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Site 3148: Oneida County. 1950-08-11

[s.l.]: [s.n.], 1950-08-11

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STAND RECORD

FORESTS

Stand No. 3148

Name:

Locality:

County: Oneida

T: 36N R: 9E

Sec: 10 SE 1/4

Date: Aug 11, 1956

Observers: Cottam et al

Size of Stand: 40 Acres

Size of Area Sampled:

Forest Type: Popple-birch-pine

Soil Type: Vilas Stony Sand

Topography: Rolling w/ a Kettle

Slope: Directions

Condition of Stand: Many fine scars on large pine. Kettle in pine & big birch w/ no fine scars - some of the maple oaks are stump sprouts.

Open Grown Trees:

% Canopy: 75

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.
Ao									
A1									
A2									
B									

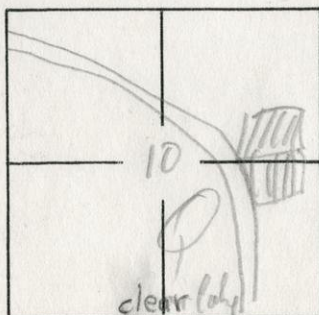
DEPTH

CHARACTERISTICS (Color, Texture, Structure, etc.)

Ao	1/2	Leam - mull
A1	1/4 - 3/4"	Black silt/leam
A2	1/4"	Grey silt
B		Red silt

Parent Material:

Map:



Prob = .38

black
Cherry
3147

12

12 @

13

25 *

red maple

3148

14

12

15

41 (-)

12

53 *

white pine

3148

28

30

73

1 31 (.)

95—

1 60—

85—

1 20—

60

6 51 *

white birch

3148

12

12

38

12

35

13

13

15

16

1 66①

1 25—

18

40

16

14

25

4 04*

red pine

3148

1 70

1 40

1 10

70

80

1 90

1 80

1 00

2 70

1 60

1 4 70

55

16

17

53

45

1 15

24

1 7 95

red oak

3148

25

40

35

16

35

24

18

16

21

24

17

16

20

19

78

15

4 19 6

13

16

20

13

25

22

30

25

12

15

18

13 20

13

55

25

27

22

17

16

15

8 38 *

851

Pop grand
3148

70
35
14
26
35
12
35
42
45
25
22
25
35
17
4 38 (1)
43
45
22
35
30
25
20
40
28
25
20
35
25
55
40
9 26 *

distances

3148

	70
	95
1	80
2	05
1	00
2	45
1	60
2	20
2	20
1	00
1	20
1	15
1	10
	65
1	40
	40
1	10
1	80
1	25
	90
1	90
1	10
1	00
1	55
1	65
1	75
1	20
1	70
	80
1	30
2	50
1	80
2	35
	70
1	60
1	35
1	10
1	25
1	30
2	15
5	695

Poppen

3148

18

18

25

21

55

58

60

17

30

28

12

27

27

45

25

20

12

14

35

30

1 40

21

90

80

9 08 0

12

29

58

12

14

26

30

25

30

20

25

25

35

60

82

50

40

15

45

35

17

35

95

90

1 8 13 *

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 3148

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam										
Acer rubrum	(12)	✓	✓	✓	✓					
A. sacchar.										
A. spicatum										
Betula lut.										
B. papyrif	2	3	4	2	3	2	(125)		2	
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau										
Pinus Bank										
P. resinosa		170	140			110 (55)	70 (16)	80 (17)	190	
P. Strobus						95	28			30 (160)
Populus bals										
P. grand			43		45 (22)					70
P. trem	18 (12)	18 (20)	58	25 (12)	21, 55	58		60	(14)	
Prunus pen.										
Quercus ell										
Q. rubra	24	✓	✓	18 (13)	16 (16)	✓		20	✓	21 (13)
Tilia amer										
Tsuga can										
Thuja occ										
Ulmus amer										
U. fulva										
Prunus virg	✓					✓		✓		
Distance	7	9.5	18	20.5	10	24.5	16	22	22	10

$$\frac{127}{76}$$

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No.

3148

STATION NO.	1	2	3	4	5	6	7	8	9	10
<i>Abies balsam</i>										
<i>Acer rubrum</i>		1			1			3	1	
<i>A. sacchar.</i>					1					
<i>A. spicatum</i>										
<i>Betula lutea</i>										
<i>B. papyrifera</i>	1	(14)	3	3	4		2	12	2	12
<i>Carpinus caroliniana</i>										
<i>Fagus grandifolia</i>										
<i>Ostrya virginica</i>										
<i>Picea canadensis</i>										
<i>Pinus strobus</i>										
<i>P. resinosa</i>					180					
<i>P. strobus</i>					(120)					
<i>Populus balsamifera</i>										
<i>P. grandidentata</i>				(35, 30)		(25)	(20)	(40)		
<i>P. tremula</i>	(26, 30)		(25, 30)	35		14		26, 35	12	
	17, 30	1	27, 27				(20)		25	(25)
		28, 12					45			20
<i>Prunus pennsylvanica</i>	2									
<i>Quercus ellipsoides</i>										
<i>Q. rubra</i>				24	(25)	(22)		(30)	(25)	(15)
				17	2	16	1			
<i>Tilia americana</i>										
<i>Tsuga canadensis</i>										
<i>Thuja occidentalis</i>										
<i>Ulmus americana</i>										
<i>U. fulva</i>										
<i>Prunus serotina</i>		(13)		1						
Distance	12	11.5	11	6.5	14	4	11	14	12.5	9

59
66

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No.

STATION NO.	21	22	23	24	25	26	27	28	29	30
<i>Abies balsam</i>										
<i>Acer rubrum</i>	2		14, 12	3		1				1
<i>A. sacchar.</i>		2	1							
<i>A. spicatum</i>										
<i>Betula lut.</i>										
<i>B. papyrif</i>	38			12	3	35 (40)	2	2	13	13
<i>Carpinus car</i>									4	4
<i>Fagus gran</i>										
<i>Ostrya virg</i>										
<i>Picea glau</i>										
<i>Pinus Bank</i>										
<i>P. resinosa</i>	(53)					(45)		(115)	100	
<i>P. Strobus</i>	(60)					73				
<i>Populus bals</i>										
<i>P. grand</i>		35 (28)								42, 45 (28, 32)
<i>P. trem</i>		12	(25)	14 (35)		(60)	35 2 (82)	30	(50)	
<i>Prunus pen.</i>										
<i>Quercus ell</i>										
<i>Q. rubra</i>	20	(18)	(13)	(20)	19 (13)	78	15 (50)	(25)	(27)	2
<i>Tilia amer</i>										
<i>Tsuga can</i>										
<i>Thuja occ</i>										
<i>Ulmus amer</i>										
<i>U. fulva</i>										
Distance	19	11	10	15.5	16.5	17.5	12	17	8	13

9 4
7 4

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No.

3148

STATION NO.	31	32	33	34	35	36	37	38	39	40
Abies balsam										
Acer rubrum					4	2		1	15	3
A. sacchar.										
A. spicatum										
Betula lut.										
B. papyrif	4	4	(16)	3	4		1 (14) 15	2 (25)	3	14 2
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau										
Pinus Bank										
P. resinosa	(24) 270		160							
P. Strobus										
Populus bals										
P. grand	140	25	(35)	(25) 22	25	17 35		(55)	(40)	
P. trem	(40) 140	(15)		(45)	(35) 17			21	(35)	(15, 90) 90, 80
Prunus pen.										
Quercus ell										
Q. rubra		(22) 25	40	1	35	16	(17) 16	(15) 35		
Tilia amer										
Tsuga can										
Thuja occ										
Ulmus amer										
U. fulva										
Alnus incana							1			
Prunus serotina								12		
Distance	25	18	25.5	7	16	13.5	11	12.5	13	21.5

$$\frac{124}{7} = 17.71$$

TREE DATA SUMMARY SHEET

Northern Pine-Hardwoods

2 Trees

Prob. 38

Station Number: 3148

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															
Acer rubru	2	3	3			41	34	21.8	5		2.8	3.8	1.1	7.7	46
A. sacchar							7	4.5							
A. spicatu															
Betula lut															
B. papyrif	9	9	9			166	76	48.7	1		12.7	11.3	4.6	28.6	143
Carpinus c															
Fagus gran															
Ostrya vir															
Picea glau															
Pinus Bank															
P. resinosa	10	10	2	8		1470	1	0.6			14.1	12.5	41.0	67.6	203
P. Strobus	3	3	3			131	1	0.6			4.2	3.8	3.7	11.7	59
Populus ba															
P. grandid	11	14	14			438	2	1.3			15.5	17.5	12.2	45.2	90
P. tremulo	19	24	22	2		908	4	2.6	1		26.8	30.0	25.3	82.1	164
Prunus pen							5	3.2							
Quercus el															
Q. rubra	16	16	16			419	26	16.7	4		22.5	20.0	11.7	54.2	325
Tilia amer															
Tsuga cana															
Thuja occi															
Ulmus amer															
U. fulva															
Prunus ser	1	1	1			12			1		1.4	1.3	0.3	3.0	12
Prunus virg									3						
	71	80	70	10		3585	156	150.0			100.0	100.2	99.9	300.1	1030

AVE. DIST. BTW'N TREES:

14.2

AVE B. A.:

44.6

TREES/ACRE:

249

DOM./ACRE:

11, 105

10501

TABULATION FORM

NORTHERN PINE-HARDWOODS

Stand No. 3148

STATION NO.	P.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	
HERBS:																							
<i>Actaea pachypoda</i>																							
<i>Actaea rubra</i>	✓																						1
<i>Adenocaulon bicolor</i>																							
<i>Adiantum pedatum</i>																							
<i>Agrimonia grypsosepala</i>																							
<i>Allium tricoccum</i>																							
<i>Alnus incana</i>	✓																						1
<i>Alnus rugosa</i>																							
<i>Amphicarpa bracteata</i>	✓																						1
<i>Anemone canadensis</i>																							
<i>Anemone cylindrica</i>																							
<i>Anemone quinquefolia</i>	✓									✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	630
<i>Antennaria</i> sp.																							
<i>Apocynum androsaemifolium</i>	✓																						1
<i>Apocynum cannabinum</i>																							
<i>Aquilegia canadensis</i>	✓								✓												✓	2	10
<i>Aralia hispida</i>																							
<i>Aralia nudicaulis</i>	✓							✓	✓														210
<i>Aralia racemosa</i>																							
<i>Arctostaphylos uva-ursi</i>																							
<i>Arisaema atrorubens</i>																							
<i>Asarum canadense</i>																							
<i>Asclepias exaltata</i>	✓																						1
<i>Aster cordifolius</i>																							
<i>Aster lateriflorus</i>																							
<i>Aster macrophyllus</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1995
<i>Aster prenanthoides</i>																							
<i>Aster sagittifolius</i>	✓									✓								✓	✓	✓	✓	✓	530
<i>Aster shortii</i>																							
<i>Aster umbellatus</i>																							
<i>Athyrium filix-femina</i>																							
<i>Athyrium thelypteroides</i>																							
<i>Boehmeria cylindrica</i>																							
<i>Botrychium lanceolatum</i>																							
<i>Botrychium matricariaefolium</i>																							
<i>Botrychium virginianum</i>																							
<i>Brachyelytrum erectum</i>																							
<i>Bromus purgans</i>																							
<i>Campanula americana</i>																							
<i>Campanula rotundifolia</i>																							
<i>Cardamine pensylvanica</i>																							
<i>Carex albursina</i>																							
<i>Carex pensylvanica</i>																							
<i>Carex plantaginea</i>	✓											✓						✓					210
<i>Caulophyllum thalictroides</i>																							
<i>Ceanothus ovatus</i>																							
<i>Celastrus scandens</i>																							
<i>Chimaphilia umbellata</i>																							
<i>Cicuta maculata</i>																							
<i>Circaea alpina</i>																							
<i>Circaea quadrisulcata</i>																							

TABULATION FORM

NORTHERN PINE-HARDWOODS

Stand No. 3148

STATION NO.	P.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	T
Cirsium altissimum																						
Claytonia caroliniana																						
Claytonia virginica																						
Clematis verticillaris																						
Clintonia borealis	✓			ll					l		l											4 20
Comandra richardsiana																						
Comptonia peregrina																						
Convolvulus spithameus	✓									l												1 5
Coptis groenlandica																						
Corallorhiza maculata																						
Corallorhiza striata																						
Corallorhiza trifida																						
Coreopsis palmata																						
Cornus alternifolia																						
Cornus canadensis	✓																					1
Cornus foemina																						
Cornus rugosa	ll												ll		✓	ll	✓					6 30
Corydalis sp.																						
Corylus americana																						
Corylus cornuta	ll				l		ll					ll		ll				ll				10 50
Cryptotaenia canadensis																						
Cynoglossum boreale	✓									l		l										2 10
Cypripedium acaule																						
Cypripedium parviflorum																						
Cypripedium pubescens																						
Cystopteris fragilis																						
Danthonia spicata																						
Dentaria diphylla																						
Desmodium glutinosum																						
Desmodium nudiflorum																						
Dicentra canadensis																						
Dicentra cucullaria																						
Diervilla lonicera	✓	ll	ll	ll				ll	ll	ll						ll						9 45
Dirca palustris																						
Dryopteris bootii																						
Dryopteris cristata																						
Dryopteris goldiana																						
Dryopteris disjuncta																						
Dryopteris phegopteris																						
Dryopteris spinulosa																						
Epifagus virginiana																						
Epigaea repens	✓																					1
Equisetum arvense																						
Equisetum hyemale																						
Equisetum sylvaticum																						
Erigeron philadelphicus	✓										l											1 5 354
Erythronium albidum																						
Erythronium americanum																						
Eupatorium rugosum																						
Festuca obtusa																						
Fragaria virginiana	✓								ll	ll	l					ll						4 20

TABULATION FORM

NORTHERN PINE-HARDWOODS

Stand No. 3148

STATION NO.	P.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	T
<i>Fragaria vesca</i>																						
<i>Galium aparine</i>																						
<i>Galium boreale</i>																						
<i>Galium circaeazans</i>																						
<i>Galium concinnum</i>																						
<i>Galium lanceolatum</i>																						
<i>Galium triflorum</i>																						
<i>Gaultheria hispidula</i>																						
<i>Gaultheria procumbens</i>																						
<i>Gaylussacia baccata</i>																						
<i>Geranium maculatum</i>																						
<i>Gerardia pedicularia</i>																						
<i>Geum canadense</i>																						
<i>Geum rivale</i>																						
<i>Gnaphalium obtusifolium</i>																						
<i>Goodyera oblongifolia</i>																						
<i>Goodyera pubescens</i>																						
<i>Goodyera repens</i>																						
<i>Habenaria bracteata</i>																						
<i>Habenaria orbiculata</i>																						
<i>Hackelia virginiana</i>																						
<i>Halenia deflexa</i>																						
<i>Hamamelis virginiana</i>																						
<i>Helianthus strumosus</i>																						
<i>Hepatica acutiloba</i>																						
<i>Hepatica americana</i>																						
<i>Heuchera richardsonii</i>																						
<i>Hieracium canadense</i>																						
<i>Hieracium scabrum</i>																						
<i>Hydrophyllum virginianum</i>																						
<i>Hystrix patula</i>																						
<i>Ilex verticillata</i>																						
<i>Impatiens biflora</i>																						
<i>Impatiens pallida</i>																						
<i>Isopyrum bitermum</i>																						
<i>Krigia biflora</i>																						
<i>Lactuca canadensis</i>																						
<i>Laportea canadensis</i>																						
<i>Lathyrus ochroleucus</i>																						
<i>Lathyrus venosus</i>																						
<i>Ledum groenlandicum</i>																						
<i>Lilium michiganense</i>																						
<i>Linnaea borealis</i>																						
<i>Lithospermum canescens</i>																						
<i>Lobelia inflata</i>																						
<i>Lonicera canadensis</i>																						
<i>Lonicera hirsuta</i>																						
<i>Lonicera oblongifolia</i>																						
<i>Lonicera prolifera</i>																						
<i>Lupinus perennis</i>																						
<i>Luzula acuminata</i>																						
<i>Luzula multiflora</i>																						

15
11 55

161

1

1

1

NORTHERN PINE-HARDWOODS

[illegible]

[illegible]

TABULATION FORM

NORTHERN PINE-HARDWOODS

Stand No. 3148

[illegible]

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3148
Quadrat No. 1*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**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**Viola cucullata**Viola pallens**Viola pubescens**Waldsteinia fragarioides*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3148
Quadrat No. 2

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
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
Viola cucullata
Viola pallens
Viola pubescens
Waldsteinia fragarioides

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3148
Quadrat No. 3

<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>	<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. 3148
Quadrat No. 4

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	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	✓ Lycopodium obscurum	Solidago ulmifolia
Coptis trifolia	Lysimachia quadrifolia	✓ Streptopus roseus
Corallorrhiza maculata	Maianthemum canadense	Taxus canadensis
Cornus alternifolia	Mitchella repens	Thalictrum dioicum
Cornus canadensis	Mitella diphylla	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	Viola cucullata
Dryopteris spinulosa	Polygala pauciflora	Viola pallens
Epifagus virginiana	Polygonatum commutatum	Viola pubescens
Epigaea repens	Polygonatum pubescens	Waldsteinia fragarioides

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No.
Quadrat No. 5*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**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**Viola cucullata**Viola pallens**Viola pubescens**Waldsteinia fragarioides*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3148
Quadrat No. 6

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
Cnaphalium 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
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
Viola cucullata
Viola pallens
Viola pubescens
Waldsteinia fragarioides

Osmunda claytoniana

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No.

Quadrat No. 7

3148

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
 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
 Viola cucullata
 Viola pallens
 Viola pubescens
 Waldsteinia fragarioides

✓ Osmunda claytoniana

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3148
Quadrat No. 8✓ *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**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**Viola cucullata**Viola pallens*✓ *Viola pubescens**Waldsteinia fragarioides*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No.

Quadrat No. 9

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

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

Viola cucullata

Viola pallens

Viola pubescens

Waldsteinia fragarioides

✓ Pedicularis lanceolata

✓ Convolvulus spithameus

✓ Cynoglossum boreale

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3148
Quadrat No. 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
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
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
Viola cucullata
Viola pallens
Viola pubescens
Waldsteinia fragarioides

✓ *Amelanchier sp.*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3148
Quadrat No. //

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	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	Lycopodium obscurum	Solidago ulmifolia
Coptis trifolia	Lysimachia quadrifolia	Streptopus roseus
Corallorrhiza maculata	Maianthemum canadense	Taxus canadensis
Cornus alternifolia	Mitchella repens	Thalictrum dioicum
Cornus canadensis	Mitella diphylla	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	Viola cucullata
Dryopteris spinulosa	Polygala pauciflora	Viola pallens
Epifagus virginiana	Polygonatum commutatum	Viola pubescens
Epigaea repens	Polygonatum pubescens	Waldsteinia fragarioides

✓ Erigeron sp.
✓ cynoglossum

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3148
Quadrat No. 12

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
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
Viola cucullata
Viola pallens
Viola pubescens
Waldsteinia fragarioides

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3148
Quadrat No. 13

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	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	Lycopodium obscurum	Solidago ulmifolia
Coptis trifolia	Lysimachia quadrifolia	Streptopus roseus
Corallorrhiza maculata	Maianthemum canadense	Taxus canadensis
Cornus alternifolia	Mitchella repens	Thalictrum dioicum
Cornus canadensis	Mitella diphylla	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	Viola cucullata
Dryopteris spinulosa	Polygala pauciflora	Viola pallens
Epifagus virginiana	Polygonatum commutatum	Viola pubescens
Epigaea repens	Polygonatum pubescens	Waldsteinia fragarioides

Linnaea
Monotropa

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No.
Quadrat No.

3148

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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
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 *disperda*
Solidago ulmifolia
Streptopus roseus
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.

Quadrat No. 15

3148

<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>	<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. 16

Actaea pachypoda	Cl Fragaria virginiana	Potentilla simplex
Actaea rubra	Galium lanceolatum	Prenanthes alba
Adiantum pedatum	Galium triflorum	P teridium aquilinum
Allium tricoccum	G aultheria procumbens	Pyrola elliptica
A nemone quinquefolia	Gaylussacia baccata	P 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
A ster macrophyllus	Helianthus strumosus	Rosa sp.
Aster sagittifolius	Hepatica acutiloba	Rubus parviflorus
Athyrium angustum	Hepatica americana	Rubus (blackberry)
Botrychium virginianum	Impatiens biflora	Rubus (dewberry) <i>raspberry</i>
Brachyelytrum erectum	Linnaea borealis	Sambucus pubens
Carex albursina	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	Lycopodium obscurum	Solidago ulmifolia
Coptis trifolia	Lysimachia quadrifolia	Streptopus roseus
Corallorrhiza maculata	Maianthemum canadense	Taxus canadensis
Cornus alternifolia	Mitchella repens	Thalictrum dioicum
Cornus canadensis	Mitella diphylla	Trientalis borealis
C ornus rugosa	Mitella nuda	Trillium grandiflorum
Corylus americana	Monotropa uniflora	Uvularia grandiflora
Corylus cornuta	Myrica asplenifolia	Uvularia sessilifolia
Cypripedium acaule	Onoclea sensibilis	Vaccinium angustifolium
D iervilla lonicera	O ryzopsis asperifolia	Vaccinium pennsylvanicum
Dirca palustris	Osmorhiza claytoni	Viburnum acerifolium
Dryopteris linnaeana	Oxalis montana	Viola canadensis
Dryopteris phegopteris	Phryma leptostachya	Viola cucullata
Dryopteris spinulosa	Polygala pauciflora	Viola pallens
Epifagus virginiana	Polygonatum commutatum	Viola pubescens
Epigaea repens	Polygonatum pubescens	Waldsteinia fragarioides

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 31-8
Quadrat No. 17

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
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
Viola cucullata
Viola pallens
Viola pubescens
Waldsteinia fragarioides

Urtica pa

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3148
Quadrat No. 19

<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>	<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. 19

<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>	<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. 3148
Quadrat No. 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>	<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>	<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>

PRESENCE LIST

NORTHERN PINE-HARDWOODS

STAND NO. 3148

Abies balsamea
 ✓ Acer rubrum
 ✓ Acer saccharum
 ✓ Acer spicatum
 ✓ Amelanchier sp.
 Betula lutea
 ✓ Betula papyrifera
 Caprinus caroliniana
 Carya cordiformis
 Crataegus 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 *Amelanchier*
 Thuja occidentalis
 Tilia americana
 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
 ✓ Aralia nudicaulis
 Aralia racemosa
 Arctostaphylos uva-ursi
 Arisaema atrorubens
 Asarum canadense
 ✓ Asclepias phytoecoides
 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 americanum
 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
 Phytolacca leptostachya
 Podophyllum peltatum
 Polemonium reptans
 Polygala pauciflora
 Polygonatum commutatum
 Polygonatum pubescens
 Potentilla simplex
 Prenanthes alba
 Pteris 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 *can. dense*
 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:

Alnus incana
 Pyrola minor
 " Chlorantha
 Halenia deflexa
 Monotropa hypopsetus

THE CORTICOLOUS VEGETATION OF THE NORTHERN WISCONSIN UPLAND
Data collected by William L. Culberson, Summers 1952-1953.

From a 40-tree sample, the continuum index of this stand is ⁹⁴².....
Abbreviations in the data sheet refer to the following species:

<i>Alectoria nidulifera</i>	<i>Parmelia saxatilis</i>	(Bryophytes)
<i>Allarthonia caesia</i>	<i>Parmelia subaurifera</i>	
<i>Anaptychia palmatula</i>	<i>Parmelia subquercifolia</i>	<i>Amblystegium varium</i>
<i>Anaptychia speciosa</i>	<i>Parmelia sulcata</i>	<i>Anomodon attenuatus</i>
<i>Arthonia radiata</i>	<i>Parmelia trichotera</i>	<i>Anomodon minor</i>
<i>Bacidia chlorococca</i>	<i>Parmeliopsis ambigua</i>	<i>Anomodon rostratus</i>
<i>Bacidia fuscorubella</i>	<i>Parmeliopsis hyperopta</i>	<i>Anomodon tristis</i>
<i>Bacidia</i> sp.	<i>Parmeliopsis placorodia</i>	<i>Bazzania trilobata</i>
<i>Buellia punctata</i>	<i>Peltigera canina</i>	<i>Brachythecium</i> sp.
<i>Buellia stillingiana</i>	<i>Pertusaria</i> sp.	<i>Brotherella recurvans</i>
<i>Caloplaca aurantiaca</i>	<i>Physcia aipolia</i>	<i>Campylium hispidulum</i>
<i>Caloplaca cerina</i>	<i>Physcia ascendens</i>	<i>Chamberlainia acuminata</i>
<i>Caloplaca</i> sp.	<i>Physcia ciliata</i>	<i>Dicranum flagellare</i>
<i>Candelaria concolor</i>	<i>Physcia grisea</i>	<i>Dicranum montanum</i>
<i>Candelaria fibrosa</i>	<i>Physcia millegrana</i>	<i>Dicranum</i> sp.
<i>Cetraria atlantica</i>	<i>Physcia orbicularis</i>	<i>Entodon</i> sp.
<i>Cetraria ciliaris</i>	<i>Physcia syncolla</i>	<i>Eurhynchium serrulatum</i>
<i>Cetraria fendleri</i>	<i>Physcia tribacoides</i>	<i>Eurhynchium strigosum</i>
<i>Cetraria oakesiana</i>	<i>Pyrenula leucoplaca</i>	<i>Frullania asagrayana</i>
<i>Cetraria pinastri</i>	<i>Pyrenula nitida</i>	<i>Frullania bolanderi</i>
<i>Gladonia botrytes</i>	<i>Pyxine soreliata</i>	<i>Frullania eboracensis</i>
<i>Gladonia cenotea</i>	<i>Ramalina fastigiata</i>	<i>Heterophyllum</i>
<i>Gladonia chlorophaea</i>	<i>Ramalina pollinaria</i>	haldanianum
<i>Gladonia coniocraea</i>	<i>Rinodina halei</i>	<i>Hypnum reptile</i>
<i>Gladonia cristatella</i>	<i>Rinodina papillata</i>	<i>Hypnum</i> sp.
<i>Gladonia verticillata</i>	<i>Rinodina</i> sp.	<i>Jamesoniella autumnalis</i>
<i>Collema subfurvum</i>	<i>Trypethelium virens</i>	<i>Leskea</i> sp.
<i>Conotrema urceolatum</i>	<i>Usnea</i> sp.	<i>Leucodon sciuroides</i>
<i>Evernia mesomorpha</i>	<i>Xanthoria fallax</i>	<i>Lindbergia brachyptera</i>
<i>Graphis scripta</i>	<i>Xanthoria polycarpa</i>	var. austinii
<i>Lecanora pallida</i>		<i>Lophocolea heterophylla</i>
<i>Lecanora subfusca</i>		<i>Mnium cuspidatum</i>
<i>Lecanora varia</i>		<i>Mnium spinulosum</i>
<i>Lecidea berengeriana</i>		<i>Neckera pennata</i>
<i>Lecidea nylanderii</i>		<i>Orthotrichum</i> sp.
<i>Lecidea vernalis</i>		<i>Plagiochila asplenioides</i>
<i>Lepraria aeruginosa</i>		<i>Plagiothecium</i> sp.
<i>Leptorhaphis epidermidis</i>		<i>Platygyrium repens</i>
<i>Le sym</i> = unknown crustose		<i>Porella platy-</i>
<i>Lobaria pulmonaria</i>		phylloidea
<i>Lobaria quercizans</i>		<i>Ptilidium pulcherrimum</i>
<i>Normandina pulchella</i>		<i>Pylasia</i> sp.
<i>Ochrolechia pallescens</i>		<i>Radula complanata</i>
<i>Opegrapha varia</i>		<i>Tetraxis pellucida</i>
<i>Parmelia andreana</i>		<i>Thuidium delicatulum</i>
<i>Parmelia aurulenta</i>		<i>Ulota crispa</i>
<i>Parmelia borrieri</i>		
<i>Parmelia caperata</i>		
<i>Parmelia cetrarioides</i>		
<i>Parmelia crinita</i>		
<i>Parmelia physodes</i>		
<i>Parmelia rupestris</i>		

