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Site 3203: Outer Island #5, Ashland County. 1956-08-1

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Data Form No. 20

Plant Ecology Research

Univ. of Wisconsin

STAND RECORD

FORESTS

Stand No. 3203

Name: OUTER ISLAND #15

Locality: NORTH WEST

County: ASHLAND CO.

T:

R:

Sec:

Date: 8-1-56

Observers: COTTAM, HABECK, AND VOGL

Size of Stand: 2

Size of Area Sampled: 20 ACRES +

Forest Type: YELLOW BIRCH - HEMLOCK

Soil Type:

Topography: LEVEL

Slope:

Directions S-E-N-W

Condition of Stand: NOT EVIDENCE OF CUTTING, STAND PROBABLY HAD NEVER BEEN CUT. STAND WAS ADJACENT TOO AND IN FROM THE LAKE SHORE. IN SOME PLACES THE STAND WAS RATHER OPEN AND PARK-LIKE AND HAD FEWER WINDFALLS THAN STAND NO. 3202.

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.)

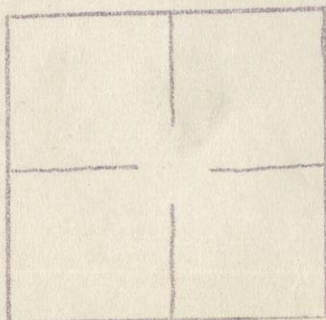
A₀ 3.0" Deciduous LeavesA₁ 1" - Grayish Black - SandyA₂ 2" Sandy - Brown

B 3" Dark Brown - Sandy

Parent Material:

Light: IN (low) 50

Map:



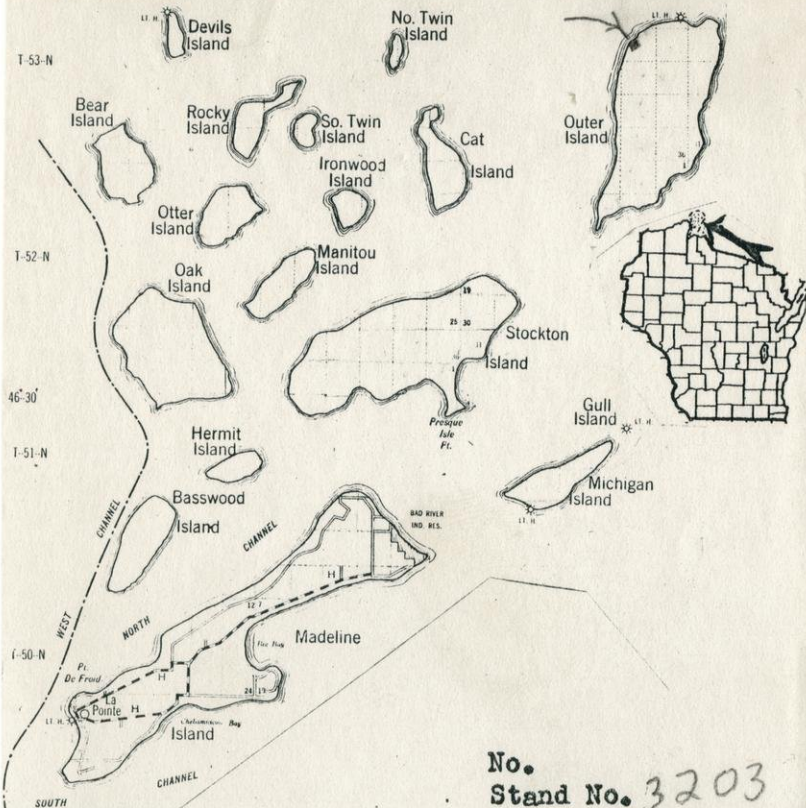
R-3-W

R-2-W

R-1-W

Northern WISCONSIN ASHLAND County

APOSTLE ISLANDS in LAKE SUPERIOR



No.
Stand No. 3203
Date:

Collected by

Grant Cottam
Richard J. Vogl

Northern Pine-Hardwoods

Station Number: 3203

102 160 56 58 46 38 338 160

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	1	1	1			21	4	2.5			1.0	.6	.1	1.7	
Acer rubru	5	6	3	3		519	4	2.5			4.9	3.8	1.4	10.1	
A. sacchar	10	11	5	6		1359	14	8.8			9.8	6.9	3.5	20.2	
A. spicatu															
Betula lut	37	73	19	29	25	1864	31	19.4			36.3	45.6	48.6	130.5	
B. papyrif															
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	27	44	8	15	21	1643	59	36.9			26.5	27.5	42.9	96.9	
Thuja occi	16	18	15	3		954	43	26.9			15.7	11.2	2.5	29.4	
Ulmus amer															
U. fulva															
Pyrus Amer	6	7	5	2		402	5	3.1			5.9	4.4	1.0	11.3	
								100.1			100.1	100.0	100.0	300.1	

 AVE. DIST. BTW'N TREES: 16.4
 AVE. SAP. DIST. 24.2

AVE. B. A.: 239.6

TREES/ACRE: 162.0
74.4DOM./ACRE: 38815.2
269.6

3203

Data Form 106

Plant Ecology Research

University of Wisconsin

POINT RECORD TREES APOSTLE ISLANDS

3203

Point Number	1	2	3	4	5	6	7	8	9	10	
<i>Abies balsamea</i>											
<i>Acer rubrum</i>						185					4/1
<i>Acer saccharum</i>					23		✓	55	90	✓	3/3
<i>Betula lutea</i>	210 400 1	340 16 205		490 1	23 680 585 1	110 122	92 70 580 330	375 300 1	140	545 70	9/20
<i>Betula papyrifera</i>											
<i>Quercus rubra</i>											
<i>Tsuga canadensis</i>			760 115 180 35	880 2					50	105	4/7
<i>Thuja occidentalis</i>	27 70 2	13 4	35 2	2 1	1 2	40.0	2	2	8	29	4/5
<i>Pyrus americana</i>				25 90				42	80		3/4
Tree distance	16.0 9.5 45.0 19.5	14.5 14.0 8.0 33.0	25.0 28.0 11.5 20.0	6.5 13.5 18.0 29.0	12.0 28.0 7.5 26.0	11.0 27.0 19.0 23.0	10.5 21.0 23.0 19.0	15.0 19.0 12.0 17.5	14.0 18.0 7.0 20.0	5.0 9.0 7.0 17.0	
Sapling distance	20.0 21.0 8.5 37.0	4.0 5.0 15.0 9.5	13.5 25.0 25.0 52.0	13.0 34.0 52.0 56.0	13.5 21.0 9.0 65.0	9.0 23.0 15.0 17.0	31.0 31.0 13.0 30.0	6.0 39.0 18.0 33.0	21.0 50.0 38.0 46.0	23.0 17.0 17.0 21.0	

POINT RECORD TREES APOSTLE ISLANDS

Point Number	1	2	3	4	5	6	7	8	9	20	
<i>Abies balsamea</i>		21.0									1/1
<i>Acer rubrum</i>			1			15 19					1/2
<i>Acer saccharum</i>	255		✓	40		1	1	1	300	200 210	4/5
<i>Betula lutea</i>	410	11 (424) 1090	1 230 420 72		260 210	✓	55	520	240 160	480	9/12
<i>Betula papyrifera</i>	1			2	1	1		2	1	2	
<i>Quercus rubra</i>											
<i>Tsuga canadensis</i>	290 245	485 300	660	660	800	635 375	825 30 (9'6") 10493	48 31	520 140		9/16
<i>Thuja occidentalis</i>		2	1	1	1	50 112					2/2
<i>Pyrus</i>		2	2		95		1		2	15.0	2/2
				1	1						
Tree distance	10.5 23.0 14.0 5.0	21.0 18.0 8.0 46.0	8.0 7.0 7.0 22.0	46.0 22.0 14.5 35.0	18.0 19.0 20.5 21.5	13.0 8.5 5.0 8.5	24.0 7.0 5.0 34.0	3.0 19.0 5.0 10.0	5.0 23.0 38.0 20.0	10.5 6.5 25.0 8.0	
Sapling distance	23.0 32.0 28.0 20.5	14.5 21.0 19.0 21.0	9.5 24.0 6.5 15.0	15.0 33.0 23.0 40.0	13.0 15.0 46.0 34.0	17.0 10.5 35.0 8.0	21.0 29.0 16.0 47.0	11.0 47.0 37.0 35.0	24.0 48.0 17.0 42.0	30.0 13.0 33.0 78.0	

POINT RECORD TREES APOSTLE ISLANDS

Point Number	21	22	23	24	25	26	27	28	29	30
Abies balsamea				1	1					
Acer rubrum	110									125
Acer saccharum			✓		✓	115				
Betula lutea	510 1	74 145 3	250 55 2	50 1	112 130 15	24 270 1	147 105 3	71 290	145 (9'6") 1040	150
Betula papyrifera	510									
Quercus rubra										
Tsuga canadensis	250 1	410 290 1	27 1	980 520			440 1		260 312 2	650 2
Thuja occidentalis	21 1	410 290	144 1	25 1	70 1	24 2	58 2	60 25 1		
Pyrus acer										55
Tree distance	6 8 17 15	12 23 22 25	11 22 24 26	13 18 7 31	7 15 19 24	8 9 16 20	10 7 10 19	4 7 19 11	8 5 26 11	16 14 19 20
Sapling distance	3 12 35 36	34 36 36 50	14 44 42 38	29 38 22 22	9 9 17 50	15 18 24 18	8 4 4 21	6 15 11 24	18 32 4 44	15 23 21 60

42

X

10/18

7/10

7/8

1/1

3203

Point Number	31	32	33	34	35	36	37	38	39	40
<i>Abies balsamea</i>										
<i>Acer rubrum</i>						65				
<i>Acer saccharum</i>	38		33							
<i>Betula lutea</i>	330 215 332	341	118	75 110 540 2	680 22	200 70	230 150 19	45 120 45	340 380	400 430 18
<i>Betula papyrifera</i>										
<i>Quercus rubra</i>										
<i>Tsuga canadensis</i>		63 162 283	360 280 3	340	620	330			120 620	70
<i>Thuja occidentalis</i>					110		13	15		
<i>Pyrus</i>										
Tree distance	21 3 28 24	13 7 21 9	22 7 24 24	6.0 22.5 12.5 26.0	15.5 9.5 17.0 14.0	22.5 7.5 13.5 22.0	18.5 15.5 8.5 38.0	20.0 12.5 4.5 12.5	12.0 21.0 13.0 14.0	24.0 16.0 24.0 10.5
Sapling distance	7 17 7 44	18 30 19 55	36 34 31 30	6.5 24.0 34.0 40.0	19.0 30.0 9.5 20.0	22.0 25.0 19.0 38.0	11.0 11.5 16.0 29.0	11.0 15.0 11.5 8.0	9.0 7.0 25.0 21.0	10.5 16.0 12.0 26.0

Species	Count	Rel. Dens.	Preference	Value
<i>As. rubrum</i> 1	1	1.4	32	1.2
<i>Populus grandid.</i> 1				
<i>As. sacch</i> III	3	1.9	3	5.7
<i>P. tremuloides</i> III				
<i>As. spic.</i> XXXXXXXXXXXXXXXXXXXX	73	45.6	2	91.2
<i>Pampus pennsyl.</i> XXXXXXXXXXXXXXXXXXXX				
<i>Betula hillea</i> II	2	1.3	32	2.6
<i>P. virginiana</i> II				
<i>Corylus cornuta</i> II	2	1.3	3	3.9
<i>Quercus rubra</i> II				
<i>Lonicera con.</i> II	2	1.3	2	2.6
<i>Ribes americanum</i> II				
<i>Ribes hudsoni</i>				
<i>Rubus blackberry</i>			3	
<i>R. dewberry</i>			2	
<i>R. parviflorus</i>			3	
<i>R. raspberry</i>			3	
<i>Sambucus nubes.</i>			2	
<i>Sorbus americana</i>			1	
<i>Taxus canadensis</i> XXXXXXXXXXXXXXXXXXXX	60	37.5	1	37.5
<i>Thuja occident.</i> XXXXXXX	14	8.8	1	8.8
<i>Tsuga canadensis</i> III	3	1.9	1	1.9
<i>Vaccinium angust.</i>			2	
<i>V. myrtilloides</i>			2	
TOTAL	160			155.4

Extent of Browse	Count	Rel. D.	Weight	Value
O			0	
L			1	
M			2	
H			3	
T			4	
TOTAL				

Ave distance 3.9 Mean area Browse per acre 2863.9

DEER DAMAGE REPORT FORM

Stand No. 3203

92.5				146.5				159.0				226.5			
Pt. No.	Sp	Dis	Con	Sp	Dis	Con	Sp	Dis	Con	Sp	Dis	Con	Sp	Dis	Con
1	TAY	4.0		As	3		As	5		TAY	8				
2	TAY	3		As	4		As	3		As	7				
3	TAY	1		TAY	2		TAY	2.5		TAY	3				
4	TAY	2		TAY	2		TAY	1		TAY	3				
5	As	1		As	3		TAY	1		TAY	3				
6	As	2		TAY	1		As	3		TAY	4				
7	Ac	1.5		As	2.5		As	3		TAY	2				
8	To	1		As	2		To	3		TAY	3				
9	As	1		TAY	2		TAY	4		TAY	4				
10	As	1		TAY	1		To	7		Lc	3				
11	TAY	2		TAY	3		TAY	2.5		To	9				
12	TAY	2		TAY	2.5		As	6		BL	5				
13	To	2		TAY	1		As	2.5		Ac	3				
14	BL	6		As	8		As	6		As	6				
15	As	5		As	7		As	1		As	7				
16	As	3		As	4		AR	8.5		As	11				
17	As	2		As	3		As	8		As	4				
18	Tc	5		Tc	12		As	3		To	21				
19	As	3		Lc	6		To	7		TAY	7				
20	Cc	3		TAY	5		As	8		As	5				
21	As	4.2		As	1		TAY	6		As	6				
22	TAY	3		TAY	5		As	5		As	8				
23	As	2		As	7		As	1-		As	7-				
24	As	1-		TAY	4		As	1-		As	6				
25	TAY	2		TAY	2		TAY	3-		TAY	1-				
26	To	3		To	3		As	2-		As	6				
27	To	2		TAY	4		TAY	2-		TAY	7				
28	Tc	6		TAY	4		TAY	5-		TAY	3-				
29	As	2-		As	3		As	5-		To	6				
30	TAY	1		TAY	2		As	3		As	8				
31	Cc	2-		As	2		TAY	4-		Ac	6				
32	To	1		To	2		As	3		As	3				
33	To	3		As	6		As	10		As	11				
34	As	3		As	3		TAY	4.5		As	3				
35	Ac	1		As	5		TAY	2.5		As	3.5				
36	TAY	1.5		TAY	4.5		TAY	2.5		As	5				
37	TAY	.5		As	3		As	5		TAY	3.5				
38	Tc	2.5		TAY	5		As	4.5		As	5.5				
39	As	3.5		As	5		As	2.5		As	7.5				
40	TAY	1.5		TAY	2.0		TAY	2.5		TAY	2.5				

AR = Red Maple

Ave Dist. 3.9

Browse per acre 2,863.9

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3203
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> 5,9	<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> 1,3,5,7,9	<i>Smilax ecirrhata</i>
<i>Clintonia borealis</i> 5,9	<i>Lycopodium obscurum</i> 1,5,7	<i>Solidago ulmifolia</i>
<i>Coptis trifolia</i>	<i>Lysimachia quadrifolia</i>	<i>Streptopus roseus</i> 9
<i>Corallorrhiza maculata</i>	<i>Maianthemum canadense</i>	<i>Taxus canadensis</i> 3,5,7,9
<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> 1,3	<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>

Acer spicatum 1,5

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3203
Quadrat No. 11-20

Actaea pachypoda
 Actaea rubra
 Adiantum pedatum
 Allium tricoccum
 Anemone quinquefolia
 Aquilegia canadensis
 Aralia nudicaulis 11, 17, 19
 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 11, 13, 19
 Coptis trifolia
 Corallorrhiza maculata
 Cornus alternifolia
 Cornus canadensis
 Cornus rugosa
 Corylus americana
 Corylus cornuta
 Cypripedium acaule
 Diervilla lonicera
 Dirca palustris
 Dryopteris linnaeana
 Dryopteris phegopteris 11, 15
 Dryopteris spinulosa 11, 13, 15, 17
 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 19
 Lupinus perennis
 Lycopodium annotinum 19
 Lycopodium complanatum
 Lycopodium lucidulum 11, 13, 15, 19
 Lycopodium obscurum
 Lysimachia quadrifolia
 Maianthemum canadense 17
 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 11, 13, 15, 17, 19
 Taxus canadensis 11, 13
 Thalictrum dioicum
 Trientalis borealis 13, 17
 Trillium grandiflorum
 Uvularia grandiflora
 Uvularia sessilifolia
 Vaccinium angustifolium
 Vaccinium pennsylvanicum
 Viburnum acerifolium
 Viola canadensis
 Viola cucullata
 Viola pallens
 Viola pubescens
 Waldsteinia fragarioides

Acer spicatum 19

Carex sp 19

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No.

Quadrat No. 21-30

Actaea pachypoda
Actaea rubra
Adiantum pedatum
Allium tricoccum
Anemone quinquefolia
Aquilegia canadensis

29, 23 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

29, 23 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

27, 27, 27 Dryopteris spinulosa

Epifagus virginiana

Epigaea repens

25, 27, 27, 27 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

29, 27, 25, 23 Lycopodium lucidulum

Lycopodium obscurum

Lysimachia quadrifolia

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

29, 27, 25, 23, 27 Taxus canadensis

Thalictrum dioicum

Trientalis borealis

Trillium grandiflorum

Uvularia grandiflora

Uvularia sessilifolia

Vaccinium angustifolium

Vaccinium pennsylvanicum

Viburnum acerifolium

Viola canadensis

Viola cucullata

Viola pallens

Viola pubescens

Waldsteinia fragarioides

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3203
Quadrat No.*Actaea pachypoda**Actaea rubra**Adiantum pedatum**Allium tricoccum**Anemone quinquefolia**Aquilegia canadensis**Aralia nudicaulis* 39 40*Aralia racemosa**Arisaema atrorubens**Aster macrophyllus**Aster sagittifolius**Athyrium angustum**Botrychium virginianum**Brachyelytrum erectum**Carex albursina**Caulophyllum thalictroides**Chimaphila umbellata**Circaea alpina**Circaea latifolia*35 *Clintonia borealis* 37, 39 50*Coptis trifolia**Corallorrhiza maculata**Cornus alternifolia**Cornus canadensis* 37, 39 10*Cornus rugosa**Corylus americana*31 *Corylus cornuta* 5*Cypripedium acaule**Diervilla lonicera**Dirca palustris**Dryopteris linnaeana**Dryopteris phegopteris* 103331 *Dryopteris spinulosa* 35, 37 70*Epifagus virginiana**Epigaea repens*31 *Asarum* 35, 37, 39 40

CAREX SP. 5

*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* CANADENSIS 5*Lupinus perennis**Lycopodium annotinum* 37, 39 20*Lycopodium complanatum*3331 *Lycopodium lucidulum* 35 80*Lycopodium obscurum* 15*Lysimachia quadrifolia*3 *Maianthemum canadense* 1031 *Mitchella repens* 5*Mitella diphylla**Mitella nuda**Monotropa uniflora**Myrica asplenifolia**Onoclea sensibilis**Oryzopsis asperifolia**Osmorhiza claytoni*33 *Oxalis montana* 35 10*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*31 *Streptopus roseus* 3531 *Taxus canadensis* 35, 37, 39 75*Thalictrum dioicum*31 *Trientalis borealis* 37, 39 25*Trillium grandiflorum**Uvularia grandiflora**Uvularia sessilifolia**Vaccinium angustifolium**Vaccinium pennsylvanicum**Viburnum acerifolium**Viola canadensis**Viola cucullata**Viola pallens**Viola pubescens**Waldsteinia fragarioides*

PRESENCE LIST

NORTHERN PINE-HARDWOODS

STAND NO.

Abies balsamea ✓
 Acer rubrum ✓
 Acer saccharum ✓
 Acer spicatum ✓
 Amelanchier sp. ✓
 Betula lutea ✓
 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
 Pinus strobus
 Populus balsamifera
 Populus grandidentata
 Populus tremuloides
 Prunus pennsylvanica
 Prunus serotina

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

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

Galium lanceolatum
 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
 Lycopodium annotinum ✓
 Lycopodium clavatum
 Lycopodium complanatum ✓
 Lycopodium lucidulum ✓
 Lycopodium obscurum
 Lycopodium tristachyum
 Lycopodium americanus
 Lycopodium 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
 Streptopus roseus
 Taxus canadensis
 Thalictrum dioicum
 Tiarella cordifolia
 Trientalis borealis
 Trillium cernuum
 Trillium grandiflorum
 Uvularia grandiflora
 Uvularia sessilifolia
 Vaccinium angustifolium
 Vaccinium pennsylvanicum
 Viburnum acerifolium
 Viburnum affine
 Viburnum lentago
 Viola canadensis
 Viola cucullata
 Viola incognita
 Viola pallens
 Viola pubescens
 Vitis aestivalis
 Vitis riparia
 Waldsteinia fragarioides
 Zanthoxylum americanum

Additional Species: