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Site 3193: Bear Island #3, Ashland County. 1956-07-21

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Data Form No. 20

Plant Ecology Research

Univ. of Wisconsin

STAND RECORD

FORESTS

Stand No. 3193 ✓

Name: BEAR ISLAND #3

Locality: NORTH EAST POINT

County: ASHLAND

T:

R:

Sec:

Date: 7-21-56

Observers: COTTAM & VOGL

Size of Stand ?

Size of Area Sampled: 20 ACRES

Forest Type: THUJA & BETULA PAPYR.

Soil Type:

Topography: LEVEL

Slope:

Directions

Condition of Stand: HAD BEEN CUT, BUT NOT RECENTLY. TAXUS PRESENT
THROUGHOUT AREA SAMPLE BUT NOT VERY HEAVY.

Open Grown Trees:

% Canopy: SKY IS FALLING DOWN

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	1"	SLOWLY DECOMPOSING CEDAR
A ₁	1"	BLACK SILT - HIGHLY ORGANIC
A ₂	2-4"	GRAY SAND
B	2"-7+	SANDY - REDDISH

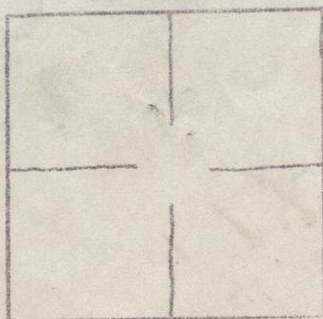
Parent Material:

TOTAL PROFILE 6-12"

Map:

AT POINT 30

MORE CLAY & A REDDISH COLOR
NOT AS SAND > DEPTH SAME.



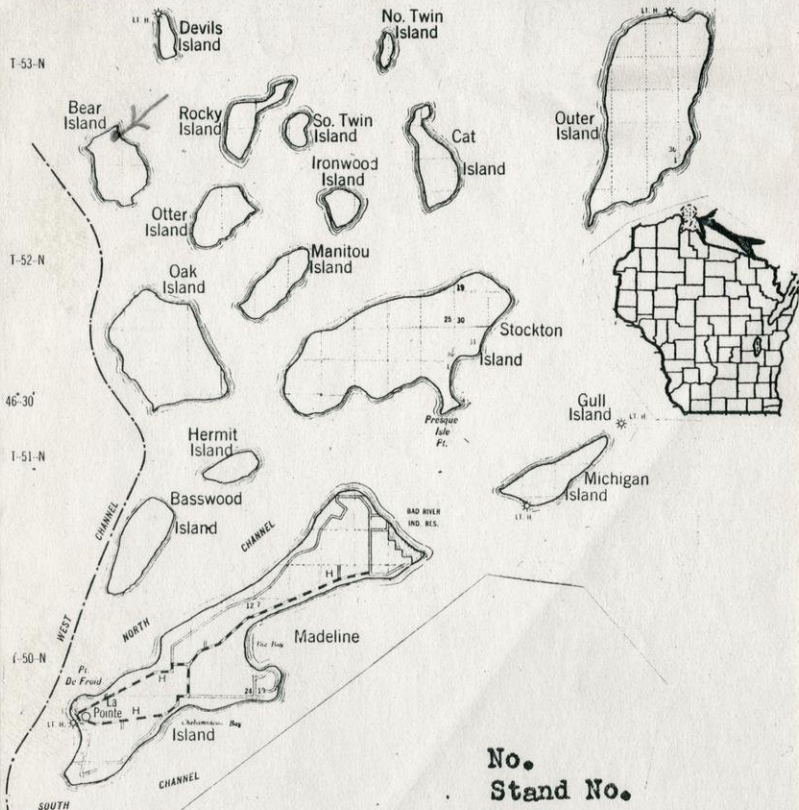
R-3-W

R-2-W

R-1-W

Northern WISCONSIN ASHLAND County

APOSTLE ISLANDS in LAKE SUPERIOR



Collected by

Grant Cottam
Richard J. Vogl

No.
Stand No.
Date:

Northern Pine-Hardwoods

Station Number: 3193

9/ 159 133 26

7,365 160

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	28	48	43	5		1994	34	21.2			30.8	30.2	26.8	87.8	
Acer rubru															
A. sacchar															
A. spicatu															
Betula lut	5	7	6	1		303	6	3.8			5.5	4.4	4.1	14.0	
B. papyrif	22	29	21	8		1791	3	1.9			24.2	18.2	24.4	66.8	
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															
Thuja occi	32	70	58	12		3143	116	72.5			35.2	44.0	42.7	121.9	
Ulmus amer															
U. fulva															
PRUNUS AMER.	3	4	4			118	1	.6			3.3	2.5	1.6	7.4	
FRAXINUS NIGRA	1	1	1			30		100.0			1.1	.6	.4	2.1	
											100.1	99.9	100.0	300.0	

AVE. DIST. BTW'N TREES: 9.3
ave. sap. dist. 9.5

AVE B. A.: 46.3

TREES/ACRE: 503.6
482.65DOM./ACRE:
23316.7
161.9 of 46.

POINT RECORD TREES APOSTLE ISLANDS

3193

Point Number	1	2	3	4	5	6	7	8	9	0
<i>Abies balsamea</i>	V 17	110 140			45 28	45	15	60	18 85	40
<i>Acer rubrum</i>	2 V		1		2		2	2		
<i>Acer saccharum</i>										
<i>Betula lutea</i>										
<i>Betula papyrifera</i>	2	1	1			200	75	60	30 90	80 40
<i>Quercus rubra</i>									1	
<i>Tsuga canadensis</i>										
<i>Thuja occidentalis</i>	90 170	100 16	180 190	125 20 45	35 22	100 75	45 15	70 85		
<i>PYRUS AMERICANA</i>	25 40	23 3	2	120 4	2	3	2	2	3	4
Tree distance	15 24 16 11.5	22 6 16 7	12.5 16 16 7	10.5 12 6.5 3.5	10 7 14 10.5	2 4 7.5 7	20 10.5 3.5 2.5	12 11 14 2	10 8 9 5.5	22 10.5 3 14
Sapling distance	9.5 45 17 10.5	9.3 17 5 4	23 31 17.5 28	20 20 14.5 9.5	22.5 17 14.5 11.5	13.5 32 9.5 9	6 8 9.5 10.5	3 9.5 8 23	3.5 9 7 13.5	13 6 17 9.5

8/11

5/7

8/19

1/2

X

POINT RECORD TREES APOSTLE ISLANDS

3193

Point Number	1	2	3	4	5	6	7	8	9	20
<i>Abies balsamea</i>	18	65 90		50					16	23 80
<i>Acer rubrum</i>										
<i>Acer saccharum</i>										
<i>Betula lutea</i>							30 ✓			
<i>Betula papyrifera</i>	40 25		25	120		85 55	90 35		20	75
<i>Quercus rubra</i>										
<i>Tsuga canadensis</i>										
<i>Thuja occidentalis</i>	16	15 17	13 30 45	80 40	30 12 12	14 45		17 35 17	20 24	23
<i>PYRUS AMER.</i>								30		
Tree distance	7.5 11.5 2 2	12 13.5 12 5.5	9.5 8 8 6	11 20 15 2.5	10 6.5 5 5.5	11.5 10.5 17 6	18 10.5 7 10	5 6.5 1 3	11.5 22 3.5 5	14 7 5 5.5
Sapling distance	6 4 5 22	4.5 7.5 6.5 8	10 9.5 3.5 2.5	3 5.5 14 8	4 6.5 6 10	17 4 2 1	6.5 8 27 38	4 6.5 7 6	7 8 9 8	4 4.5 6 13

5/1

1/1

9/10

9/21

1/1

POINT RECORD TREES APOSTLE ISLANDS

3193

Point Number	21	22	23	24	25	26	27	28	29	30
<i>Abies balsamea</i>		15 11	28 24 19 19/11	22	90	24 65 65 13	21	50 17	16 20 1	40 80 25 1
<i>Acer rubrum</i>										
<i>Acer saccharum</i>										
<i>Betula lutea</i>									35 1	
<i>Betula papyrifera</i>	50 85	95		50					110	
<i>Quercus rubra</i>										
<i>Tsuga canadensis</i>										
<i>Thuja occidentalis</i>	12 13 13	15 17 13		26 35 4	80 17 40 4	35 11 19 11	16 16 19 14	17 26 14		15 3 2 3
Tree distance	8 8 13 9	8 8 12 2	10 10 5 7	15 20 9 3	9 9 10 16	8 8 15 2	8 10 20 6	9 16 7 8	3 4 11 7	3 6 10 17
Sapling distance	6 6 6 8	4 6 14 8	8 8 6 10	5 6 8 8	5 3 5 5	3 2 13 16	2 4 5 11	6 11 7 8	6 8 10 7	5 5 2 6

9/18

1/1

4/5

8/16

POINT RECORD TREES APOSTLE ISLANDS

3193

Point Number	31	32	33	34	35	36	37	38	39	40
<i>Abies balsamea</i>	15 18 16	24 55 12	14 40 40	40 2	1		50 2	50	40 29	1
<i>Acer rubrum</i>										
<i>Acer saccharum</i>										
<i>Betula lutea</i>				100 35	60 28				15	
<i>Betula papyrifera</i>			17	35	40	40	65 15			50
<i>Quercus rubra</i>							1			
<i>Tsuga canadensis</i>										
<i>Thuja occidentalis</i>	130 3	19 2		2	2	26 14 15	18 11	110 40 22 45 14	16 3	35 28 90 14
<i>Pyrus Americana</i>		23			1					
<i>Fraxinus nigra</i>					30					
Tree distance	6 3 2 17	10 3 4 7	9 4 3 8	13 15 7 6	12 5 17 18	8 22 7 4	10 20 7 5	7 4 10 17	4 9 7 13	6 6 8 5
Sapling distance	3 7 2 14	5 5 8 11	5 4 3 8	16 15 10 14	2 10 17 31	4 4 7 8	8 8 7 6	8 10 8 8	5 5 6 12	5 12 14 19

6/12

3/5

6/7

2/14

1/1

1/1

Soil at pt 30 - more clay & a redder color. Depth same

STAND # 3193

	T	H	M	L	O	
SPECIES TO	1			 	 	66
TAX	 	 			1	78
AB						12
AS		1	1	1		3
OC					1	1
	29	44	21	41	25	

STAND # 3193

BROWSE CONDITION BY SPECIES %

SPECIES	T	H	M	L	O	TOTAL
TO	1.5	10.6	13.6	50.0	24.2	99.9
TAX	35.9	46.2	11.5	5.1	1.3	100.0
AB			16.7	25.0	58.3	100.0
AS		33.3	33.3	33.3		99.9
CC					100.0	100.0

% EACH SPECIES CONTRIBUTES TO EACH BROWSE CATEGORY

	TO	TAX	AB	AS	CC	TOTAL
T	3.4	96.6				100.0
H	15.9	81.8		2.3		100.0
M	42.9	42.9	9.5	4.8		100.1
L	80.5	9.8	7.3	2.4		100.0
O	64.0	4.0	28.0		4.0	100.0

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

T	H	M	L	O	TOTAL
18.1	27.5	13.1	25.6	15.6	99.9

% BROWSE SPECIES

TO	TAX	AB	AS	CC	TOTAL
41.3	48.8	7.5	1.9	.6	100.1

DEER DAMAGE REPORT FORM

Stand No. 3193

233.5				306.5				332.0				462.5			
Pt. No.	Sp	Dis	Con	Sp	Dis	Con	Sp	Dis	Con	Sp	Dis	Con	Sp	Dis	Con
1	TO	10	L	AB	17	M	AB	10.5	L	TO	12	O			
2	TAX	1.5	H	TO	3	L	TAX	4.5	T	TO	8	L			
3	AS	4	L	TAX	6	H	AS	4	H	TAX	24	T			
4	TO	8.5	L	TO	13	L	TO	13	M	TO	11.5	L			
5	TO	7.5	O	TO	13	O	TO	15	O	TO	25	L	TAXUS ALL OVER		
6	TO	8	L	TAX	6	H	TAX	7.5	H	TAX	9.5	H			
7	TO	10	M	TO	11.5	O	TO	6	O	TO	5.5	O			
8	AB	5.5	O	TO	9.5	M	AB	15	L	TAX	15	H			
9	TO	3	H	TO	11	L	TO	10	L	TO	14.5	H			
10	TAX	6	T	TO	9.5	T	TO	6	H	TO	8	H			
11	TAX	11	T	TAX	3	H	TAX	6	T	TAX	3	T			
12	TAX	3.5	H	TO	3.5	L	TO	5.5	L	TAX	5	H			
13	TAX	8	T	TAX	4	H	TAX	6	T	TAX	12.5	T			
14	TAX	12	H	TAX	22	M	TAX	23	H	TAX	10	T			
15	TAX	5.5	T	TAX	6	H	TO	6	L	TAX	10	T			
16	TAX	3.5	M	TO	2.5	L	TO	1	O	CC	10	O			
17	TO	8	L	TO	6.5	O	TO	7	O	TAX	13.5	T			
18	TO	13.5	H	TAX	21	T	TO	19	L	TO	13	L			
19	TO	2.5	L	TAX	2	H	TAX	3	M	TAX	10.5	H			
20	TO	5	L	TO	6.5	L	TAX	13	L	TO	17	L			
21	TAX	3	L	TAX	3	T	TAX	6	M	TO	5	L			
22	TAX	2	T	TO	8	H	TAX	9	H	AB	11	O			
23	TO	15	O	TAX	14	M	TAX	14	T	TO	20	M			
24	TO	8	L	TO	3	L	TO	7	L	TO	7	M			
25	TAX	4	T	TO	5	O	TO	3	O	TO	9	L			
26	TAX	7	H	TO	17	M	TAX	10	H	TAX	26	H			
27	TAX	6	H	TO	3	L	TAX	10	M	TAX	20	O			
28	TO	5	L	TO	6	M	TO	8	L	TO	7	M			
29	AB	3	O	TAX	8	T	AB	9	O	TO	9	O			
30	TAX	6	L	TAX	8	H	TO	8	L	TO	13	O			
31	AB	2	M	AB	2	O	TAX	7	L	TAX	17	H			
32	TAX	10	M	TAX	10	H	TAX	14	T	TO	12	M			
33	TAX	6	H	TAX	10	H	TO	9	O	TAX	16	T			
34	TAX	6	T	TAX	4	T	TAX	3	T	TAX	2	H			
35	TAX	2	H	TAX	2	H	TAX	2	T	AB	8	O			
36	TO	4	H	TO	7	L	TAX	2	T	TO	11	L			
37	TAX	2	H	TAX	6	H	AB	8	O	AB	10	L			
38	TAX	2	H	TAX	6	H	AS	10	M	TO	5	L			
39	TAX	2	H	TAX	1	H	TAX	5	T	TAX	11	M			
40	TAX	1	T	TAX	3	M	TAX	2	H	TAX	6	H			

ave. dist. 8.34
Browse per acre 626.3

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3193
Quadrat No. 7-10

<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>	9,3 <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>	9,5,3 <i>Taxus canadensis</i>
<i>Cornus alternifolia</i>	<i>Mitchella repens</i>	<i>Thalictrum dioicum</i>
<i>Cornus canadensis</i>	<i>Mitella diphylla</i>	1 <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>

5,3,1 ACER SPIC.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3193
Quadrat No. 16-20

<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>	13 <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>	19, 17, 15, 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>
<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>
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>

17 ACER SPIC

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3193
Quadrat No. 20-30

<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>
27 <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>	27 <i>Lycopodium lucidulum</i>	<i>Smilax ecirrhata</i>
<i>Clintonia borealis</i>	27 <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>	✓ <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. 3193
Quadrat No. 30-40

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 5
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 5
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 20
Lycopodium obscurum 5
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
Taxus canadensis 65
Thalictrum dioicum
Trientalis borealis 5
Trillium grandiflorum
Uvularia grandiflora
Uvularia sessilifolia
Vaccinium angustifolium
Vaccinium pennsylvanicum
Viburnum acerifolium
Viola canadensis
Viola cucullata
Viola pallens
Viola pubescens
Waldsteinia fragarioides

3937.31 Her spic 35

Presence

*Scutellaria epedunculata**Impatiens capensis**Actaea rubra**Rubus idaeus*

PRESENCE LIST

NORTHERN PINE-HARDWOODS

STAND NO. 3193

X *Abies balsamea*
 X *Acer rubrum*
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
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*
Tilia americana
Tsuga canadensis
Ulmus americana
Ulmus fulva

X 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
 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
Dryopteris phegopteris
 X *Dryopteris spinulosa*
Epifagus virginiana
Epigaea repens
Equisetum arvense
Erythronium americanum
Fragaria virginiana
Galium aparine
Galium boreale
Galium circaezans
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
 X *Impatiens biflora* CAPENSES
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
 X *Lycopodium lucidulum*
 X *Lycopodium obscurum*
Lycopodium tristachyum
Lycopus americanus
Lycopus uniflora
Lysimachia quadrifolia
 X *Maianthemum canadense*

MONOTROPA HYPOPHYTS

Data Form No. 17 (P.2)

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
 X Rubus - raspberry IDEUS
 Sambucus canadensis
 Sambucus pubens
 Sanguinaria canadensis
 Sanicula gregaria
 Schizachne purpurascens
 X Scutellaria lateriflora EPILOBI FOLIA
 Shepherdia canadensis
 Smilacina racemosa
 Smilacina stellata
 Smilax ecirrhata

Smilax herbacea
 Smilax hispida
 Solidago latifolia
 Solidago ulmifolia
 Streptopus amplexifolius
 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
 Viola incognita
 Viola pallens
 Viola pubescens
 Vitis aestivalis
 Vitis riparia
 Waldsteinia fragarioides
 Zanthoxylum americanum

Additional Species: