



LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

Site 6036 (Boreal Stand 36): Black River, Marquette County, Michigan, Township 46N, Range 28W, Section 9. 1955-08-20

[s.l.]: [s.n.], 1955-08-20

<https://digital.library.wisc.edu/1711.dl/POL5QENFA2AUP8M>

This material may be protected by copyright law (Title 17, US Code).

For information on re-use see:

<http://digital.library.wisc.edu/1711.dl/Copyright>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.

[= site 6036]

Data Form No. 20

Plant Ecology Research

Univ. of Wisconsin

STAND RECORD

FORESTS

Stand No. 36

Name: *Black River*
 County: *Marquette Co., N. Mich*
 Date: *Aug. 20, 1955*
 Size of Stand: *40 acre.*
 Forest Type: *spruce-fir-aspen*
 Topography: *rolling, some outcrop*

Observers:

PFM

Locality:

T: *46N* R: *28W* Sec: *NW 1/4 9*

Size of Area Sampled:

Soil Type:

Slope:

Directions

gradual to swale at south edge.

Condition of Stand:

Logged for pine
Stand split by tag alder swale - avoided
Black spruce on an upland site - sandy soils - dry-Mesic site
Stand reported by Forester of Escanaba State Forest - Mr. Clayton Schooley
Ishpeming, Mich

Open Grown Trees:

% Canopy:

Stumps:

1.	4.	7.	10.
2.	5.	8.	11.
3.	6.	9.	12.

Soil Data:

	pH	N	P	K	Ca	Mg	Org. Mat.	Colloids	W.H.C.
A ₀	_____	_____	_____	_____	_____	_____	_____	_____	_____
A ₁	_____	_____	_____	_____	_____	_____	_____	_____	_____
A ₂	_____	_____	_____	_____	_____	_____	_____	_____	_____
B	_____	_____	_____	_____	_____	_____	_____	_____	_____

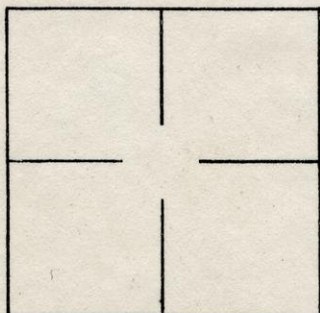
DEPTH

CHARACTERISTICS (Color, Texture, Structure, etc.)

	#1	#2	#3
A ₀	<i>1 1/2" litter 1/2 ferment</i>	<i>1" litter 1/2 ferment</i>	<i>1 1/2" litter 1/2 ferment</i>
A ₁	<i>1 1/2" black crumbly</i>	<i>3/4" black crumbly</i>	<i>2" black crumbly</i>
A ₂	<i>2" grey brown</i>	<i>3" grey brown - sandy loam</i>	<i>1" grey brown - sandy - leached</i>
B	<i>6" 4" red brown clay loam</i>	<i>6" 4" red brown sandy to clay loam</i>	<i>6" 4" red brown sandy loam</i>

Parent Material:

Map:



LICHENS OF GREAT LAKES SPRUCE-FIR COMMUNITIES
NORTHERN MICHIGAN
Marquette County



Near the Black River - T46N R28W SEC 9
Red Maple, aspen, white spruce, black spruce.
Rolling, some outcrop, gradual slope to swale
southward. Logged for pine.

August 20, 1955. Coll. Paul F. Maycock

Plant Ecology Research
TREE DATA SUMMARY SHEET

University of Wisconsin

114.7

Spruce - fir
Northern Pinehardwoods

Station Number: 36 - 1320

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.
			-80	-320	321										
Abies bals	8	8				491	27	16.9		20.0	6.0	5.0	3.2	14.2	99.4
Acer rubru	28	33				2215	61	38.1		70.0	20.9	20.6	14.6	56.1	336.6
A. sacchar	4	5				362	2	1.3		10.0	3.0	3.2	2.4	8.6	86.0
A. spicatu							25	15.6							1.0
Betula lut	2	2				122				5.0	1.6	1.2	0.8	3.6	28.8
B. papyrif	15	16				1241	12	7.5		37.5	11.2	10.0	8.2	29.4	147.0
Carpinus c															
Fagus gran															
Ostrya vir															
Picea glau	17	20				2145	13	8.1		42.5	12.7	12.5	14.2	39.4	236.4
Picea mar. Pinus-Bank	14	14				761	7	4.4		35.0	10.4	8.8	5.0	24.2	48.4
P. resinosa	5	5				1185				12.5	3.7	3.2	7.8	14.7	44.1
P. Strobus	8	9				1602	2	1.3		20.0	6.0	5.6	10.6	22.2	111.0
Populus ba	4	6				507				10.0	3.0	3.7	3.3	10.0	20.0
P. grandid	5	8				673				12.5	3.7	5.0	4.4	13.1	26.2
P. tremulo	22	32				3794	1	0.6		55.0	16.4	20.0	25.1	61.5	123.0
Prunus serot. pen	1	1				23	1	0.6		2.5	0.7	0.6	0.2	1.5	6.0
Quercus el															
Q. rubra															
Tilia amer															
Tsuga cana															
Thuja occi															
Ulmus amer															
U. fulva															
Amelanchier	1	1				23	4	2.5		2.5	0.7	0.6	0.2	1.5	6.0
Prunus pen							1	0.6							
Prunus virg							3	1.9							
Alnus rug.							1	0.6							
TOTALS		160				15,144	160	100.0		335.0	100.0	100.0	100.0	300.0	1320

AVE. DIST. BTW'N TREES:

13.4

AVE. B. A.:

94.7

TREES/ACRE:

243

DOM. /ACRE:

23,012

Midrange Index

113.6

280.5

43.0

1.0

18.0

264.6

394.0

242.0

88.2

133.2

90.0

78.6

553.5

4.5

10.5

2315.2

Midrange Index

127.8

112.2

34.4

9.0

21.6

294.0

394.0

242.0

102.9

155.4

90.0

78.6

492.0

4.5

4.5

2163

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 36(1)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam	7 1/2 25				18 112 13 48					
Acer rubrum	9 1/2 35	18 126 6 75			10 1/2 46				15 51 4 19	
A. sacchar.			13 31	7 1/2 46 25 140						
A. spicatum										
Betula lut.										
B. papyrif									13 1/2 29 18 197	
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau						15 115 22 260				
Pinus ^{mariana} Bank	9' 30		13 29			20 137		10 37		12 1/2 76
P. resinosa								13 1/2 220		
P. Strobus				3 439					13 1/2 62	
Populus bals	6 38	13 78 17 25	10 125	25 136						
P. grand		11 105							3 1/2 37 14 135	
P. trem					16 20 1 1/2 25		13 125 17 108 16 190	17 137		
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ										
Ulmus amer										
U. fulva										
Prunus serot Amelanchier						4' 23		10 23		
Litter	1"	1 1/2	1 1/2	3 1/2	1 1/2	1	2"	1 1/2	1"	2 1/2
Canopy	45	40	55	70	30	20	5	20	35	60
Distance	32	59	42	60 1/2	46	52	68	50 1/2	45 1/2	48 1/2

Ave. Canopy - 45.2

Ave. Litter 1.7

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 36 (2)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam							12 72		14 1/2 126	
Acer rubrum			14 32	3 125		9 1/2 22 10 1/2 142		23 24		
A. sacchar.			24 87					7 58		
A. spicatum										
Betula lut.	12 1/2 57		27 63							
B. papyrif		6 27 4 1/2 111	6 1/2 43			7 69			9 45	
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau	4 15	10 87			12 1/2 182			11 62 8 40	14 130	
Pinus mar Pinus-Bank							23 49			20 54
P. resinosa				8 321						
P. Strobus										15 165
Populus bals					11 6 75 17 1/2 64					
P. grand					14 55		6 1/2 52 12 1/2 146			
P. trem	10 1/2 70 7 1/2 65	20 142		27 75 16 86		15 76			9 92	9 140 10 1/2 87
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ										
Ulmus amer										
U. fulva										
Litter	1 1/2	2 1/2	2 1/2	3	1	1 1/2	2	3	1 1/2	2
Canopy	65	65	40	70	40	35	45	70	50	40
Distance	34 1/2	40 1/2	71 1/2	54	50	42	54	49	43 1/2	54 1/2

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 36 (3)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam			22 16							
Acer rubrum	9 1/2 62 19 58	12 1/2 42	8 148	21 239	17 68		15 44 11 1/2 46	9 1/2 70	11 129 25 58	18 150
A. sacchar.										
A. spicatum										
Betula lut.										
B. papyrif			16 66	25 110				31 65		15 92
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau	13 1/2 152 22 136	14 1/2 33			11 1/2 99		7 158	24 70	33 89	
Pinus Bank P. mar						9 47		15 1/2 62	9 1/2 52	10 66
P. resinosa		5 1/2 20				11 24				
P. Strobus										
Populus bals										
P. grand										
P. trem		9 105	9 48	15 361 24 131	17 159 13 175	17 151 13 165	4 74			10 141
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ										
Ulmus amer										
U. fulva										
Litter	2 1/2	2	2	1	2 1/2	1 1/2	2	1 1/2	1 1/2	1 1/2
Canopy	55	30	35	65	40	65	50	55	30	25
Distance	64	41 1/2	55	85	58 1/2	50	37 1/2	80	78 1/2	53

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 36 (4)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam				9 40			12 1/2 42			
Acer rubrum	29 49		6 1/2 65	21 29	6 18	17 16	12 1/2 65 17 54	19 51	12 1/2 30	16 40
A. sacchar.										
A. spicatum										
Betula lut.										
B. papyrif						7 1/2 30	8 1/2 26	15 1/2 94	14 185	19 38
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau	20 25	16 131 6 1/2 78		9 76				14 96		
Picea mar. Pinus Bank				13 1/2 59	12 15				12 58	
P. resinosa		23 1/2 25								
P. Strobus	9 1/2 200	14 1/2 73	3 105 17 260			12 200				13 1/2 98
Populus bals										
P. grand			7 109							
P. trem	18 127				14 1/2 120 8 1/2 135	14 1/2 80		11 100	6 40	11 1/2 115
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ										
Ulmus amer										
U. fulva										
Soiler	1 1/2	1	1	1 1/2	2	2	1 1/2	1 1/2	1	1
Canopy	30	55	65	15	65	40	30	45	60	55
Distance	76 1/2	60 1/2	33 1/2	52 1/2	41	51	50 1/2	59 1/2	44 1/2	60

POINT RECORD TREES *SAPLINGS* NORTHERN PINE-HARDWOODS

Stand No. 36(1)

STATION NO.	1	2	3	4	5	6	7	8	9	10
<i>Abies balsam</i>		11	11	7 5 11			3 11	9 19		
<i>Acer rubrum</i>	10 1/2	8		9	6	7 21	17 1/2 20	10 1/2 14	4	4 1/2
<i>A. sacchar.</i>										
<i>A. spicatum</i>									11 1/2	9
<i>Betula lut.</i>										
<i>B. papyrif</i>									13	6
<i>Carpinus car</i>										
<i>Fagus gran</i>										
<i>Ostrya virg</i>										
<i>Picea glau</i>	12 1/2 10	8 1/2	16			15				
<i>Picea mar.</i> <i>Pinus Bank</i>	9 1/2	6 1/2							13 1/2	4
<i>P. resinosa</i>										
<i>P. Strobus</i>										
<i>Populus bals</i>										
<i>P. grand</i>										
<i>P. trem</i>					7					
<i>Prunus pen.</i>					13					
<i>Quercus ell</i>										
<i>Q. rubra</i>										
<i>Tilia amer</i>										
<i>Tsuga can</i>										
<i>Thuja occ</i>										
<i>Ulmus amer</i>										
<i>U. fulva</i>										
<i>Prunus nig</i>			10 1/2 12 1/2							
<i>Prunus serot</i>					5 1/2					
<i>Amelanchier</i>						16				
Distance	42	34	50	32	31 1/2	59	51 1/2	52 1/2	42	23 1/2

POINT RECORD TREES *SAPLINGS*

NORTHERN PINE-HARDWOODS

Stand No. 36 (2)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam								18 16	13 8 1/2	7 10 1/2
Acer rubrum	14 15	11 14	8 1/2 1 1/2	9	7 4 1/2	10	9 1/2	15 7 1/2	14 1/2	
A. sacchar.										
A. spicatum	2 1/2	1/2			14 2 1/2		4 1/2		9	
Betula lut.										
B. papyrif				14		2				9
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau		8 1/2	12 1/2	9 5	23			10		
Pinus mar. Pinus Bank						6 1/2	11		3 1/2	
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem										
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ										
Ulmus amer										
U. fulva										
<i>Prunus virg</i>						8				
Distance	43	34	31 1/2	51	35 1/2	26	38	58 1/2	34	37

POINT RECORD TREES *SAPLINGS* NORTHERN PINE-HARDWOODS

Stand No. 36 (3)

STATION NO.	1	2	3	4	5	6	7	8	9	10	
Abies balsam	14 7	8	3 8 1/2	15							
Acer rubrum			19	9 12 1/2	11	7 10 1/2	14 3 5 1/2	6 1	3 4	17 13 1/2 11 1/2	14 20
A. sacchar.				4							
A. spicatum	4 12 1/2	5 1/2			5		14	4 1/2 11 1/2		3 1/2 8 1/2	11
Betula lut.											
B. papyrif							12 1/2				
Carpinus car											
Fagus gran											
Ostrya virg											
Picea glau									5		
Pinus Bank											
P. resinosa											
P. Strobus		11									
Populus bals											
P. grand											
P. trem											
Prunus pen.											
Quercus ell											
Q. rubra											
Tilia amer											
Tsuga can											
Thuja occ											
Ulmus amer											
U. fulva											
Amelanchier		25									
Alnus rugosa								15			
Distance	37 1/2	49 1/2	45 1/2	36 1/2	37	15 1/2	33 1/2	48	50	37	

POINT RECORD TREES SAPLINGS NORTHERN PINE-HARDWOODS

Stand No. 36 (4)

STATION NO.	1	2	3	4	5	6	7	8	9	10
<i>Abies balsam</i>			14	18		14	9 1/2	3		
<i>Acer rubrum</i>	17 16	6 11 1/2	4 1/2 9	3 1/2 13	9 1/2	6 7 1/2	2 1/2 3 1/2	1 1/2		4 1/2
<i>A. sacchar.</i>	12									
<i>A. spicatum</i>	7				11				2 3 1/2	7 5 16
<i>Betula lut.</i>										
<i>B. papyrif</i>					17 8 1/2		12	6 8		5
<i>Carpinus car</i>										
<i>Fagus gran</i>										
<i>Ostrya virg</i>										
<i>Picea glau</i>						25				
<i>Pinus Bank</i>										
<i>P. resinosa</i>										
<i>P. Strobus</i>		16								
<i>Populus bals</i>										
<i>P. grand</i>										
<i>P. trem</i>										
<i>Prunus pen.</i>										
<i>Quercus ell</i>										
<i>Q. rubra</i>										
<i>Tilia amer</i>										
<i>Tsuga can</i>										
<i>Thuja occ</i>										
<i>Ulmus amer</i>										
<i>U. fulva</i>										
<i>Amelanchier</i>			8 1/2	11						
Distance	52	43	36	45 1/2	46	52 1/2	27 1/2	18 1/2	19 1/2	32 1/2

[illegible]

[illegible]

University of Wisconsin
STAND NO. 36

	P									10								20	
Desmodium glutinosum																			
Dicentra canadensis																			
Dicentra cucullaria																			
Diervilla lonicera	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	16 80
Dirca palustris																			
Dryopteris boottii																			
Dryopteris cristata	✓																		1
Dryopteris disjuncta																			
Dryopteris goldiana																			
Dryopteris marginalis																			
Dryopteris noveboracensis																			
Dryopteris phegopteris																			
Dryopteris spinulosa	✓						✓												1 5
Empetrum nigrum																			
Epifagus virginiana																			
Epigaea repens	✓					✓		✓									✓	3 15	
Epilobium angustifolium																			
Epilobium glandulosum																			
Epilobium strictum																			
Equisetum arvense ✓ borealis	✓										✓								1 5
Equisetum pratense																			
Equisetum scirpoides																			
Equisetum sylvaticum	✓																		1
Erigeron annuus																			
Erigeron philadelphicus																			
Erigeron strigosus																			
Erythronium albidum																			
Erythronium americanum																			
Eupatorium maculatum																			
Eupatorium perfoliatum																			
Eupatorium purpureum																			
Fagopyrum sagittatum																			
Festuca obtusa																			
Fragaria vesca	✓					✓													1 5
Fragaria virginiana	✓																		
Galium aparine																			
Galium asprellum																			
Galium boreale																			
Galium concinnum																			
Galium lanceolatum																			
Galium triflorum	✓	✓			✓			✓			✓								4 20
Gaultheria hispidula	✓																		1
Gaultheria procumbens	✓								✓								✓	2 10	
Gaylussacia baccata																			
Gentiana andrewsii																			
Gentiana crinata																			
Gentiana linearis																			
Gentiana quinquefolia																			
Geocaulon lividum																			
Geranium bicknelli																			
Geranium maculatum																			
Geranium robertianum																			

[illegible]

[illegible]

	P									10								20		
Podophyllum peltatum																				
Polygala paucifolia	✓				✓	✓					✓			✓			✓	✓	5	25
Polygonatum biflorum																				
Polygonatum pubescens	✓																			1
Polygonum cilinode																				
Polymnia canadensis																				
Polypodium virginianum																				
Potentilla canadensis																				
Potentilla norvegica																				
Potentilla simplex																				
Potentilla tridentata																				
Prenanthes alba																				
Primula mistassinaca																				
Prunella vulgaris																				
Prunus pumila																				
Pteretis pensylvanica																				
Pteridium aquilinum	✓													✓			✓		2	10
Pyrola asarifolia																				
Pyrola elliptica	✓																			1
Pyrola grandiflora																				
Pyrola minor																				
Pyrola rotundifolia	✓																			1
Pyrola secunda	✓	✓								✓	✓	✓							4	20
Pyrola virens																				
Pyrus floribunda																				
Pyrus melanocarpa																				
Ranunculus abortivus																				
Ranunculus acris																				
Ranunculus pensylvanicus																				
Ranunculus recurvatus																				
Ranunculus repens																				
Ranunculus septentrionalis																				
Rhamnus alnifolia																				
Rhus glabra																				
Rhus radicans																				
Rhus typhina																				
Rhus vernix																				
Ribes americanum																				
Ribes cynosbati																				
Ribes glandulosum																				
Ribes hirtellum																				
Ribes lacustre																				
Ribes oxycanthoides																				
Ribes triste																				
Rosa sp.																				
Rubus allegheniensis																				
Rubus idaeus	✓																			1
Rubus hispidus																				
Rubus odoratus																				
Rubus parviflorus																				
Rubus pubescens	✓	✓	✓		✓						✓								4	20
Rubus (blackberry)	✓																			1

	P									10								20		
Rubus (dewberry)																				
Rubus (raspberry)	✓																			1
Rumex acetosella																				
Salix spp.																				
Sambucus canadensis																				
Sambucus pubens																				
Sanguinaria canadensis																				
Sanicula gregaria																				
Sanicula marilandica																				
Satureja vulgaris																				
Saxifraga pensylvanica																				
Schizachne purpurascens																				
Scutellaria epilobiifolia																				
Scutellaria lateriflora																				
Senecio aureus																				
Shepherdia canadensis																				
Sium suave																				
Smilacina racemosa																				
Smilacina stellata																				
Smilacina trifolia																				
Smilax herbacea																				
Smilax tamnoides var hispida																				
Spiranthes gracilis																				
Spiranthes romanzoffiana																				
Solidago canadensis																				
Solidago flexicaulis																				
Solidago gigantea																				
Solidago graminifolia																				
Solidago hispida																				
Solidago juncea																				
Solidago lepida																				
Solidago macrophylla																				
Solidago rugosa																				
Solidago ulmifolia																				
Spiraea alba																				
Spiraea latifolia																				
Stachys palustris																				
Stellaria calycantha																				
Stellaria longifolia																				
Stellaria palustris																				
Streptopus amplexifolius																				
Streptopus roseus	✓					✓						✓	✓						3	15
Symphoricarpos albus																				
Symphoricarpos occidentalis																				
Taraxacum officinale	✓																			1
Taxus canadensis																				
Thalictrum dasycarpum																				
Thalictrum dioicum																				
Thalictrum polygamum																				
Tiarella cordifolia																				
Trientalis borealis	✓						✓			✓		✓		✓		✓		✓	✓	6 30
Trifolium hybridum																				

	P								10									20		
Trifolium pratense																				
Trifolium repens																				
Trillium cernuum																				
Trillium erectum																				
Trillium grandiflorum																				
Trillium undulatum																				
Uvularia grandiflora																				
Uvularia sessilifolia	✓																		1	5
Vaccinium myrtilloides angustifolium	✓								✓		✓								2	10
Vaccinium cespitosum																				
Vaccinium corymbosum																				
Vaccinium myrtilloides angustifolium	✓		✓		✓	✓	✓		✓	✓	✓	✓	✓		✓	✓			11	55
Vaccinium ovalifolium																				
Vaccinium uliginosum																				
Vaccinium vitis-idaea																				
Veronica officinalis																				
Veronica scutellata																				
Veronica serpyllifolia																				
Viburnum acerifolium																				
Viburnum alnifolium																				
Viburnum cassinoides																				
Viburnum edule																				
Viburnum lentago																				
Viburnum rafinesquianum																				
Viburnum trilobum																				
Vicia americana																				
Viola adunca																				
Viola blanda																				
Viola canadensis																				
Viola conspersa																				
Viola cucullata																				
Viola incognita	✓		✓	✓		✓	✓		✓		✓				✓			✓	8	40
Viola nephrophylla																				
Viola pallens																				
Viola papilionacea																				
Viola pubescens	✓																			1
Viola renifolia	✓																			1
Viola selkirkii																				
Viola sororia																				
Vitis riparia																				
Waldsteinia fragarioides																				
Woodsia ilvensis	✓																			1
Xanthoxylum americanum																				
Tree Seedlings																				
Abies balsamea	✓				✓		✓						✓						3	15
Acer pensylvanicum																				
Acer rubrum	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	17	85
Acer saccharum	✓			✓															1	5
Acer spicatum	✓				✓	✓	✓	✓		✓		✓	✓					✓	8	40

[illegible]

PRESENCE LIST

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 36

TREES

- ✓ *Abies balsamea*
- Acer pensylvanicum*
- ✓ *Acer rubrum*
- ✓ *Acer saccharum*
- ✓ *Acer spicatum*
- ✓ *Amelanchier* spp.
- ✓ *Betula lutea*
- ✓ *Betula papyrifera*
- Carpinus caroliniana*
- Crataegus* spp.
- Fagus grandifolia*
- Fraxinus americana*

- ✓ *Fraxinus nigra*
- Fraxinus pennsylvanicum*
- Larix laricina*
- Ostrya virginiana*
- ✓ *Picea glauca*
- ✓ *Picea mariana*
- Pinus banksiana*
- ✓ *Pinus resinosa*
- ✓ *Pinus strobus*
- ✓ *Populus balsamifera*
- ✓ *Populus grandidentata*
- ✓ *Populus tremuloides*

- Prunus nigra*
- ✓ *Prunus pensylvanica*
- ✓ *Prunus serotina*
- ✓ *Prunus virginiana*
- Pyrus americana*
- ✓ *Pyrus decora*
- Quercus rubra* var. *borealis*
- Thuja occidentalis*
- Tilia americana*
- Tsuga canadensis*
- Ulmus americana*
- Ulmus rubra*

SHRUBS

- Alnus crispa*
- ✓ *Alnus rugosa*
- Arctostaphylos uva-ursi*
- Celastrus scandens*
- Chamaedaphne calyculata*
- ✓ *Comptonia peregrina*
- ✓ *Cornus alternifolia*
- Cornus racemosa*
- Cornus rugosa*
- Cornus stolonifera*
- Corylus americana*
- ✓ *Corylus cornuta*
- ✓ *Diervilla lonicera*
- Dirca palustris*
- Empetrum nigrum*
- Gaylussaccia baccata*
- Hamamelis virginiana*
- Ilex verticillata*
- Juniperus communis*
- Juniperus horizontalis*
- ✓ *Ledum groenlandicum*
- ✓ *Lonicera canadensis*
- Lonicera dioica*

- ✓ *Lonicera hirsutum*
- Lonicera involucrata*
- Lonicera oblongifolia*
- Lonicera villosa*
- Parthenocissus quinquefolia*
- Parthenocissus vitacea*
- Prunus pumila*
- Pyrus melanocarpa*
- Rhamnus alnifolia*
- Rhus glabra*
- Rhus typhina*
- Ribes americanum*
- Ribes cynosbati*
- Ribes glandulosum*
- Ribes hirtellum*
- Ribes lacustre*
- Ribes oxyacanthoides*
- Ribes triste*
- Rosa* sp.
- Rubus allegheniensis*
- ✓ *Rubus* (blackberry)
- ✓ *Rubus* (dewberry)
- ✓ *Rubus* (raspberry)

- ✓ *Rubus idaeus*
- Rubus parviflorus*
- Salix* sp.
- Sambucus canadensis*
- Sambucus pubens*
- Shepherdia canadensis*
- Smilax tamnoides* var. *hispida*
- Spiraea alba*
- Spiraea latifolia*
- Symphoricarpos albus*
- Symphoricarpos occidentalis*
- Taxus canadensis*
- ✓ *Vaccinium angustifolium*
- ✓ *Vaccinium myrtilloides*
- Vaccinium vitis-idaea*
- Viburnum acerifolium*
- Viburnum cassinoides*
- Viburnum edule*
- Viburnum lentago*
- Viburnum rafinesquianum*
- Viburnum trilobum*
- Vitis vulpina*
- Zanthoxylum americanum*

HERBS

- Achillea millefolium*
- Actaea pachypoda*
- Actaea rubra*
- Adiantum pedatum*
- Agrimonia gryposepala*
- Agrostis perennans*
- Allium tricoccum*
- Amphicarpa bracteata*
- Anaphlis margaritacea*
- Anemone canadensis*
- Anemone cylindrica*
- ✓ *Anemone quinquefolia*
- Anemone virginiana*
- Antennaria* sp.
- Apocynum androsaemifolium*
- Aquilegia canadensis*
- ✓ *Aralia nudicaulis*
- Aralia racemosa*
- Arisaema atrorubens*
- Asarum canadense*
- Asclepias exaltata*
- Aster furcatus*
- ✓ *Aster macrophyllus*
- Aster nova-angliae*
- Aster paniculatus*

- Aster puniceus*
- Aster sagittifolius*
- Aster umbellatus*
- ✓ *Athyrium filix-femina*
- Athyrium thelypteroides*
- Botrychium lunaria*
- Botrychium matricariaefolium*
- Botrychium multifidum*
- Botrychium virginianum*
- Calypso bulbosa*
- Campanula rotundifolia*
- Carex arctata*
- ✓ *Carex intumescens*
- ✓ *Carex pensylvanica*
- Carex woodii*
- ✓ *Carex* spp.
- Chimaphila umbellata*
- Chrysanthemum leucanthemum*
- Chrysosplenium americanum*
- Cinna latifolia*
- Circaea alpina*
- Claytonia caroliniana*
- Claytonia virginiana*
- Clematis virginiana*
- Clematis verticillaris*

- ✓ *Clintonia borealis*
- Comandra richardsiana*
- Comandra umbellata*
- ✓ *Coptis groenlandicum*
- Corallorhiza maculata*
- ✓ *Corallorhiza striata*
- Corallorhiza trifida*
- ✓ *Cornus canadensis*
- Corydalis sempervirens*
- Cynoglossum officinale*
- Cypripedium acaule*
- Cypripedium calceolus* var. *pubescens*
- Cystopteris fragilis*
- Dalibarda repens*
- Desmodium glutinosum*
- Dicentra canadensis*
- Dicentra cucullaria*
- ✓ *Dryopteris cristata*
- Dryopteris disjuncta*
- Dryopteris goldiana*
- Dryopteris marginalis*
- Dryopteris phegopteris*
- ✓ *Dryopteris spinulosa*

PRESENCE LIST

SPRUCE-FIR - MIXED HARDWOODS

STAND 36

✓ *Epigaea repens*
Epilobium angustifolium
Epilobium glandulosum
Epilobium strictum
Equisetum pratense
 ✓ *Equisetum sylvaticum*
Erigeron annuus
Erigeron philadelphicus
Erigeron strigosus
Erythronium albidum
Erythronium americanum
 ✓ *Fragaria vesca*
Fragaria virginiana
Galium aparine
Galium boreale
Galium concinnum
Galium lanceolatum
 ✓ *Galium triflorum*
 ✓ *Gaultheria hispidula*
 ✓ *Gaultheria procumbens*
Gentiana andrewsii
Gentiana crinata
Gentiana quinquefolia
Geocaulon lividum
Geranium bicknellii
Geranium maculatum
Geum rivale
Goodyera repens
Goodyera tessellata
Habenaria hyperborea
Habenaria orbiculata
Habenaria psycodes
Habenaria viridis
Halenia deflexa
Helianthus strumosus
Hepatica acutiloba
Hepatica americanum
Hieracium aurantiacum
Hieracium canadense
Hieracium scabrum
Impatiens capensis
Iris lacustris
Isopyrum biternatum
Lathyrus ochroleucus
 ✓ *Linnaea borealis*
Lobelia inflata
 ✓ *Lycopodium annotinum*
 ✓ *Lycopodium clavatum*
Lycopodium clavatum var. megastachyon
Lycopodium complanatum
Lycopodium inundatum

✓ *Lycopodium lucidulum*
 ✓ *Lycopodium obscurum*
Lycopodium obscurum var. dendroideum
Lycopodium selago
Lycopodium tristachyum
Lysimachia ciliata
Lysimachia quadrifolia
Lysimachia terrestris
 ✓ *Maianthemum canadense*
Malaxis unifolia
Medeola virginiana
Melampyrum lineare
 ✓ *Mitchella repens*
Mitella diphylla
Mitella nuda
Moneses uniflora
Monotropa hypopithys
Monotropa uniflorus
Onoclea sensibilis
Orchis spectabilis
Osmorhiza claytoni
Osmorhiza longistylis
Osmunda cinnamomea
 ✓ *Osmunda claytoniana*
 ✓ *Oxalis montana*
Oxalis stricta
Panax quinquefolius
Panax trifolius
Petasites palmatus
Phlox divaricata
Poa compressa
 ✓ *Poa pratensis*
 ✓ *Polygala paucifolia*
Polygonatum biflorum
 ✓ *Polygonatum pubescens*
Polymnia canadensis
Polypodium virginianum
Potentilla norvegica
Potentilla simplex
Potentilla tridentata
Prenanthes alba
Primula mistassinaca
Prunella vulgaris
 ✓ *Pteridium aquilinum*
Pyrola asarifolia
 ✓ *Pyrola elliptica*
Pyrola minor
 ✓ *Pyrola rotundifolia*
 ✓ *Pyrola secunda*
Pyrola virens
Ranunculus abortivus

Ranunculus acris
Ranunculus pensylvanicus
Ranunculus recurvatus
Ranunculus repens
Ranunculus septentrionalis
Rhus radicans
 ✓ *Rubus pubescens*
Sanguinaria canadensis
Sanicula marilandica
Satureja vulgaris
Schizachne purpurascens
Scutellaria epilobiifolia
Scutellaria lateriflora
Smilacina racemosa
Smilacina stellata
Smilacina trifolia
Smilax herbacea
Solidago canadensis
Solidago flexicaulis
Solidago graminifolia
Solidago ulmifolia
Stellaria calycantha
Streptopus amplexifolius
 ✓ *Streptopus roseus*
 ✓ *Taraxacum officinale*
Thalictrum dioicum
Thalictrum polygamum
Tiarella cordifolia
 ✓ *Trientalis borealis*
Trillium cernuum
Trillium erectum
Trillium grandiflorum
Trillium undulatum
Uvularia grandiflora
 ✓ *Uvularia sessilifolia*
Vicia americana
Viola adunca
Viola blanda
Viola canadensis
Viola conspersa
Viola cucullata
 ✓ *Viola incognita*
Viola nephrophylla
Viola pallens
Viola papilionacea
 ✓ *Viola pubescens*
 ✓ *Viola renifolia*
 ✓ *Viola selkirkii*
Viola sororia
Waldsteinia fragarioides

Additional species

Mosses
Lichens
Brachycladum erectum
Oryzopsis asperifolia
 white aster - *Aster lateriflorus*
Carex pedunculata
Equisetum black - *arvense* or *borealis*
Woodsonia *flumina*
Luzula acuminata

FREQUENCY DATA
(Common Species)

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 36 (1)

TREE SEEDLINGS

- 64 Abies balsamea
Acer pensylvanicum
8765432 Acer rubrum
09 3 Acer saccharum
7654 Acer spicatum
Betula lutea
6 Betula papyrifera

- Fagus grandifolia
Larix laricina
Ostrya virginiana
Picea glauca
Picea mariana
Pinus banksiana
Pinus resinosa

1 Populus bals.

- 7 Pinus strobus
1 Populus tremuloides
Prunus pensylvanica
2 Prunus serotina
Thuja occidentalis
Tilia americana
Tsuga canadensis

SHRUBS

- Alnus rugosa
Arctostaphylos uva-ursi
Comptonia peregrina
Corylus americana
0764 Corylus cornuta
8754321 Diervilla lonicera
9 Dirca palustris
Ilex verticillata
Ledum groenlandicum
Lonicera canadensis

- Prunus pumila
Pyrus melanocarpa
Ribes cynosbati
Ribes glandulosum
Ribes lacustre
Rosa sp.
Rubus (blackberry)
Rubus (dewberry)
Rubus (raspberry)
Rubus idaeus

- Rubus parviflorus
Sambucus pubens
Shepherdia canadensis
Spiraea alba
Symphoricarpos occidentalis
Taxus canadensis
654 Vaccinium angustifolium
6542 Vaccinium myrtilloides
Viburnum acerifolium
Viburnum trilobum

HERBS

- Actaea pachypoda
Actaea rubra
Adiantum pedatum
Anaphalis margaritacea
Anemone cylindrica
1 Anemone quinquefolia
Anemone virginiana
Antennaria spp.
Apocynum androsaemifolium
Aquilegia canadensis
831 Aralia nudicaulis
Arisaema atrorubens
98765321 Aster macrophyllus
Athyrum filix-femina
Botrychium virginianum
6 Carex pensylvanica
Chimaphila umbellata
Chrysanthemum leucanthemum
Circaea alpina
Claytonia caroliniana
Claytonia virginiana
0762 Clintonia borealis
054 Coptis groenlandicum
Corallorhiza maculata
098654 Cornus canadensis
Cystopteris fragilis
Dicentra canadensis
Dicentra cucullaria
Dryopteris disjuncta
Dryopteris phegopteris

- 6 Dryopteris spinulosa
75 Epigaea repens
Epilobium angustifolium
Equisetum sylvaticum
Erythronium americanum
3 Fragaria vesca
Fragaria virginiana
Galium aparine
631 Galium triflorum
Gaultheria hispida
9 Gaultheria procumbens
Gentiana quinquefolia
Geranium maculatum
Goodyera repens
Habenaria obtusata
Halenia deflexa
Hepatica acutiloba
Hepatica americana
Hieracium aurantiacum
Linnaea borealis
754 Lycopodium annotinum
05 Lycopodium clavatum
Lycopodium complanatum
Lycopodium lucidulum
08 Lycopodium obscurum
096541 Maianthemum canadense
Medeola virginiana
Melampyrum lineare
2 Mitchella repens
Mitella diphylla

- Mitella nuda
Monotropa uniflora
Osmorhiza claytoni
Oxalis montana
Oxalis stricta
75 Polygala paucifolia
Polygonatum pubescens
Prenanthes alba
Pteridium aquilinum
Pyrola elliptica
Pyrola rotundifolia
01 Pyrola secunda
Ranunculus acris
Rhus radicans
421 Rubus pubescens
Sanguinaria canadensis
Smilacina racemosa
Smilacina stellata
4 Streptopus roseus
Tiarella cordifolia
06 Trientalis borealis
Trillium erectum
Trillium grandiflorum
Uvularia sessilifolia
Viola canadensis
Viola cucullata
Viola pallens
Viola pubescens
0532 Viola renifolia
Waldsteinia fragarioides

Additional species

more 135689
lichen 689
brachyotrum 1236
Dryopteris 13567890

white aster 2 latiflorus
Corylus pedunculata 69
Rosa pratincola 8

Viola incognita 23560

FREQUENCY DATA
(Common Species)

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 36(2)

TREE SEEDLINGS

4 Abies balsamea
Acer pensylvanicum
08764321 Acer rubrum
Acer saccharum
0541 Acer spicatum
Betula lutea
3 Betula papyrifera

Fagus grandifolia
Larix laricina
Ostrya virginiana
Picea glauca
Picea mariana
Pinus banksiana
Pinus resinosa

Pinus strobus
Populus tremuloides
Prunus pensylvanica
Prunus serotina
Thuja occidentalis
Tilia americana
Tsuga canadensis

SHRUBS

Alnus rugosa
Arctostaphylos uva-ursi
9 Comptonia peregrina
Corylus americana
0987521 Corylus cornuta
09875431 Diervilla lonicera
Dirca palustris
Ilex verticillata
Ledum groenlandicum
Lonicera canadensis

Prunus pumila
Pyrus melanocarpa
Ribes cynosbati
Ribes glandulosum
Ribes lacustre
Rosa sp.
Rubus (blackberry)
Rubus (dewberry)
Rubus (raspberry)
Rubus idaeus

Rubus parviflorus
Sambucus pubens
Shepherdia canadensis
Spiraea alba
Symphoricarpos occidentalis
Taxus canadensis
0875041 Vaccinium angustifolium
8754321 Vaccinium myrtilloides
Viburnum acerifolium
Viburnum trilobum

HERBS

Actaea pachypoda
Actaea rubra
Adiantum pedatum
Anaphalis margaritacea
Anemone cylindrica
4 Anemone quinquefolia
Anemone virginiana
Antennaria spp.
Apocynum androsaemifolium
Aquilegia canadensis
085431 Aralia nudicaulis
Arisaema atrorubens
98654321 Aster macrophyllus
Athyrium filix-femina
Botrychium virginianum
Carex pensylvanica
Chimaphila umbellata
Chrysanthemum leucanthemum
Circaea alpina
Claytonia caroliniana
Claytonia virginiana
0987632 Clintonia borealis
0542 Coptis groenlandicum
Corallorhiza maculata
09765432 Cornus canadensis
Cystopteris fragilis
Dicentra canadensis
Dicentra cucullaria
Dryopteris disjuncta
Dryopteris phegopteris

Dryopteris spinulosa
0 Epigaea repens
Epilobium angustifolium
Equisetum sylvaticum
Erythronium americanum
Fragaria vesca
Fragaria virginiana
Galium aparine
Galium triflorum
Gaultheria hispidula
9 Gaultheria procumbens
Gentiana quinquefolia
Geranium maculatum
Goodyera repens
Habenaria obtusata
Halenia deflexa
Hepatica acutiloba
Hepatica americana
Hieracium aurantiacum
Linnaea borealis
7 Lycopodium annotinum
7653 Lycopodium clavatum
Lycopodium complanatum
Lycopodium lucidulum
08765 Lycopodium obscurum
08765321 Maianthemum canadense
Medeola virginiana
Melampyrum lineare
Mitchella repens
Mitella diphylla

Mitella nuda
Monotropa uniflora
Osmorhiza claytoni
Oxalis montana
Oxalis stricta
084 Polygala paucifolia
Polygonatum pubescens
Prenanthes alba
96 Pteridium aquilinum
Pyrola elliptica
Pyrola rotundifolia
31 Pyrola secunda
Ranunculus acris
Rhus radicans
2 Rubus pubescens
Sanguinaria canadensis
Smilacina racemosa
Smilacina stellata
32 Streptopus roseus
Tiarella cordifolia
0853 Trientalis borealis
Trillium erectum
Trillium grandiflorum
7 Uvularia sessilifolia
Viola canadensis
Viola cucullata
Viola pallens
Viola pubescens
Viola renifolia
Waldsteinia fragarioides

Additional species

Mosses 123490
Lichens 179
Equisetum black 2 - arvense v boreale
Dryopteris asp 3456789
Carex pedunc 30
Brachyotum 5

Viola micrantha 360