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Site 6016 (Boreal Stand 16): Skhal's Woods, Koochiching County, Minnesota, Township 154N, Range 26W, Section 26. 1955-07-20

[s.l.]: [s.n.], 1955-07-20

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[Site 6016]

Data Form No. 20

Plant Ecology Research

Univ. of Wisconsin

STAND RECORD

FORESTS

Stand No. 16

Name: *Sphal's Woods*
 County: *Koochiching Co., Minn*
 Date: *July 20, 1955*
 Size of Stand: *20 acres*
 Forest Type:
 Topography: *gently rolling*

Locality:
 T: *154* R: *26* Sec: *SE 26*
 Observers: *PFM*

Size of Area Sampled:

Soil Type:

Slope:

Directions

Slight slope to East.

Condition of Stand:

*Old mature stand in fine condition**Few pine logs removed.**One large spruce 490 sq" - BA - breast height**A slight bit of cutting for large popple.**Few very large old trees either struck by lightning or wind thrown.*

Very tall spruce + balsam - an old stand. - Reserved at time of cutting in area
- reported by Ed Richards - Head Ranger - Big Falls.
% Canopy: also by Francis Moore - Grand Rapids

Open Grown Trees:

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									

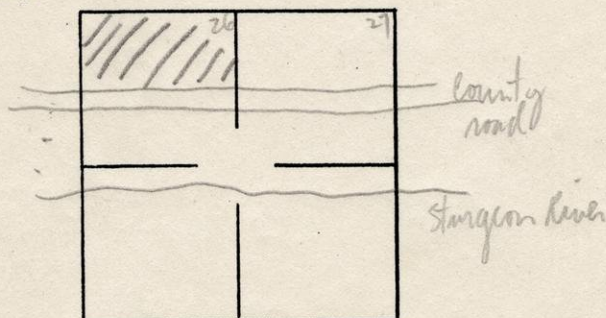
DEPTH

CHARACTERISTICS (Color, Texture, Structure, etc.)

#1	3 1/2" - little 2 1/2" - brown	#2	3" - little 5" - 3" - brown	#3	3 1/2" - little 8" - 3 1/2" - brown
Ao	6" - brown black	Ao	4 1/2" - brown black	Ao	2" - red black granular
A1	7" -	A1	1" - grey black leached	A1	1" - leached
A2	- then deep hard compacted grey clay	A2	- then deep hard compacted whitish grey clay	A2	- then deep hard compacted grey clay
B		B		B	

Parent Material:

Map:



LICHENS OF GREAT LAKES SPRUCE-FIR COMMUNITIES
MINNESOTA

Koochiching County



12 miles W. of Big Falls T154N R26W SEC 26
Balsam, aspen, & white spruce. Gently rolling,
slight slope eastward. Old mature stand in fine
condition.

July 20, 1955. Coll. Paul F. Maycock

Plant Ecology Research
TREE DATA SUMMARY SHEET

177.7

spruce-fir
Northern Pine-Hardwoods

✓ Station Number: 16 - 1664

Midrange
IndexMidrange
Index

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											
1112.4 2.0 3.0 10.0 89.0 541.0 200.7 389.6 21.5 22.8 74.8 72.0 1.7 2541	Abies bals	40	79			5104	69	43.1		100.0	36.4	49.4	37.8	123.6	865.2	988.5
	Acer rubru														1.0	1.0
	Amelanchier A. sacchar						5	3.1			✓				1.0	1.0
	A. spicatu						13	8.1							1.0	1.0
	Betula lut															
	B. papyrif	4	4			382	2	1.3		10.0	3.6	2.5	2.8	8.9	44.5	80.1
	Crataegus Carpinus						4	2.5			✓					
	Fagus gran															
	Ostrya vir															
	Picea glau	17	20			3538	1	0.6		42.5	15.4	12.5	26.2	54.1	324.6	541.0
	Pinus Bank															
	P. resinosa															
	P. Strobus	8	3													
	Populus ba	11	12			652	4	2.5		27.5	10.0	7.5	4.8	22.3	44.6	200.7
	P. grandid															
	P. tremulo	18	25			2256	7	4.4		45.0	16.4	15.6	16.7	48.7	97.4	438.3
	Prunus virg. pend.						20	12.5			✓				1.0	1.0
	Quercus macro macro	2	2			154				5.0	1.8	1.3	1.2	4.3	8.6	17.2
	Q. rubra														1.0	1.0
	Tilia amer	2	2			350				5.0	1.8	1.3	2.6	5.7	45.6	28.5
	Tsuga cana															
	Thuja occi															
	Ulmus amer														1.0	1.0
	U. fulva	9	9			644	2	1.3		22.5	8.3	5.6	4.8	18.7	149.6	130.9
	Frax. nig	6	6			390	30	18.8		15.0	5.4	3.7	2.9	12.0	72.0	84.0
	Acer negundo	1	1			14	2	1.3		2.5	0.9	0.6	0.2	1.7	6.8	8.5
	Salix sp.						1	0.6								
	TOTAL		160			13484	160	100.0		275.0	100.0	100.0	100.0	300.0	1664	2524.0

AVE. DIST. BTW'N TREES:

10.8

AVE. B. A.:

84.3

TREES/ACRE:

374

DOM. /ACRE:

31,528

Tree		DATE Stand No. 16(2)									
Station No.	1	2	3	4	5	6	7	8	9	10	
SUBJECT											
Abies bals.	12' 12 1/2 92	12' 18 93	14' 18 94	24' 21 47	17 1/2 55 30	8' 11 1/2 44 29	8' 6 42	7 1/2 58 23	15' 9 100	10' 25 230	
Acer rub.											
A. Sacc.											
A. spic.											
Ketula lnt											
B. papy.							1' 90			20' 21	
Carpinus											
Fagus											
Ostrya											
Picea glauca			12' 88	6 1/2 320		9 1/2 258 18 39		10 1/2 110			
Picea mariana											
Prunus bane											
P. albimosa											
P. strobus											
Populus bals.	11 1/2 35			18' 84							
P. grand.											
P. trem.	19' 152	12' 21 269 280		30' 65	59' 31 25		19' 55 10 1/2 39	6 1/2 82 11 1/2 45	10' 95		
Prunus pin.											
Prunus serot.											
Prunus virg.											
Quercus ellip.											
Quercus macro											
Q. rubra											
Salix amer											
Suga											
Thuja											
Ulmus amer											
Ulmus rub.			29 49								
Letter	2 1/2	3'	5"	3 1/2	2 1/2	4 1/2	6 1/2	3 1/2	4"	4"	
Canopy	2 1/2	20	4	55	30	45	75	20	30	15	
Distance	55	63	73	78 1/2	32 1/2	47	34	44 1/2	41 1/2	65	

Station No SUBJECT	Saplings						DATE	Stand No. 16 (1)			
	1	2	3	4	5	6		7	8	9	10
Abies bal.	14	17'	10 1/2 15	8'	19' 3	24'	4 1/2 4 1/2	11 1/2	16'	16' 18 1/2	7' 16' 13'
Acer rubr.											
A. sacc											
A. opic		18' 13 1/2	5' 12 1/2								
Betula lute.											
B. pap.											
Carpinus											
Fagus											
Ostrya											
Picea gl.											
P. mar.											
Pinus banks.											
P. resinosa											
P. strobus											
Populus bal.											
P. grand.											
P. thom.											
Prunus pen.											
P. serot.											
P. rug.											10'
Quercus ell.											
Q. macro											
Q. rubra											
Tilia											
Ulmus											
Ulmus amer.											
M. rubra			25'	10'							
Frax. parv.		18'					1' 15'	1' 3 1/2	4' 8'	4' 7' 1/2	
Amelanchier					7'			6 1/2		1'	
Crataegus						8'					
Sitter											
Canopy											
Distance	50 1/2	74 1/2	58 1/2	61	28	35 1/2	27	38 1/2	24	46	

Station No. SUBJECT	Saplings										DATE	Stand No. 16(2)	
	1	2	3	4	5	6	7	8	9	10			
Alnus bal.	22	9'	3'		9' 15"	1' 14"	18"	11' 9"	69	16 1/2	13'		
Acer rub.													
A. sacc.													
A. sp.		15'				6'	2' 8"	5 1/2	14		4'		
Betula lnt													
B. pap.										6'			
Car. pinus													
Fagus													
Ostrya													
Pricea glauca													
P. mariana													
Pinus bank													
P. resinosa													
P. strobus													
Populus bals.	3'			4'									
P. grand													
P. trem.			2 1/2	10 1/2									
Prunus pen.													
P. serot.													
P. vrg.	7 1/2	5'	4'	2' 3"						2'	16 1/4		
Quercus ell.													
Q. macro													
Q. rubra													
Silia													
Thuja													
Thuja													
Ulmus amer													
U. rubra													
Urt. rug.	7'			6'									
Crataegus		1'			2 1/2								
Acer nelyndo					12'								
Litter													
Canopy													
Distance	39 1/2	30	20	15	38 1/2	39	30	34 1/2	32 1/2	37			

Saplings

DATE

Stand No. 116(3)

Station No.	1	2	3	4	5	6	7	8	9	10	
SUBJECT											
<i>Abies bals.</i>	5'	2' 10 1/2	6'-7'	10 1/2, 13 1/2	9'			9'-9 1/2'	6'		
<i>Acer rub.</i>											
<i>A. sacc.</i>											
<i>A. sp.</i>											
<i>Betula lutea</i>											
<i>B. papyr.</i>											
<i>Carpinus</i>											
<i>Fagus</i>											
<i>Ostrya</i>											
<i>Picea glauca</i>				10 1/2							
<i>P. mariana</i>											
<i>Pinus bank.</i>											
<i>P. resinosa</i>											
<i>P. strobus</i>											
<i>Pop. bals.</i>	10'									11'	
<i>P. grand.</i>											
<i>P. trem.</i>	1'				4'		9 1/2'				
<i>Prunus pen.</i>											
<i>P. serot.</i>											
<i>P. virg.</i>			8'		7 1/2', 8'		3'		2 1/2'		
<i>Quercus ell.</i>											
<i>Q. macro</i>											
<i>Q. rubra</i>											
<i>Silva</i>											
<i>Taxa</i>											
<i>Thuja</i>											
<i>Ulmus amer.</i>											
<i>U. rub.</i>											
<i>Frax nigra</i>	2'	6'		11'		8'-6'-3 1/2'		7'	1'-	1 1/2', 3 1/2'	
<i>Salix</i>		5'									
<i>Amelanchier</i>							1'-			6'	
<i>Crataegus</i>							10'				
<i>Litter</i>											
<i>Canopy</i>											
Distance	18	23 1/2	29	45 1/2	28 1/2	29	23 1/2	36	10 1/2	22	

Station No. SUBJECT	Saplings										DATE	Stand No. 16 (4)				
	1	2	3	4	5	6	7	8	9	10						
Abies bal.	8' 29"	2 1/2	1 1/2	8'	1' 10"	7 13/16	9'	7 1/2	11 11/16	4' 14"	14 1/2	8'	10'	9 1/2	11 1/2	16'
Acer rub.																
A. sac.																
A. spic.													15'			
Betula lnt.																
B. pap.	5'															
Carpenus																
Fagus																
Isthya																
Picea glauca																
P. mariana																
Pin. balt.																
Pinus res.																
P. strobus																
Pop. bal.																
P. grand.																
P. trem.																6' 3"
Brunus pen.																
P. perot.																
P. vng.	8'	1'	19' 6"	7'			3'									
Quercus ell.																
Q. macro																
Q. rubra																
Tilia																
Thuja																
Thuja																
Ulmus amer.																
M. rubra																
Tras nig.		3'		4'	7							5' 4 1/2"	7			
Acer negundo				15 1/2'												
Litter																
Canopy																
Distance	50	8	40	30 1/2	36 1/2	33	47 1/2	29 1/2	37	36 1/2						

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

	P.								10.							20.	
Trifolium pratense																	
Trifolium repens																	
Trillium cernuum	✓																1
Trillium erectum																	
Trillium grandiflorum																	
Trillium undulatum																	
Uvularia grandiflora	✓											✓				1	5
Uvularia sessilifolia	✓	✓				✓					✓	✓			✓	5	25
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	✓						✓		✓				✓		✓	4	20
Viburnum trilobum	✓							✓						✓		2	10
Vicia americana	✓																1
Viola adunca																	
Viola blanda																	
Viola canadensis																	
Viola conspersa	✓	✓	✓		✓	✓			✓			✓		✓		7	35
Viola cucullata																	
Viola incognita	✓	✓	✓		✓				✓			✓				5	25
Viola nephrophylla																	
Viola pallens																	
Viola papilionacea																	
Viola pubescens	✓								✓							1	5
Viola renifolia	✓				✓				✓							2	10
Viola selkirkii	✓																3
Viola sororia																	
Vitis riparia																	
Waldsteinia fragarioides																	
Woodsia ilvensis																	
Xanthoxylum americanum																	
Tree Seedlings																	
Abies balsamea	✓	✓	✓		✓	✓		✓	✓	✓	✓		✓	✓	✓	11	55
Acer pensylvanicum	✓	✓														1	5
Acer rubrum	✓	✓															
Acer saccharum																	
Acer spicatum	✓	✓			✓			✓	✓	✓		✓				6	30

	P.									10.									20.	
Amelanchier spp.	✓										✓								1	5
Betula lutea																				
Betula papyrifera	✓	✓									✓				✓				3	15
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	✓																	✓	1	5
Populus grandidentata																				
Populus tremuloides																				
Prunus nigra																				
Prunus pensylvanica																				
Prunus serotina																				
Prunus virginiana	✓	✓	✓		✓	✓				✓		✓		✓	✓			✓	9	45
Pyrus americana																				
Pyrus decora																				
Quercus rubra																				
Thuja occidentalis																				
Tilia americana																				
Tsuga canadensis																				
Ulmus americana																				
Ulmus rubra																				
Ulmus thomasi																				
Cirsium sp	✓					✓						✓				✓			3	15
Grass sp.	✓																✓		1	5

PRESENCE LIST

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 16

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

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)

HERBS

- Achillea millefolium*
- Actaea pachypoda*
- ✓ *Actaea rubra*
- Adiantum pedatum*
- Agrimonia grypsossepala*
- 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*

- 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*
- ✓ *Ulmus macrocarpa*
- ✓ *Rubus idaeus*
- ✓ *Rubus parviflorus*
- Salix* sp.
- Sambucus canadensis*
- Sambucus pubens*
- Shepherdia canadensis*
- Smilax tannoides* 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*

PRESENCE LIST

SPRUCE-FIR - MIXED HARDWOODS

Stand 16

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 mistassinica
 ✓ 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
 X ✓ Viola conspersa
 Viola cucullata
 Viola incognita
 Viola nephrophylla
 Viola pallens
 Viola papilionacea
 ✓ Viola pubescens
 ✓ Viola renifolia
 ✓ Viola selkirkii
 Viola sororia
 Waldsteinia fragarioides

Additional species

Viola sp - on in other stands - incognita
 Sanicula marilandica
 Carex - wide leaves - Carex pedunculata
 Brachyelytrum erectum
 Calcegon schubertii
 Lycopodium uniflorum
 Pteris pennsylvanica
 Cornus sp
 Liliun michiganense
 Camptophyllum thalictroides

Luzula acuminata
 Solidago juncea
 Galium asprellum
 Oryzopsis asperifolia

FREQUENCY DATA
(Common Species)

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 16(1)

TREE SEEDLINGS

- 085421 Abies balsamea
Acer pensylvanicum
1 Acer rubrum
Acer saccharum
0941 Acer spicatum
Betula lutea
1 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

087432 *Frax. nig*05421 *Pinus nig*

SHRUBS

- Alnus rugosa
Arctostaphylos uva-ursi
Comptonia peregrina
Corylus americana
0631 Corylus cornuta
0 Diervilla lonicera
Dirca palustris
Ilex verticillata
Ledum groenlandicum
5 Lonicera canadensis

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

- 3 Rubus parviflorus
Sambucus pubens
Shepherdia canadensis
Spiraea alba
Symphoricarpos occidentalis
Taxus canadensis
Vaccinium angustifolium
Vaccinium myrtilloides
Viburnum acerifolium
9 Viburnum trilobum
8 *Viburnum rafinesquianum*

HERBS

- Actaea pachypoda
63 Actaea rubra
Adiantum pedatum
Anaphalis margaritacea
Anemone cylindrica
Anemone quinquefolia
Anemone virginiana
Antennaria spp.
Apocynum androsaemifolium
Aquilegia canadensis

- 86 Dryopteris spinulosa
Epigaea repens
Epilobium angustifolium
Equisetum sylvaticum
Erythronium americanum

- 0987654321 Mitella nuda
Monotropa uniflora
87 Osmorhiza claytoni
Oxalis montana
Oxalis stricta
Polygala paucifolia
431 Polygonatum pubescens
6 Prenanthes alba
Pteridium aquilinum
3 Pyrola elliptica
Pyrola rotundifolia
Pyrola secunda
Ranunculus acris
Rhus radicans

- 5408763 Fragaria vesca
Fragaria virginiana
Galium aparine

- 8165421 Galium triflorum
Gaultheria hispidula
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

- 07654321 Rubus pubescens
Sanguinaria canadensis
Smilacina racemosa
Smilacina stellata

- 081 Streptopus roseus
Tiarella cordifolia

- 08757 Trientalis borealis
Trillium erectum
Trillium grandiflorum
72 Uvularia sessilifolia
Viola canadensis
Viola cucullata
Viola pallens

- 0 Viola pubescens
04 Viola renifolia
Waldsteinia fragarioides

- 9865432 Maianthemum canadense
Medeola virginiana
Melampyrum lineare
Mitchella repens
Mitella diphylla

Additional species

V. sp. 124
Moss 12345780

Malicium divinum 245680
Pyrola asar 27
Asarum can. 357
Saxifraga mar. 4
Petasites palm. 4

White Carex 6 - Carex pedunculata
Circum 6
Grass 6
Salix borealis 780

Adiantum 12378
X Viola conspersa 1245

FREQUENCY DATA
(Common Species)

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 16(2)

TREE SEEDLINGS

- 08621 Abies balsamea
Acer pensylvanicum
Acer rubrum
Acer saccharum
51 Acer spicatum
Betula lutea
62 Betula papyrifera
2 Melanochloa

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

9876432 Thuja nigra

SHRUBS

- Alnus rugosa
Arctostaphylos uva-ursi
Comptonia peregrina
Corylus americana
0541 Corylus cornuta
094 Diervilla lonicera
Dirca palustris
Ilex verticillata
Ledum groenlandicum
32 Lonicera canadensis
1 Cornus alternifolia
02 Cornus alternifolia
2 Lonicera punctata
Actaea pachypoda

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

4 Rubus strigosus

HERBS

- 4 Actaea rubra
Adiantum pedatum
Anaphalis margaritacea
Anemone cylindrica
8 Anemone quinquefolia
Anemone virginiana
Antennaria spp.
Apocynum androsaemifolium
Aquilegia canadensis
9762 Aralia nudicaulis
Arisaema atrorubens
80 Aster macrophyllus
6 Athyrium filix-femina
Botrychium virginianum
65434 Carex pensylvanica 780
Chimaphila umbellata
Chrysanthemum leucanthemum
07 Circaea alpina
Claytonia caroliniana
Claytonia virginiana
0 Clintonia borealis
Coptis groenlandicum
Corallorhiza maculata
07 Cornus canadensis
Cystopteris fragilis
Dicentra canadensis
Dicentra cucullaria
Dryopteris disjuncta
Dryopteris phegopteris

- 0 Dryopteris spinulosa
Epigaea repens
Epilobium angustifolium
Equisetum sylvaticum
Erythronium americanum
076541 Fragaria vesca
Fragaria virginiana
Galium aparine
76543 Galium triflorum
Gaultheria hispidula
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
876532 Maianthemum canadense
Medeola virginiana
Melampyrum lineare
Mitchella repens
Mitella diphylla

9 Pop. bals.

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

0653 Prunus virg

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

8 Viburnum trilobum

071 Viburnum Rafinesq

- 08765432 Mitella nuda
Monotropa uniflora
Osmorhiza claytoni
Oxalis montana
Oxalis stricta
Polygala paucifolia
Polygonatum pubescens
5 Prenanthes alba
Pteridium aquilinum
Pyrola elliptica
Pyrola rotundifolia
Pyrola secunda
Ranunculus acris
Rhus radicans
0875321 Rubus pubescens
Sanguinaria canadensis
Smilacina racemosa
Smilacina stellata
532 Streptopus roseus
Tiarella cordifolia
09532 Trientalis borealis
Trillium erectum
Trillium grandiflorum
074 Uvularia sessilifolia
Viola canadensis
Viola cucullata
Viola pallens
Viola pubescens
Viola renifolia
Waldsteinia fragarioides

Additional species

Thalictrum flavum 115780
Morus 12345 7890
Lupinus 125890
Viola canadensis 158 x adn-ca

Viola sp. 15 incognita
Sambucus mar 25
Asarum can 45
Cirsium 48
Rhamnus alni folia 4
Petasites 5
Pyrola mar 5
Urtica grand 7

Asar. sp. 7
mar. sp. 7
Lonicera sp. 18 oblongifolia
Salix boreale 0

^{mi}
17 E. of Effie on #1

14 mi out but log cabin beer joint County Road goes
N. - 3 mi beyond + on S. side of Road see sign
Dallery - turn in - 2 mi - cross RR. grade - steel gate
just beyond 200^{-main} road swings to left - take road
straight ahead - walk in to edge of alder dough
just across dough - spruce - fir - aspen - birch - perhaps go
in a ways.
