+EPT Individuals	0.9	0.9 $\pm$ 0.1
Total Abundance	2991.5	587.4 $\pm$ 299.1
<b>Richness</b>		
Chironomidae taxa (genus level only)	1.0	1.0 $\pm$ 0.0
Coleoptera taxa	1.0	0.4 $\pm$ 0.5
Diptera taxa	3.0	3.3 $\pm$ 1.0
Ephemeroptera taxa	5.0	3.8 $\pm$ 0.8
EPT Individuals (Sum)	2358.3	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	2.3	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	23.0	19.3 $\pm$ 3.7
Trichoptera taxa	5.0	3.2 $\pm$ 1.4

### Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites					Probability Of Occurrence at NJSLO01
	Group 1	Group 2	Group 3	Group 4	Group 5	
Baetidae	100%	100%	100%	100%	97%	1.00
Capniidae	78%	55%	50%	92%	68%	0.84
Chironomidae	100%	100%	100%	100%	95%	1.00
Chloroperlidae	78%	88%	94%	100%	100%	0.98
Ephemerellidae	78%	100%	100%	100%	100%	1.00
Heptageniidae	100%	100%	100%	100%	100%	1.00
Hydropsychidae	11%	92%	78%	92%	86%	0.90
Nemouridae	100%	100%	100%	100%	100%	1.00
Perlidae	11%	84%	33%	100%	3%	0.88
Perlodidae	78%	78%	89%	92%	81%	0.90
Rhyacophilidae	100%	92%	100%	100%	95%	0.99
Taeniopterygidae	89%	49%	100%	92%	97%	0.89

### RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	14.31
RIVPACS : Observed taxa P>0.50	11.00
RIVPACS : O:E (p > 0.5)	0.77
RIVPACS : Expected taxa P>0.70	11.37
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	0.70

### Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bedrock Geology</b>		
Alluvium (%)	0.00000	0.00000 $\pm$ 0.00000
Intrusive (%)	56.80740	11.07346 $\pm$ 28.63466
Metamorphic (%)	24.93025	17.96649 $\pm$ 35.53463
Sedimentary (%)	17.39867	70.96005 $\pm$ 44.90394
Ultramafic (%)	0.00000	0.00000 $\pm$ 0.00000
Volcanic (%)	0.86368	0.00000 $\pm$ 0.00000
<b>Channel</b>		
Depth-Avg (cm)	36.6	23.6 $\pm$ 11.1
Depth-BankfullMinusWetted (cm)	162.00	51.38 $\pm$ 29.42
Depth-Max (cm)	58.0	34.6 $\pm$ 12.3
Macrophyte (PercentRange)	0	0 $\pm$ 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.33 $\pm$ 0.78
Reach-DomStreamsideVeg (Category (1-4))	4	4 $\pm$ 1
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
Slope (m/m)	0.0050000	0.0546683 $\pm$ 0.0376269
Veg-Coniferous (Binary)	1	1 $\pm$ 0
Veg-Deciduous (Binary)	1	1 $\pm$ 0
Veg-GrassesFerns (Binary)	1	1 $\pm$ 0
Veg-Shrubs (Binary)	1	1 $\pm$ 0
Velocity-Avg (m/s)	0.69	0.48 $\pm$ 0.22
Velocity-Max (m/s)	1.25	0.76 $\pm$ 0.36
XSEC-VelMethod (Category (1-3))	1	1 $\pm$ 0
<b>Climate</b>		
Precip01_JAN (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip02_FEB (mm)	108.33333	83.66667 $\pm$ 27.10278
Precip03_MAR (mm)	98.15789	77.23611 $\pm$ 27.15950
Precip04_APR (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip05_MAY (mm)	82.47368	71.65833 $\pm$ 17.81753
Precip06_JUN (mm)	91.70175	78.56667 $\pm$ 15.58521
Precip07_JUL (mm)	73.33333	64.39167 $\pm$ 10.41611
Precip08_AUG (mm)	69.92982	60.53056 $\pm$ 10.43373
Precip09_SEP (mm)	67.14035	56.91944 $\pm$ 10.91783

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Precip10_OCT (mm)	82.21053	65.08056 $\pm$ 14.41229
Precip11_NOV (mm)	130.33333	105.93889 $\pm$ 25.04104
Precip12_DEC (mm)	145.94737	116.84444 $\pm$ 29.80954
PrecipTotal_ANNUAL (mm)	1162.75439	952.64722 $\pm$ 226.04690
Temp01_JANMax (Degrees Celsius)	-4.40351	-4.39167 $\pm$ 2.51268
Temp01_JANmin (Degrees Celsius)	-10.36842	-11.40833 $\pm$ 3.53951
Temp02_FEBmax (Degrees Celsius)	-1.82456	-1.70000 $\pm$ 2.12945
Temp02_FEBmin (Degrees Celsius)	-8.54386	-9.17500 $\pm$ 3.33361
Temp03_MARmax (Degrees Celsius)	1.68421	2.50556 $\pm$ 2.87525
Temp03_MARmin (Degrees Celsius)	-5.98246	-6.14167 $\pm$ 2.98556
Temp04_APRmax (Degrees Celsius)	6.26316	7.12222 $\pm$ 3.48771
Temp04_APRmin (Degrees Celsius)	-2.64912	-2.71667 $\pm$ 2.22785
Temp05_MAYmax (Degrees Celsius)	11.14035	12.03889 $\pm$ 3.55434
Temp05_MAYmin (Degrees Celsius)	0.82456	1.04722 $\pm$ 2.08663
Temp06_JUNMax (Degrees Celsius)	14.75439	15.72500 $\pm$ 3.40030
Temp06_JUNmin (Degrees Celsius)	3.96491	4.00278 $\pm$ 2.41085
Temp07_JULmax (Degrees Celsius)	18.61404	19.56111 $\pm$ 3.47275
Temp07_JULmin (Degrees Celsius)	6.43860	6.35833 $\pm$ 2.28332
Temp08_AUGmax (Degrees Celsius)	18.57895	19.52222 $\pm$ 3.51100
Temp08_AUGmin (Degrees Celsius)	6.29825	6.19167 $\pm$ 2.34422
Temp09_SEPmax (Degrees Celsius)	13.38596	14.04444 $\pm$ 3.03456
Temp09_SEPmin (Degrees Celsius)	2.29825	2.04722 $\pm$ 2.37208
Temp10_OCTmax (Degrees Celsius)	6.03509	6.88889 $\pm$ 2.71577
Temp10_OCTmin (Degrees Celsius)	-1.26316	-1.46111 $\pm$ 1.64316
Temp11_NOVmax (Degrees Celsius)	-1.17544	-0.79722 $\pm$ 2.43512
Temp11_NOVmin (Degrees Celsius)	-6.33333	-6.68056 $\pm$ 2.97163
Temp12_DECmax (Degrees Celsius)	-4.59649	-4.66389 $\pm$ 2.69757
Temp12_DECmin (Degrees Celsius)	-10.03509	-10.65833 $\pm$ 3.71739
TempANNUALmax (Degrees Celsius)	6.24561	6.96389 $\pm$ 3.06157
TempANNUALmean (Degrees Celsius)	1.77193	2.25278 $\pm$ 2.66574
TempANNUALmin (Degrees Celsius)	-1.82456	-2.18056 $\pm$ 2.41152
<b>Hydrology</b>		
Drainage-Area (km <sup>2</sup> )	3425.62950	124.42081 $\pm$ 200.99192
Perimeter (Km)	549.09302	64.71360 $\pm$ 56.15436
StreamDensity (m/km <sup>2</sup> )	2190.93040	2246.06682 $\pm$ 604.89962
StreamLength (m)	7505315.81	302226.63 $\pm$ 500983.26
<b>Landcover</b>		
Natl-AnnCrops (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Barren (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafOpen (%)	2.85345	1.19263 $\pm$ 2.03874
Natl-BroadleafSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Coniferous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ConiferousDense (%)	0.48215	0.64845 $\pm$ 0.37668
Natl-ConiferousOpen (%)	52.58342	54.62780 $\pm$ 18.30692
Natl-ConiferousSparse (%)	1.36876	0.94121 $\pm$ 1.53621
Natl-Deciduous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Developed (%)	0.06762	0.00000 $\pm$ 0.00000
Natl-ExposedLand (%)	17.02159	13.20054 $\pm$ 11.11850
Natl-Grassland (%)	1.03581	1.87556 $\pm$ 1.68508
Natl-Herb (%)	6.93168	5.75738 $\pm$ 2.89836
Natl-MixedForest (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodOpen (%)	0.09444	0.04060 $\pm$ 0.10208
Natl-MixedwoodSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-PerennCropsPast (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Rock/Rubble (%)	0.59550	1.56403 $\pm$ 2.75979
Natl-Shrubland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ShrubLow (%)	1.76236	4.98298 $\pm$ 3.22579
Natl-ShrubTall (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-SnowIce (%)	0.16345	0.08491 $\pm$ 0.15475
Natl-Water (%)	2.70893	0.22916 $\pm$ 0.36834

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Natl-Wetland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-WetlandHerb (%)	0.08869	0.12918 $\pm$ 0.35193
Natl-WetlandShrub (%)	0.01338	0.00000 $\pm$ 0.00000
Natl-WetlandTreed (%)	0.00345	0.00000 $\pm$ 0.00000
Reg-Ice (%)	0.06580	0.02487 $\pm$ 0.06034
<b>Substrate Data</b>		
%Bedrock (%)	0	0 $\pm$ 0
%Boulder (%)	5	9 $\pm$ 9
%Cobble (%)	83	51 $\pm$ 15
%Gravel (%)	0	3 $\pm$ 3
%Pebble (%)	12	37 $\pm$ 20
%Sand (%)	0	0 $\pm$ 0
%Silt+Clay (%)	0	0 $\pm$ 0
D50 (cm)	11.00	15.12 $\pm$ 14.26
Dg (cm)	10.8	8.2 $\pm$ 2.8
Dominant-1st (Category(0-9))	6	7 $\pm$ 1
Dominant-2nd (Category(0-9))	7	7 $\pm$ 1
Embeddedness (Category(1-5))	4	5 $\pm$ 1
PeriphytonCoverage (Category(1-5))	4	1 $\pm$ 0
SurroundingMaterial (Category(0-9))	5	4 $\pm$ 1
<b>Topography</b>		
ElevationMax (m)	3015.00000	2634.66667 $\pm$ 309.54023
ElevationMin (m)	457.00000	913.41667 $\pm$ 271.25180
ElevationStdev (m)	501.21029	349.02363 $\pm$ 92.12445
Reg-SlopeLT30% (%)	22.30900	18.88386 $\pm$ 9.29866
Slope30-50% (%)	28.01461	29.00215 $\pm$ 6.33837
Slope50-60% (%)	13.73378	13.91808 $\pm$ 1.91315
SlopeAvg (%)	49.22843	52.79851 $\pm$ 8.68755
SlopeGT60% (%)	32.28474	35.47207 $\pm$ 13.39684
SlopeLT30% (%)	25.96687	21.60770 $\pm$ 8.54172
SlopeMax (%)	574.77527	298.94390 $\pm$ 146.30679
SlopeMin (%)	0.00000	0.19777 $\pm$ 0.29213
SlopeStdev (%)	27.85578	26.57529 $\pm$ 4.62351
<b>Water Chemistry</b>		
General-DO (mg/L)	10.0000000	11.4175000 $\pm$ 0.7986708
General-pH (pH)	6.0	7.9 $\pm$ 0.4
General-SpCond ( $\mu$ S/cm)	73.2000000	168.9833333 $\pm$ 123.7858182
General-TempAir (Degrees Celsius)	16.0	26.0
General-TempWater (Degrees Celsius)	8.0000000	7.3183333 $\pm$ 2.7240839
General-Turbidity (NTU)	0.3000000	0.2020000

**Site Description**

<b>Study Name</b>	CBWQ-Slocan
<b>Site</b>	NJSLO01
<b>Sampling Date</b>	Sep 29 2014
<b>Know Your Watershed Basin</b>	Slocan
<b>Province / Territory</b>	British Columbia
<b>Terrestrial Ecological Classification</b>	Montane Cordillera EcoZone Columbia Mountains and Highlands EcoRegion
<b>Coordinates (decimal degrees)</b>	49.43333 N, 117.53333 W
<b>Altitude</b>	1514
<b>Local Basin Name</b>	Slocan
	Columbia
<b>Stream Order</b>	5



Figure 1. Location Map

Across Reach  
Aerial (No image found)



Down Stream



Field Sheet



Miscellaneous



Substrate



Up Stream

**Cabin Assessment Results**

<b>Reference Model Summary</b>					
<b>Model</b>	Columbia-Okanagan Preliminary March 2010				
<b>Analysis Date</b>	September 05, 2017				
<b>Taxonomic Level</b>	Family				
<b>Predictive Model Variables</b>	Depth-Avg Latitude Longitude Reg-Ice Reg-SlopeLT30%				
<b>Reference Groups</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Number of Reference Sites</b>	9	43	17	12	33
<b>Group Error Rate</b>	22.2%	24.5%	22.2%	25.0%	32.4%
<b>Overall Model Error Rate</b>	26.4%				
<b>Probability of Group Membership</b>	1.2%	8.8%	7.9%	78.1%	4.0%
<b>CABIN Assessment of NJSLO01 on Sep 29, 2014</b>	Mildly Divergent				



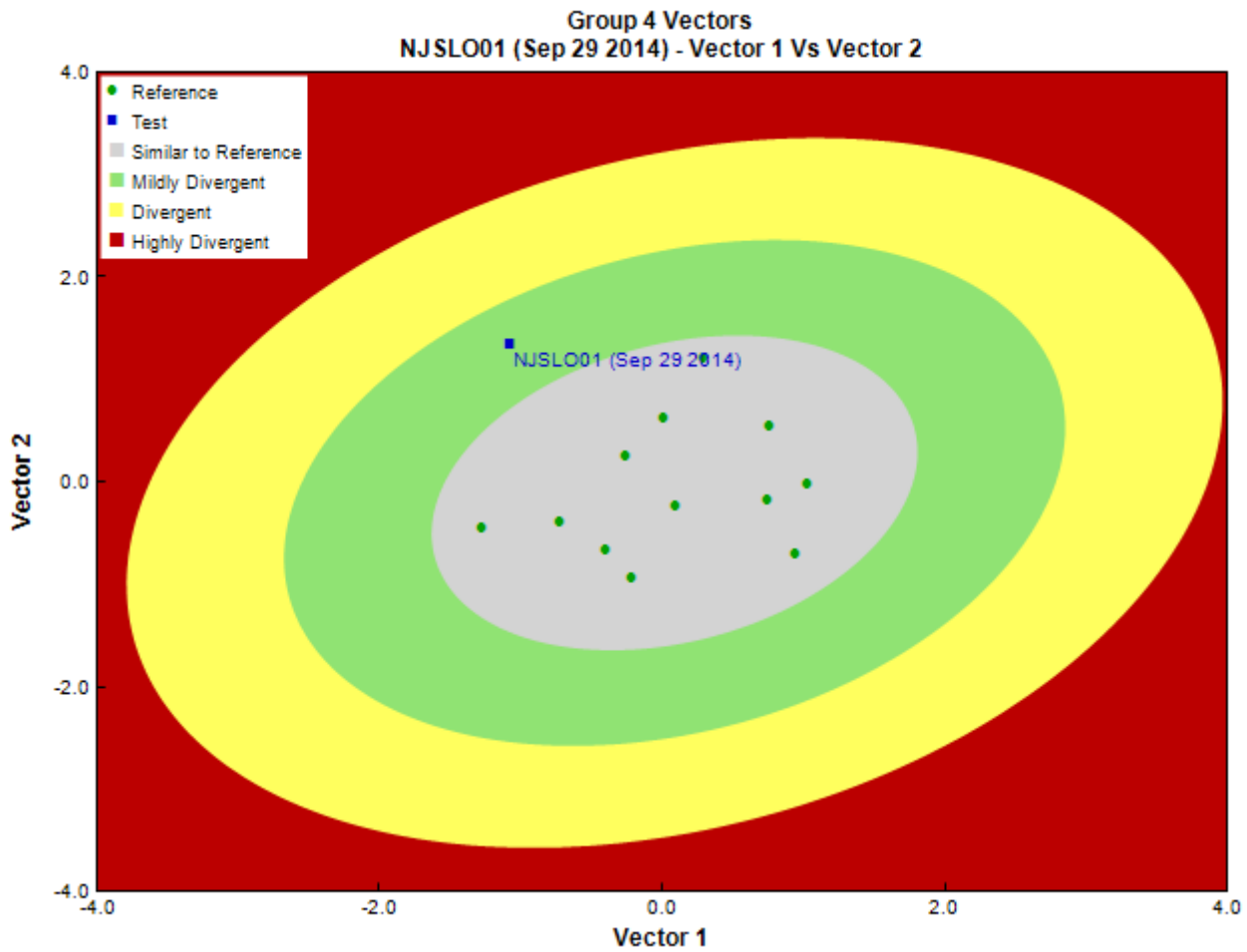


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

**Sample Information**

<b>Sampling Device</b>	Kick Net
<b>Mesh Size</b>	400
<b>Sampling Time</b>	-
<b>Taxonomist</b>	Pina Viola, Consultant
<b>Date Taxonomy Completed</b>	December 30, 2014
	Marchant Box
<b>Sub-Sample Proportion</b>	100/100

**Community Structure**

Phylum	Class	Order	Family	Raw Count	Total Count
Annelida	Oligochaeta	Enchytraeida	Enchytraeidae	3	3.0
Arthropoda	Arachnida	Trombidiformes		1	1.0
			Hydryphantidae	1	1.0
			Lebertiidae	1	1.0
			Sperchontidae	8	8.0
			Torrenticolidae	7	7.0
	Insecta	Coleoptera	Elmidae	13	13.0
		Diptera	Chironomidae	49	49.0
			Empidiidae	1	1.0
			Simuliidae	24	24.0
			Tipulidae	1	1.0
		Ephemeroptera	Baetidae	51	51.0
			Ephemerellidae	33	33.0
			Heptageniidae	3	3.0
			Leptophlebiidae	1	1.0

## Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
		Plecoptera	Chloroperlidae	6	6.0
			Perlidae	2	2.0
			Perlodidae	10	10.0
		Trichoptera		1	1.0
			Glossosomatidae	18	18.0
			Hydropsychidae	66	66.0
			Hydroptilidae	4	4.0
			Lepidostomatidae	139	139.0
Mollusca	Bivalvia	Veneroida	Pisidiidae	1	1.0
			Total	444	444.0

## Metrics

Name	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Bray-Curtis Distance	0.73	0.4 $\pm$ 0.1
<b>Biotic Indices</b>		
Hilsenhoff Family index (North-West)	3.6	3.2 $\pm$ 0.3
Intolerant taxa	--	
Long-lived taxa	4.0	2.1 $\pm$ 1.0
Tolerant individuals (%)	--	0.8 $\pm$ 0.3
<b>Functional Measures</b>		
% Filterers	20.3	2.2 $\pm$ 1.8
% Gatherers	25.0	38.4 $\pm$ 12.4
% Predatores	39.4	19.0 $\pm$ 8.5
% Scrapers	26.8	63.2 $\pm$ 19.7
% Shredder	34.5	27.6 $\pm$ 15.2
No. Clinger Taxa	20.0	23.2 $\pm$ 6.3
<b>Number Of Individuals</b>		
% Chironomidae	11.1	7.4 $\pm$ 6.4
% Coleoptera	2.9	1.5 $\pm$ 3.9
% Diptera + Non-insects	21.7	10.8 $\pm$ 7.6
% Ephemeroptera	19.9	51.7 $\pm$ 18.8
% Ephemeroptera that are Baetidae	58.0	40.6 $\pm$ 30.0
% EPT Individuals	75.3	87.7 $\pm$ 7.4
% Odonata	0.0	0.0 $\pm$ 0.0
% of 2 dominant taxa	46.4	57.9 $\pm$ 14.2
% of 5 dominant taxa	76.5	81.6 $\pm$ 7.9
% of dominant taxa	31.4	39.8 $\pm$ 14.9
% Plecoptera	4.1	31.4 $\pm$ 15.4
% Tribe Tanyatarisini	--	
% Trichoptera that are Hydropsychida	29.1	27.0 $\pm$ 26.2
% Tricoptera	51.4	4.5 $\pm$ 2.8
No. EPT individuals/Chironomids+EPT Individuals	0.9	0.9 $\pm$ 0.1
Total Abundance	444.0	587.4 $\pm$ 299.1
<b>Richness</b>		
Chironomidae taxa (genus level only)	1.0	1.0 $\pm$ 0.0
Coleoptera taxa	1.0	0.4 $\pm$ 0.5
Diptera taxa	4.0	3.3 $\pm$ 1.0
Ephemeroptera taxa	4.0	3.8 $\pm$ 0.8
EPT Individuals (Sum)	333.0	526.0 $\pm$ 285.8
EPT taxa (no)	11.0	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	3.0	6.3 $\pm$ 1.1
Shannon-Wiener Diversity	2.2	1.9 $\pm$ 0.4
Simpson's Diversity	0.8	0.8 $\pm$ 0.1
Simpson's Evenness	0.3	0.3 $\pm$ 0.1
Total No. of Taxa	22.0	19.3 $\pm$ 3.7
Trichoptera taxa	4.0	3.2 $\pm$ 1.4

### Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites					Probability Of Occurrence at NJSLO01
	Group 1	Group 2	Group 3	Group 4	Group 5	
Baetidae	100%	100%	100%	100%	97%	1.00
Capniidae	78%	55%	50%	92%	68%	0.84
Chironomidae	100%	100%	100%	100%	95%	1.00
Chloroperlidae	78%	88%	94%	100%	100%	0.98
Ephemerellidae	78%	100%	100%	100%	100%	1.00
Heptageniidae	100%	100%	100%	100%	100%	1.00
Hydropsychidae	11%	92%	78%	92%	86%	0.89
Nemouridae	100%	100%	100%	100%	100%	1.00
Perlidae	11%	84%	33%	100%	3%	0.88
Perlodidae	78%	78%	89%	92%	81%	0.90
Rhyacophilidae	100%	92%	100%	100%	95%	0.99
Taeniopterygidae	89%	49%	100%	92%	97%	0.89

### RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	14.31
RIVPACS : Observed taxa P>0.50	12.00
RIVPACS : O:E (p > 0.5)	0.84
RIVPACS : Expected taxa P>0.70	11.37
RIVPACS : Observed taxa P>0.70	8.00
RIVPACS : O:E (p > 0.7)	0.70

### Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
<b>Bedrock Geology</b>		
Alluvium (%)	0.00000	0.00000 $\pm$ 0.00000
Intrusive (%)	56.80740	11.07346 $\pm$ 28.63466
Metamorphic (%)	24.93025	17.96649 $\pm$ 35.53463
Sedimentary (%)	17.39867	70.96005 $\pm$ 44.90394
Ultramafic (%)	0.00000	0.00000 $\pm$ 0.00000
Volcanic (%)	0.86368	0.00000 $\pm$ 0.00000
<b>Channel</b>		
Depth-Avg (cm)	38.4	23.6 $\pm$ 11.1
Depth-BankfullMinusWetted (cm)	95.00	51.38 $\pm$ 29.42
Depth-Max (cm)	46.0	34.6 $\pm$ 12.3
Macrophyte (PercentRange)	0	0 $\pm$ 0
Reach-%CanopyCoverage (PercentRange)	1.00	1.33 $\pm$ 0.78
Reach-DomStreamsideVeg (Category (1-4))	2	4 $\pm$ 1
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
Slope (m/m)	0.0020000	0.0546683 $\pm$ 0.0376269
Veg-Coniferous (Binary)	1	1 $\pm$ 0
Veg-Deciduous (Binary)	1	1 $\pm$ 0
Veg-GrassesFerns (Binary)	1	1 $\pm$ 0
Veg-Shrubs (Binary)	1	1 $\pm$ 0
Velocity-Avg (m/s)	0.90	0.48 $\pm$ 0.22
Velocity-Max (m/s)	1.57	0.76 $\pm$ 0.36
Width-Bankfull (m)	74.0	13.4 $\pm$ 9.9
Width-Wetted (m)	63.0	8.5 $\pm$ 5.8
XSEC-VelMethod (Category (1-3))	1	1 $\pm$ 0
<b>Climate</b>		
Precip01_JAN (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip02_FEB (mm)	108.33333	83.66667 $\pm$ 27.10278
Precip03_MAR (mm)	98.15789	77.23611 $\pm$ 27.15950
Precip04_APR (mm)	132.89474	104.85000 $\pm$ 26.28129
Precip05_MAY (mm)	82.47368	71.65833 $\pm$ 17.81753
Precip06_JUN (mm)	91.70175	78.56667 $\pm$ 15.58521
Precip07_JUL (mm)	73.33333	64.39167 $\pm$ 10.41611

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Precip08_AUG (mm)	69.92982	60.53056 $\pm$ 10.43373
Precip09_SEP (mm)	67.14035	56.91944 $\pm$ 10.91783
Precip10_OCT (mm)	82.21053	65.08056 $\pm$ 14.41229
Precip11_NOV (mm)	130.33333	105.93889 $\pm$ 25.04104
Precip12_DEC (mm)	145.94737	116.84444 $\pm$ 29.80954
PrecipTotal_ANNUAL (mm)	1162.75439	952.64722 $\pm$ 226.04690
Temp01_JANMax (Degrees Celsius)	-4.40351	-4.39167 $\pm$ 2.51268
Temp01_JANmin (Degrees Celsius)	-10.36842	-11.40833 $\pm$ 3.53951
Temp02_FEBmax (Degrees Celsius)	-1.82456	-1.70000 $\pm$ 2.12945
Temp02_FEBmin (Degrees Celsius)	-8.54386	-9.17500 $\pm$ 3.33361
Temp03_MARmax (Degrees Celsius)	1.68421	2.50556 $\pm$ 2.87525
Temp03_MARmin (Degrees Celsius)	-5.98246	-6.14167 $\pm$ 2.98556
Temp04_APRmax (Degrees Celsius)	6.26316	7.12222 $\pm$ 3.48771
Temp04_APRmin (Degrees Celsius)	-2.64912	-2.71667 $\pm$ 2.22785
Temp05_MAYmax (Degrees Celsius)	11.14035	12.03889 $\pm$ 3.55434
Temp05_MAYmin (Degrees Celsius)	0.82456	1.04722 $\pm$ 2.08663
Temp06_JUNMax (Degrees Celsius)	14.75439	15.72500 $\pm$ 3.40030
Temp06_JUNMin (Degrees Celsius)	3.96491	4.00278 $\pm$ 2.41085
Temp07_JULmax (Degrees Celsius)	18.61404	19.56111 $\pm$ 3.47275
Temp07_JULmin (Degrees Celsius)	6.43860	6.35833 $\pm$ 2.28332
Temp08_AUGmax (Degrees Celsius)	18.57895	19.52222 $\pm$ 3.51100
Temp08_AUGmin (Degrees Celsius)	6.29825	6.19167 $\pm$ 2.34422
Temp09_SEPmax (Degrees Celsius)	13.38596	14.04444 $\pm$ 3.03456
Temp09_SEPmin (Degrees Celsius)	2.29825	2.04722 $\pm$ 2.37208
Temp10_OCTmax (Degrees Celsius)	6.03509	6.88889 $\pm$ 2.71577
Temp10_OCTmin (Degrees Celsius)	-1.26316	-1.46111 $\pm$ 1.64316
Temp11_NOVmax (Degrees Celsius)	-1.17544	-0.79722 $\pm$ 2.43512
Temp11_NOVmin (Degrees Celsius)	-6.33333	-6.68056 $\pm$ 2.97163
Temp12_DECmax (Degrees Celsius)	-4.59649	-4.66389 $\pm$ 2.69757
Temp12_DECmin (Degrees Celsius)	-10.03509	-10.65833 $\pm$ 3.71739
TempANNUALmax (Degrees Celsius)	6.24561	6.96389 $\pm$ 3.06157
TempANNUALmean (Degrees Celsius)	1.77193	2.25278 $\pm$ 2.66574
TempANNUALmin (Degrees Celsius)	-1.82456	-2.18056 $\pm$ 2.41152
<b>Hydrology</b>		
Drainage-Area (km <sup>2</sup> )	3425.62950	124.42081 $\pm$ 200.99192
Perimeter (Km)	549.09302	64.71360 $\pm$ 56.15436
StreamDensity (m/km <sup>2</sup> )	2190.93040	2246.06682 $\pm$ 604.89962
StreamLength (m)	7505315.81	302226.63 $\pm$ 500983.26
<b>Landcover</b>		
Natl-AnnCrops (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Barren (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-BroadleafOpen (%)	2.85345	1.19263 $\pm$ 2.03874
Natl-BroadleafSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Coniferous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ConiferousDense (%)	0.48215	0.64845 $\pm$ 0.37668
Natl-ConiferousOpen (%)	52.58342	54.62780 $\pm$ 18.30692
Natl-ConiferousSparse (%)	1.36876	0.94121 $\pm$ 1.53621
Natl-Deciduous (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Developed (%)	0.06762	0.00000 $\pm$ 0.00000
Natl-ExposedLand (%)	17.02159	13.20054 $\pm$ 11.11850
Natl-Grassland (%)	1.03581	1.87556 $\pm$ 1.68508
Natl-Herb (%)	6.93168	5.75738 $\pm$ 2.89836
Natl-MixedForest (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodDense (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-MixedwoodOpen (%)	0.09444	0.04060 $\pm$ 0.10208
Natl-MixedwoodSparse (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-PerennCropsPast (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-Rock/Rubble (%)	0.59550	1.56403 $\pm$ 2.75979
Natl-Shrubland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-ShrubLow (%)	1.76236	4.98298 $\pm$ 3.22579
Natl-ShrubTall (%)	0.00000	0.00000 $\pm$ 0.00000

## Habitat Description

Variable	NJSLO01	Predicted Group Reference Mean $\pm$ SD
Natl-SnowIce (%)	0.16345	0.08491 $\pm$ 0.15475
Natl-Water (%)	2.70893	0.22916 $\pm$ 0.36834
Natl-Wetland (%)	0.00000	0.00000 $\pm$ 0.00000
Natl-WetlandHerb (%)	0.08869	0.12918 $\pm$ 0.35193
Natl-WetlandShrub (%)	0.01338	0.00000 $\pm$ 0.00000
Natl-WetlandTreed (%)	0.00345	0.00000 $\pm$ 0.00000
Reg-Ice (%)	0.06580	0.02487 $\pm$ 0.06034
<b>Sediment Chemistry</b>		
Al (ppm)	5.100	0.005
<b>Substrate Data</b>		
%Bedrock (%)	0	0 $\pm$ 0
%Boulder (%)	2	9 $\pm$ 9
%Cobble (%)	93	51 $\pm$ 15
%Gravel (%)	0	3 $\pm$ 3
%Pebble (%)	5	37 $\pm$ 20
%Sand (%)	0	0 $\pm$ 0
%Silt+Clay (%)	0	0 $\pm$ 0
D50 (cm)	13.75	15.12 $\pm$ 14.26
Dg (cm)	13.0	8.2 $\pm$ 2.8
Dominant-1st (Category(0-9))	7	7 $\pm$ 1
Dominant-2nd (Category(0-9))	6	7 $\pm$ 1
Embeddedness (Category(1-5))	4	5 $\pm$ 1
PeriphytonCoverage (Category(1-5))	2	1 $\pm$ 0
SurroundingMaterial (Category(0-9))	2	4 $\pm$ 1
<b>Topography</b>		
ElevationMax (m)	3015.00000	2634.66667 $\pm$ 309.54023
ElevationMin (m)	457.00000	913.41667 $\pm$ 271.25180
ElevationStdev (m)	501.21029	349.02363 $\pm$ 92.12445
Reg-SlopeLT30% (%)	22.30900	18.88386 $\pm$ 9.29866
Slope30-50% (%)	28.01461	29.00215 $\pm$ 6.33837
Slope50-60% (%)	13.73378	13.91808 $\pm$ 1.91315
SlopeAvg (%)	49.22843	52.79851 $\pm$ 8.68755
SlopeGT60% (%)	32.28474	35.47207 $\pm$ 13.39684
SlopeLT30% (%)	25.96687	21.60770 $\pm$ 8.54172
SlopeMax (%)	574.77527	298.94390 $\pm$ 146.30679
SlopeMin (%)	0.00000	0.19777 $\pm$ 0.29213
SlopeStdev (%)	27.85578	26.57529 $\pm$ 4.62351
<b>Water Chemistry</b>		
General-Conductivity ( $\mu$ S/cm)	88.2000000	121.8083333 $\pm$ 87.6800844
General-DO (mg/L)	10.0000000	11.4175000 $\pm$ 0.7986708
General-pH (pH)	7.1	7.9 $\pm$ 0.4
General-TempAir (Degrees Celsius)	20.0	26.0
General-TempWater (Degrees Celsius)	15.0000000	7.3183333 $\pm$ 2.7240839
General-Turbidity (NTU)	0.8400000	0.2020000