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Site 6030 (Boreal Stand 30): White Pine, Ontonagon County, Michigan, Township 50N, Range 42W, Section 5. 1955-08-13

[s.l.]: [s.n.], 1955-08-13

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[= Site 6030]

Data Form No. 20

Plant Ecology Research

Univ. of Wisconsin

STAND RECORD

FORESTS

Stand No. 30

Name: *White Pine*
 County: *Ontonagon, N. Mich.*
 Date: *Aug 13, 1955*
 Size of Stand: *30 acres*
 Forest Type: *Maple-hemlock-spruce fir*
 Topography: *Rolling - ravine along river course*

Locality: *Near White Pine 30' intervals on Hwy 64*
 T: *50N* R: *42W* Sec: *SE 1/4 5*
 Observers:
 Size of Area Sampled:
 Soil Type:
 Slope: Directions

Condition of Stand:

Logged for pine
Ravine stand fairly steep grade to the River, maples at top
Dense canopy - under cover very sparse, except in few open areas
One spruce read about 70 yrs old.
Stand cut in 1/2 by Hwy 64 at bridge at White Pine
Slight cutting in few spots - avoided
Stand not homogeneous - 30 pts taken in homogeneous part.

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.
Ao									
A1									
A2									
B									

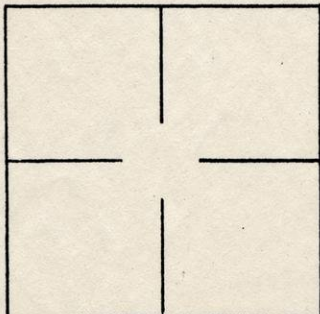
DEPTH

CHARACTERISTICS (Color, Texture, Structure, etc.)

DEPTH	CHARACTERISTICS (Color, Texture, Structure, etc.)
#1 Ao 1" litter 1/4 ferment	#2 1 1/2" litter 1" ferment
A1 1 1/2 - 2" reddish black clayish	1" red-black crumbly
A2 - lank	- 1/2 barely visible
B 8-10" + red clay	3" - red brown clay
	6" + red clay
	#3 1 1/2" litter 1" ferment
	1" black crumbly
	1/2 - black-granish appear.
	8" + red clay loam with small stones

Parent Material:

Map:



LICHENS OF GREAT LAKES SPRUCE-FIR COMMUNITIES

NORTHERN MICHIGAN

Ontonogan County



Near White Pine, on Hy. 64 - T50N R42W SEC 5.
Balsam, cedar, hemlock, maple & yellow birch.
Rolling, ravine along river course, approx.
70 yrs. Logged for pine, little blowdown, dense
canopy and sparse understory.

August 13, 1955. Coll. Paul F. Maycock

Plant Ecology Research
TREE DATA SUMMARY SHEET

226.4

~~Northern Pine Hardwoods~~
Spruce-fir.

Station Number: 30 - 2246

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											
573.3	Abies bals	20	33			1518	34	28.3		66.7	22.2	27.5	14.0	63.7	445.9	509.6
2.0	Acer rubru						5	4.2							1.0	1.0
185.6	A. sacchar	16	19			1390	34	28.3		53.3	17.8	15.8	12.8	46.4	464.0	232.0
9.0	A. spicatu						4	3.3							1.0	1.0
149.4	Betula lut	9	10			713	8	6.8		30.0	10.0	8.3	6.6	24.9	199.2	124.5
	B. papyrif															
	Carpinus c															
	Fagus gran															
7.2	Ostrya vir	1	1			44	2	1.3		3.3	1.2	0.8	0.4	2.4	21.6	7.2
172.0	Picea glau	5	5			783	3	2.5		16.7	5.6	4.3	7.3	17.2	103.2	172.0
	Pinus Bank															
	P. resinosa															
	P. Strobus															
	Populus ba															
	P. grandid															
8.0	P. tremulo														1.0	1.0
	Prunus pen															
	Quercus el															
	Q. rubra															
4.0	Tilia amer														1.0	1.0
468.3	Tsuga cana	17	22			3218	2	1.3		56.7	18.9	18.3	29.7	66.9	535.2	133.8
628.8	Thuja occi	22	30			3160	27	22.5		73.3	24.4	25.0	29.2	78.6	471.6	550.2
	Ulmus amer															
2.0	U. fulva						1	0.8							1.0	1.0
2210	TOTALS		120			10,826	120	100.0		300.0	100.0	100.0	100.0	300.0	2246	1734.3

AVE. DIST. BTW'N TREES:

9.3

AVE. B. A.:

90.2

TREES/ACRE:

503

DOM./ACRE:

45,371

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 30(1)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam	6 1/2 29	7 1/2 20 13 1/2 42	9 1/2 36 12 30	13 1/2 101 7 34	19 1/2 76	7 52		9 1/2 65		3 1/2 37 10 1/2 58
Acer rubrum		11 1/2 48 7 1/2 29	1 1/2 18							
A. sacchar.							7 35 7 28	6 66	8 36	
A. spicatum							19 1/2 51			
Betula lut.	4 62				3 1/2 42	5 23		7 22	10 172	
B. papyrif										
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau	8 210						31 157			
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem										
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can		11 22 24 100		9 29				9 25	16 25	
Thuja occ	3 21 12 33	9 1/2 31		10 1/2 31	4 485 19 26	3 59 7 21			9 190	10 1/2 121 13 1/2 35
Ulmus amer										
U. fulva										
Litter	5"	3	3 1/2	1 1/2	1 1/2	2	1 1/2	1 1/2	2	1 1/2
Canopy	95	85	55	30	75	70	65	60	60	40
Distance	21 1/2	42	30	40	45 1/2	22	54 1/2	31 1/2	43	37 1/2

Ave. Canopy 61.3

Ave Litter 1.3

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 30 (2)

STATION NO.	1	2	3	4	5	6	7	8	9	10	
Abies balsam	9 16	85 48	10 1/2 7 1/2	55 49	7 1/2 11 1/2	148 51	6 7	21 39	4 1/2 35	19 19	
Acer rubrum											
A. sacchar.	9 1/2 12	36 25			7 12	7	2 35	11 1/2 102	5 63		
A. spicatum											
Betula lut.				6 45							
B. papyrif											
Carpinus car											
Fagus gran											
Ostrya virg				8 44							
Picea glau			8 1/2 165						11 115		
Pinus Bank											
P. resinosa											
P. Strobus											
Populus bals											
P. grand											
P. trem											
Prunus pen.											
Quercus ell											
Q. rubra											
Tilia amer											
Tsuga can				6 1/2 30	5 1/2 17	13 209	1 1/2 63	8 280	1 1/2 10	32 100	7 1/2 340
Thuja occ		4 10	20 105	8 1/2 225	5 38	16 24	1 1/2 12 1/2	115 47	13 152	10 1/2 25	6 10
Ulmus amer											
U. fulva											
Litter	1/2	1/2	1/2	2 1/2	1/2	1	1	1/2	1/2	1	
Canopy	15	45	85	90	55	75	15	70	45	60	
Distance	46 1/2	32	36	27 1/2	23 1/2	35 1/2	27	45	33	31	

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 30 (3)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam	6 1/2 20 15 51	10 1/2 22	4 1/2 26 6 34	6 48		13 66			7 46	
Acer rubrum										
A. sacchar.	15 26	18 76		2 255 7 1/2	85 12 1/2 59	7 1/2 31	14 1/2 147	7 22		
A. spicatum										
Betula lut.			10 165						21 75 11 1/2 59	6 45
B. papyrif										
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau								8 136		
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem										
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can		12 1/2 270		8 1/2 91 12 1/2 290	4 1/2 132	10 121 8 92	3 1/2 105	13 1/2 250 6 205		11 1/2 180
Thuja occ	6 25	10 40	3 59		12 1/2 45 12 1/2 165		18 1/2 145 13 109		21 125	3 1/2 210
Ulmus amer										
U. fulva										
Litter	1 1/2	1	1	1/2	1	1	1	1	1/2	1 1/2
Canopy	75	50	70	75	65	80	60	70	30	75
Distance	42 1/2	51	23 1/2	29	37	43 1/2	42 1/2	42	56	32 1/2

POINT RECORD TREES *SAPLINGS*

NORTHERN PINE-HARDWOODS

Stand No. 30 (1)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam		4 1/2	3 1/2 1	4 6		9		14 3 1/2		5
Acer rubrum			1 1/2	17		3 4 1/2				
A. sacchar.	13 1/2	8	8 1/2	9	8 1/2 3	2 1/2	3 14	7 8	3 12	
A. spicatum										8
Betula lut.								9		
B. papyrif										
Carpinus car										
Fagus gran										
Ostrya virg										4
Picea glau	8									
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem										
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ	9 1/2 18	5 3 1/2			4	4			7	2
Ulmus amer										
U. fulva										
Distance	49	21	14 1/2	36	18	20 1/2	32	29 1/2	23	19

POINT RECORD TREES SAPLINGS

NORTHERN PINE-HARDWOODS

Stand No. 30(2)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam		5	15 17	6	9½ 6½	2½ 1	7 3	3½ 10	14 3	10
Acer rubrum			14½							
A. sacchar.	9 12	10 8	4 6	8½						
A. spicatum					4					3
Betula lut.		10		14	8					
B. papyrif										
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau								4 9½		
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem										
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can									9	
Thuja occ				13½			1	11	4 2½	12 7
Ulmus amer										
U. fulva				7						
Distance	30	25	52½	43	28	13½	17½	38½	37½	32

POINT RECORD TREES *SAPLINGS*

NORTHERN PINE-HARDWOODS

Stand No. 30(3)

STATION NO.	1	2	3	4	5	6	7	8	9	10
<i>Abies balsam</i>	10 1/2		2 1/2 4 1/2		16	21	1	12 1/2 17 1/2	4	6
<i>Acer rubrum</i>										
<i>A. sacchar.</i>	8	4 1/2	7		9 1/2	17 11	10		5 1/2 11	1 3/4 4
<i>A. spicatum</i>							1			
<i>Betula lut.</i>		6 3 3	1							
<i>B. papyrif</i>										
<i>Carpinus car</i>										
<i>Fagus gran</i>										
<i>Ostrya virg</i>								7		
<i>Picea glau</i>										
<i>Pinus Bank</i>										
<i>P. resinosa</i>										
<i>P. Strobus</i>										
<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>							8			
<i>Thuja occ</i>	1 7			4' 9 1/2	6 11 1/2	3 1/2 14 1/2	13 1/2	13 1/2	7	
<i>Ulmus amer</i>										
<i>U. fulva</i>										
Distance	26 1/2	16 1/2	14 1/2	31	43	62 1/2	20	50 1/2	27 1/2	14 1/2

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

	P.									10								20		
Carex disperma																				
Carex eburnea	✓						✓												1	7
Carex intumescens																				
Carex leptalea																				
Carex pedunculata	✓				✓	✓				✓					✓				4	27
Carex pensylvanica	✓			✓						✓									2	13
Carex projecta																				
Carex woodii																				
Carex spp.	✓																			1
Caulophyllum thalictroides																				
Celastrus scandens																				
Chamaedaphne calyculata																				
Chimaphila umbellata	✓								✓										1	7
Chrysanthemum leucanthemum																				
Chrysosplenium americanum																				
Cicuta maculata																				
Cinna latifolia																				
Circaea alpina																				
Cirsium altissimum																				
Cirsium arvense																				
Cirsium vulgare	✓						✓												1	7
Claytonia caroliniana																				
Claytonia virginica																				
Clematis virginiana																				
Clematis verticillaris																				
Clintonia borealis	✓	✓		✓								✓	✓						4	27
Comandra richardsiana																				
Comandra umbellata																				
Comptonia peregrina																				
Convolvulus spithameus																				
Coptis groenlandicum	✓									✓		✓							2	14
Corallorhiza maculata																				
Corallorhiza striata																				
Corallorhiza trifida																				
Cornus alternifolia	✓																			1
Cornus canadensis	✓							✓				✓	✓						3	20
Cornus racemosa																				
Cornus rugosa	✓																			1
Cornus stolonifera																				
Corydalis sempervirens																				
Corylus americana																				
Corylus cornuta	✓			✓				✓						✓					3	20
Cryptotaenia canadensis																				
Cynoglossum boreale																				
Cynoglossum officinale																				
Cypripedium acaule																				
Cypripedium arietinum																				
Cypripedium calceolus																				
Cypripedium reginae																				
Cystopteris bulbifera																				
Cystopteris fragilis																				
Dalibarda repens																				

University of Wisconsin
STAND NO. 30

	P									10									20		
Geum aleppicum	✓						✓													1	7
Geum canadense	✓						✓													1	7
Geum rivale																					
Glyceria striata																					
Goodyera obtusifolia	✓																				1
Goodyera pubescens																					
Goodyera repens																					
Goodyera tessellata																					
Habenaria clavellata																					
Habenaria hyperborea																					
Habenaria obtusata																					
Habenaria orbiculata																					
Habenaria psycodes																					
Habenaria viridis																					
Hackelia virginiana																					
Halenia deflexa																					
Hamamelis virginiana																					
Helianthus strumosus																					
Hepatica acutiloba																					
Hepatica americanum																					
Heracleum maximum																					
Heuchera richardsonii																					
Hieracium aurantiacum																					
Hieracium canadense																					
Hieracium pratense																					
Hieracium scabrum																					
Ilex verticillata																					
Impatiens capensis	✓																				1
Iris lacustris																					
Isopyrum biternatum																					
Juniperus communis																					
Juniperus horizontalis																					
Lactuca canadensis																					
Laportea canadensis																					
Lathyrus ochroleucus																					
Ledum groenlandicum																					
Lichens spp.	✓	✓	✓			✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓			12	80
Lilium michiganense																					
Linnaea borealis	✓					✓		✓	✓											3	20
Listera auriculata																					
Listera borealis																					
Listera convallarioides																					
Listera cordata																					
Lobelia inflata																					
Lonicera canadensis	✓	✓	✓			✓			✓											4	27
Lonicera dioica																					
Lonicera hirsuta	✓																				1
Lonicera involucrata																					
Lonicera oblongifolia																					
Lonicera prolifera																					
Lonicera villosa																					
Luzula acuminata																					

	P									10								20		
Luzula multiflora																				
Lycopodium annotinum	✓																			1
Lycopodium clavatum																				
Lycopodium complanatum																				
Lycopodium inundatum																				
Lycopodium lucidulum																				
Lycopodium obscurum																				
Lycopodium sabinaefolium																				
Lycopodium selago																				
Lycopodium tristachyum																				
Lycopus americanus																				
Lycopus uniflorus																				
Lysimachia ciliata																				
Lysimachia quadrifolia																				
Lysimachia terrestris																				
Maianthemum canadense	✓		✓				✓	✓		✓		✓	✓						6	40
Malaxis unifolia																				
Medeola virginiana																				
Melampyrum lineare																				
Menispermum canadense																				
Mertensia paniculata																				
Milium effusum																				
Mitchella repens	✓							✓											1	7
Mitella diphylla																				
Mitella nuda	✓		✓				✓			✓	✓	✓	✓		✓	✓				52
Moneses uniflora																				
Monotropa hypopithys																				
Monotropa uniflora																				
Mosses spp.	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				93
Nemopanthus mucronata																				
Onoclea sensibilis																				
Orchis spectabilis																				
Oryzopsis asperifolia	✓						✓	✓		✓	✓	✓	✓		✓				7	47
Oryzopsis racemosa																				
Osmorhiza claytoni	✓																			1
Osmorhiza longistylis																				
Osmunda claytoniana	✓																			1
Osmunda cinnamomea																				
Osmunda regalis																				
Oxalis montana	✓												✓						1	7
Oxalis stricta																				
Panax quinquefolius																				
Panax trifolius																				
Parthenocissus inserta																				
Parthenocissus quinquefolia																				
Petasites palmatus	✓																			1
Phleum pratense																				
Phlox divaricata																				
Phryma leptostachya																				
Plantago major	✓																			1
Poa compressa																				
Poa pratensis																				

[illegible]

	P.									10.							20	
Rubus (dewberry)																		
Rubus (raspberry)																		
Rumex acetosella																		
Salix spp.																		
Sambucus canadensis																		
Sambucus pubens																		
Sanguinaria canadensis																		
Sanicula gregaria																		
Sanicula marilandica																		
Satureja vulgaris	✓							✓									1	7
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	✓																	1
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	✓											✓					1	7
Symphoricarpos albus																		
Symphoricarpos occidentalis																		
Taraxacum officinale	✓							✓									1	7
Taxus canadensis																		
Thalictrum dasycarpum																		
Thalictrum dioicum	✓																	1
Thalictrum polygamum																		
Tiarella cordifolia																		
Trientalis borealis																		
Trifolium hybridum																		

	P.									10.								20	
Trifolium pratense																			
Trifolium repens	✓																		1
Trillium cernuum																			
Trillium erectum																			
Trillium grandiflorum																			
Trillium undulatum																			
Uvularia grandiflora																			
Uvularia sessilifolia	✓			✓				✓		✓		✓						3	20
Vaccinium angustifolium																			
Vaccinium cespitosum																			
Vaccinium corymbosum																			
Vaccinium myrtilloides																			
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	✓																		1
Viola cucullata																			
Viola incognita	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			67
Viola nephrophylla																			
Viola pallens																			
Viola papilionacea																			
Viola pubescens	✓																		1
Viola renifolia	✓				✓													1	7
Viola selkirkii																			
Viola sororia																			
Vitis riparia																			
Waldsteinia fragarioides																			
Woodsia ilvensis																			
Xanthoxylum americanum																			
Tree Seedlings																			
Abies balsamea	✓			✓		✓			✓	✓	✓		✓			✓	✓		55
Acer pensylvanicum																			
Acer rubrum	✓								✓	✓	✓		✓	✓	✓	✓	✓		55
Acer saccharum	✓			✓	✓								✓			✓			33
Acer spicatum	✓		✓													✓		2	13

[illegible]

PRESENCE LIST

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 30

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 oxycanthoides*
- 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*
- ✓ *Anaphalis 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 30

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 uniflora
 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
 Carex pedunculata
 Oryzopsis asperifolia
 Equisetum black arvense & boreale
 Brachyelytrum erectum
 Plantago major
 Carex with orange fruits - Carex arvense Carex elurnea
 White Aster - Aster lateriflorus
 Equisetum scirpoides
 Chrysom. vulgare
 trifolium repens
 Scum allep.
 Polygonum cilinode
 Pyrola virens - peculiar secunda.
 Goodyera oblongifolia

FREQUENCY DATA
(Common Species)

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 30 (1)

TREE SEEDLINGS

- 98753 *Abies balsamea*
Acer pensylvanicum
 987 *Acer rubrum*
 843 *Acer saccharum*
 2 *Acer spicatum*
 0974 *Betula lutea*
 1 *Betula papyrifera*

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

- Pinus strobus*
Populus tremuloides
Prunus pensylvanica
 74 *Prunus serotina*
Thuja occidentalis
Tilia americana
Tsuga canadensis
 965 *Prunus virginiana*

SHRUBS

- Alnus rugosa*
Arctostaphylos uva-ursi
Comptonia peregrina
Corylus americana
 83 *Corylus cornuta*
Diervilla lonicera
Dirca palustris
Ilex verticillata
Ledum groenlandicum
 8521 *Lonicera canadensis*

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

- 0651 *Rubus parviflorus*
Sambucus pubens
Shepherdia canadensis
Spiraea alba
Symphoricarpos occidentalis
Taxus canadensis
Vaccinium angustifolium
Vaccinium myrtilloides
Viburnum acerifolium
Viburnum trilobum

HERBS

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

- Dryopteris spinulosa*
Epigaea repens
Epilobium angustifolium
Equisetum sylvaticum
Erythronium americanum
 86 *Fragaria vesca*
Fragaria virginiana
Galium aparine
 976543 *Galium triflorum*
Gaultheria hispidula
 9 *Gaultheria procumbens*
Gentiana quinquefolia
Geranium maculatum
Goodyera repens
Habenaria obtusata
Halenia deflexa
Hepatica acutiloba
Hepatica americana
Hieracium aurantiacum
 986 *Linnaea borealis*
Lycopodium annotinum
Lycopodium clavatum
Lycopodium complanatum
Lycopodium lucidulum
Lycopodium obscurum
 0872 *Maianthemum canadense*
Medeola virginiana
Melampyrum lineare
 8 *Mitchella repens*
Mitella diphylla

- 0962 *Mitella nuda*
Monotropa uniflora
 1 *Osmorhiza claytoni*
Oxalis montana
Oxalis stricta
Polygala paucifolia
Polygonatum pubescens
Prenanthes alba
Pteridium aquilinum
Pyrola elliptica
Pyrola rotundifolia
 02 *Pyrola secunda*
Ranunculus acris
Rhus radicans
 1 *Rubus pubescens*
Sanguinaria canadensis
Smilacina racemosa
Smilacina stellata
Streptopus roseus
Tiarella cordifolia
Trientalis borealis
Trillium erectum
Trillium grandiflorum
 94 *Uvularia sessilifolia*
Viola canadensis
Viola cucullata
Viola pallens
Viola pubescens
 076515 *Viola renifolia*
Waldsteinia fragarioides

Additional species

7 mos 123 567890
 1256790
 small sp. coll 20 - *Pyrola secunda*
Carex pedunculata 45
Brachyelytrum 469
Juncus 6
Cirsium vulgare 6
 very fine seedlings
Glax. obumbrata
Blum. allep. 6
 Basil 6
 white Ant. 69
Oryzopsis 6790
 orange fruit red 6 - *Carex aurea*
Equisetum arvense 8
Equisetum black 0
Viola incognita 34567890

FREQUENCY DATA
(Common Species)

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 30 (2)

TREE SEEDLINGS

541 Abies balsamea
Acer pensylvanicum
54321 Acer rubrum
42 Acer saccharum
4 Acer spicatum
Betula lutea
Betula papyrifera

Fagus grandifolia
Larix laricina
4 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
Comptonia peregrina
Corylus americana
4 Corylus cornuta
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

541 Prunus virginiana
21 Rubus parviflorus
Sambucus pubens
Shepherdia canadensis
Spiraea alba
Symphoricarpos occidentalis
Taxus canadensis
Vaccinium angustifolium
Vaccinium myrtilloides
Viburnum acerifolium
Viburnum trilobum

HERBS

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

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

5421 Mitella nuda
Monotropa uniflora
Osmorhiza claytoni
2 Oxalis montana
Oxalis stricta
Polygala paucifolia
Polygonatum pubescens
Prenanthes alba
Pteridium aquilinum
Pyrola elliptica
Pyrola rotundifolia
41 Pyrola secunda
Ranunculus acris
Rhus radicans
Rubus pubescens
Sanguinaria canadensis
Smilacina racemosa
Smilacina stellata
4 Streptopus roseus
Tiarella cordifolia
Trientalis borealis
Trillium erectum
Trillium grandiflorum
2 Uvularia sessilifolia
Viola canadensis
Viola cucullata
Viola pallens
Viola pubescens
Viola renifolia
Waldsteinia fragarioides

Additional species

Mosses 12345
Lichens 12345
Carex pedunculata 15
Oryzopsis 124

Viola incognita 45