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Site 6001 (Boreal Stand 1). 1954-07-24

[s.l.]: [s.n.], 1954-07-24

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Notes on Stand #1 - July 24/54

[Site 6001]

Stand begins in Pine spruce on the edge of an older swale to the NE of the stand & running along the north side. The area around survey point #2 is quite open mostly white spruce & black spruce due to slight slope & closeness of older swale.

Old logging road seldom used passes between trees - not considered a serious disturbance.

Stand - at least - 1st 1/2 of samples may seem peculiar in that so many black spruce are present. - Probably it is on the limit of sites for black spruce. However the white spruce & pine are the dominant species & largest. Spruce probably due to proximity of older swale & creek & telluric water due to nearby ridge is making conditions sufficiently wet for black spruce. Bedrock also is not too deep & some water sits in spots on the surface after heavy rains.

Began at NE end of stand, continued in S.W. direction for 18 survey points then turned ^{due} south and continued for remainder of stand.

Test of Homogeneity - Using *Picea glauca*

40 points yielded 53 trees

Expected for each 10 points = 13 trees

EXPECTED	OBSERVED	DEVIATION	(DEVIATION) ²	$\frac{(DEV)^2}{EXPECTED}$
13	14	+1	1	0.07
13	18	+5	25	1.9
13	10	-3	9	0.7
13	11	-2	4	0.3
	<u>Σ 53</u>	<u>Σ +1</u>		<u>3.0</u>

$\chi^2 = 3.0$ 3° FREEDOM
PROBABILITY - 0.5 - 0.3

Test of Homogeneity - Using *Pinus strobus*

40 points yielded 68 trees

Expected for each 10 pts. 17.

EXPECTED	OBSERVED	DEVIATION	(DEVIATION) ²	$\frac{(DEV)^2}{EXPECTED}$
17	13	-4	16	0.9
17	12	-5	25	1.4
17	23	+6	36	2.1
17	20	+3	9	0.5
	<u>Σ 68</u>	<u>Σ 0</u>		<u>4.9</u>

$\chi^2 = 4.9$ 3° FREEDOM
PROBABILITY = 0.2 - 0.1

Plant Ecology Research
TREE DATA SUMMARY SHEETUniversity of Wisconsin
TOTAL DFD FOR ALL CONIFERS - 273.7

Northern Pine-Hardwoods

Station Number: 1 - 1469

TREE	# PTS	# TRS	DOM. CLASSES			TOT. DOM.	# SAP	D. % SAP	F. % SDL.	F. % TRS.	% SUM F. TR.	D. % TRS.	DOM% TRS.	DFD INDEX	C. I.	N. Limit Index
			-80	-320	321											
Abies bals	4	4				175	32	20.0		10.0	4.2	2.5	1.1	7.8	54.6	62.4
Acer ^{sacchar} rubra	1	1				20	7	4.4		2.5	1.0	0.6	0.1	1.7	10.2	8.5
A. sacchar	1	1														
A. spicatu																
Betula lut															1.0	1.0
B. papyrif	5	5				264	1	0.6		12.5	5.2	3.1	1.7	10.0	50.0	90.0
Carpinus c																
Fagus gran																
Ostrya vir																
Picea glau	28	53				5643	59	36.9		70.0	29.2	33.1	35.5	97.8	586.8	978.0
Picea mar. Pinus Bank	11	16				628	44	27.5		27.5	11.5	10.0	3.9	25.4	50.8	254.0
P. resinosa	5	6				961	2	5.3		12.5	5.2	3.7	6.1	15.0	45.0	90.0
P. Strobus	36	68				7583	8	5.0		90.0	37.5	42.5	47.7	127.7	638.5	766.2
Populus ba																
P. grandid																
P. tremulo	6	7				614	6	3.8		15.0	6.3	4.4	3.9	14.6	29.2	131.4
Prunus pen															1.0	1.0
Prunus serot Quercus el															1.0	1.0
Q. rubra																
Tilia amer																
Tsuga cana																
Thuja occi																
Ulmus amer																
U. fulva																
Amelanchier sp.															1.0	1.0
TOTAL		160				15,888	160	100.0		240.0	100.0	100.0	100.0	300.0	1469	2384

AVE. DIST BTW'N TREES:

14.87'

AVE B. A.:

99.30 sq."

TREES/ACRE:

197

DOM./ACRE:

19,562

STAND #1	No. Pts.	No. Tr.	Size Class Sq. In.			No. Dom.	No. Sap.	Fr. Seed	F.% Seed	F.% Tr.	D.% Tr.	Dom.% Trees	D F D Index	Station No.
Tree Species ✓			12-80:81-320:321-											
			7-65-66-260-261-											
ABIES BALSAMICA ✓	4	4	#3	1		175	32			10.0 (4.2)	2.50	1.10	7.80	Total length of Transect 3600'
ACER PENNSYLVANICUM														Total Length of Transect
ACER RUBRUM ✓								2	22.2					
ACER SACCHARINUM ✓	1	1	1✓			20	7		10	2.5 (1.0)	0.62	0.13	1.75	
ACER SPICATUM														
BETULA LUTEA ✓														Ave. Dist. Btw Trees 14.87'
BETULA Papyrifera ✓	5	5	4	1	✓	264	1			12.5 (5.2)	3.13	1.66	9.99	Saplings/unit-area 86
FAGUS GRANDIFOLIA														
FRAXINUS AMERICANA														Ave. BA (Total BA: 160) 99.30 sq"
FRAXINUS NYCHA														
LARIX LARICINA ✓														No. trees/acre 197
OSTRYA VIRGINIANA														Dom./acre 19,562
PICEA GLAUCO ✓	28	53	1916	3437		5643	59	5	55.5	25	70.0 (29.2)	33.13	35.52	97.85
PICEA MARIANA ✓	11	16	15	2		628	44	1		5	27.5 (11.5)	10.00	3.95	25.45
PINUS RESINOSA ✓	5	6	2	5	1	961	2		11.1		12.5 (5.2)	3.75	6.05	15.00
PINUS STROBUS ✓	36	68	2717	48	3	7583	8				90.0 (37.5)	42.50	47.73	127.73
POPULUS BALSAMIFERA														
POPULUS CRANDIDENTATA ✓														
POPULUS TREMULOIDES ✓	6	7	31	46		614	6	1	11.1	5	15.0 (6.3)	4.38	3.86	14.54
PRUNIS SEROTINA ✓														
PRUNIS PENNSYLVANICUM ✓														
PYRUS AMERICANA ✓														
THUJA OCCIDENTALIS ✓														
TILIA AMERICANA														
ULMUS AMERICANA														
ULMUS RUBRA														
TOTALS ✓	96	160	56	100	4	15888	160			100.0 (100.0)	100.0	100.00	300.0	

TABLE 4. - SUMMATION SHEET - TREE AND SAPLING DATA.

②		Trees		Seedlings	
White	Pine	White	Spruce	Pine	Spruce
11		1	4		1
1		1	1		3 2
1		1	1		22 1
1		5	1		3
1		5	5		2
1		6			12
1		4			5
1		4			
1		1			
1		1			
8		4	45		

1		2			
1		2		⑧	60 6
1		3			2
		2			1
3		2			4
		2			4
		3			24
		2	18		36
		1			2
		1			

2	2	1	23		1	21
1	3	1	2		1	17
4	1	1	3			2
2	2	1	2			3
1	2	1	2			12
	1		2	20		5
			2			23
						1
						2

more balsam to SW.

Data Form No. 84a
TABULATION FORM

Plant Ecology Research
SPRUCE - FIR, SPRUCE - FIR MIXED HARDWOODS

University of Wisconsin
STAND NO. /

	P.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
<i>Achillea millefolium</i>	✓																						1
<i>Actaea pachypoda</i>																							
<i>Actaea rubra</i>																							
<i>Adiantum pedatum</i>																							
<i>Agastache foeniculum</i>																							
<i>Agrimonia gryposepala</i>																							
<i>Agrostis perennans</i>																							
<i>Allium tricoccum</i>																							
<i>Alnus crispa</i>																							
<i>Alnus rugosa</i>	✓																						✓
<i>Amphicarpa bracteata</i>																							
<i>Anaphlis margaritacea</i>	✓																					1	5
<i>Anemone canadensis</i>																							
<i>Anemone cylindrica</i>																							
<i>Anemone quinquefolia</i>																							
<i>Anemone virginiana</i>																							
<i>Antennaria</i> spp.																							
<i>Apocynum androsaemifolium</i>	✓																					2	10
<i>Aquilegia canadensis</i>																							
<i>Aralia hispida</i>																							
<i>Aralia nudicaulis</i>	✓																					5	25
<i>Aralia racemosa</i>																							
<i>Arctostaphylos uva-ursi</i>																							
<i>Arenaria lateriflora</i>																							
<i>Arisaema atrorubens</i>																							
<i>Asarum canadense</i>																							
<i>Asclepias exaltata</i>																							
<i>Aster acuminatus</i>																							
<i>Aster ciliolatus</i>																							
<i>Aster furcatus</i>																							
<i>Aster lateriflorus</i>																							
<i>Aster macrophyllus</i>	✓																					11	55
<i>Aster nova-angliae</i>																							
<i>Aster paniculatus</i>																							
<i>Aster puniceus</i>																							
<i>Aster sagittifolius</i>																							
<i>Aster umbellatus</i>	✓																					1	5
<i>Athyrium filix-femina</i>																							
<i>Athyrium thelypteroides</i>																							
<i>Botrychium lanceolatum</i>																							
<i>Botrychium lunaria</i>																							
<i>Botrychium matricariaefolium</i>																							
<i>Botrychium multifidum</i>																							
<i>Botrychium virginianum</i>																							
<i>Brachyelytrum erectum</i>																							
<i>Caltha palustris</i>																							
<i>Calypso bulbosa</i>																							
<i>Campanula rotundifolia</i>																							
<i>Carex arctata</i>																							
<i>Carex aurea</i>																							
<i>Carex brunnescens</i>																							
<i>Carex canescens</i>																							

OMIT
RECORDED IN
SWALE

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

University of Wisconsin
STAND NO. /

Preliminary survey. - Stand #1

Off road to Campsite Dump.

1400 x 400

400

560000 sq ft

Spruce - Fir - Northern Forest.

Size

Size 10 chains x 30 chains or approx 30 acres.

Grasses - spp.

*Picea glauca**Polygala paucifolia**Rubus strigosus**Silene canadensis**Maianthemum canadense**Oxalis macrophyllum**Vaccinium myrtilloides**Vacc. angustifolium**Rubus pubescens**Rubus idaeus**Corylus groenlandicum**Geranium auranticum**Chamaenerion nudicaule**Urtica dioica**Thymus aquilinum**Adiantum palmiferum**Polypodium commune**Achillea millefolium**Pinus strobus**Potamogeton zosterifolius**Abies balsamea**Compositae americana**Geranium americanum**Antennaria borealis**Dentaria borealis**Alnus incana**Silene acaulis**" clavatum**" annuum**Potentilla norvegica**Corylus cornuta**Betula papyrifera**Najas communis**Picea mariana**Sambucus racemosa*

From dump east

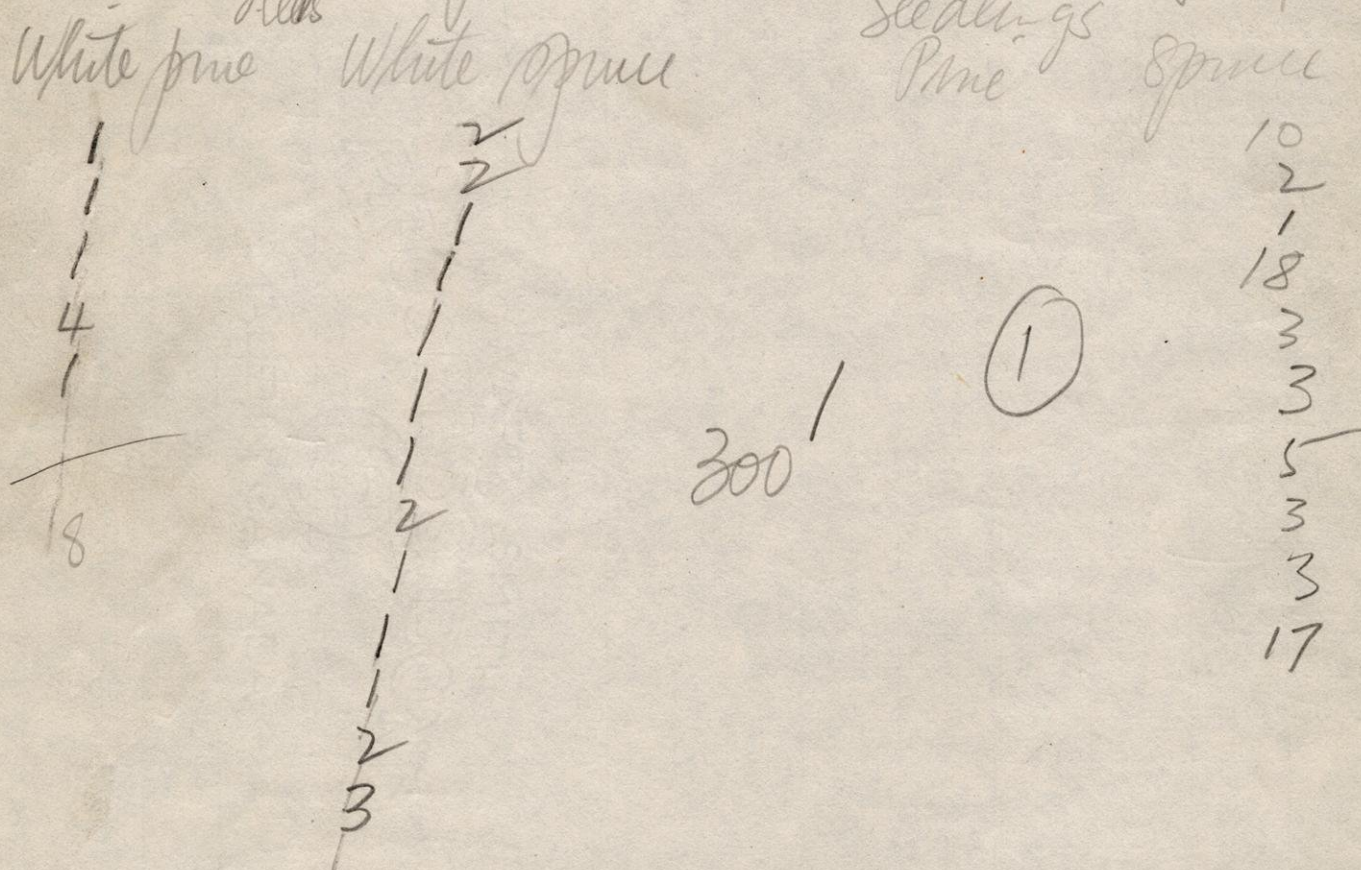
*Rumex acetosella**Sparganium angustifolium**Dryopteris fragrans**Erigeron phillyriae**Cyperus tenuis**Viola myrtilloides**Zizania quadrifida**Intermedia tenuis**Viola pallens**Salix triflora**Viola papilionacea**Thalictrum polygamum**Thistle - thistle spp.**Anaphalis margaritacea**Succowia tetralix**Zizania erecta**Streptopus roseus**Ribes glandulosum**Urtica triflora**Melampyrum lineare**Urtica pratensis**Prunella pensylvanica**Lyda elliptica**Silene acaulis**Geranium pratense**Prunella virginiana**~~Rubus~~ Silene angustifolia**Picea mariana**Betula papyrifera**Populus alba**Chaparral - lentianthera**Salix triflora**Scutellaria epulifolia**Streptopus roseus*

Bounded on the east by a black spruce swampy area not typical bog. - but damp mossy ground with an understorey of mosses & ferns + grasses. + an alder swale.

Stand bounded on west and north by a stream shallow filled in with alder swale.

To the south by a rocky ridge - granite covered with some spruce + pine and considerable aspen and birch.

Count of major species - white spruce + white pine at intervals of 100 paces 100' = 32 paces - 300' + 6 paces each side



Epilobium angustifolium
Epilobium glandulosum
Trifolium repens
Dracopis lanceolata
Amelanchier ~~canadensis~~ sp.?
Cladonia rangiferina
Cladonia gracilis var.
Cladonia comata
Polytrichum piliferum
Polytrichum commune
Comptonia peregrina
Eragrostis - white
Ribes glandulosum
Sambucus pubens.
Betula picea
Juncea borealis
~~One of *Solidago* like - *Solidago*~~ *Aster umbellatus*
Heracium scabrum
Acer spicatum - seedling
Betula picea - seedlings
Rubus pubescens.
Lycopodium complanatum
Juncea borealis
Solidago like *Solidago* - *Aster umbellatus*
Epigaea repens.

Acer rubrum - seedling
Acer saccharum - tree
Saururus procumbens
Calamagrostis schreibneri
Dalibarda repens
Cyperaceae sp.
Lycopodium var *dendroideum*
Aster umbellatus.

Quadrat #1 in stand #1 - starting point
Cornus canadensis
 Plant like *Solidago*
Rubus pubescens
Solidago canadensis
Meridium aquilegifolium
Erva sp.
Quercus borealis
Viola sp.

Corylus cornuta
Vaccinium myrtillodes
Rubus idaeus
Vaccinium angustifolium

								BA.
(a)	<i>Pinus strobus</i>	12"	10'	from point	height	32'	- tree	1135g
	<i>Picea glauca</i>	1 1/2"	15'	"	"	9'	- sap.	
(b)	<i>Picea mariana</i>	6 1/2"	5'	"	"	27'	- tree	33"
	<i>Picea mariana</i>	1"	18'	"	"	6'	- sap.	
(c)	<i>Abies balsamea</i>	10"	10'	"	"	39'	- tree	79"
	<i>Picea mariana</i>	2"	7'	"	"	11'	- sap.	
(d)	<i>Picea glauca</i>	11"	13'	"	"	40'	- tree	95"
	<i>Picea glauca</i>	1"	12'	"	"	10'	- sap.	

T.D. = total distances from point of trees
 = 38'

Survey point #2 in stand #1

- (a) *Picea glauca* 13½", 10' from point, height 36' - tree 143
Picea mariana 2", 6' " " " 13' - sap-
- (b) *Picea glauca* 9", 12' " " " 30' - tree 113
Picea mariana 1½", 11' " " " 12' - sap.
- (c) *Picea glauca* 14", 12' " " " 40' - tree 154
Picea mariana 1", 9' " " " 6' - sap.
- (d) *Abies balsamea* 7½", 17' " " " 38' - tree 44
Abies balsamea 2", 19' " " " 18' - sap.

T.D. = 51'

WATKINS & WATKINS
PROMPT BOND

MADE IN CANADA

Quadrat #2 - Survey point #3 in stand #1

Meridium aquilinum

Juniperus canadensis

Rumex crispus

Erigeron

Viola papilionacea

Epilobium glandulosum

Maianthemum canadense

Carex strepera

Salix repens

Desmodium illinoense

Vaccinium angustifolium

Picea mariana - seedling

- (a) *Picea strobus* - 13", 15' from point, height - 25' - tree 133
Picea mariana - 2 1/2", 8' " " " - 15' - sap.
- (b) *Picea mariana* - 3", 12' " " " - 15' - tree 7
Picea mariana - 1", 10' " " " - 6' - sap.
- (c) *Picea glauca* - 15", 8' " " " - 35' - tree 177
Picea mariana - 1 1/4", 9' " " " - 13' - sap.
- (d) *Picea glauca* - 12 1/2", 16' " " " - 35' - tree 123
Picea mariana - 1 3/4", 24' " " " - 19' - sap.

Considerable black spruce regeneration around the point.
Large white spruce.

T.D. = 51'

Survey point # 4		July 24/54.		Stand #1	
(a)	<i>Picea glauca</i> , - $10\frac{1}{2}$ "	17'	from point	height.	33' - tree 86
	<i>Picea glauca</i> , $1\frac{1}{2}$ "	33'	"	"	10' - sap.
(b)	<i>Pinus strobus</i> , 19"	21'	"	"	30' - tree 284
	<i>Picea mariana</i> , $2\frac{3}{4}$ "	32'	"	"	20' - sap.
(c)	<i>Pinus strobus</i> , $11\frac{3}{4}$ "	24'	"	"	25' - tree 412
	<i>Pinus resinosa</i> , 2"	30'	"	"	14' - sap.
(d)	<i>Pinus resinosa</i> , 19"	5'	"	"	48' - tree 284
	<i>Picea glauca</i> , 1"	10'	"	"	6' - sap.

Fairly open, considerable black spruce regen. - still near swale. Some white spruce regen. Heavy bracken + blueberry. Patch of *Paribanda repens* 3' x 2' Much *Pinus acumin*

T.D. = 67'

Quadrat # 3 - Survey point # 5 in Stand # 1 - July 24/54
Pteridium aquilinum
Vaccinium angustifolium
Cornus canadensis
Polytrichum piniperinum
Cladonia rangiferina
Brass. sp.
Cladonia gracilis
Horaceum taurantiacum

- a) *Pinus strobus* - 16", 21' feet from point, height 30' - tree 200
Picea glauca - 1", 5' " " " " 5' - sap.
 b) *Pinus strobus* - 12 1/2", 25' " " " " 25' - tree 123
Picea glauca - 2 1/2", 30' " " " " 15' - sap.
 c) *Pinus strobus* - 11", 25' " " " " 25' - tree 95
Picea mariana - 1", 32' " " " " 8' - sap.
 d) *Picea mariana* - 4", 40' " " " " 22' - tree 13
Picea mariana - 1 1/2", 39' " " " " 20' - sap.

T.D. = 111'

Area very heavily trampled with *Vacc. angust.* sparse below
 Considerable pines + w. spruce. Area to south near
 rock ridge has stand of w. birch.

Survey point # 6.

- (a) *Picea glauca* - 14", 8' from point, height 40' - tree 154
Picea mariana - 2", 35' " " " 15' - sap.
- (b) *Picea glauca* - 9", 5' " " " 35' - tree 64
Picea mariana - 1 1/2", 17' " " " 12' - sap
- (c) *Pinus strobus* - 11", 10' " " " 30' - tree 95
Picea mariana - 2", 21' " " " 11' - sap
- (d) *Picea glauca* - 18", 6' " " " 45' - tree 254
Picea glauca - 14", 33' " " " 12' - sap

T.D. = 29'

Large spruce. - some black spruce reger.

Quadrat #4 - Survey point 7 - Stand 1. July 24/54

Pteridium aquilinum

Comptonia pergrana

Lycopodium obscurum

Asplenium macrophyllum

Comus canadensis

Populus elliptica

Rhus glabra

Juniperus sp.

Mananthemum canadense

Carex sp.

Rubus idaeus

Sparganium angustifolium

Valeriana linearis

Soil pit dug.

Litter - $\frac{1}{2}$ "

Fernent. - $\frac{1}{2}$ "

Humus. - $1\frac{1}{2}$ - 2"

A₁ - $\frac{1}{4}$ "

A₂ - $1\frac{1}{2}$ - $2\frac{1}{2}$ "

A₃ - $\frac{1}{2}$ "

(a) *Picea glauca* - 8" - 9' from point height - 28' - tree 50
Picea glauca 2 1/2" - 21' from " " 18' - sap.

(b) *Picea glauca* 14" 18' " " " 35' - tree 154
Picea mariana 2 1/2" 30' " " " 15' - sap.

(c) *Picea glauca* - 9 1/2" 25' " " " 30' - tree 71
Picea glauca 1" 38' " " " 8' - sap.

(d) *Pinus strobus* - 12 1/2" 12' " " " 24' - tree 123
Picea glauca - 1" 22' " " " 14' - sap.

T.D. = 64'

White spruce regn. light. heavy bracken, fairly large
 w. spruce & w. pine.

Survey point # 8.

- (a) *Picea mariana* - $3\frac{1}{2}"$, 8' from point, height - 15' - tree 9
Picea mariana 2", 10' " " " - 9' - sap.
- (b) *Pinus resinosa* - $11\frac{1}{2}"$, 7' " " " - 35' - tree 104
Picea glauca 2", 8' " " " - 17' - sap.
- (c) *Pinus strobus* - 13", 9' " " " - 26' - tree 133
Picea mariana $1\frac{1}{2}"$, 18' " " " - 14' - sap.
- (d) *Betula papyrifera* - 6", 45' " " " - 31' - tree 28
Picea mariana $2\frac{1}{2}"$, 23' " " " - 10' - sap.

Considerable w. spruce regrowth moderate tracks +
Andra nudicaulis

T.D. = 69'

Quadrat #5 - Survey point #9 - Stand #1 - July 24/54
Herodias apiculatum *Vaccinium angustifolium* - dry, heavy
Herodias aurantiacum - bushy carpet
Calcegon stracheyi *Amelanchier* ~~sp.~~ *glauca*
Lycopodium obscurum
Cornus canadensis

(a) *Picea mariana* - 4" 25' from point, height, 24' tree 13
Picea mariana - 2" 10' " " " 13' sap
 (b) *Pinus strobus* - 10" 22' " " " 25' tree 79
Picea mariana - 2 3/4" 6' " " " 14' sap.
 (c) *Betula papy.* - 9" 4' " " " 35' tree 64
Picea glauca - 1" 18' " " " 7' - sap.
 (d) *Pinus strobus* - 8" 20' " " " 22' tree 50
Picea glauca - 1" 14' " " " 7' - sap.
 T.D. = 71'

Open clearing - heavy blueberry, bracken - fairly high
 Considerable white spruce reg.
 Black spruce to north on creek side

Survey point #10

- (a) *Picea glauca* - 14", 13' from point, height - 37' - tree 154
Picea glauca - 1", 15' " " " 10' - sap.
- (b) *Pinus strobus* - 13", 24' " " " 24' - tree 133
Picea glauca - 2½", 9' " " " 14' - sap.
- (c) *Picea mariana* - 7", 8' " " " 40' - tree 39
Picea mariana - 2", 6' " " " 15' - sap.
- (d) *Picea mariana* - 9", 45' " " " 42' - tree 64
Picea mariana - 2½", 43' " " " 22' - sap.

Near clearing - grass, hickory, sparse bracken.
 Large white spruce, blade to north, white pine
 regen.

$$T.D. = 90'$$

Quadrat # 6. - Survey point # 11 - Stand # 1 - July 24/54

Grass, sp.

Carex sp.

Solidago canadensis

Vaccinium myrtillodes

Cladonia rangiferina

Epilobium angustifolium

Hieracium aurantiacum

Cladonia cornuta

Cladonia gracilis

Polytrichum commune

Rubus idaeus

- (a) *Picea glauca* - 9" 15' from point, height 32' - tree 64
Abies balsamea - 1" 13' " " " 10' - sap.
- (b) *Picea mariana* - 5 1/2" 7' " " " 30' - tree 24
Picea mariana - 2 1/2" 13' " " " 15' - sap.
- (c) *Picea glauca* - 14" 21' " " " 42' - tree 154
Picea glauca - 1 1/2" 22' " " " 9' - sap.
- (d) *Picea mariana* - 6" 12' " " " 25' - tree 28
Picea mariana - 1" 11' " " " 8' - sap.

mixed White & Black spruce.

T.D. = 55'

HO. ARD. SMITH
PRESS BOND

Survey point #12

- (a) *Picea mariana* - $7\frac{1}{4}"$, 6' from point, height 45' - tree 39
Picea mariana - $2\frac{3}{4}"$, 5' " " " " 20' - sap.
- (b) *Picea mariana* - $9\frac{1}{2}"$, 21' " " " " 47' - tree 70
Picea mariana - 1", 25' " " " " 6' - sap.
- (c) *Picea mariana* - 11", 6' " " " " 45' - tree 95
Picea mariana - $2\frac{1}{4}"$, 20' " " " " 17' - sap.
- (d) *Pinus strobus* - 8", 10' " " " " 25' - tree 50
Picea mariana - 1", 21' " " " " 11' - sap.

Small stand of large black spruce adjacent to wall
 Under cover of Nacc. ang. & moderate Bracken.

T.D. = 43'

Trachet # 7 - Survey point # 13 - Stand # 1 - July 24/54

Pteridium aquilinum

Acer rubrum - seedling

Cornus canadensis

Picea glauca - seedling

Metampylon lineare

Lycopodium obscurum

Lycopodium obscurum - var *dendroideum*

Cladonia rangiferina

Polystichum juniperinum

Calcegon streperum

Vacc. myrtillifolius

Cladonia gracilis

(a) *Pinus strobus* - 10 1/2", 12' from point - height 26' - tree 86
Picea glauca - 2 1/2", 21' " " - " 15' - sap.

(b) *Pinus strobus* - 7 1/2", 18' " " - " 23' - tree 44
Picea mariana 1" 20' " " - " 9' - sap.

(c) *Picea mariana* 8", 15' " " - " 32' - tree 50
Picea mariana 2", 13' " " - " 20' - sap.

(d) *Picea glauca* 10 1/2", 15' " " - " 33' - tree 86
Picea mariana 1", 19' " " - " 10' - sap.

Considerable black spruce, some white spruce - pine

T.D. = 60'

Survey point # 14

- (a) *Picea glauca* - 11" - 24' from point, height - 36' - tree 95
Picea mariana - 1" - 26' " " " 8' - sap.
- (b) *Pinus strobus* - 11" - 24' " " " 25' - tree 95
Picea mariana 1 3/4" - 27' " " " 12' - sap.
- (c) *Picea glauca* - 9" - 23' " " " 31' - tree 64
Picea mariana - 2 1/2" - 17' " " " 13' - sap.
- (d) *Picea glauca* - 12" - 27' " " " 38' - tree 113
Picea glauca 2" - 21' " " " 14' - sap.

Black spruce, w spruce & few w. pine - under cover
of Vacc. & moderate bracken

T.D. = 98'

Quadrat #8 - Survey point 15 - Stand #1 - July 24/54

Pteridium aquilinum

Comus canadensis

Sylopodium obscurum

Carex sp.

Bras sp.

Pteris borealis

Plant like *solidago* *Aster Umbellatus*.

Loptis groenlandicum

Macanthemum canadense

Calcegon schneiders

Cladonia rangiferina

- (a) *Picea glauca* - 12", 6' from point, - height - 40' tree 113
Picea mariana - 1", 35' " " " 8' - sap.
- (b) *Picea glauca* - 10 1/2", 6' " " " 39' - tree 86
Picea mariana - 1", 15' " " " 7' - sap.
- (c) *Picea mariana* - 8 1/2", 8' " " " 43' - tree 56
Picea mariana - 1 3/4", 22' " " " 13' - sap.
- (d) *Picea mariana* - 7 1/2", 6' " " " 40' - tree 44
Picea mariana - 1 1/2", 5' " " " 12' - sap.

White & Black spruce mixed. - Some bracken & Vace.

T.D. = 26'

Survey point #16.

- (a) *Abies balsamea* - 4" , 12' from point - height, 20' - tree 13
Picea glauca - 2" , 108' " " - " 16' - sap.
- (b) *Picea glauca* - 13 1/2" , 13' " " - " 35' - tree 143
Picea mariana - 2" , 21' " " - " 14' - sap.
- (c) *Picea glauca* - 12" , 7' " " - " 39' - tree 113
Picea glauca - 2" , 16' " " - " 13' - sap.
- (d) *Prunus resinosa* - 10" , 60' " " - " 30' - tree 79
Picea glauca - 1" , 40' " " - " 5' - sap.

near small clearing - mostly large white spruce.
Considerable small seedling white spruce regen.

T.D. = 92'

Quadrat # 9 - survey point # 17 Stand # 1 - July 24/54.

Solidago canadensis
Heracleum amantiacum
Grass spp.
Vacc. angustifolium
Saxifraga procumbens
Cladonia rangiferina
Aster macrophyllus

- (a) *Pinus strobus* 12", 66' from point, height - 26' - tree 113
Abies balsamea 2", 65' " " " - 20' - sap.
- (b) *Picea glauca* - 14", 34' " " " - 45' - tree 154
Picea glauca - 1", 15' " " " - 6' - sap.
- (c) *Picea glauca* - 15", 15' " " " - 45' - tree 177
Picea glauca - 1", 6' " " " - 5' - sap.
- (d) *Pinus strobus* - 19½", 78' " " " - 30' - tree 298
Picea glauca - 1", 24' " " " - 5' - sap.

Mainly white spruce - few w pine, 1 *Pinus resinosa*
T.D. = 193'

Survey point #18

- (a) *Pinus strobus* - 14" - 15' from point - height - 30' - tree ¹⁵⁷
Abies balsamea 1" - 14' " " " - " 12' - sap.
- b) *Picea glauca* - 15" - 9' " " " - " 45' - tree ¹⁷⁷
Abies balsamea 2 1/2" - 40' " " " - " 18' sap.
- c) *Picea glauca* 16" - 12' " " " - " 45' - tree ²⁰¹
Abies balsamea 2 1/2" - 24' " " " - " 17' - sap.
- d) *Pinus strobus* - 19" , 20' " " " - " 35' - tree ²⁸³
Picea glauca 1" , 30' " " " - " 11' - sap.

T.D. = 56'

White spruce + white pine. Considerable white
spruce regn. Fairly heavy bracken + grasses.

Soil pit dug.

Litter - 1 - 1 1/2" - mainly pine + spruce needles

Fernent. - 1"

Humus - 2-3" black humus + decomposed wood.

no A₁

A₂ - 1-2"

Quadrat #10 - Survey point #19 - Stand #1 July 24/54
 w spruce seedlings

Pteridium aquilinum
Cornus canadensis
Aster macrophyllus
Grass sp
Mnemonium canadense
Fuentalis borealis
Caloglyphus shreiberi
Solidago canadensis

- (a) *Pinus strobus* - 10" - 19' from point - height - 30' - tree ⁷⁹
Abies balsamea - 1" - 20' " " - " - 10' - sap.
- (b) *Pinus strobus* - 8 1/2" - 9' " " - " - 30' - tree ⁵⁶
Abies balsamea - 2 1/2" - 11' " " - " - 21' - sap.
- (c) *Picea glauca* - 17" - 6' " " - " - 36' - tree ²²⁷
Abies balsamea 1 1/2" 12' " " - " - 13' - sap.
- (d) *Picea glauca* 7" - 7' " " - " - 31' - tree ³⁹
Abies balsamea 1" - 6' " " - " - 12' - sap.

T.D. = 41'

Pine - + Spruce - white mainly + smaller, younger
 balsams - 1 red pine.
 Fairly heavy bracken + Aralia ground cover

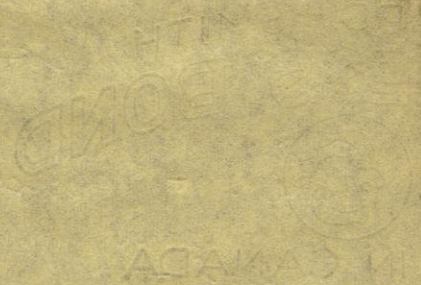
Survey point #20

- (a) *Pinus strobus* - 7" - 9' from point. - height - 31' - tree ³⁹
Abies balsamea - 1" - 7' " " " - 12' - sap.
- (b) *Pinus strobus* - 12" - 17' " " " - 33' - tree ¹¹³
Picea mariana - 2 1/2" - 26' " " " - 21' - sap.
- (c) *Picea glauca* - 14" - 21' " " " - 40' - tree ¹⁵⁴
Abies balsamea - 2 3/4" - 18' " " " - 25' - sap.
- (d) *Picea glauca* - 9" - 9' " " " - 45' - tree ⁶⁴
Picea glauca - 1 3/4" - 5' " " " - 18' - sap

Spruce, pine + balsam

Fairly heavy under cover of bracken, Aralia + grasses

T.D. = 56'



Quadrat #11 at survey point #21 - Stand #1 Aug 2/54.

Pteridium aquilinum *Vaccinium angustifolium*

Aralia nudicaulis

Cornus canadensis

Maianthemum canadense

Juncus spp.

Carex spp.

Polygala paucifolia

Heavy litter pine needles

Point 30 paces S.W. of #20.

- (a) *Pinus strobus* - 8" , 7' from point, height 30' - tree 50
Picea glauca - 2" , 21' " " , " 12' - sap.
- (b) *Pinus strobus* - 12" , 14' " " , " 35' - tree 113
Abies balsamea - 1 1/2" , 20' " " , " 14' - sap.
- (c) *Picea glauca* - 14" , 16' " " , " 33' - tree 154
Picea glauca - 1" , 28' " " , " 13' - sap.
- (d) *Picea glauca* - 13" , 7' " " , " 38' - tree 133
Abies balsamea - 1" , 35' " " , " 10' - sap.

T.D. = 44'

Moderate bracken + *Aralia*, Pine - white, white spruce +
balsam

Survey point #22.

- (a) *Abies balsamea* - 7" 18' from point, height 29' - tree ³⁹
Pinus strobus - 1 1/4" 24' " " " 8' - sap
- (b) *Pinus strobus* - 15" 6' " " " 36' - tree ¹⁷⁷
Abies balsamea - 1" 31' " " " 17' - sap.
- (c) *Pinus strobus* - 13 1/2" 7' " " " 33' - tree ¹⁴³
Picea glauca - 2" 9' " " " 15' - sap.
- (d) *Pinus resinosa* - 16" 8' " " " 40' - tree ²⁰¹
Picea glauca - 2" 15' " " " 13' - sap

Fairly heavy blacken + aralia, Heavy litter pine needles.
 W + R. Pine, W. Spruce + Balsam, Some heavy areas
 of hazel.

T.D. = 39'

Quadrat # 12 at survey point # 23 - Stand # 1 - Aug. 2/54.

Pteridium aquilinum

Cornus canadensis

Erigeron spp.

Lycopodium annotinum

Malva parvifolia

Trenitalia borealis

Aster macrophyllus

Lycopodium clavatum

Malanthemum canadense

Dalibarda repens

Populus tremuloides - seedling

(a) *Pinus strobus* - 13", 12' from point, height 32' - tree 133
Picea glauca - 2 3/4", 16' " " " 14' - sap.

(b) *Pinus strobus* - 12", 18' " " " 30' - tree 113
Abies balsamea - 2 1/4", 26' " " " 18' - sap.

(c) *Pinus strobus* 12", 19' " " " 31' - tree 113
Abies balsamea 2", 14' " " " 13' - sap.

(d) *Betula papyrifera* 11 3/4", 6' " " " 41' - tree 112
Picea glauca 1", 36' " " " 6' - sap

T.D. = 55'

Heavy bracken + grass litter, slight hazel.

W. pine, R. pine, Balsam, W Birch, W. spruce.

Survey point # 24

- (a) *Picea glauca* - 10", 7' from point, height. 42' - tree⁷⁹
Picea glauca - 2 1/4", 10' " " " 13' - sap
- (b) *Picea glauca* - 4 1/4", 23' " " " 18' - tree¹⁴
Picea glauca - 2", 46' " " " 11' - sap
- (c) *Picea glauca* - 11 1/4", 6' " " " 45' - tree¹⁰⁰
Picea glauca - 1", 12' " " " 6' - sap
- (d) *Pinus strobus* - 9 1/4", 6' " " " 38' - tree⁶⁷
Abies balsamea - 1 1/2", 18' " " " 10' - sap

W. pine + W. spruce, W. birch to east.
 Considerable Hazel
 Light bracken

T.D. = 42'

Quadrat # 13 at Survey point # 25 in Stand # 1 - Aug 2/54

Pteridium aquilinum
Aster macrophyllus
Galium aparine
Macanthemum canadense
Lycopodium clavatum
Calcegon straberi
Cladonia rangiferina
Lorax spp
Mentha borealis

Picea glauca seedling
Vacc. angustifolium

- (a) *Picea glauca* - 12 1/2" , 8' from point , height 38' - tree ¹²³
Abies balsamea - 1" , 10' " " , " 11' - sap
- (b) *Pinus strobus* - 12" , 9' " " , " 35' - tree ¹¹³
Abies balsamea - 2" , 10' " " , " 13' - sap
- (c) *Populus tremuloides* 11" , 12' " " , " 35' - tree ⁹⁵
Abies balsamea 1" , 18' " " , " 10' - sap
- (d) *Picea glauca* - 8" , 3' " " , " 34' - tree ⁵⁰
Abies balsamea - 2 1/4" , 19' " " , " 15' - sap

Very slight cracks in cover.

T.D. = 32'

Heavy needle litter

Some hazel

W. spruce, Pine, Balsam, Poplar

Survey point #26

Little or no black spruce in this ^{part} section because compass line has turned at pt. 25 to swale & is drawing away from it. Consequently note is much poorer for black spruce

- BA
95
- (a) *Picea glauca* - 4" 6' from point height - 40' - tree
Picea glauca 2 1/2" 8' " " " - 16' - sap.
- (b) *Picea glauca* 9" 64 9' " " " - 37' - tree
Abies balsamea 2" 9' " " " - 18' - sap
- (c) *Picea glauca* - 9" 64 13' " " " - 35' - tree
Picea mariana 1 1/2" 13' " " " - 9' - sap.
- (d) *Picea mariana* 7 1/2" 44 12' " " " - 40' - tree
Picea mariana 1 1/2" 10' " " " - 8' - sap

T.D. =

Heavy ground cover of mosses & lichens & small herbs.
moderate tracken. -

Black spruce regen - slight depression.
W. spruce, B. spruce, W. pine, Balsam.

T.D. - 40'

Quadrat #14 at Survey point 27 in Stand #1 - Aug 2/54

Pteridium aquilinum

Lycopodium clavatum

Lycopodium obscurum var. *deciadent*

Cornus canadensis

Derrilla lonicera

Salibarda repens

trientalis

Carex sp.

Aster macrophyllus

Maianthemum canadense

Epilobium angustifolium

Aralia nudicaulis

Frax sp.

Polygala paucifolia

Polytrichum juniperinum

(a) *Pinus strobus* - 7" ³⁹, 10' from point, height 25' - tree
Picea glauca 1", 21' " " " 8' - sap

(b) *Pinus strobus* 9 1/2" ⁷⁰, 7' " " " 38' - tree
Picea glauca 2 1/2", 31' " " " 14' - sap.

(c) *Pinus strobus*, 10" ⁷⁹, 12' " " " 35' - tree
Abies balsamea, 1 1/4", 2' " " " 9' - sap

(d) *Pinus strobus* 10" ⁷⁹, 10' " " " 39' - tree
Abies balsamea - 1 3/4", 33' " " " 10' - sap

T.D. = 39'

Light ground cover herbs, heavy needle litter, consid. hazel.
w. pine, w. spruce, balsam, Poplar

Survey point # 28

- (a) *Pinus strobus* - 8" ⁵⁰, 6' from point, height 30' - tree
Picea glauca - 1", 25' " " " " 8' sap.
- (b) *Populus tremuloides*, 10 1/4" ⁸³, 12' " " " " 50' - tree
Pinus strobus , 1", 16' " " " " 10' - sap
- (c) *Pinus strobus* - 9 1/2" ⁷⁰, 9' " " " " 27' - tree
Populus tremuloides 2 1/4" , 18' " " " " 24' - sap
- (d) *Pinus strobus* - 7 1/2" ⁴⁴, 7' " " " " 26' - tree
Abies balsamea 1 1/4" , 27' " " " " 11' - sap.

W. pine, Poplar - trem, W. spruce, balsam

Fairly heavy bracken, light hazel.

Moderate needle litter.

T.D. = 34'

Squadrat # 15 at Survey Point # 29 - Stand # 1 - Aug 2 / 54

Pteridium aquilinum

Picea glauca - seedling

Arabis nudicaulis

Maianthemum canadense

Comus canadensis

Dubautia ripens

Lycopodium annotinum

Sium latifolium

Potentilla pauciflora

Pyrola elliptica

Polytrichum juniper

Isodon sp.

(a) *Pinus strobus* - 8" ⁵⁶, 10' from point, height 26' - tree
Picea glauca - 2", 44' " " " 15' - sap

(b) *Populus trem* - 5" ²⁶, 6' " " " 46' - tree
Pinus strobus - 1", 39' " " " 13' - sap

(c) *Pinus strobus* - 13" ¹³³, 5' " " " 44' - tree
Picea glauca - 2", 27' " " " 10' - sap

(d) *Pinus strobus* - 10" ⁷⁹, 8' " " " 47' - tree
Abies balsamea - 2", 47' " " " 14' - sap

T.D. = 29'

Heavy litter pine needles, little herbaceous cover
 slight bracken, moderate hazel
 w. pine, w. spruce, Poplar - tree Balsam

Survey point # 30

- (a) *Pinus strobus* - 7" ³⁹, 12' from point, height 38' - tree
Picea glauca 2", 11' " " " 12' - sap
- (b) *Pinus strobus* 11 1/4" ¹⁰⁰, 13' " " " 39' - tree
Abies balsamea 2", 15' " " " 15' - sap
- (c) *Pinus strobus* - 14" ¹⁵⁴, 16' " " " 40' - tree
Picea glauca - 2", 20' " " " 11' - saps.
- (d) *Pinus strobus* - 14 1/2" ¹⁶⁴, 9' " " " 40' - tree
Pinus resinosa - 2 1/4", 30' " " " 12' - sap

Herbaceous ground cover sparse
 Heavy needle litter - fine
 Considerable hazel.
 Light track.

W. pine, R. pine, Pop. trem, W. spruce & balsam

The last few survey points have been in fairly
 mature woods.

T.D. = 50'

Quadrat # 16 - Survey point # 31 - Stand 1 Aug 3/54
 running due north from survey point # 30

Picea glauca - seedling

Stenidium aquilinum
Lycop. clavatum
Comus canadensis
Melampyrum lineare
Polygala paucifolia
Mertensia breckia
Anaphalis margaritacea
Grass spp.
Aster macrophyllus
Geranium aurantiacum
Viola sp. nephus.

- a) *Picea glauca* - $13\frac{1}{4}"$ ¹³⁸ 16' from point, height 34' - tree
Abies balsamea - $1\frac{1}{2}"$ 18' " " " 10' - sap.
- b) *Pinus strobus* - $17"$ ²²⁷ 11' " " " 39' - tree
Abies balsamea - $7"$ ⁹³ " " " 11' - sap.
- c) *Pinus strobus* - $14"$ ¹⁵⁴ 12' " " " 35' - tree
Picea glauca - $2\frac{3}{4}"$ 22' " " " 14' - sap.
- d) *Pinus strobus* - $14\frac{1}{2}"$ ¹⁶⁴ 39' " " " 37' - tree
Abies balsamea - $2\frac{1}{2}"$ 18' " " " 15' - sap.

Ground covered with grasses + Lycopodiums, not too heavy litter
 Moderate bracken. Slight hazel.
 W. pine, W. spruce, Pop trem, balsam.

T.D. = 78'

Survey point # 32

- (a) *Pinus strobus* - $8\frac{1}{2}"$ ⁵⁶ 9' from point, height 24' - tree
Pinus strobus - $2\frac{1}{2}"$ 24' " " " 17' - sap.
- (b) *Populus trem.* - $10\frac{3}{4}"$ ⁹² 19' " " " 43' - tree
Abies balsamea - $2\frac{3}{4}"$ 19' " " " 17' - sap.
- (c) *Pinus strobus* - $15\frac{1}{2}"$ ¹⁸⁸ 24' " " " 40' - tree
Picea glauca - $1\frac{1}{2}"$ 23' " " " 9' - sap
- (d) *Populus trem.* - $10"$ ⁷⁹ 9' " " " 45' - tree
Picea mariana - $2\frac{1}{4}"$ 52' " " " 16' - sap

Fairly heavy litter of needles

moderate cracks. Considerable hazel.

W pine, Pop trem, W spruce. W birch, B spruce.

T.D. = 61'

Quadrat #17 - Survey point 33 - Stand #1 - Aug 3/54.

Pteridium aquilinum
Aralia nudicaulis
Rubus pubescens
Aster macrophyllus
Maianthemum canadense

Polystichum purpureum
Caloglossa Schreberei
Cladonia rangiferina
Cladonia gracilis

Streptopus rogersii
Viola sp.
Dalmanella repens
Solidago - like *Solidago*
Tricentris borealis
Comus canadensis

(a) <i>Betula papyrifera</i>	4 1/2"	16	9'	from point	height	38'	tree
<i>Picea glauca</i>	2"	1	22'	"	"	12'	sap.
(b) <i>Picea glauca</i>	5"	20	20'	"	"	27'	tree
<i>Picea glauca</i>	2 3/4"	1	45'	"	"	20'	sap.
(c) <i>Populus trem.</i>	10"	79	1'	"	"	52'	tree
<i>Picea glauca</i>	2"	1	19'	"	"	12'	sap.
(d) <i>Pinus strobus</i>	6"	33	8'	"	"	24'	tree
<i>Pinus strobus</i>	2 1/4"	1	30'	"	"	17'	sap.

T.D. = 38'

Considerable bracken + *Aralia*, little hazel
 medium litter needles - dec. leaves.

W. pine, W. birch, P. trem. W. spruce, R. pine

Survey point # 34.

- (a) *Pinus strobus* - 8" ⁵⁰ 8' from point, height - 36' - tree
Picea glauca - 2 1/4" 19' " " " 14' - sap
- (b) *Picea glauca* - 8" ⁵⁰ 4' " " " 33' - tree
Picea glauca - 1" 12' " " " 6' - sap.
- (c) *Picea glauca* - 8" ⁵⁰ 6' " " " 35' - tree
Picea glauca - 1" 25' " " " 7' - sap.
- (d) *Picea glauca* 8 1/4" ⁵³ 19' " " " 40' - tree
Picea glauca 2" 60' " " " 15' - sap.

Rocky slope. Heavy needle litter.

Moderate tracken + Aralia.

W. pine, W. spruce, W. birch, Pop trem, Acer Sacc. - 1
 Pop trem

T.D. = 37'

Quadrat 18 - Survey point # 35 - Stand 1 - Aug 3/54

Thuja occidentalis
Cornus canadensis
Saururus cernuus
Maianthemum canadense
Aster macrophyllus
Trisetum boreale

(a) *Populus tremuloides* 14 1/4" ¹⁶⁰, 18' from point, height - 50' - tree
Pop. trem. 1 1/2", 27' " " " 18' sap.

(b) *Pinus strobus* - 10" ⁷⁸, 15' " " " 36' - tree
Picea glauca - 2 1/2", 30' " " " 14' - sap

(c) *Picea glauca* 10 1/2" ⁸⁶, 26' " " " 45' - tree
Betula papyrifera 2", 32' " " " 25' - sap

(d) *Pinus strobus* - 14" ¹⁵⁴, 5' " " " 35' - tree
Pinus strobus - 2 1/2", 20' " " " 20' - sap

Heavy needle litter T.D. = 64'
moderate bracken, considerable hazel.
w. pine, w. birch, w. spruce, R. pine, Pop. trem.

Survey Point # 36.

- (a) *Pinus strobus* - $13\frac{1}{4}"$ ¹⁴⁰ 15' from point, height - 30' tree
Pinus strobus - $2\frac{1}{2}"$ 31' " " " 18' - sap.
- (b) *Picea glauca* - $3\frac{1}{4}"$ 9 6' " " " 12' - tree
Pinus strobus - $1\frac{3}{4}"$ 25' " " " 9' - sap.
- (c) *Betula papyrifera* $7\frac{1}{2}"$ ⁴⁴ 3' " " " 28' - tree
Picea glauca $2"$ 55' " " " 10' - sap.
- (d) *Acer saccharum* $5"$ 20 18' " " " 28' - tree
Pop. trem $2\frac{1}{2}"$ 75' " " " 25' - sap.

Heavy needle & leaf litter.
 little bracken, heavy hazel.
 w pine, w firch, w spruce, maple, Pop trem.

T.D. = 42'

Quadrat # 19. Survey point # 37 - Stand # 1 Aug 3/54

Pteridium aquilinum

Vacc. angust

Epipedium androsaceum

Comptonia peregrina

Erigeron nudicaulis

Mananthemum

Fraxinus borealis

Aster macrophyllus

Calcegon schubertii

Grass sp.

Cladonia rangiferina

Cladonia gracilis

(a) *Picea glauca* - 11 1/2" ¹⁰⁴ - 31' from point, height 33' - tree
Acer saccharum 1 3/4", 20' " " " 14' - sap

(b) *Prunus strobus* - 16" ²⁰¹ 19' " " " 38' - tree
Acer saccharum - 2" 7' " " " 14' - sap.

(c) *Prunus strobus* - 13" ¹³³ 18' " " " 37' - tree
Prunus pensylvanica 1 3/4" 6' " " " 12' - sap
Pm cherry

(d) *Picea glauca* - 7" ³⁸ 24' " " " 27' - tree
Picea glauca - 1" 36' " " " 6' - sap

Light litter leaves + small needles

Considerable bracken + fairly hazel.

W. pine, W. spruce, *Acer sac.*, W. Birch Pop. tree.
Pm cherry T.D. = 92'

Survey point # 38

(a) *Picea glauca* - $9\frac{1}{2}$ " ⁷⁰ 9' from point, height - 39' tree
Pop. trem. $2\frac{3}{4}$ " , 31' " " " 24' - sap

(b) *Pinus strobus* 13" ¹³³ 35' " " " 35' - tree
Acer saccharum 2" , 10' " " " 12' - sap

(c) *Pinus strobus* - 9" ⁶⁴ 13' " " " 24' - tree
Picea glauca - 1" , 11' " " " 6' - sap

(d) *Pinus strobus* - $10\frac{1}{2}$ " ⁸⁶ 21' " " " 31' tree
Pop. trem - 2" , 45' " " " 20' sap

Light titter needles + leaves

Heavy cover Vacc. argus.

Fairly heavy dracken.

w. pine, w. spruce, Acer, Pop. trem, Pin. cherry
w. birch

T.D. = 78'

Quadrat #20 - Survey Point # 39 - Stand 1 Aug 3/52

Pteridium
Aster macro
Saururus pro
Gnaphalium
Mentha

Corylus cornuta
Comptonia
Acer rubrum - seedling
Vacc arguta

- (a) *Pinus strob.* 14" ¹⁵⁴ 23' from point height 35'
Acer sacc. 2 1/2" 20' " " " 21' say
- (b) *Pinus strob.* 9 1/2" ⁷⁰ 18' " " " 32'
Acer sacc. 2" 20' " " " 18'
- (c) *Picea glauca* 13" ¹³³ 24' " " " 36' - tree
Acer sacc. 2" 23' " " " 17' say
- (d) *Pinus strob.* 14" ¹⁵⁴ 8' " " " 32' tree
Pop trem 2" 30' " " " 22 - say
 T.D. = 73'

Light bracken
 Heavy hazel

w pine + spruce
 Pop trem + maple

Survey Point #460

(a) *Pinus strobus* - $7\frac{1}{2}$ ³⁹ 12' from point - height 25'
Picea glauca - $2\frac{1}{4}$ 14' " " " 10'

(b) *Pinus remora* - $14\frac{1}{4}$ ¹⁵⁴ 21' " " " 48'
Acer sac. $2\frac{1}{2}$ 9' " " " 20'

(c) *Pinus strobus* $7\frac{1}{2}$ ⁴⁴ 15' 35'
Picea glauca $2\frac{3}{4}$ 13' 13'

(d) *Pinus remora* $13\frac{1}{4}$ ¹³⁹ 3' 50'
Picea glauca - $2\frac{1}{2}$ 12' 13'

Considerable bracken + blueberry
 Heavy needle litter

Little haze T.D. = 51'

Total distances for trees - 2379'
 Average distance (160 trees) - 14.87'

Mean Area = $(14.87)^2 = 221.12$ sq. ft.
 Density = 197.0 trees/acre.

Total distances for saplings - 3596'
 Average distance (160 saplings) 22.48'

Last soil pit about Survey point # 26,

Litter - $\frac{1}{2}$ "

Formic - $\frac{1}{8}$ "

Humus - $\frac{1}{2}$ - 1"

A₁ - $\frac{1}{4}$ - $\frac{1}{2}$ "

A₂ - $1\frac{1}{2}$ - 2"

A₃ - $\frac{1}{2}$ "

Frequency for Trees.

Pinus strobus

Pinus resinosa

Populus trem

Picea mariana

Picea glauca

Acer saccharum

Betula papyrifera

Abies balsamea

	Actual Frequency	Frequency %
-	68	42.50
-	6	3.75
-	7	4.38
-	16	10.00
-	53	33.13
-	1	0.62
-	5	3.12
-	4	2.50
	160	100.00

15,888

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