

Site Description

Study Name	Yukon Territory - DFO
Site	YPS-568 [Q2]
Sampling Date	Jul 26 2016
Know Your Watershed Basin	White
Province / Territory	Yukon Territories
Terrestrial Ecological Classification	Boreal Cordillera EcoZone St.Elias Mountains EcoRegion
Coordinates (decimal degrees)	61.38845 N, 139.33148 W
Altitude	3992
Local Basin Name	Tatamagouche Creek
	White River
Stream Order	3



Figure 1. Location Map



Down Stream

Cabin Assessment Results

Reference Model Summary	
Model	Yukon 2013
Analysis Date	March 20, 2017
Taxonomic Level	Family

Cabin Assessment Results

Predictive Model Variables	Altitude Depth-Avg Longitude Natl-BroadLeafopen Natl-Bryoids Natl-MixedWoodOpen Natl-WetlandHerb Precip02_FEB Precip03_MAR Precip06_JUN Precip07_JUL RainFall06_JUN Temp04_APRmax Velocity-Avg
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Reference Groups	1	2	3	4	5
Number of Reference Sites	23	98	44	108	13
Group Error Rate	34.8%	49.0%	59.1%	53.7%	30.8%
Overall Model Error Rate	50.3%				
Probability of Group Membership	4.5%	7.7%	24.3%	24.8%	38.7%
CABIN Assessment of YPS-568 on Jul 26, 2016	Highly Divergent				

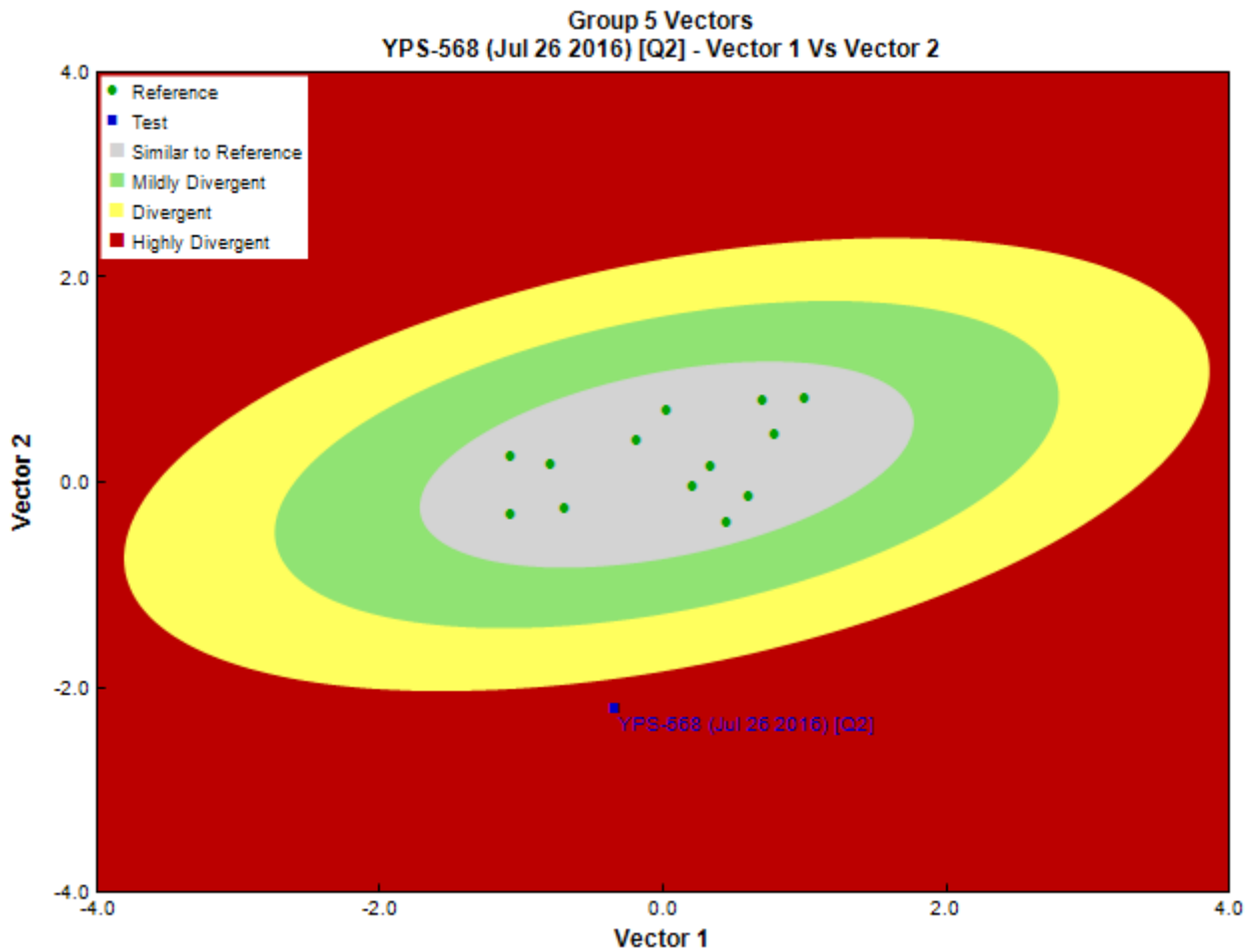


Figure 3. CABIN ordination assessment of the test site with the predicted group of reference sites. Each axis represents the relative abundance of the entire benthic invertebrate community with different organisms weighted differently on each axis.

Sample Information

Sampling Device	Kick Net
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Sample Information

Mesh Size	500
Sampling Time	3
Taxonomist	-
Date Taxonomy Completed	-
	-
Sub-Sample Proportion	100/100

Community Structure

Phylum	Class	Order	Family	Raw Count	Total Count
Arthropoda	Arachnida	Trombidiformes	Sperchontidae	1	1.0
	Insecta	Diptera	Ceratopogonidae	1	1.0
			Chironomidae	28	28.0
			Muscidae	2	2.0
			Simuliidae	6	6.0
		Ephemeroptera	Baetidae	18	18.0
			Heptageniidae	5	5.0
		Plecoptera	Capniidae	16	16.0
			Nemouridae	197	197.0
			Total	274	274.0

Metrics

Name	YPS-568	Predicted Group Reference Mean \pm SD
Bray-Curtis Distance	0.95	0.4 \pm 0.2
Number Of Individuals		
Total Abundance	274.0	12539.4 \pm 5669.6
Richness		
Total No. of Taxa	9.0	11.3 \pm 3.4

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites					Probability Of Occurrence at YPS-568
	Group 1	Group 2	Group 3	Group 4	Group 5	
Ameletidae	9%	37%	70%	39%	15%	0.36
Apataniidae	0%	1%	0%	3%	8%	0.04
Arrenuridae	0%	0%	2%	0%	0%	0.01
Athericidae	0%	1%	0%	0%	0%	0.00
Aturidae	0%	0%	5%	2%	8%	0.05
Baetidae	30%	85%	82%	94%	100%	0.90
Blephariceridae	0%	0%	5%	0%	0%	0.01
Brachycentridae	0%	15%	7%	23%	8%	0.12
Caenidae	0%	1%	0%	1%	0%	0.00
Capniidae	9%	23%	43%	50%	77%	0.55
Ceratopogonidae	22%	28%	30%	24%	0%	0.16
Chironomidae	91%	100%	100%	100%	100%	1.00
Chloroperlidae	22%	43%	77%	50%	38%	0.50
Corixidae	13%	8%	0%	0%	0%	0.01
Culicidae	9%	0%	0%	0%	0%	0.00
Curculionidae	0%	1%	0%	1%	0%	0.00
Deuterophlebiidae	0%	3%	14%	1%	0%	0.04
Dixidae	0%	5%	2%	1%	0%	0.01
Dolichopodidae	0%	0%	2%	1%	0%	0.01
Dytiscidae	4%	14%	0%	13%	0%	0.05
Elmidae	4%	3%	0%	2%	0%	0.01
Epididae	9%	49%	77%	59%	54%	0.58
Enchytraeidae	0%	0%	9%	2%	0%	0.03
Ephemerellidae	26%	37%	61%	37%	31%	0.40
Ephydriidae	0%	0%	2%	0%	0%	0.01
Feltriidae	0%	0%	2%	6%	8%	0.05
Gammaridae	9%	2%	0%	13%	23%	0.13
Glossiphoniidae	0%	1%	0%	0%	0%	0.00
Glossosomatidae	0%	14%	23%	17%	0%	0.11

Frequency and Probability of Taxa Occurrence

Reference Model Taxa	Frequency of Occurrence in Reference Sites					Probability Of Occurrence at YPS-568
	Group 1	Group 2	Group 3	Group 4	Group 5	
Helophoridae	0%	0%	2%	0%	0%	0.01
Heptageniidae	17%	63%	95%	76%	85%	0.80
Hirudinidae	0%	1%	0%	1%	0%	0.00
Hyalellidae	4%	5%	0%	6%	0%	0.02
Hydraenidae	0%	2%	0%	1%	0%	0.00
Hydrobiidae	9%	3%	2%	1%	0%	0.01
Hydropsychidae	4%	13%	36%	8%	0%	0.12
Hydroptilidae	4%	7%	0%	6%	0%	0.02
Hydrozetidae	4%	3%	20%	28%	31%	0.24
Hydryphantidae	4%	0%	9%	6%	0%	0.04
Hygrobatidae	0%	9%	25%	28%	0%	0.14
Isotomidae	9%	5%	2%	1%	0%	0.02
Lebertiidae	13%	20%	52%	54%	23%	0.37
Lepidostomatidae	0%	1%	5%	4%	8%	0.05
Leptoceridae	0%	1%	0%	2%	0%	0.01
Leptophlebiidae	4%	7%	0%	7%	8%	0.06
Leuctridae	4%	14%	32%	10%	0%	0.12
Limnephilidae	13%	48%	43%	46%	23%	0.35
Limnesiidae	0%	1%	2%	6%	8%	0.05
Limnocharidae	0%	0%	0%	1%	0%	0.00
Lumbriculidae	26%	22%	34%	42%	23%	0.30
Lymnaeidae	13%	9%	0%	3%	0%	0.02
Metretopodidae	0%	1%	0%	1%	0%	0.00
Mideopsidae	0%	0%	2%	0%	0%	0.01
Muscidae	0%	4%	7%	7%	0%	0.04
Naididae	35%	43%	9%	22%	31%	0.24
Nemouridae	39%	74%	100%	81%	100%	0.91
Noctuidae	0%	0%	0%	1%	0%	0.00
Oreoleptidae	0%	0%	0%	1%	0%	0.00
Oxidae	0%	0%	0%	1%	0%	0.00
Peltoperlidae	0%	2%	0%	0%	0%	0.00
Perlidae	0%	2%	2%	1%	0%	0.01
Perlodidae	17%	31%	70%	49%	62%	0.56
Phryganeidae	0%	1%	0%	0%	0%	0.00
Physidae	4%	1%	2%	4%	0%	0.02
Pionidae	0%	0%	2%	2%	0%	0.01
Pisidiidae	17%	9%	2%	7%	8%	0.07
Planariidae	0%	2%	2%	3%	0%	0.01
Planorbidae	13%	4%	2%	2%	8%	0.05
Poduridae	0%	1%	0%	1%	0%	0.00
Psychodidae	22%	15%	11%	25%	8%	0.14
Rhyacophilidae	4%	34%	68%	25%	15%	0.32
Scathophagidae	0%	2%	0%	0%	0%	0.00
Simuliidae	39%	78%	86%	87%	77%	0.80
Sperchontidae	22%	49%	68%	68%	31%	0.50
Staphylinidae	4%	0%	0%	1%	0%	0.00
Stratiomyidae	0%	0%	0%	2%	0%	0.00
Tabanidae	4%	0%	0%	0%	0%	0.00
Taeniopterygidae	0%	1%	5%	2%	15%	0.08
Tipulidae	35%	47%	55%	62%	46%	0.52
Torrenticolidae	0%	0%	0%	5%	8%	0.04
Tubificidae	4%	1%	9%	13%	0%	0.06
Uenoidae	0%	8%	30%	1%	0%	0.08
Valvatidae	4%	9%	5%	11%	8%	0.08

RIVPACS Ratios

RIVPACS : Expected taxa P>0.50	7.12
RIVPACS : Observed taxa P>0.50	6.00
RIVPACS : O:E (p > 0.5)	0.84
RIVPACS : Expected taxa P>0.70	4.40

RIVPACS Ratios

RIVPACS : Observed taxa P>0.70	5.00
RIVPACS : O:E (p > 0.7)	1.14

Habitat Description

Variable	YPS-568	Predicted Group Reference Mean \pmSD
Bedrock Geology		
Channel		
Depth-Avg (cm)	22.0	24.0 \pm 13.5
Velocity-Avg (m/s)	0.68	0.69 \pm 0.41
Climate		
Precip02_FEB (mm)	35.27400	23.64703 \pm 9.87067
Precip03_MAR (mm)	31.85600	21.43418 \pm 10.28637
Precip06_JUN (mm)	57.17800	42.70673 \pm 20.01009
Precip07_JUL (mm)	73.73600	53.48428 \pm 23.82521
Rainfall06_JUN (mm)	54.68800	39.58541 \pm 18.10735
Temp04_APRmax (Degrees Celsius)	3.90600	-1.98555 \pm 4.49028
Hydrology		
Landcover		
Natl-BroadleafOpen (%)	0.03629	0.10660 \pm 0.30602
Natl-Bryoids (%)	3.09908	1.00805 \pm 2.53070
Natl-MixedwoodOpen (%)	0.00000	0.13901 \pm 0.32395
Natl-WetlandHerb (%)	0.00000	0.03267 \pm 0.07770
Substrate Data		
Water Chemistry		