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Site 6014 (Boreal Stand 14): Chippewa Natl. Forest, Itasca County, Minnesota, Township 59N, Range 26W, Section 21. 1955-07-18

[s.l.]: [s.n.], 1955-07-18

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[Site 6014]

Data Form No. 20

Plant Ecology Research

Univ. of Wisconsin

STAND RECORD

FORESTS

Stand No. 14

Name: Chippewa Natl. Forest⁺
County: Stasca, Minn. ^{E shore N. Star Lake}Locality: 5 Mi S. of Marcell, Minn., on Hy. 38
T: 59N R: 26W Sec: 21

Date: July 18, 1955

Observers:

Size of Stand: 25 acres

PFM.

Size of Area Sampled:

Forest Type: Spruce-fir-aspen-birch

Soil Type:

Topography: Rolling

Slope:

Directions

Condition of Stand:

Good condition, logged for pine
 Aspen-birch canopy being broken up by spruce & fir.
 At foot of slope stand grades off gradually into cedar swamp.
 Young stand
 Stand encountered by PFMaycock while travelling to Effie, Minn.

gentle slope to the west.
 West-facing slope.

Open Grown Trees:

% Canopy:

Stumps:

1. W. R. pine	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									

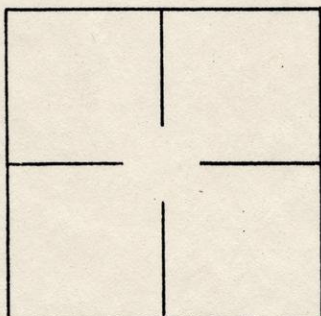
DEPTH

CHARACTERISTICS (Color, Texture, Structure, etc.)

DEPTH	CHARACTERISTICS (Color, Texture, Structure, etc.)	
#1 A ₀ 4" - 2 1/2" litter - leaves + needles 1/2" ferment.	#2 3" - 1 1/2" - litter 1/2" - ferment	#3 4 1/2" - 2" litter + 2 1/2" ferment
A ₁ 1/2" black	1/2" - grayish black	1/2" - black
A ₂ 2 1/4" gray leached sand	2 1/2" gray-brown-leached	3" gray sand
B 7" + brown sand glei at about 13"	B ₁ - 1" brown sand B ₂ - 5" + light brown sand compacted in places.	1" brown sand then bedrock
Parent Material:		

Parent Material:

Map:



LICHENS OF GREAT LAKES SPRUCE-FIR COMMUNITIES

MINNESOTA

Itasca County



5 miles S. of Marcell, Hy. 38 E. shore of North
Star Lake, Chippewa National Forest.

T59N R26W SEC 21

Balsam, aspen, cedar, black spruce, white birch,
white spruce. Rolling, gradual west-facing
slope. Aspen-birch canopy breaking up under
influence of spruce & fir.

July 18, 1955. Coll. Paul F. Maycock

Plant Ecology Research
TREE DATA SUMMARY SHEET

183.5

~~Spruce-fir~~
~~Northern Pine-Hardwoods~~

✓ Station Number: 14 - 1396

Midway
IndexN. limit
Index

649.8

10.0

274.0

303.0

40.6

63.9

155.4

449.6

356.8

306.0

6.0

2615

TREE	# PTS	# TRS	DOM. CLASSES			TOT. DOM.	# SAP	D. % SAP	F. % SDL.	F. % TRS.	% SUM F. TR.	D. % TRS.	DOM% TRS.	DFD INDEX	(NEW LOWLAND INDEX C. I.)
			-80	-320	321										
Abies bals	29	41				1667	63	39.4		72.5	24.2	25.6	22.4	72.2	(324.9) 505.4
Acer rubru															(69.0) 1.0
A. sacchar															
A. spicatu							3	1.9							1.0
Betula lut															
B. papyrif	14	15				468	22	13.8		35.0	11.7	9.4	6.3	27.4	(137.0) 137.0
Carpinus c															
Fagus gran															
Ostrya vir															
Picea glau	13	13				850	1	0.6		32.5	10.8	8.1	11.4	30.3	(121.2) 181.8
Pinus Bank															
P. resinosa	2	2				215	1	0.6		5.0	1.7	1.2	2.9	5.8	(20.3) 17.4
P. Strobus															
Populus ba	2	3				263				5.0	1.7	1.9	3.5	7.1	(35.5) 14.2
P. grandid	8	14				780				20.0	6.7	8.7	10.5	25.9	(127.5) 51.8
P. tremulo	18	28				1765	3	1.9		45.0	15.0	17.5	23.7	56.2	(176.7) 112.4
Prunus pen															
Quercus el															
Q. rubra															
Tilia amer															
Tsuga cana															
Thuja occi	20	27				820	60	37.5		50.0	16.7	16.9	11.0	44.6	(178.4) 312.2
Ulmus amer															
U. fulva															
Picea mar.	14	17				620	4	2.5		35.0	11.7	10.6	8.3	30.6	(61.2) 61.2
Frax. nig							3	1.9							1.0
TOTAL		160				7448	160	100.1		300.0	100.0	100.0	100.0	300.0	(1207) 1396

AVE. DIST. BTW'N TREES:

7.3

AVE B. A.:

46.6

TREES/ACRE:

817

DOM. /ACRE:

38,072

577.6
1.0
1.0
246.6
303.0
34.8
63.9
155.4
505.8
312.2
306.0
1.0
2508.3

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 14. (1)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam	9' 54 6' 42	4' 29 3' 31	8 1/2' 128	6' 58	2 1/2' 17				11' 38	
Acer rubrum	10' 25	7 1/2' 19								
A. sacchar.										
A. spicatum										
Betula lut.										
B. papyrif					2' 18	6' 41				
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau		9' 22			2 1/2' 75				10' 90	19' 141
Pinus Bank <i>Mariana</i>	10' 18		11' 42	12 1/2' 34	10' 43	11' 25 11 1/2' 68		4 1/2' 25		
P. resinosa							18' 183	3 1/2' 32		
P. Strobus										
Populus bals										
P. grand										
P. trem							10 1/2' 125	3' 27 3 1/2' 40	4' 54 3' 75	8 1/2' 39 9' 73
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ			6' 20 8 1/2' 17	14' 21 3' 22		2' 18	3' 27 1' 20			7' 24
Ulmus amer										
U. fulva										
LITTER	4"	2 1/2"	4"	2 1/2"	1 1/2"	3"	3"	2"	3"	2"
CANOPY	3%	40%	18%	50%	75%	75%	80%	85%	50%	55%
Distance	35'	23 1/2'	34'	35 1/2'	27'	30 1/2'	32 1/2'	14 1/2'	28'	43 1/2'

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 14(2)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam	12 1/2' 23	5 1/2' 65 15' 63	13 1/2' 20	6 1/2' 51	13' 28	8' 29	2' 32	7' 45		9 1/2' 85
Acer rubrum										
A. sacchar.										
A. spicatum										
Betula lut.										
B. papyrif		5' 21 4 1/2' 17	3' 37						9' 29	7 1/2' 24
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau	20' 52					6' 17 1/2	13' 29			
Pinus ^{noveboracensis} Bank						7' 31			1 1/2' 40	
P. resinosa										
P. Strobus										
Populus bals										
P. grand	6' 111		13' 31 12' 53	11 1/2' 82 3' 64	6 1/2' 68 4 1/2' 72					
P. trem	4 1/2' 68			9' 52	7' 56	21' 63	3' 85 2 1/2' 41	9 1/2' 105	1' 76 1' 42	
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ								4' 27 1' 35		17' 33 7 1/2' 18
Ulmus amer										
U. fulva										
LITTER	2 1/2"	3"	3 1/2"	1"	4"	3 1/2"	4 1/2"	3"	4"	4 1/2"
CANDPY	15	45	170	450	35	50	60	700	400	60
Distance	43'	30'	41 1/2'	30'	31'	42'	20 1/2'	21 1/2'	12 1/2'	41 1/2'

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 14(3)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam			3½ 44 4½ 39	3' 45 12' 66	3' 28 1' 35	6½ 72	10' 90	7' 22	3' 41 5' 84	3' 28
Acer rubrum			8½ 46						7' 35	
A. sacchar.										
A. spicatum										
Betula lut.										
B. papyrif		7' 45		4½	4½ 32	3½ 21	5' 80	10' 35		
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau	5' 34			4' 76		8½ 38				
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals								7' 115		3' 58 6' 90
P. grand	7½ 115 7' 115									
P. trem	4' 70	5' 72 3' 86								
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ		10½ 15	7' 18	11' 51	4' 31	2' 18	9' 47 14½ 110	5' 14	3' 50	1' 22
Ulmus amer										
U. fulva										
LITTER	3½	3"	5"	5"	4½"	4"	5"	4"	3½"	4
CANOPY	55	45	50	50	70	68	75	75	70	65
Distance	23½	25½	23½	30'	12½	20½	38½	29'	18'	13'

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 14(4)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam	6' 165	5 1/2 23	10' 31			4' 18 7' 32	4' 42			13' 29
Acer rubrum										
A. sacchar.										
A. spicatum										
Betula lut.										
B. papyrif	8' 23		11 1/2 14			14' 34				
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau					7' 40			7' 36		7' 42
Pinus Bank <i>mariana</i>	7 1/2 33			12 1/2 32		16' 45	6' 4	8 1/2 24	3' 29 4' 31 4 1/2 39	
P. resinosa										
P. Strobus										
Populus bals										
P. grand		7' 42 1' 37	9 1/2 56	11' 29 12' 34	10' 49					
P. trem		7' 31	8 1/2 45				3' 29	11' 92 14 1/2 104	3' 22	3' 50 8' 36
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ	3' 19			10 1/2 35	15' 38 12' 24		4 1/2 46			
Ulmus amer										
U. fulva										
LITTER	3"	4"	2 1/2	2 1/2	3"	2"	3"	4"	3"	4"
CANOPY	20	8	5%	2%	42	3	45	30	40	15
Distance	24 1/2	20 1/2	39 1/2	46	44	41	17 1/2	41	14 1/2	31

Av. Canopy - 45%

Av. Litter 3.3"

POINT RECORD TREES ^{SAPLINGS}

NORTHERN PINE-HARDWOODS

Stand No. 14 (1)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam	3' 1 1/2'	3' 1'	6 1/2' 4'	3' 14 1/2'	8 1/2' 3'	6'	5 1/2' 6'	10 1/2'		
Acer rubrum										
A. sacchar.										
A. spicatum										
Betula lut.										
B. papyrif	10'	9 1/2'			8'	6'		9'	9 1/2' 1'	7'
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau									8'	
Pinus ^{mariana} Bank				6'						
P. resinosa								2 1/2'		
P. Strobus										
Populus bals										
P. grand										
P. trem								11 1/2'	7'	
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ			5' 7'	6 1/2'		12' 3'	7'	8 1/2'		11 1/2' 11'
Ulmus amer										8'
U. fulva										
Distance	19 1/2'	23 1/2'	22 1/2'	30'	32 1/2'	27'	22'	39 1/2'	25 1/2'	37 1/2'

POINT RECORD TREES

SAPLINGS

NORTHERN PINE-HARDWOODS

Stand No. 1461

STATION NO.	1	2	3	4	5	6	7	8	9	10	
Abies balsam	9	7½ 8	10' 11½	7½ 5'	6' 4'	3'	6' 7½	9'	28'	12'	
Acer rubrum											
A. sacchar.											
A. spicatum									10½		
Betula lut.											
B. papyrif	7½' 9½'	18' 6½'		8'	4'						
Carpinus car											
Fagus gran											
Ostrya virg											
Picea glau											
Pinus ^{mariana} Bank							7'		7'		
P. resinosa						14½					
P. Strobus											
Populus bals											
P. grand											
P. trem											
Prunus pen.											
Quercus ell											
Q. rubra											
Tilia amer											
Tsuga can											
Thuja occ		6'				9½' 7'	13' 26'	1' 3'	2' 1'	12½' 8½'	3½' 2½'
Ulmus amer											
U. fulva											
Frax nigra										5' 2'	
Distance	44'	28'	36'	21'	26½	59'	58'	7'	38½'	12½'	

POINT RECORD TREES

SAPLINGS

NORTHERN PINE-HARDWOODS

Stand No. 14-31

STATION NO.	1	2	3	4	5	6	7	8	9	10		
Abies balsam		3½	6½ 3½	4' 3'	5' 3'	3½	4'		5'	3½ 6'		
Acer rubrum												
A. sacchar.												
A. spicatum							3'					
Betula lut.												
B. papyrif						3'		4'				
Carpinus car												
Fagus gran												
Ostrya virg												
Picea glau												
Pinus Bank												
P. resinosa												
P. Strobus												
Populus bals												
P. grand												
P. trem												
Prunus pen.												
Quercus ell												
Q. rubra												
Tilia amer												
Tsuga can												
Thuja occ	6' 7'	1' 5'	10' 9½	14½	2½ 3½	2' 3½	2' 4½	1' 1'	1½ 2'	1½ 1½	3' 2'	2' 3½ 8'
Ulmus amer												
U. fulva												
Frax nigra		5'										
Distance	19'	28'	28'	14'	13½	12'	10½	8'	12'	21'		

POINT RECORD TREES

SAPLINGS

NORTHERN PINE-HARDWOODS

Stand No. 14 (41)

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam		1 1/2' 3'	6' 8'	6' 13'	10 1/2' 10 1/2'	4' 7' 6'	3' 4 1/2'	6' 5' 2'	14'	3'
Acer rubrum										
A. sacchar.										
A. spicatum	6'									
Betula lut.										
B. papyrif		7'	2' 13'	12'	11				7'	
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau										
Pinus ^{murrayana} Bank										5'
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem										6'
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can										
Thuja occ	5' 4'	5'		12 1/2'	10 1/2'	9'	4' 7'	6 1/2'	3 1/2' 13'	11'
Ulmus amer										
U. fulva										
Distance	20'	12'	29'	43 1/2'	50'	26'	18 1/2'	19 1/2'	37 1/2'	25'

[illegible]

[illegible]

										10								20	
<u>Desmodium glutinosum</u>																			
<u>Dicentra canadensis</u>																			
<u>Dicentra cucullaria</u>																			
<u>Diervilla lonicera</u>	✓	✓	✓	✓			✓		✓	✓	✓					✓	✓	✓	✓
<u>Dirca palustris</u>																		11	55
<u>Dryopteris bootii</u>																			
<u>Dryopteris cristata</u>																			
<u>Dryopteris disjuncta</u>	✓												✓					1	5
<u>Dryopteris goldiana</u>																			
<u>Dryopteris marginalis</u>																			
<u>Dryopteris noveboracensis</u>																			
<u>Dryopteris phegopteris</u>	✓																		1
<u>Dryopteris spinulosa</u>	✓																		1
<u>Empetrum nigrum</u>																			
<u>Epifagus virginiana</u>																			
<u>Epigaea repens</u>																			
<u>Epilobium angustifolium</u>	✓							✓										1	5
<u>Epilobium glandulosum</u>																			
<u>Epilobium strictum</u>																			
<u>Equisetum arvense v. borealis</u>	✓																		1
<u>Equisetum pratense</u>																			
<u>Equisetum scirpoides</u>	✓																		1
<u>Equisetum sylvaticum</u>	✓						✓	✓									✓	✓	4
<u>Erigeron annuus</u>																			20
<u>Erigeron philadelphicus</u>																			
<u>Erigeron strigosus</u>																			
<u>Erythronium albidum</u>																			
<u>Erythronium americanum</u>																			
<u>Eupatorium maculatum</u>																			
<u>Eupatorium perfoliatum</u>																			
<u>Eupatorium purpureum</u>																			
<u>Fagopyrum sagittatum</u>																			
<u>Festuca obtusa</u>																			
<u>Fragaria vesca</u>	✓			✓		✓		✓		✓	✓			✓		✓	✓	✓	7
<u>Fragaria virginiana</u>	✓																		35
<u>Galium aparine</u>																			
<u>Galium asprellum</u>																			
<u>Galium boreale</u>																			
<u>Galium concinnum</u>																			
<u>Galium lanceolatum</u>																			
<u>Galium triflorum</u>	✓	✓				✓						✓						3	15
<u>Gaultheria hispidula</u>	✓		✓															1	5
<u>Gaultheria procumbens</u>	✓																✓	1	5
<u>Gaylussacia baccata</u>																			
<u>Gentiana andrewsii</u>																			
<u>Gentiana crinata</u>																			
<u>Gentiana linearis</u>																			
<u>Gentiana quinquefolia</u>																			
<u>Geocaulon lividum</u>																			
<u>Geranium bicknelli</u>																			
<u>Geranium maculatum</u>																			
<u>Geranium robertianum</u>																			

										10									20		
Geum aleppicum																					
Geum canadense																					
Geum rivale																					
Glyceria striata																					
Goodyera obtusifolia																					
Goodyera pubescens																					
Goodyera repens	✓																				1
Goodyera tessellata																					
Habenaria clavellata																					
Habenaria hyperborea	✓																				1
Habenaria obtusata	✓											✓		✓					2		10
Habenaria orbiculata																					
Habenaria psycodes																					
Habenaria viridis																					
Hackelia virginiana																					
Halenia deflexa	✓																				1
Hamamelis virginiana																					
Helianthus strumosus																					
Hepatica acutiloba																					
Hepatica americanum																					
Heracleum maximum																					
Heuchera richardsonii																					
Hieracium aurantiacum																					
Hieracium canadense																					
Hieracium pratense																					
Hieracium scabrum																					
Ilex verticillata																					
Impatiens capensis																					
Iris lacustris																					
Isopyrum bitermum																					
Juniperus communis																					
Juniperus horizontalis																					
Lactuca canadensis																					
Laportea canadensis																					
Lathyrus ochroleucus	✓						✓	✓	✓											3	15
Ledum groenlandicum																					
Lichens spp.	✓	✓				✓				✓	✓	✓			✓			✓		7	35
Lilium michiganense																					
Linnaea borealis	✓	✓	✓	✓	✓	✓				✓	✓	✓				✓	✓	✓		11	55
Listera auriculata																					
Listera borealis																					
Listera convallarioides																					
Listera cordata																					
Lobelia inflata																					
Lonicera canadensis	✓											✓							✓	2	10
Lonicera dioica																					
Lonicera hirsuta	✓																				1
Lonicera involucrata																					
Lonicera oblongifolia																					
Lonicera prolifera																					
Lonicera villosa																					
Luzula acuminata																					

[illegible]

Data Form No. 84f
TABULATION FORM

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

University of Wisconsin
STAND NO. 14

[illegible]

[illegible]

									10									20		
Trifolium pratense																				
Trifolium repens																				
Trillium cernuum	✓																		1	
Trillium erectum																				
Trillium grandiflorum																				
Trillium undulatum																				
Uvularia grandiflora																				
Uvularia sessilifolia																				
Vaccinium angustifolium	✓	✓	✓	✓		✓							✓					✓	20	
Vaccinium cespitosum																				
Vaccinium corymbosum																				
Vaccinium myrtilloides	✓	✓	✓			✓							✓					4	20	
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	✓	✓	✓	✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	12 60
Viola nephrophylla																				
Viola pallens																				
Viola papilionacea																				
Viola pubescens																				
Viola renifolia	✓																		1	
Viola selkirkii	✓																		3	
Viola sororia																				
Vitis riparia																				
Waldsteinia fragarioides																				
Woodsia ilvensis																				
Xanthoxylum americanum																				
Tree Seedlings																				
Abies balsamea	✓		✓	✓	✓	✓			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	13 65
Acer pensylvanicum																				
Acer rubrum	✓	✓																	1	5
Acer saccharum																				
Acer spicatum	✓										✓		✓	✓					3	15

[illegible]

PRESENCE LIST

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 14

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* *on bog edge*
- 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 14

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

Carex pedunculata
Viola sp. - selkirkii incognita
Mosses - Caloglyph
Goodyera repens
Aster ciliolatus
Carex leptalea
Equisetum scirpoides
Habenaria obtusata
Equisetum arvense v. borealis

FREQUENCY DATA
(Common Species)

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 14 (1)

TREE SEEDLINGS

985432 Abies balsamea
Acer pensylvanicum
Acer rubrum
Acer saccharum
Acer spicatum
Betula lutea
Betula papyrifera

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

Thapsus nigra 9

SHRUBS

Alnus rugosa
Arctostaphylos uva-ursi
Comptonia peregrina
Corylus americana
Corylus cornuta
0986321 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

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

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

HERBS

Actaea pachypoda
Actaea rubra
Adiantum pedatum
Anaphalis margaritacea
Anemone cylindrica
81 Anemone quinquefolia
Anemone virginiana
Antennaria spp.
Apocynum androsaemifolium
Aquilegia canadensis
098763 Aralia nudicaulis
Arisaema atrorubens
8765431 Aster macrophyllus 90
Athyrium filix-femina
Botrychium virginianum
Carex pensylvanica
Chimaphila umbellata
Chrysanthemum leucanthemum
Circaea alpina
Claytonia caroliniana
Claytonia virginiana
5421 Clintonia borealis
01 Coptis groenlandicum
Corallorhiza maculata
08521 Cornus canadensis
Cystopteris fragilis
Dicentra canadensis
Dicentra cucullaria
Dryopteris disjuncta
Dryopteris phegopteris

Dryopteris spinulosa
Epigaea repens
7 Epilobium angustifolium
65 Equisetum sylvaticum
Erythronium americanum
0853 Fragaria vesca
Fragaria virginiana
Galium aparine
51 Galium triflorum
2 Gaultheria hispidula
Gaultheria procumbens
Gentiana quinquefolia
Geranium maculatum
Goodyera repens
Habenaria obtusata
Halenia deflexa
Hepatica acutiloba
Hepatica americana
Hieracium aurantiacum
0854321 Linnaea borealis
Lycopodium annotinum
2 Lycopodium clavatum
Lycopodium complanatum
Lycopodium lucidulum
Lycopodium obscurum
08641 Maianthemum canadense
Medeola virginiana
Melampyrum lineare
Mitchella repens
Mitella diphylla

0 Mitella nuda
Monotropa uniflora
Osmorhiza claytoni
Oxalis montana
Oxalis stricta
Polygala paucifolia
Polygonatum pubescens
Prenanthes alba
Pteridium aquilinum
Pyrola elliptica
Pyrola rotundifolia
95 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
Uvularia sessilifolia
Viola canadensis
Viola cucullata
Viola pallens
Viola pubescens
Viola renifolia
Waldsteinia fragarioides

Additional species

Viola sp. 1350 - setkatka meoq
Mnoge 123456790
Pyrda granifolia 35
Lithogium ochroleucum 678
Petasites palmatus 6
Lichen 1590

FREQUENCY DATA
(Common Species)

SPRUCE-FIR - MIXED HARDWOODS

STAND NO. 14 (21)

TREE SEEDLINGS

654321 Abies balsamea 7
Acer pensylvanicum
Acer rubrum
Acer saccharum
431 Acer spicatum
Betula lutea
0 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

Frax nigra 12
SHRUBS

Alnus rugosa
Arctostaphylos uva-ursi
Comptonia peregrina
Corylus americana
Corylus cornuta
0987 Diervilla lonicera
Dirca palustris
Ilex verticillata
Ledum groenlandicum
03 Lonicera canadensis

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

Rubus parviflorus
Sambucus pubens
Shepherdia canadensis
Spiraea alba
Symphoricarpos occidentalis
Taxus canadensis
7 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
054 Aralia nudicaulis
Arisaema atrorubens
876521 Aster macrophyllus 90
Athyrum filix-femina
Botrychium virginianum
5 Carex pensylvanica
Chimaphila umbellata
Chrysanthemum leucanthemum
Circaea alpina
Claytonia caroliniana
Claytonia virginiana
63 Clintonia borealis
64 Coptis groenlandicum
Corallorhiza maculata
0951 Cornus canadensis
Cystopteris fragilis
Dicentra canadensis
Dicentra cucullaria
3 Dryopteris disjuncta
Dryopteris phegopteris

Dryopteris spinulosa
Epigaea repens
Epilobium angustifolium
09 Equisetum sylvaticum
Erythronium americanum
975 Fragaria vesca
Fragaria virginiana
Galium aparine
2 Galium triflorum
Gaultheria hispidula
8 Gaultheria procumbens
Gentiana quinquefolia
Geranium maculatum
Goodyera repens
Habenaria obtusata
Halenia deflexa
Hepatica acutiloba
Hepatica americana
Hieracium aurantiacum
9761 Linnaea borealis
Lycopodium annotinum
Lycopodium clavatum
Lycopodium complanatum
Lycopodium lucidulum
Lycopodium obscurum
0986431 Maianthemum canadense
Medeola virginiana
Melampyrum lineare
Mitchella repens
Mitella diphylla

65432 Mitella nuda
Monotropa uniflora
Osmorhiza claytoni
Oxalis montana
Oxalis stricta
Polygala paucifolia
Polygonatum pubescens
Prenanthes alba
Pteridium aquilinum
Pyrola elliptica
Pyrola rotundifolia
Pyrola secunda
Ranunculus acris
Rhus radicans
Rubus pubescens
Sanguinaria canadensis
Smilacina racemosa
Smilacina stellata
Streptopus roseus
Tiarella cordifolia
5432 Trientalis borealis
Trillium erectum
Trillium grandiflorum
Uvularia sessilifolia
Viola canadensis
Viola cucullata
Viola pallens
Viola pubescens
Viola renifolia
Waldsteinia fragarioides

Additional species

Mon 123456890

Viola sp 12345689 incognita

Petasites palmatus 6

Habenaria sp 4, 6 obtusata.
Fuchones 158