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Site 3176: Manitou Island, Ashland County. 1956-07-01

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STAND RECORD

FORESTS

Stand No. 4

31762

Name: Manitou Island Locality: CENTRAL SOUTH
 County: Ashland [1956] T: R: Sec:
 Date: July 1, 1956 Observers: Cottam & Vogl
 Size of Stand: Most of Island Size of Area Sampled:
 Forest Type: Cedar - mixed hardwoods Soil Type: 40 Acres
 Topography: quite flat - top of Island Slope: Directions

Condition of Stand: Cut some time ago. No recent cutting. Deer population apparently increasing. Good cover of Taxus in most places but it is small, & is badly browsed. LIGHT 45 HI 65 40 at ground 30

Open Crown Trees:

% Canopy:

Stumps:

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

Soil Data:

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

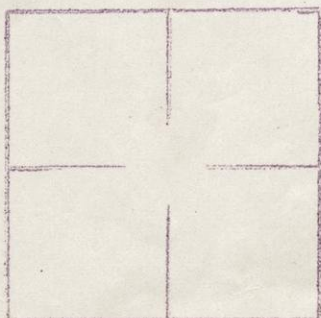
DEPTH

CHARACTERISTICS (Color, Texture, Structure, etc.)

A ₀	} 2"	BLACK ORGANIC MATTER WITH SOME MINERAL
A ₁		
A ₂	}	PINK - SANDY CLAY - HIGHLY COMPACTED
B		

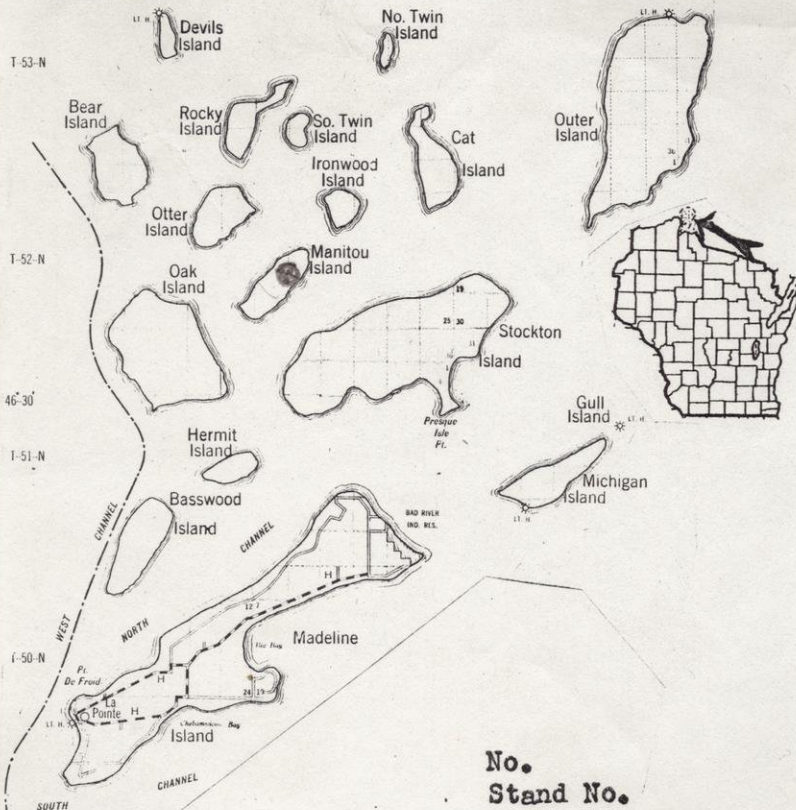
Parent Material:

Map:



Northern WISCONSIN ASHLAND County

APOSTLE ISLANDS in LAKE SUPERIOR



No.
Stand No.
Date:

Collected by

Grant Cottam
Richard J. Vogl

Plant Ecology Research
TREE DATA SUMMARY SHEET

University of Wisconsin

Northern Pine-Hardwoods

Station Number: 3176

104/160 103 51 6 13.742/160

TREE	# PTS	# TRS	DOM. CLASSES			TOT. DOM.	# SAP	D. % SAP	F. % SDL.	F. % TRS.	% SUM F. TR.	D. % TRS.	DOM% TRS.	DFD INDEX	C. I.
			-80	-320	321										
Abies bals	15	19	13	6	-	106	27	16.9			14.4	11.9	7.7	34.0	
Acer rubru	2	2	2	-	-	85	5	3.1			1.9	1.2	.6	3.7	
A. sacchar	15	19	6	10	3	2759	10	6.2			14.4	11.9	20.1	46.4	
A. spicatu	5														
Betula lut	15	21	8	11	2	3234	14	8.8			14.4	13.1	23.5	51.0	
B. papyrif	10	16	12	4	-	1160	8	5.0			9.6	10.0	8.4	28.0	
Carpinus c															
Fagus gran															
Ostrya vir	2	2	2	-	-	60					1.9	1.2	.4	3.5	
Picea glau															
Pinus Bank															
P. resinosa															
P. Strobus															
Populus ba															
P. grandid															
P. tremulo															
Prunus pen															
Quercus el															
Q. rubra															
Tilia amer	1	1	1	-	-	55					1.0	.6	.4	2.0	
Tsuga cana	10	12	2	9	1	2110	2	1.2			9.6	7.5	15.4	32.5	
Thuja occi	34	68	57	11	-	3218	94	58.8			32.7	42.5	23.4	98.6	
Ulmus amer								1000			99.9	99.9	99.9	299.7	
U. fulva															

AVE. DIST. BTW'N TREES:

12.2
ave. Sap. Dist. 11.4

AVE B. A.:

85.9

TREES/ACRE:

292.7
335.2

DOM./ACRE:

25142.9
174.6 db. ft.

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No.

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam	95 ✓	24	40 35	40 2	80 95			55 1		2 3
Acer rubrum	✓			55						
A. sacchar.	✓		✓	170	✓		320	✓	✓	
A. spicatum	✓				✓		✓		✓	
Betula lut.	45				12	130				35
B. papyrif			370					3		23 100
Carpinus car										
Fagus gran										
Ostrya virg	30				30					
Picea glau										
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem										
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer								55		
Tsuga can			240			210				
Thuja occ	45	110 4301313		✓ 15 2	120 4	35 18	18 170 4 20	18 3 24	1449 1 55	16 152
Ulmus amer										
U. fulva										
SAMPLING	11	30 15	10	5 12 7	10	5.5 9.5	9.5 8	14	9 3	6 8
DISTANCE	22	14 16	9.5 13.5	10.5 8	15	2 18	7.5 10	6	7 5	10 16
TREE	6	14 2	12	5 9	4 9	10.5 22	7.5 16	5	16	6.5 9.5
Distance	17.5	20 11.5	21	8 18	7 13	13 18	18 13	5.5 13	15 19	9 5

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2/2

1/1

2/2

18/9

Manitowish

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 4

STATION NO.	11	12	13	14	5	6	7	8	9	10
Abies balsam		65	22 30 40	3 55 1	1		2	20	1	1
Acer rubrum	✓		✓			1			✓	
A. sacchar.	100	200 320	✓ 1	16 75	2	520		1		1
A. spicatum	✓		✓		✓		✓		✓	
Betula. lut.		1								310
B. papyrif	40	1				1	70	30 35 70	3	
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	260		260		120					
Thuja occ	75	4 70	2	55	1 95 25	5 45, 14 80, 50	2 45, 65 70, 35	✓ 35 2 20	2 26	1 22 2 22 180
Ulmus amer										
U. fulva										
Sampling Distance	18, 8 18, 31	10, 7 4, 13	23, 25 12, 13	26, 7 9, 14	12-13 13-8	13-16 21, 8	14, 18 19, 30	3, 5 14, 13	5, 7 9, 14	7, 12 12, 6
Distance	6, 21 23, 14	8, 6 25, 34	13-11 20, 5	16-16 10-33	6, 8 16, 19	15, 18 14, 23	4-13 22, 13	3-5 11, 16	6, 5 13, 20	4, 8 10, 17

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POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 4

STATION NO.	31	32	33	34	35	36	37	38	39	40
Abies balsam	115	40	380							1
Acer rubrum						30	2			
A. sacchar.	110	✓ 100			✓			2		
A. spicatum		✓			✓		✓		✓	
Betula lutea	230	160	350	12	80 55	20 190		150 120	45 315	21 150
B. papyrifera				70 24	2					
Carpinus caroliniana										
Fagus grandifolia										
Ostrya virginica										
Picea glauca										
Pinus Banksiana										
P. resinosa										
P. strobus										
Populus balsamifera										
P. grandidentata										
P. tremula										
Prunus pennsylvanica										
Quercus ellipsoides										
Q. rubra										
Tilia americana										
Tsuga canadensis					320		1		20 95	1
Thuja occidentalis	18	4	40	70 27	3	26	14	20 30	35 3	130
Ulmus americana										
U. fulva										
Sampling dist	3, 3- 5, 9	3, 4- 7, 9	21, 10- 8, 25	8, 5- 20, 15	9, 7- 28, 24	4-5- 8-5	11, 11- 14, 12	5, 9- 20, 15	15, 16- 9, 14	8-10- 17, 15
Distance	10-16 17, 10	12, 11 12, 17	4, 5- 15, 14	3-7 11, 12	11-15 8, 12	5-22 8, 20	2, 8, 11 14	8, 8, 13.5 11, 16	19, 23 16, 5	7, 8 5-20

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4/1

2/2

14/9

2/1

3/2

15/9

SPECIES	T	H	M	L	O
TO				 	64
TAX		 			31
AB		1			13
CC					13
AS				 	29
AC			1		9 /
TC				1	1
		28	25	41	66

STAND 3176

BROWSE CONDITION BY SPECIES %

SPECIES	T	H	M	L	O	TOTAL
TO		6.3	12.5	25.0	56.3	100.1
TAX		48.4	29.0	22.6		100.0
AB		7.7		23.1	69.2	100.0
AS		17.2	24.1	31.0	27.6	99.9
CC		23.1		23.1	53.8	100.0
AC			11.1	22.2	66.7	100.0
TC				100.0		100.0

% EACH SPECIES CONTRIBUTES TO
EACH BROWSE CATEGORY

	TO	TAX	AB	AS	CC	AC	TC	TOTAL
T								
H	14.3	53.6	3.6	17.9	10.7			100.1
M	32.0	36.0		28.0		4.0		100.0
L	39.0	17.1	7.3	22.0	7.3	4.9	2.4	100.0
O	54.5		13.6	12.1	10.6	9.1		99.9

% EACH CATEGORY CONTRIBUTES
TO TOTAL BROWSE = CATEGORY TOTAL/160

T	H	M	L	O	TOTAL
	17.5	15.6	25.6	41.3	100.0

		% BROWSE SPECIES					
TO	TAX	AB	AS	CC	AC	TC	TOTAL
40.0	19.4	8.1	18.1	8.1	5.6	.6	99.9

377p STAND 4

PT #	SP	DIS	CON	SP	DIS	CON	SP	DIS	CON	SP	DIS	CON	COMMENTS
1	CC	10	0	AB	12	0	AB	10	0	TO	16	0	SMALL TAXUS, SOME BROUSED HEAVY
2	TO	15	0	TO	2	0	AB	8	0	TO	7.5	0	
3	TO	4.5	L	TO	9	L	TO	5	0	TO	33	0	
4	TO	3	0	TO	5	0	TO	2	0	TO	7	M	
5	CC	2.5	0	TO	8	L	TAX	5	H	TO	7	L	
6	TO	7	L	TO	3	L	TO	10	0	TO	10	L	
7	TO	6	M	TO	7	M	TAX	6.5	L	TAX	13.5	M	
8	TAX	3	H	TAX	6	H	CC	6	0	CC	5	0	
9	AS	6	D	AS	7.5	0	TO	6	0	TO	14	L	
10	TAX	8	L	TO	4.5	L	AB	5.5	0	TAX	13.5	H	
11	CC	2	H	TO	5	M	TAX	6	H	TAX	1	H	
12	AB	4	L	TO	6	0	TAX	5	H	AB	3	H	
13	CC	13	L	AS	13	0	AC	15	0	AB	17	0	
14	TAX	11	M	AC	9	0	TAX	20	H	TAX	21	H	
15	CC	6	0	TO	10	M	TAX	7	M	AS	8	L	
16	TO	4	0	TO	7	0	TO	6	0	AC	12	0	
17	TO	4	M	TO	2	M	TO	5	H	AB	8	0	
18	TAX	5	L	TAX	6	H	AC	3	L	CC	6	0	
19	AC	6	L	AB	9	L	TO	13	0	AS	17	0	
20	AB	8	0	TAX	29	L	TO	35	L	TO	5	0	
21	TO	5.5	0	AB	3.5	0	TO	7.5	0	TO	7.5	0	
22	TO	2	L	TO	6.5	0	TAX	9.5	H	TO	8	0	
23	TO	3.5	L	TO	.5	0	AS	10	0	AC	5.5	M	
24	CC	4.5	H	CC	6.5	H+	CC	5	H	TAX	9.5	M	
25	AS	6.5	L	AS	7	L	AS	7	L	AS	9.5	L	
26	TO	7.5	0	AS	6.5	H	AB	9	0	AS	9	H	
27	AS	7.5	H	AS	5.5	M	TO	23	0	AS	28	0	
28	AS	5	TO	TO	8.5	H	TAX	4	M	TAX	5	M	
29	TO	14	H	TAX	19	L	TO	26	L	TO	16	L	
30	TAX	4.5	M	TAX	18	H	TO	9	0	TO	17	L	
31	TO	9	0	TC	8	L	TO	1	0	AS	8	M	
32	TAX	3	L	AB	2	L	TO	12	M	AS	9	H	
33	AS	7	0	CC	12	L	TO	18	0	AC	25	0	
34	AC	4	0	AS	12	L	AS	6	L	AS	9	L	
35	AS	7	L	TO	11	H	TO	9	0	TAX	6	H	
36	TO	3	0	TO	3	0	TO	7	0	TO	12	0	
37	AS	6	H	CC	10	D	TO	9	0	TAX	33	H	
38	TO	8	L	AS	8	M	AC	4	0	AS	8	M	
39	AS	3	M	AS	6	M	TAX	4	H	AS	3	M	
40	TO	3	0	TAX	2	L	TAX	4	M	TAX	4	M	1356.0

AC Acer saccharum
TC Tsuga canadensis

Ave dist. 8.48
Browse per acre 605.8

Data Form No. 18

Plant Ecology Research

Univ. of Wisconsin

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 4
Quadrat No. 1-10

<i>Actaea pachypoda</i>	<i>Fragaria virginiana</i>	<i>Potentilla simplex</i>
<i>Actaea rubra</i>	<i>Galium lanceolatum</i>	<i>Prenanthes alba</i>
<i>Adiantum pedatum</i>	<i>Galium triflorum</i>	<i>Pteridium aquilinum</i>
<i>Allium tricoccum</i>	<i>Gaultheria procumbens</i>	<i>Pyrola elliptica</i>
<i>Anemone quinquefolia</i>	<i>Gaylussacia baccata</i>	<i>Pyrola rotundifolia</i>
<i>Aquilegia canadensis</i>	<i>Geranium maculatum</i>	<i>Pyrola secunda</i>
<i>Aralia nudicaulis</i>	<i>Geum canadense</i>	<i>Ranunculus recurvatus</i>
<i>Aralia racemosa</i>	<i>Gnaphalium obtusifolium</i>	<i>Rhus radicans</i>
<i>Arisaema atrorubens</i>	<i>Helianthemum sp.</i>	<i>Ribes americanum</i>
<i>Aster macrophyllus</i>	<i>Helianthus strumosus</i>	<i>Rosa sp.</i>
<i>Aster sagittifolius</i>	<i>Hepatica acutiloba</i>	<i>Rubus parviflorus</i>
<i>Athyrium angustum</i>	<i>Hepatica americana</i>	<i>Rubus (blackberry)</i>
<i>Botrychium virginianum</i>	<i>Impatiens biflora</i>	<i>Rubus (dewberry)</i>
<i>Brachyelytrum erectum</i>	<i>Linnaea borealis</i>	<i>Sambucus pubens</i>
<i>Carex albursina</i>	<i>Lonicera oblongifolia</i>	<i>Sanguinaria canadensis</i>
<i>Caulophyllum thalictroides</i>	<i>Lupinus perennis</i>	<i>Sanicula gregaria</i>
<i>Chimaphila umbellata</i>	<i>Lycopodium annotinum</i>	<i>Smilacina racemosa</i>
<i>Circaea alpina</i>	<i>Lycopodium complanatum</i>	<i>Smilacina stellata</i>
<i>Circaea latifolia</i>	5 <i>Lycopodium lucidulum</i>	<i>Smilax ecirrhata</i>
7,1 <i>Clintonia borealis</i>	<i>Lycopodium obscurum</i>	<i>Solidago ulmifolia</i>
<i>Coptis trifolia</i>	<i>Lysimachia quadrifolia</i>	<i>Streptopus roseus</i>
<i>Corallorrhiza maculata</i>	<i>Maianthemum canadense</i>	9,7 <i>Taxus canadensis</i>
<i>Cornus alternifolia</i>	<i>Mitchella repens</i>	<i>Thalictrum dioicum</i>
<i>Cornus canadensis</i>	<i>Mitella diphylla</i>	<i>Trientalis borealis</i>
<i>Cornus rugosa</i>	<i>Mitella nuda</i>	<i>Trillium grandiflorum</i>
<i>Corylus americana</i>	<i>Monotropa uniflora</i>	<i>Uvularia grandiflora</i>
<i>Corylus cornuta</i>	<i>Myrica asplenifolia</i>	<i>Uvularia sessilifolia</i>
<i>Cypripedium acaule</i>	<i>Onoclea sensibilis</i>	<i>Vaccinium angustifolium</i>
<i>Diervilla lonicera</i>	<i>Oryzopsis asperifolia</i>	<i>Vaccinium pennsylvanicum</i>
<i>Dirca palustris</i>	<i>Osmorhiza claytoni</i>	<i>Viburnum acerifolium</i>
<i>Dryopteris linnaeana</i>	<i>Oxalis montana</i>	<i>Viola canadensis</i>
<i>Dryopteris phegopteris</i>	<i>Phryma leptostachya</i>	<i>Viola cucullata</i>
<i>Dryopteris spinulosa</i>	<i>Polygala pauciflora</i>	<i>Viola pallens</i>
<i>Epifagus virginiana</i>	<i>Polygonatum commutatum</i>	<i>Viola pubescens</i>
<i>Epigaea repens</i>	<i>Polygonatum pubescens</i>	<i>Waldsteinia fragarioides</i>

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No.
Quadrat No.

<i>Actaea pachypoda</i>	<i>Fragaria virginiana</i>	<i>Potentilla simplex</i>
<i>Actaea rubra</i>	<i>Galium lanceolatum</i>	<i>Prenanthes alba</i>
<i>Adiantum pedatum</i>	<i>Galium triflorum</i>	<i>Pteridium aquilinum</i>
<i>Allium tricoccum</i>	<i>Gaultheria procumbens</i>	<i>Pyrola elliptica</i>
<i>Anemone quinquefolia</i>	<i>Gaylussacia baccata</i>	<i>Pyrola rotundifolia</i>
<i>Aquilegia canadensis</i>	<i>Geranium maculatum</i>	<i>Pyrola secunda</i>
<i>Aralia nudicaulis</i>	<i>Geum canadense</i>	<i>Ranunculus recurvatus</i>
<i>Aralia racemosa</i>	<i>Gnaphalium obtusifolium</i>	<i>Rhus radicans</i>
<i>Arisaema atrorubens</i>	<i>Helianthemum sp.</i>	<i>Ribes americanum</i>
<i>Aster macrophyllus</i>	<i>Helianthus strumosus</i>	<i>Rosa sp.</i>
<i>Aster sagittifolius</i>	<i>Hepatica acutiloba</i>	<i>Rubus parviflorus</i>
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<i>Brachyelytrum erectum</i>	<i>Linnaea borealis</i>	<i>Sambucus pubens</i>
<i>Carex albursina</i>	<i>Lonicera oblongifolia</i>	<i>Sanguinaria canadensis</i>
<i>Caulophyllum thalictroides</i>	<i>Lupinus perennis</i>	<i>Sanicula gregaria</i>
<i>Chimaphila umbellata</i>	<i>Lycopodium annotinum</i>	<i>Smilacina racemosa</i>
<i>Circaea alpina</i>	<i>Lycopodium complanatum</i>	<i>Smilacina stellata</i>
<i>Circaea latifolia</i>	17, 13, 11 <i>Lycopodium lucidulum</i>	<i>Smilax ecirrhata</i>
<i>Clintonia borealis</i>	<i>Lycopodium obscurum</i>	<i>Solidago ulmifolia</i>
<i>Coptis trifolia</i>	<i>Lysimachia quadrifolia</i>	13 <i>Streptopus roseus</i>
<i>Corallorrhiza maculata</i>	19 <i>Maianthemum canadense</i>	14, 17, 15, 13, 11 <i>Taxus canadensis</i>
<i>Cornus alternifolia</i>	<i>Mitchella repens</i>	<i>Thalictrum dioicum</i>
<i>Cornus canadensis</i>	<i>Mitella diphylla</i>	<i>Trientalis borealis</i>
<i>Cornus rugosa</i>	<i>Mitella nuda</i>	<i>Trillium grandiflorum</i>
<i>Corylus americana</i>	<i>Monotropa uniflora</i>	<i>Uvularia grandiflora</i>
<i>Corylus cornuta</i>	<i>Myrica asplenifolia</i>	<i>Uvularia sessilifolia</i>
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<i>Diervilla lonicera</i>	<i>Oryzopsis asperifolia</i>	<i>Vaccinium pennsylvanicum</i>
<i>Dirca palustris</i>	<i>Osmorhiza claytoni</i>	<i>Viburnum acerifolium</i>
<i>Dryopteris linnaeana</i>	<i>Oxalis montana</i>	<i>Viola canadensis</i>
<i>Dryopteris phegopteris</i>	<i>Phryma leptostachya</i>	<i>Viola cucullata</i>
17 <i>Dryopteris spinulosa</i>	<i>Polygala pauciflora</i>	<i>Viola pallens</i>
<i>Epifagus virginiana</i>	<i>Polygonatum commutatum</i>	<i>Viola pubescens</i>
<i>Epigaea repens</i>	<i>Polygonatum pubescens</i>	<i>Waldsteinia fragarioides</i>

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

MANITOU
Stand No. 4
Quadrat No. 21-30

<i>Actaea pachypoda</i>	<i>Fragaria virginiana</i>	<i>Potentilla simplex</i>
<i>Actaea rubra</i>	<i>Galium lanceolatum</i>	<i>Prenanthes alba</i>
<i>Adiantum pedatum</i>	<i>Galium triflorum</i>	<i>Pteridium aquilinum</i>
<i>Allium tricoccum</i>	<i>Gaultheria procumbens</i>	<i>Pyrola elliptica</i>
<i>Anemone quinquefolia</i>	<i>Gaylussacia baccata</i>	<i>Pyrola rotundifolia</i>
<i>Aquilegia canadensis</i>	<i>Geranium maculatum</i>	<i>Pyrola secunda</i>
<i>Aralia nudicaulis</i>	<i>Geum canadense</i>	<i>Ranunculus recurvatus</i>
<i>Aralia racemosa</i>	<i>Gnaphalium obtusifolium</i>	<i>Rhus radicans</i>
<i>Arisaema atrorubens</i>	<i>Helianthemum</i> sp.	<i>Ribes americanum</i>
<i>Aster macrophyllus</i>	<i>Helianthus strumosus</i>	<i>Rosa</i> sp.
<i>Aster sagittifolius</i>	<i>Hepatica acutiloba</i>	<i>Rubus parviflorus</i>
<i>Athyrium angustum</i>	<i>Hepatica americana</i>	<i>Rubus</i> (blackberry)
<i>Botrychium virginianum</i>	<i>Impatiens biflora</i>	<i>Rubus</i> (dewberry)
<i>Brachyelytrum erectum</i>	<i>Linnaea borealis</i>	<i>Sambucus pubens</i>
<i>Carex albursina</i>	<i>Lonicera oblongifolia</i>	<i>Sanguinaria canadensis</i>
<i>Caulophyllum thalictroides</i>	<i>Lupinus perennis</i>	<i>Sanicula gregaria</i>
<i>Chimaphila umbellata</i>	<i>Lycopodium annotinum</i>	<i>Smilacina racemosa</i>
<i>Circaea alpina</i>	<i>Lycopodium complanatum</i>	<i>Smilacina stellata</i>
<i>Circaea latifolia</i>	<i>Lycopodium lucidulum</i>	<i>Smilax ecirrhata</i>
<i>Clintonia borealis</i>	<i>Lycopodium obscurum</i>	<i>Solidago ulmifolia</i>
<i>Coptis trifolia</i>	<i>Lysimachia quadrifolia</i>	27 <i>Streptopus roseus</i>
<i>Corallorrhiza maculata</i>	<i>Maianthemum canadense</i>	29, 23 <i>Taxus canadensis</i>
<i>Cornus alternifolia</i>	<i>Mitchella repens</i>	<i>Thalictrum dioicum</i>
<i>Cornus canadensis</i>	<i>Mitella diphylla</i>	<i>Trientalis borealis</i>
<i>Cornus rugosa</i>	<i>Mitella nuda</i>	<i>Trillium grandiflorum</i>
<i>Corylus americana</i>	<i>Monotropa uniflora</i>	<i>Uvularia grandiflora</i>
<i>Corylus cornuta</i>	<i>Myrica asplenifolia</i>	<i>Uvularia sessilifolia</i>
<i>Cypripedium acaule</i>	<i>Onoclea sensibilis</i>	<i>Vaccinium angustifolium</i>
<i>Diervilla lonicera</i>	<i>Oryzopsis asperifolia</i>	<i>Vaccinium pennsylvanicum</i>
<i>Dirca palustris</i>	<i>Osmorhiza claytoni</i>	<i>Viburnum acerifolium</i>
<i>Dryopteris linnaeana</i>	<i>Oxalis montana</i>	<i>Viola canadensis</i>
<i>Dryopteris phegopteris</i>	<i>Phryma leptostachya</i>	<i>Viola cucullata</i>
25, 21 <i>Dryopteris spinulosa</i>	<i>Polygala pauciflora</i>	<i>Viola pallens</i>
<i>Epifagus virginiana</i>	<i>Polygonatum commutatum</i>	<i>Viola pubescens</i>
<i>Epigaea repens</i>	<i>Polygonatum pubescens</i>	<i>Waldsteinia fragarioides</i>

21 CAREX SP.

25, 21 GRASS ?

25 GRASS ?

25, 21 VIOLA INCOGNITA

PRESENCE LIST

NORTHERN PINE-HARDWOODS

STAND NO.

X *Abies balsamea*
 X *Acer rubrum*
 X *Acer saccharum*
 X *Acer spicatum*
 X *Amelanchier* sp.
 X *Betula lutea*
 X *Betula papyrifera*
Caprinus caroliniana
Carya cordiformis
Crataegus sp.
Fagus grandiflora
Fraxinus americana
Fraxinus nigra

Fraxinus pennsylvanica
Juglans cinerea
Larix laricina
 X *Ostrya virginiana*
Picea glauca
Pinus banksiana
Pinus resinosa
Pinus strobus
Populus balsamifera
Populus grandidentata
Populus tremuloides
Prunus pennsylvanica
Prunus serotina

Prunus virginiana
Quercus alba
Quercus ellipsoidalis
Quercus macrocarpa
Quercus rubra
Sorbus decora
 X *Thuja occidentalis*
 X *Tilia americana*
 X *Tsuga canadensis*
Ulmus americana
Ulmus fulva

HERBS AND SHRUBS

Actaea pachypoda
Actaea rubra
Adiantum pedatum
Agrimonia gryposepala
Allium tricoccum
Alnus rugosa
Amphicarpa bracteata
Anemone canadensis
Anemone quinquefolia
Antennaria sp.
Apocynum androsaemifolium
Apocynum cannabinum
Aquilegia canadensis
 X *Aralia nudicaulis*
Aralia racemosa
Arctostaphylos uva-ursi
Arisaema atrorubens
Asarum canadense
Asclepias phytolaccoides
Aster cordifolius
Aster lateriflorus
Aster macrophyllus
Aster prenanthoides
Aster sagittifolius
Aster shortii
Aster umbellatus
Athyrium angustum
Aureolaria pedicularia
Boehmeria cylindrica
Botrychium virginianum
Brachyelytrum erectum
Bromus purgans
Campanula americana
Carex albursina
Carex pensylvanica
Caulophyllum thalictroides
Celastrus scandens
Chimaphila umbellata
Chiogenes hispidula

Circaea alpina
Circaea latifolia
Claytonia caroliniana
Claytonia virginiana
 X *Clintonia borealis*
Convolvulus spithameus
Coptis trifolia
Corallorrhiza maculata
Corallorrhiza striata
Cornus alternifolia
Cornus canadensis
Cornus femina
Cornus rugosa
Corylus americana
 X *Corylus cornuta*
Cryptotaenia canadensis
Cypripedium acaule
Cypripedium pubescens
Cystopteris fragilis
Danthonia spicata
Dentaria diphylla
Desmodium glutinosum
Desmodium nudiflorum
Dicentra canadensis
Dicentra cucullaria
Diervilla lonicera
Dirca palustris
Dryopteris linneana
 X *Dryopteris phegopteris*
 X *Dryopteris spinulosa*
Epifagus virginiana
Epigaea repens
Equisetum arvense
Erythronium americanum
Fragaria virginiana
Galium aparine
Galium boreale
Galium circaeans
Galium concinnum

Galium lanceolatum
 X *Galium triflorum*
Gaultheria procumbens
Gaylussacia baccata
Geranium maculatum
Geum canadense
Gnaphalium obtusifolium
 X *Goodyera pubescens*
 X *Goodyera repens*
Habenaria bracteata
Hamamelis virginiana
Helianthus strumosus
Hepatica acutiloba
Hepatica americana
Hieracium canadense
Hydrophyllum virginianum
Hystrix patula
Impatiens biflora
Lactuca canadensis
Laportea canadensis
Lappula virginica
Lathyrus ochroleucus
Ledum groenlandicum
Linnaea borealis
Lonicera canadensis
Lonicera hirsuta
Lonicera oblongifolia
Lonicera prolifera
Luzula multiflora
Lycopodium annotinum
Lycopodium clavatum
Lycopodium complanatum
Lycopodium lucidulum
 X *Lycopodium obscurum*
Lycopodium tristachyum
Lycopus americanus
Lycopus uniflora
Lysimachia quadrifolia
Maianthemum canadense

PRESENCE LIST

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Fraxinus americana
Fraxinus nigra

Fraxinus pennsylvanica
Juglans cinerea
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Pinus resinosa
Pinus strobus
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Populus grandidentata
Populus tremuloides
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Prunus serotina

Prunus virginiana
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Quercus ellipsoidalis
Quercus macrocarpa
Quercus rubra
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Ulmus fulva

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Lycopodium lucidulum
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Lycopodium tristachyum
Lycopus americanus
Lycopus uniflora
Lysimachia quadrifolia
Maianthemum canadense

Melampyrum lineare
 Mitchella repens
 Mitella diphylla
 Mitella nuda
 Monarda fistulosa
 Moneses uniflora
 Monotropa uniflora
 Myrica asplenifolia
 Onoclea sensibilis
 Oryzopsis asperifolia
 Osmorhiza claytoni
 Osmunda cinnamomea
 Osmunda claytoniana
 Oxalis montana
 Panax quinquefolia
 Parietaria pennsylvanica
 Parthenocissus vitacea
 Pedicularis lanceolata
 Phyrma leptostachya
 Podophyllum peltatum
 Polemonium reptans
 Polygala pauciflora
 Polygonatum commutatum
 Polygonatum pubescens
 Potentilla simplex
 Prenanthes alba
 Pteretis nodulosa
 Pteridium aquilinum

Pyrola elliptica
 Pyrola rotundifolia
 Pyrola secunda
 Ranunculus abortivus
 Ranunculus recurvatus
 Ranunculus septentrionalis
 Rhus radicans
 Rhus typhina
 Ribes americanum
 Ribes cynosbati
 Ribes lacustre
 Ribes triste
 Rubus idaeus
 Rubus parviflorus
 Rubus hispidus
 Rubus - blackberry
 Rubus - dewberry
 Rubus - raspberry
 Sambucus canadensis
 Sambucus pubens
 Sanguinaria canadensis
 Sanicula gregaria
 Schizachne purpurascens
 Scutellaria lateriflora
 Shepherdia canadensis
 Smilacina racemosa
 Smilacina stellata
 Smilax ecirrhata

Smilax herbacea
 Smilax hispida
 Solidago latifolia
 Solidago ulmifolia
 Streptopus amplexifolius
 X Streptopus roseus
 X Taxus canadensis
 Thalictrum dioicum
 Tiarella cordifolia
 X Trientalis borealis
 Trillium cernuum
 Trillium grandiflorum
 Uvularia grandiflora
 Uvularia sessilifolia
 Vaccinium angustifolium
 Vaccinium pennsylvanicum
 Viburnum acerifolium
 Viburnum affine
 Viburnum lentago
 Viola canadensis
 Viola cucullata
 X Viola incognita
 Viola pallens
 Viola pubescens
 Vitis aestivalis
 Vitis riparia
 Waldsteinia fragarioides
 Zanthoxylum americanum

Additional Species:

Dryopteris disjuncta