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Site 3216: Michigan Island #2, Ashland County. 1956-08-14

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Data Form No. 20

Plant Ecology Research

Univ. of Wisconsin

STAND RECORD

FORESTS

Stand No. 3216L

Name: MICHIGAN ISLAND #2

Locality: SOUTH-EAST

County: ASHLAND

T:

R:

Sec:

Date: 8-14-56

Observers: RICHARD + MIKE VOGL

Size of Stand 40 ACRES

Size of Area Sampled: 20 ACRES

Forest Type: BETULA Papyrifera - Lutea

Soil Type:

Topography: LEVEL - JUST ABOVE LAKE LEVEL

Directions

Condition of Stand: STAND HAD BEEN CUT, BUT NOT VERY RECENTLY. THIS STAND WAS ON LOW GROUND BETWEEN SAND DUNES AND STEEP BANK ON INSIDE. IT WAS BORDERED BY A SLOUGH OF WEST SIDE. TAXUS VERY ABUNDANT.

Open Crown Trees:

% Canopy: 60 20 SCALE

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

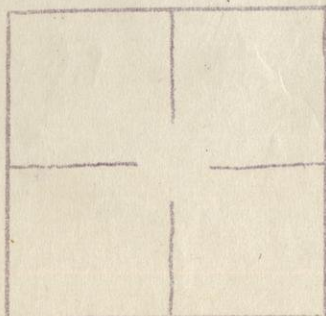
CHARACTERISTICS (Color, Texture, Structure, etc.)

A ₀	2"	compacted lacciduous leaves
A ₁	1"	sandy (black)
A ₂	2"	sandy (light brown)
B	3"	sandy (reddish brown)

Parent Material:

ENTIRE PROFILE, OVER 1'

Map:



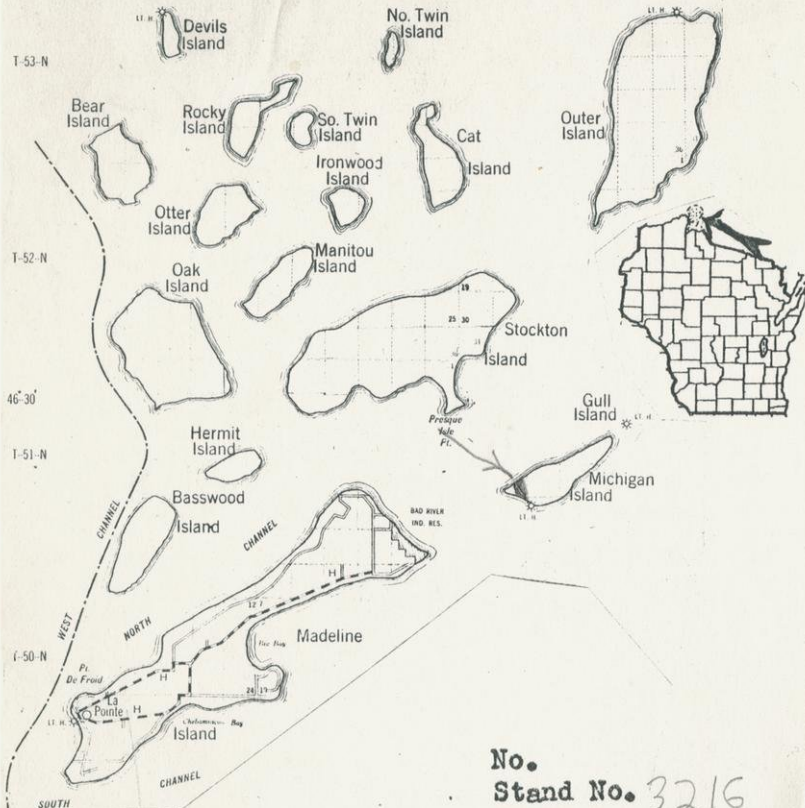
R-3-W

R-2-W

R-1-W

Northern WISCONSIN ASHLAND County

APOSTLE ISLANDS in LAKE SUPERIOR



No.
Stand No. 3216
Date:

Collected by

Grant Cottam
Richard J. Vogl

Northern Pine-Hardwoods

Station Number:

3216

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	12	19	18	1		877	57	35.6			13.6	11.9	8.0	33.5	
Acer rubru	9	10	8	2		488	10	6.3			10.2	6.2	4.4	20.8	
A. sacchar	2	3	2	1		170	11	6.9			2.3	1.9	1.6	5.8	
A. spicatu															
Betula lut	25	43	34	8	1	3323	46	28.8			28.4	26.9	36.3	85.6	
B. papyrif	33	77	49	28		5672	20	12.5			37.5	48.1	51.8	137.4	
Carpinus c															
Fagus gran															
Ostrya vir															
Picea glau															
Pinus Bank															
P. resinosa															
P. Strobus															
Populus ba															
P. grandid															
P. tremulo															
Prunus pen															
Quercus el															
Q. rubra															
Tilia amer															
Tsuga cana	1	1		1		130					1.1	.6	1.2	2.9	
Thuja occi	5	6	5	1		255	11	6.9			5.7	3.8	2.3	11.8	
Ulmus amer															
U. fulva															
PYRUS AMER	1	1	1			35	5	3.1			1.1	.6	.3	2.0	
								100.1			99.9	100.0	99.9	299.8	

AVE. DIST. BTW'N TREES: 12.6
Ave. Sap. Dist. 17.3

AVE B. A.: 68.4

TREES/ACRE: 274.4
145.5DOM./ACRE:
1876.9
130.3

POINT RECORD TREES APOSTLE ISLANDS

3216

Point Number	1	2	3	4	5	6	7	8	9	10	
<i>Abies balsamea</i>	50				45	45	50 30				4/5
<i>Acer rubrum</i>	2	55 12	45	90		2	2	1	4	2	4/5
<i>Acer saccharum</i>	✓	2		2	95		1	1			1/1
<i>Betula lutea</i>	35	50	25 16	55 70	40	50 50 65	75 50	40 100 45	30 70 32	85 115	10/20
<i>Betula papyrifera</i>	20 45	50	45		21		2		75		5/6
<i>Quercus rubra</i>											
<i>Tsuga canadensis</i>											
<i>Thuja occidentalis</i>					28					20 20	2/3
									2	1	
Tree distance	13 7 9.5 22	6 12 19 14	8.5 11 7.5 7	10 29 5 15	11.5 17 19 22	5 10.5 14 15	8.5 9.5 14.5 16.5	11 19 13.5 23	10.5 10.5 16 8	4 15 7 24	
Sapling distance	17 13 5 14	5 6 8 10	9.5 13 12.5 11	11.5 15 13 40	20.5 40 32 23	8 13 15 36	21 12 16 40	11 15 20 24	21 23 50 36	7 9 22 21	

POINT RECORD TREES APOSTLE ISLANDS

3216

Point Number	1	2	3	4	5	6	7	8	9	20	
<i>Abies balsamea</i>			25				45				$\frac{2}{2}$
<i>Acer rubrum</i>		1	2	1			2		1	8	$\frac{1}{1}$
<i>Acer saccharum</i>			✓								
<i>Betula lutea</i>	35 15 55 21	25 55 45 3	200				17 800	35	55		$\frac{6}{12}$
<i>Betula papyrifera</i>		40	190	28 170 120 110	120 55 180	55 85 18 95	40	70 100	95 160 60	210 95 60 55	$\frac{9}{23}$
<i>Quercus rubra</i>											
<i>Tsuga canadensis</i>											
<i>Thuja occidentalis</i>	9			1	3	22		120			$\frac{2}{2}$
PYROS AMER.			1	1							
Tree distance	20 12 9 9	12 10 12 14	8 18 8 8.5	8 13.5 7.5 12	9.5 6 4.5 7	10 10.5 14 18	10 17 8.5 14	13 13 21.5 17.5	14 16.5 25 28	10.5 15 16 18	
Sapling distance	10 25 24 35	10 28 13 18	12.5 16 32 25	12.5 21 18 31	11 23 24 20	9 17 11.5 18.5	15 18 8 21.5	9.5 11.5 13.5 20	21 18 32 36	17 13.5 19 20	

POINT RECORD TREES APOSTLE ISLANDS

3216

Point Number	21	22	23	24	25	26	27	28	29	30	
<i>Abies balsamea</i>									85		1/1
<i>Acer rubrum</i>		3	4	1	3	3		1	3	2	
<i>Acer saccharum</i>											
<i>Betula lutea</i>	40			100 15	75	55 95	28		16		6/7
<i>Betula papyrifera</i>	1 110 130 45 11	45 17 25 3	65 110 40	80 160 75.3	85 110	26 14	25 100 90 1	85 55 24 70	80 95	17 30 25 150	1/29
<i>Quercus rubra</i>											
<i>Tsuga canadensis</i>			130								1/1
<i>Thuja occidentalis</i>					45						1/1
PYROS AMER		35									1/1
	2	1									
Tree distance	4 815 26 105	12.5 13 19 13	9 10.5 10.5 14	5 27 21 17.5	6 11 7 19	10.5 20 18 13	5 4 14 34	5 9.5 14 8	5 19 7 14.5	3 6 10.5 9	
Sapling distance	10 28 6 48	11 10.5 17 15	10.5 23 24 24	12.5 14.5 13.5 20	17 23 13 17.5	26 24 23 20	21.5 7 6 35	7.5 7 6 23	7.5 7 13 18	20 17 27 44	

POINT RECORD TREES APOSTLE ISLANDS

3216

Point Number	31	32	33	34	35	36	37	38	39	40	
<i>Abies balsamea</i>	14 55 1		23 40 70 1	1	2		70 40 85 1		55 45 2	55 1	5/11
<i>Acer rubrum</i>		4		16	25	35		175			4/4
<i>Acer saccharum</i>				1		2			1		1/2
						20 55 1	2				
<i>Betula lutea</i>		28 300					85	45			3/4
	1		1	1				3		3	
<i>Betula papyrifera</i>	70 190 2	40 75	35	160 35 40 11	160 15 22 12	16		60 50	120 55 1	14 20 45	9/19
<i>Quercus rubra</i>			2			1	1				
<i>Tsuga canadensis</i>											
<i>Thuja occidentalis</i>											
Tree distance	13 21 17 8	13.5 14 15 10.5	20 8 7 10	20 17 15 8	16 9.5 7 10.5	8.5 8 9.5 12	6 8 13 26	15 8 4 10.5	3 7 6 5	7 11 15 11	
Sapling distance	11 17 19 30	7 8 10.5 15	17 8 18 15	16 21 9.5 5.5	27 15 17 14	16 11 13 8	11 23 13 8	3 15 17 26	8 6 14 11	6 7 11 9.5	

STAND # 3216

T H M L O

SPECIES

TAX

|||||

|||||
|||||
||||| 125

AB

||

|||||
||||| 16

AS

||||

|||||

||||

16

AC

||

2

BP

1

1

18

42

61

39

STAND # 3216

BROWSE CONDITION BY SPECIES

SPECIES	T	H	M	L	O	TOTAL
TAX		10.4	28.0	43.2	18.4	100.0
AB				12.5	87.5	100.0
AS		31.3	37.5	31.2		100.0
AC					100.0	100.0
BP			100.0			100.0

% EACH SPECIES CONTRIBUTES TO EACH BROWSE SPECIES

	TAX	AB	AS	AC	BP	TOTAL
T	72.2		27.8			100.0
H	83.3		14.3		2.4	100.0
M	88.5	3.3	8.2			100.0
L	59.0	35.9		5.1		100.0

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

T	H	M	L	O	TOTAL
	11.3	26.2	38.1	24.4	100.0

% BROWSE SPECIES

TAX	AB	AS	AC	BP	TOTAL
78.1	10.0	10.0	1.3	.6	100.0

DEER DAMAGE REPORT FORM

Stand No. 3216

120.5				128.0				158.5				214.0			
Pt. No.	Sp	Dis	Con	Sp	Dis	Con	Sp	Dis	Con	Sp	Dis	Con	Sp	Dis	Con
1	TAX	2	M	AS	4	M	TAX	3	L	TAX	7	M			
2	AC	4	O	AS	8	H	AS	3	L	TAX	14	H			
3	TAX	3	M	TAX	2	M	TAX	1.5	M	TAX	4	M			
4	TAX	3	H	TAX	4	L	TAX	8	H	AB	7	L			
5	TAX	3	O	TAX	6		AB	6	O	AS	10	L			
6	AB	7	O	AB	8	O	TAX	9.5	H	AB	15	L			
7	TAX	3	L	TAX	7	M	TAX	6	H	TAX	5	H			
8	AB	3	O	TAX	8	H	AB	7	O	TAX	6	M			
9	TAX	5	O	TAX	1.5	L	TAX	2	M	TAX	3	M			
10	TAX	3	L	TAX	2	M	TAX	4	L	TAX	8	L			
11	TAX	3	L	TAX	2	L	TAX	3.5	H	TAX	10	M			
12	TAX	1.5	L	TAX	2	M	TAX	6	M	AS	8	M			
13	AB	5	O	TAX	7	L	TAX	8	L	TAX	3	L			
14	TAX	3	O	TAX	2	O	AB	8	O	AB	8	M			
15	TAX	1.5	O	TAX	2	L	TAX	4	L	TAX	3	L			
16	TAX	5	O	TAX	1.5	O	TAX	1	O	TAX	3	O			
17	TAX	2	L	TAX	1.5	L	TAX	3	O	TAX	4	M			
18	TAX	2	M	TAX	1.5	O	TAX	1	L	TAX	2	M			
19	AS	2	H	TAX	4	M	TAX	5	L	TAX	3	M			
20	TAX	4	L	AB	5	O	TAX	3	L	TAX	3	L			
21	TAX	5	O	TAX	1	L	TAX	1.5	L	TAX	3	L			
22	TAX	3	M	TAX	1.5	L	TAX	1.5	L	TAX	1.5	M			
23	TAX	1.5	M	TAX	1.5	M	TAX	1	M	TAX	2.5	M			
24	TAX	1.5	L	TAX	1	M	TAX	3	M	TAX	4	L			
25	TAX	3	L	TAX	3	H	TAX	1	M	TAX	3	L			
26	TAX	2	L	TAX	1.5	O	TAX	1.5	O	TAX	3	M			
27	TAX	1	M	TAX	1.5	O	TAX	2	M	TAX	4	M			
28	TAX	1.5	L	TAX	1.5	O	AB	7	O	TAX	8	M			
29	TAX	1	M	TAX	1.5	L	TAX	1.5	L	TAX	2	L			
30	TAX	2	L	TAX	3	L	TAX	1	O	TAX	2	O			
31	TAX	5	O	AS	6	H	TAX	5	O	TAX	4	L			
32	TAX	6	M	TAX	5	L	TAX	5	M	TAX	3.5	L			
33	TAX	1	O	TAX	2	L	TAX	3	L	TAX	1.5	O			
34	TAX	6	M	AB	3	O	AS	7	M	AS	5	H			
35	TAX	3	M	TAX	7	L	TAX	1	L	TAX	8	O			
36	AB	7	O	AB	8	O	TAX	14	H	AC	8	O			
37	AS	8	H	TAX	5	M	TAX	3	L	TAX	5	L			
38	TAX	6	M	TAX	3	L	TAX	6	O	TAX	5	O			
39	TAX	6	L	TAX	6	L	TAX	3	L	TAX	3.5	L			
40	TAX	4	M	TAX	3	O	AB	1	O	AB	7	O			

Ave Dist. 3.88

Browse per acre 2894.35

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3216
Quadrat No. 1-10*Actaea pachypoda**Actaea rubra**Adiantum pedatum**Allium tricoccum**Anemone quinquefolia**Aquilegia canadensis**Aralia nudicaulis**Aralia racemosa**Arisaema atrorubens**Aster macrophyllus**Aster sagittifolius**Athyrium angustum**Botrychium virginianum**Brachyelytrum erectum*7, ✓ *Carex ^{SP} albursina**Caulophyllum thalictroides**Chimaphila umbellata**Circaea alpina**Circaea latifolia*✓ *Clintonia borealis**Coptis trifolia**Corallorrhiza maculata**Cornus alternifolia**Cornus canadensis**Cornus rugosa**Corylus americana**Corylus cornuta**Cypripedium acaule**Diervilla lonicera**Dirca palustris**Dryopteris linnaeana**Dryopteris phegopteris**Dryopteris spinulosa**Epifagus virginiana**Epigaea repens**Fragaria virginiana**Galium lanceolatum**Galium triflorum**Gaultheria procumbens**Gaylussacia baccata**Geranium maculatum**Geum canadense**Gnaphalium obtusifolium**Helianthemum sp.**Helianthus strumosus**Hepatica acutiloba**Hepatica americana**Impatiens biflora**Linnaea borealis**Lonicera oblongifolia**Lupinus perennis**Lycopodium annotinum**Lycopodium complanatum**Lycopodium lucidulum*✓ *Lycopodium obscurum**Lysimachia quadrifolia*7, ✓ *Maianthemum canadense**Mitchella repens**Mitella diphylla**Mitella nuda**Monotropa uniflora**Myrica asplenifolia**Onoclea sensibilis**Oryzopsis asperifolia**Osmorhiza claytoni**Oxalis montana**Phryma leptostachya**Polygala pauciflora**Polygonatum commutatum**Polygonatum pubescens**Potentilla simplex**Prenanthes alba**Pteridium aquilinum**Pyrola elliptica**Pyrola rotundifolia**Pyrola secunda**Ranunculus recurvatus**Rhus radicans**Ribes americanum**Rosa sp.**Rubus parviflorus**Rubus (blackberry)**Rubus (dewberry)**Sambucus pubens**Sanguinaria canadensis**Sanicula gregaria**Smilacina racemosa**Smilacina stellata**Smilax ecirrhata**Solidago ulmifolia**Streptopus roseus*9, 7, 5, 3, ✓ *Taxus canadensis**Thalictrum dioicum*✓ *Trientalis borealis**Trillium grandiflorum**Uvularia grandiflora**Uvularia sessilifolia**Vaccinium angustifolium**Vaccinium pennsylvanicum**Viburnum acerifolium**Viola canadensis*5 *Viola ^{INCOGNITA} cucullata**Viola pallens**Viola pubescens**Waldsteinia fragarioides*7, 5, 3, 1 *ACER SPIC*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3216
Quadrat No. 11-20

Actaea pachypoda
Actaea rubra
Adiantum pedatum
Allium tricoccum
Anemone quinquefolia
Aquilegia canadensis
Aralia nudicaulis
Aralia racemosa
Arisaema atrorubens
Aster macrophyllus
Aster sagittifolius
Athyrium angustum
Botrychium virginianum
Brachyelytrum erectum
Carex albursina
Caulophyllum thalictroides
Chimaphila umbellata
Circaea alpina
Circaea latifolia
Clintonia borealis
Coptis trifolia
Corallorrhiza maculata
Cornus alternifolia
Cornus canadensis
Cornus rugosa
Corylus americana
Corylus cornuta
Cypripedium acaule
Diervilla lonicera
Dirca palustris
Dryopteris linnaeana
Dryopteris phegopteris
Dryopteris spinulosa
Epifagus virginiana
Epigaea repens

Fragaria virginiana
Galium lanceolatum
Galium triflorum
Gaultheria procumbens
Gaylussacia baccata
Geranium maculatum
Geum canadense
Gnaphalium obtusifolium
Helianthemum sp.
Helianthus strumosus
Hepatica acutiloba
Hepatica americana
Impatiens biflora
Linnaea borealis
Lonicera oblongifolia
Lupinus perennis
Lycopodium annotinum
Lycopodium complanatum
Lycopodium lucidulum
Lycopodium obscurum
Lysimachia quadrifolia
Maianthemum canadense 19, 17, 15, 13, 11
Mitchella repens
Mitella diphylla
Mitella nuda
Monotropa uniflora
Myrica asplenifolia
Onoclea sensibilis
Oryzopsis asperifolia
Osmorhiza claytoni
Oxalis montana
Phryma leptostachya
Polygala pauciflora
Polygonatum commutatum
Polygonatum pubescens

Potentilla simplex
Prenanthes alba
Pteridium aquilinum
Pyrola elliptica
Pyrola rotundifolia
Pyrola secunda
Ranunculus recurvatus
Rhus radicans
Ribes americanum
Rosa sp.
Rubus parviflorus
Rubus (blackberry)
Rubus (dewberry)
Sambucus pubens
Sanguinaria canadensis
Sanicula gregaria
Smilacina racemosa
Smilacina stellata
Smilax ecirrhata
Solidago ulmifolia
Streptopus roseus
Taxus canadensis
Thalictrum dioicum
Trientalis borealis
Trillium grandiflorum
Uvularia grandiflora
Uvularia sessilifolia
Vaccinium angustifolium
Vaccinium pennsylvanicum
Viburnum acerifolium
Viola canadensis
 11 *Viola cucullata* 11
Viola pallens
Viola pubescens
Waldsteinia fragarioides
 17, 13, 11 *ACER SPICATUM*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3216
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 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>	<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>	<i>Streptopus roseus</i>
<i>Corallorrhiza maculata</i>	<i>Maianthemum canadense</i> 27523, 21	<i>Taxus canadensis</i> 29
<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>

% FREQUENCY IN RED
HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3216
Quadrat No. 3146

Actaea pachypoda	Fragaria virginiana	Potentilla simplex
Actaea rubra	Galium lanceolatum	Prenanthes alba
Adiantum pedatum	Galium triflorum	Pteridium aquilinum
Allium tricoccum	Gaultheria procumbens	Pyrola elliptica
Anemone quinquefolia	Gaylussacia baccata	Pyrola rotundifolia
Aquilegia canadensis	Geranium maculatum	Pyrola secunda
Aralia nudicaulis	Geum canadense	Ranunculus recurvatus
Aralia racemosa	Gnaphalium obtusifolium	Rhus radicans
Arisaema atrorubens	Helianthemum sp.	Ribes americanum
Aster macrophyllus	Helianthus strumosus	Rosa sp.
Aster sagittifolius	Hepatica acutiloba	Rubus parviflorus
Athyrium angustum	Hepatica americana	Rubus (blackberry)
Botrychium virginianum	Impatiens biflora	Rubus (dewberry)
Brachyelytrum erectum	Linnaea borealis	Sambucus pubens
Carex albursina SP 10	Lonicera oblongifolia	Sanguinaria canadensis
Caulophyllum thalictroides	Lupinus perennis	Sanicula gregaria
Chimaphila umbellata	Lycopodium annotinum	Smilacina racemosa
Circaea alpina	Lycopodium complanatum	Smilacina stellata
Circaea latifolia	Lycopodium lucidulum	Smilax ecirrhata
Clintonia borealis 5	5 Lycopodium obscurum	Solidago ulmifolia
Coptis trifolia	Lysimachia quadrifolia	537 Streptopus roseus
Corallorrhiza maculata	1537 Maianthemum canadense 37, 35, 33, 36	10 Taxus canadensis 39
Cornus alternifolia	Mitchella repens	Thalictrum dioicum
Cornus canadensis	Mitella diphylla	5 Trientalis borealis
Cornus rugosa	Mitella nuda	Trillium grandiflorum
Corylus americana	Monotropa uniflora	Uvularia grandiflora
Corylus cornuta	Myrica asplenifolia	Uvularia sessilifolia
Cypripedium acaule	Onoclea sensibilis	Vaccinium angustifolium
Diervilla lonicera	Oryzopsis asperifolia	Vaccinium pennsylvanicum
Dirca palustris	Osmorhiza claytoni	Viburnum acerifolium
Dryopteris linnaeana	Oxalis montana	Viola canadensis
Dryopteris phegopteris	Phryma leptostachya	10 Viola cucullata INCOSUITA
Dryopteris spinulosa	Polygala pauciflora	Viola pallens
Epifagus virginiana	Polygonatum commutatum	Viola pubescens
Epigaea repens	Polygonatum pubescens	Waldsteinia fragarioides

5039, 37, 33, 36 ALER SPIC

PRESENCE LIST

NORTHERN PINE-HARDWOODS

STAND NO. 3216

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

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

Prunus virginiana
Quercus alba
Quercus ellipsoidalis
Quercus macrocarpa
Quercus rubra
Sorbus decora
 X *Thuja occidentalis*
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
 X *Carex albursina* S P.
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
 X *Corallorrhiza maculata*
Corallorrhiza striata
Cornus alternifolia
 X *Cornus canadensis*
Cornus femina
Cornus rugosa
Corylus americana
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
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
Goodyera pubescens
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
 X *Lycopodium annotinum*
Lycopodium clavatum
Lycopodium complanatum
Lycopodium lucidulum
 X *Lycopodium obscurum*
Lycopodium tristachyum
Lycopus americanus
Lycopus uniflora
Lysimachia quadrifolia
 X *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: