BNZ LTER Regional Site Network



http://ltergis.iab.uaf.edu/nsn4web.html



Progress to date:

- 1) Sites have been selected, and plots established
- 2) Tree inventory completed for all sites
- 3) Shrub transects completed for all sites
- 4) Releve completed for most of the sites



YOUNG	XERIC SUB-XERIC		SUBXERIC/MESIC MESIC		MESIC/SUBHYGRIC	SUBHYGRIC		
Low Severity (CBI<2)			BF63, DC54, DC33	HR1A, BF61	BF84, SL1A, DC36, DC41	SL1B, DC49, DC47	12	BS=9, BIRCH=7, ASPEN=5, HARDWOOD=1, MIXED=8
Medium Severity		BF83, BF71	DC44, DC55, BF73	BF77			6	BF=10, DC=17, HR=1, WC=1, SL=2
High Severity (CBI>2.45)	DC46, DC52	BF82	BF81, BF99, DC42, DC53, FP5C, DC48	DC39, DC40, DC37			12	
	2	3	12	6	5	3	30	

INTERMEDIATE	XERIC	SUB-XERIC	SUBXERIC/MESIC	MESIC	MESIC/SUBHYGRIC	SUBHYGRIC		BLACK SPRUCE, ASPEN, BIRCH, HARDWOODS
HARDWOODS		BD6, BD11, WD2, WD6, WD8	BD2, BD10,GR4, GR5, MD6	GR1, GR2			12	
MIXED		BD9, MD2, MD7, WD3	BD1, MD5, WD4	BD7, GR3, GR6, GS1			11	
BLACK SPRUCE		LG3	GS2	GS3, LG2, MD8, WD1		BD5, GR9	8	
		10	9	10		2	31	

MATURE	XERIC	SUB-XERIC	SUBXERIC/MESIC	MESIC	MESIC/SUBHYGRIC	SUBHYGRIC	
NO FLUX	TKN124	UP4A, 4B, 4D, TKN12, TKN24, TKN131	FP5A, TKN43, TKN119, TKN139, TKN148	FP5D, TKN118, TKN137, MD3, Dalton, BD69T2, GR10			19
OMBITROPHIC (STANDING WATER)					TKN120, TKN126,	TKN15, TKN131L, WASH Crk1, Tat Riv 1, Tat Riv 2	7
MINEROTROPHIC (FLOWING WATER)					NR Valley, Wash Crk3	UP4C, TKN40, APEXBETA, NR Bottom	6
	1	6	5	7	4	9	32

Woody plant data available but not online yet

BS, HARDWOOD, ASPEN, BIRCH, MIXED	XERIC	SUB-XERIC	SUBXERIC/MESIC	MESIC	MESIC/SUBHYGRIC	SUBHYGRIC		
Low Severity (CBI<2)			BF63, DC54, DC33	HR1A, BF61	BF84, SL1A, DC36, DC41	SL1B, DC49, DC47	12	BS=9, BIRCH=7, ASPEN=5, HARDWOOD=1, MIXED=8
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	2	3	12	6	5	3	30	
		•	•	•	•	•	-	

250x103 Black spruce 1 = xeric2 = subxeric Birch 3 = subxeric mesic Aspen 4 = mesicWillow 5 = mesic subhygric 200x103 Siberian alder 6 = subhygric Density (stems ha⁻¹) 150x10³ 100x10³ 50x10³

Site Moisture



Young Sites



Summer 2015:

- 1) SOIL SURVEY across Extensive and Core Sites
- 2) Climate monitoring/stations at core sites
- 3) Active Layer
- 4) Start veg cover sampling (point frame) at core sites



Extensive Sites

- 1) 25 measurements of SOL thickness @ each plot (knife and shovel)
- 2) 5 soil samples taken into mineral soil for field collection of organic and mineral soils (Makita or SIPRE method). Separate soils in field; measure & sample:

a) Organic layer thickness; bag it (grav water + PC analyses)

b) Top 5 cm mineral soil; bag it (grav water + PC analyses)

c) 5-15 cm mineral soil; bag it (grav water + PC analyses)

~84 sites * 5 samples/site * 3 bags/sample = 1,260 samples

Analyses:

Gravimetric water, pH, texture (?) Total C, N, P Exchangeable macronutrients Resin-extractable P

Intensive Sites

- 1) 25 measurements of SOL thickness @ each plot (as above)
- 2) Young and Intermediate age sites: 5 soil samples taken into mineral soil directly into plastic liner. Measure hole depth, bring core to lab for characterization and sampling of: organic layer, 0-5 cm mineral, 5-15 mineral
- 3) Mature sites; use Sipre corer in spring; bring cores intact to lab, measure & collect by horizon: live moss, dead moss, fibric, humic, 0-5 mineral, 5-15 mineral.

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12 mature sites * 5 cores/site * 6 horizons = 360 samples
24 Y & M sites * 5 cores/site * 3 horizons = 360 samples
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Total samples from E (1260) and I (720) sites = 1980 samples
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Archive additional samples???



Other RSN characterization and monitoring (only at core sites?):

Litterfall? Seeds? Band dendrometers? Pathogens, insects, herbivory?

Other RSN Sampling and/or Experiments?