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Site 6034 (Boreal Stand 34): Delaware, Keweenaw County, Michigan, Township 58N, Range 30W, Section 17. 1955-08-16

[s.l.]: [s.n.], 1955-08-16

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STAND RECORD

FORESTS

Stand No. 34

25 yd intervals

Name: Delaware
County: Keweenaw, N. Mich
Date: Aug 16, 1955

Locality:
T: 58N. R: 30W Sec: SE 17

Observers: PFM

Size of Area Sampled:

Size of Stand: 20 acres

Forest Type: Spruce-fir

Soil Type:

Topography: Gently rolling, but stand site fairly level - perhaps very slight inclination - N-S.

Slope:

Directions

Condition of Stand:

Stand 1 mi S. Delaware on Hwy 41 on left side passing S

Roadside strip

Fogged for pine & burned - also part of stand logged - crowded

Rich understory - stand rather open in spots

Gradual thinning by blowdown etc.

Ws with tumor - BA 108 - BA tumor at 6' 930 sq in

Stand not all homo. - 30 pts - restricted to that homo to Ws

Many spruce 3-5" in diameter are decadent

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									

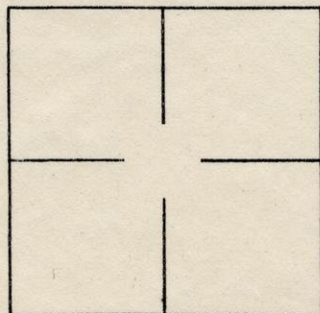
DEPTH

CHARACTERISTICS (Color, Texture, Structure, etc.)

	#1	#2	#3
Ao	1 1/2" litter 1/2 ferment	1" litter 3/4 ferment	2" litter, ferment
A1	2" black sandy	1 1/2" black sandy	4" rich black humus
A2	5" grey-red sandy leach	4" grey-red sandy leach	4" grey reddish sand
B	5" reddish sand	the reddish sand	the reddish sand

Parent Material:

Map:



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



1 mile S. of Delaware on Hy. 41 T58N R30W SEC 17
White spruce & balsam. Gently rolling, logged for
pine, burned. Gradual thinning by blowdown,
much decadent spruce. Open, rich understory.

August 16, 1955. Coll. Paul F. Maycock

Plant Ecology Research
TREE DATA SUMMARY SHEET

University of Wisconsin

~~Spruce-fir~~
~~Northern Pine-Hardwoods~~*Picea glauca* - *Abies balsamea* - *Populus tremuloides*

Station Number: 34 - 1803

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										
805.5 <i>Abies bals</i>	23	38		31.7		2257	73	60.8		76.6	35.4	31.7	22.4	89.5	626.5
5.4 <i>Acer rubru</i>	1	1		0.8		36	7	5.8		3.3	1.5	0.8	0.4	2.7	16.2
4.0 <i>A. sacchar</i>							5	4.2							1.0
<i>A. spicatu</i>							2	1.7							
<i>Betula lut</i>															
63.0 <i>B. papyrif</i>	2	2		1.7		153				6.7	3.1	1.7	1.5	6.3	31.5
<i>Carpinus c</i>															
<i>Fagus gran</i>															
<i>Ostrya vir</i>															
1459.0 <i>Picea glau</i>	27	62		51.6		5313	15	12.5		90.0	41.5	51.7	52.7	145.9	875.4
<i>Pinus Bank</i>															
<i>P. resinosa</i>															
88.2 <i>P. Strobus</i>	3	3		2.5		559	1	0.8		10.0	4.6	2.5	5.5	12.6	63.0
<i>Populus ba</i>															
<i>P. grandid</i>															
180.8 <i>P. tremulo</i>	5	8		6.7		824				16.7	7.7	6.7	8.2	22.6	45.2
<i>Prunus pen</i>															
<i>Quercus el</i>															
<i>Q. rubra</i>															
<i>Tilia amer</i>															
<i>Tsuga cana</i>															
164.0 <i>Thuja occi</i>	4	6		5.0		934	12	10.0		13.3	6.2	5.0	9.3	20.5	143.5
<i>Ulmus amer</i>															
<i>U. fulva</i>															
9.0 <i>Rhus amer.</i>							4	3.3							1.0
3.0 <i>Amelanchier</i>							1	0.8							1.0
2782.0 TOTALS		120				10076	120			216.6	100.0	100.0	100.0	300.0	1803

AVE. DIST. BTW'N TREES:

9.44

AVE B. A.:

84.0 sq. m

TREES/ACRE:

489

DOM./ACRE:

41,076

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 34(1)

STATION NO.	1	2	3	4	5	6	7	8	9	10			
Abies balsam	4 5 1/2	35 42	7 1/2 6 1/2	32 32	13	45	6 47	7 1/2 40	3 6	42 75	3 1/2 44	12 1/2 17	29 43
Acer rubrum												14 1/2	55
A. sacchar.													
A. spicatum													
Betula lut.													
B. papyrif					18 1/2	57	11	12 1/2					
Carpinus car													
Fagus gran													
Ostrya virg			7 1/2	25									
Picea glau	11 13	27 1/2 68	6 10	7 1/2 8 1/2	4 1/2 7 1/2	20 19	120 141	7 1/2 10	50 85	7 1/2 8 1/2	72 59	15 8 1/2	42 45
Pinus Bank				18 1/2	42	8	31					13 1/2	35
P. resinosa													
P. Strobus													
Populus bals													
P. grand													
P. trem													
Prunus pen.													
Quercus ell													
Q. rubra													
Tilia amer													
Tsuga can													
Thuja occ							14 1/2 18	42 200	10 15 1/2	66 205			
Ulmus amer													
U. fulva													
Litter	1/2	1/2	1"	1/2	1/2	1"	1/2	1 1/2	1"	2			
Canopy	45	50	45	25	45	55	70	75	35	65			
Distance	33 1/2	30	28	50	42	34 1/2	43	27 1/2	34	42			

ave. Canopy - 40.7

ave. Litters 1.1

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 34 (2)

STATION NO.	1	2	3	4	5	6	7	8	9	10	
Abies balsam	6 1/2 7 1/2 19	52 64 22	7 16	95 135 12 1/2 91	18 19	105 40	10 1/2 82	5 1/2 31	2 1/2 52 13 1/2 60 17 1/2 32	10 1/2 165	21 34
Acer rubrum									13 1/2 36		
A. sacchar.											
A. spicatum											
Betula lut.											
B. papyrif											
Carpinus car											
Fagus gran											
Ostrya virg											
Picea glau		8 8 1/2	230 168	10 1/2 34	7 39 6 1/2 51 12 1/2 60	12 1/2 46 12 1/2 55	11 10		9 97 12 1/2 74 6 1/2 61 4 108	13 1/2 87 2 1/2 65 4 1/2 72	5 47
Pinus Bank											
P. resinosa											
P. Strobus							20 106			9 1/2 261	
Populus bals											
P. grand						12 1/2 48					
P. trem					8 147	18 1/2 76 8 59					
Prunus pen.											
Quercus ell											
Q. rubra											
Tilia amer											
Tsuga can											
Thuja occ	7 195										
Ulmus amer											
U. fulva											
Litter	2"	1 1/2	2	1 1/2	3/4	1 1/2	1	3/4	1 1/2	2	
Canopy	35	45	50	20	40	20	60	45	45	70	
Distance	40	39 1/2	60	26 1/2	38 1/2	40	33 1/2	41 1/2	30 1/2	40	

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 34(3)

STATION NO.	1	2	3	4	5	6	7	8	9	10
<i>Abies balsam</i>	9 77	16 1/2 92		17 35	7 46 8 75	15 49 8 35	8 72	8 1/2 84 10 1/2 39		
<i>Acer rubrum</i>										
<i>A. sacchar.</i>										
<i>A. spicatum</i>										
<i>Betula lut.</i>										
<i>B. papyrif</i>										
<i>Carpinus car</i>										
<i>Fagus gran</i>										
<i>Ostrya virg</i>	17 1/2 32	4 67	58 75						4 32	
<i>Picea glau</i>	17 1/2 87 14 42	11 1/2 155 15 220	10 1/2 30 10 1/2 100	11 165 4 36	7 1/2 140		7 320 17 1/2 48	8 72 14 49	10 78 9 45	14 1/2 145 10 1/2 121
<i>Pinus Bank</i>			7 100				18 1/2 80		7 44	
<i>P. resinosa</i>										
<i>P. Strobus</i>						3 1/2 82				
<i>Populus bals</i>										
<i>P. grand</i>										
<i>P. trem</i>				9 132		15 52				13 100 10 1/2 191
<i>Prunus pen.</i>										
<i>Quercus ell</i>										
<i>Q. rubra</i>										
<i>Tilia amer</i>										
<i>Tsuga can</i>										
<i>Thuja occ</i>					2 126					
<i>Ulmus amer</i>										
<i>U. fulva</i>										
Litter	1/2	1/2	1/2	1	2	2	1	1	1 1/2	1/2
Canopy	20	5	10	40	50	65	20	15	45	10
Distance	38	47	36	41	24 1/2	41 1/2	31	41	30	48 1/2

POINT RECORD TREES SAPLINGS NORTHERN PINE-HARDWOODS

Stand No. 34 (1)

STATION NO.	1	2	3	4	5	6	7	8	9	10				
Abies balsam	5 20	11 8 1/2	2 9	6 4 1/2	11 8 1/2	23 9	4 9	7 1/2 16	7 1/2 8	18	25 6 1/2	16	4 14	9 1/2
Acer rubrum														
A. sacchar.												12 1/2		
A. spicatum							12 1/2		8					
Betula lut.														
B. papyrif														
Carpinus car														
Fagus gran														
Ostrya virg														
Picea glau								18				8		16
Pinus Bank														
P. resinosa														
P. Strobus														
Populus bals														
P. grand														
P. trem														
Prunus pen.														
Quercus ell														
Q. rubra														
Tilia amer														
Tsuga can														
Thuja occ						16 4 1/2		11	16 1/2		23			
Ulmus amer														
U. fulva														
Populus amer			30			6 1/2	7 1/2	11 1/2						
Distance	44 1/2	21 1/2	72 1/2	29 1/2	43	35 1/2	58 1/2	50	59 1/2	43 1/2				

POINT RECORD TREES SAPLINGS NORTHERN PINE-HARDWOODS

Stand No. 34 (2)

STATION NO.	1	2	3	4	5	6	7	8	9	10			
Abies balsam	25	15		11 19	12 18	3 7	11 11	13 18	9 14	20 19	15 1/2 8	6 1/2 7	12
Acer rubrum	16 19	10 11											
A. sacchar.			1 4 1/2 5 1/2										
A. spicatum													
Betula lut.													
B. papyrif													
Carpinus car													
Fagus gran													
Ostrya virg													
Picea glau					18	19					13 1/2 13		
Pinus Bank													
P. resinosa													
P. Strobus				13 1/2									
Populus bals													
P. grand													
P. trem													
Prunus pen.													
Quercus ell													
Q. rubra													
Tilia amer													
Tsuga can													
Thuja occ		7		14 1/2									
Ulmus amer													
U. fulva													
Amelanchier											17 1/2		
Distance	67 1/2	43	11	58	60	33	53	62	59 1/2	33 1/2			

POINT RECORD TREES ~~SAPLINGS~~ NORTHERN PINE-HARDWOODS

Stand No. 34(3)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam	11 1/2 25	3 14 1/2	11 1/2 16	12 8 14 1/2	11 19	11 1/2 9 20	20 22	11 1/2 10	10 1/2 9 11 1/2	12 1/2 17 14 1/2 15
Acer rubrum				17	13					
A. sacchar.										
A. spicatum										
Betula lut.										
B. papyrif										
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau	9 1/2 19	17 18	21			12	18			29
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem										
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ				5	4		25	15 22		
Ulmus amer										
U. fulva										
Distance	65	52 1/2	56 1/2	48 1/2	47	52 1/2	85	58 1/2	43 1/2	75 1/2

[illegible]

[illegible]

	P.									10.								20		
Desmodium glutinosum																				
Dicentra canadensis																				
Dicentra cucullaria																				
Diervilla lonicera	✓																			1
Dirca palustris																				
Dryopteris boottii																				
Dryopteris cristata																				
Dryopteris disjuncta	✓			✓															1	7
Dryopteris goldiana																				
Dryopteris marginalis																				
Dryopteris noveboracensis																				
Dryopteris phegopteris																				
Dryopteris spinulosa	✓				✓							✓							2	13
Empetrum nigrum																				
Epifagus virginiana																				
Epigaea repens	✓	✓				✓													2	13
Epilobium angustifolium	✓																			1
Epilobium glandulosum																				
Epilobium strictum																				
Equisetum arvense v. borealis	✓				✓														1	7
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	✓									✓		✓							2	13
Fragaria virginiana	✓																			
Galium aparine																				
Galium asprellum																				
Galium boreale																				
Galium concinnum																				
Galium lanceolatum																				
Galium triflorum	✓		✓		✓	✓				✓	✓	✓	✓	✓					8	53
Gaultheria hispidula	✓																			1
Gaultheria procumbens																				
Gaylussacia baccata																				
Gentiana andrewsii																				
Gentiana crinata																				
Gentiana linearis																				
Gentiana quinquefolia																				
Geocaulon lividum																				
Geranium bicknelli																				
Geranium maculatum																				
Geranium robertianum																				

[illegible]

[illegible]

[illegible]

	P.									10							20		
Rubus (dewberry)																			
Rubus (raspberry)																			
Rumex acetosella																			
Salix spp.																			
Sambucus canadensis																			
Sambucus pubens	✓																		1
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																			
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	✓						✓					✓						2	13
Symphoricarpos albus																			
Symphoricarpos occidentalis																			
Taraxacum officinale	✓																		1
Taxus canadensis																			
Thalictrum dasycarpum																			
Thalictrum dioicum																			
Thalictrum polygamum																			
Tiarella cordifolia																			
Trientalis borealis	✓				✓					✓	✓							3	20
Trifolium hybridum																			

[illegible]

[illegible]

PRESENCE LIST

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 34

TREES

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

- ✓ *Fraxinus nigra* - sapling
- Fraxinus pennsylvanicum*
- Larix laricina*
- ✓ *Ostrya virginiana* - sapling
- ✓ *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* sapling
- ✓ *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*
- ✓ *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 34

✓ *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

Cirsium lanceolatum
Brachyelytrum erectum
 White Aster - *Aster latifolia*
Mopse
Lichens
Carex pedunculata
Viola - same *selkirkii*
Viola - wide open at petiole - *incognita*
Oryzopsis asperifolia
Geum canadense
Equisetum black - *Equisetum arvense* v. *boreale*

Trifolium repens
Veronica officinale
Geum all. pice
Cirsium arvense
Hieracium pratense
Carex crinata
Trifolium pratense
Goodyera oblongifolia

FREQUENCY DATA
(Common Species)

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 34 (1)

TREE SEEDLINGS

- 085421 Abies balsamea
Acer pensylvanicum
9653 Acer rubrum
09876 Acer saccharum
Acer spicatum
Betula lutea
05 Betula papyrifera
9 Amelanchier

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

- 2 *Pyrus ambr*
Pinus strobus
1 Populus tremuloides
Prunus pensylvanica
Prunus serotina
3 Thuja occidentalis
Tilia americana
Tsuga canadensis
3 *Prunus nig*

SHRUBS

- 3 Alnus rugosa
Arctostaphylos uva-ursi
Comptonia peregrina
Corylus americana
Corylus cornuta
Diervilla lonicera
Dirca palustris
Ilex verticillata
Ledum groenlandicum
74 *Lonicera canadensis*
5 *Sorbus linsatum*

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

- 654 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
942 Anemone quinquefolia
Anemone virginiana
Antennaria spp.
Apocynum androsaemifolium
Aquilegia canadensis
75 Aralia nudicaulis
Arisaema atrorubens
0531 Aster macrophyllus
4 Athyrium filix-femina
Botrychium virginianum
04 Carex pensylvanica
Chimaphila umbellata
Chrysanthemum leucanthemum
4 Circaea alpina
Claytonia caroliniana
Claytonia virginiana
763 Clintonia borealis
543 Coptis groenlandicum
Corallorhiza maculata
086531 Cornus canadensis
Cystopteris fragilis
Dicentra canadensis
Dicentra cucullaria
3 Dryopteris disjuncta
Dryopteris phegopteris

- 4 Dryopteris spinulosa
6 *Epigaea repens*
Epilobium angustifolium
Equisetum sylvaticum
Erythronium americanum
0 Fragaria vesca
Fragaria virginiana
Galium aparine
09542 Galium triflorum
Gaultheria hispidula
Gaultheria procumbens
Gentiana quinquefolia
Geranium maculatum
Goodyera repens
Habenaria obtusata
Halenia deflexa
Hepatica acutiloba
532 Hepatica americana
Hieracium aurantiacum
5 Linnaea borealis
64 Lycopodium annotinum
Lycopodium clavatum
Lycopodium complanatum
6 Lycopodium lucidulum
Lycopodium obscurum
0976432 *Maianthemum canadense*
Medeola virginiana
Melampyrum lineare
03 Mitchella repens
Mitella diphylla

- 0432 Mitella nuda
Monotropa uniflora
Osmorhiza claytoni
Oxalis montana
Oxalis stricta
Polygala paucifolia
Polygonatum pubescens
Prenanthes alba
0961 Pteridium aquilinum
5 Pyrola elliptica
Pyrola rotundifolia
Pyrola secunda
Ranunculus acris
Rhus radicans
5432 Rubus pubescens
Sanguinaria canadensis
Smilacina racemosa
Smilacina stellata
6 Streptopus roseus
Tiarella cordifolia
3 Trientalis borealis
Trillium erectum
Trillium grandiflorum
Uvularia sessilifolia
Viola canadensis
Viola cucullata
Viola pallens
Viola pubescens
95 Viola renifolia
Waldsteinia fragarioides

Additional species

Mosses 12345780
Lichens 13580
Vicia mede 13469 incognita
Brachyotum 135

Potamogeton 2
Carex arctata 258
Carex pedunc 2345680
White Aster 245
Potamogeton 2
Carex arctata 258
Carex pedunc 2345680
White Aster 245
Potamogeton 2
Carex arctata 258
Carex pedunc 2345680
White Aster 245

Equisetum black 4 anense v. boreal
diffolium repens 4
Veronica officinale 58
Osmunda claytona 6

FREQUENCY DATA
(Common Species)

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 34(2)

TREE SEEDLINGS

- 5434 *Abies balsamea*
Acer pensylvanicum
 431 *Acer rubrum*
Acer saccharum
Acer spicatum
 3 *Betula lutea*
 31 *Betula papyrifera*
 2 *Amelanchier*

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

- 51 *Pinus strobus*
Pinus strobus
 4 *Populus tremuloides*
Prunus pensylvanica
Prunus serotina
Thuja occidentalis
Tilia americana
Tsuga canadensis
 3 *Quercus rubra*

SHRUBS

- Alnus rugosa*
Arctostaphylos uva-ursi
Comptonia peregrina
Corylus americana
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)
 2 *Rubus idaeus*

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

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

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

Additional species

- Mosses* 12345
Lichens 12345
Carex ped. 12345
White Ast. 1245
Brachyelytrum 25
Cirsium arvense 2
Ranunculus acris 2
Carex arctata 25
Hus adum pratense 3

- Viola wide* 25 - incog.
Morises mini 2
Saturnia rubra 2