

Site 3101: Washburn County. 1950-07-02

[s.l.]: [s.n.], 1950-07-02

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STAND RECORD

FORESTS

Stand No. 8

Name:

Locality:

County:

T:

R:

Sec:

Date:

Observers:

Size of Stand:

Size of Area Sampled:

Forest Type:

Soil Type:

Topography:

Slope:

Directions

Condition of Stand:

Open Grown Trees:

% Canopy:

Stumps:

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

Soil Data:

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

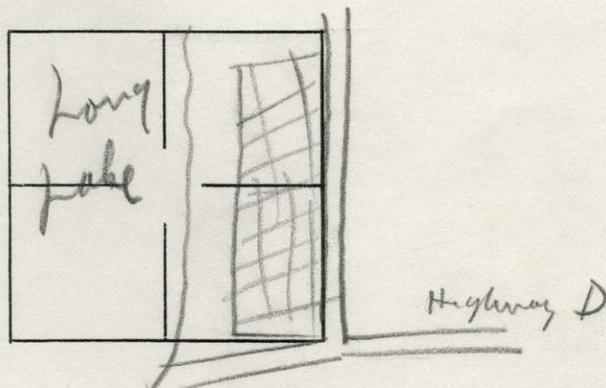
DEPTH

CHARACTERISTICS (Color, Texture, Structure, etc.)

A ₀	1/2 deciduous leaves
A ₁	1/2 to 3 in black clay
A ₂	
B	Brown silt loam

Parent Material:

Map:



No vernalis 5/52

Prob = .83

Distance

3101

1	30
2	55
1	90
2	00
2	15
1	20
2	00
1	45
1	75
3	30
1	75
2	55
2	75
	85
	95
1	50
1	60
2	15
1	45
1	65
2	25
2	45
1	20
2	00
2	05
1	65
2	00
	70
2	05
1	50
1	50
1	55
2	20
1	60
2	15
1	60
1	35
1	90
1	70
7	020

red oak

3101

2 75

3 05

2 95

2 75

18

65

70

2 80

4 20

40

1 90

13

75

21

1 10

35

35

70

1 45

90

6 80

95

35

1 60

1 90

60

60

1 55

1 90

45

~~4 4 97~~

1 50

2 60

3 25

28

2 90

75

45

85

2 90

2 90

1 10

1 05

15

60

19

40

4 05

1 20

2 15

1 15

3 50

1 20

2 70

1 30

1 50

3 50

3 40

57

80

85

2 40

1 00

29

~~98 40~~

99 10

4567

4 Trees

3101

	1	3	2
5	5	0	2
	1	4	0
	2	7	6
		9	9
	6	3	5
	5	0	4
9	9	1	0
	8	0	7
		3	0
	3	8	5
	1	6	0
	1	5	5
1	8	7	3

5

Popgrand

310)

210—

45

175—

430②

205—

635*

Tilia

3101

391

27

19

260

55

~~361~~ 30

45

53

73

100

70

75

~~777~~

807

red maple

3/01

40

22

27

89 (C)

23

20

1 32 *

white oak

3101

95—

24

1 35—

2 54 ①

50

2 00—

5 04 *

sugar
maple

3101

2 70

65

18

12

1 10

2 50

1 60

4 50

25

19

1 50

2 75

1 20

3 25

38

45

48

35

65

2 40

30

95

25

2 8 70

1 30

3 00

12

2 20

65

20

1 00

23

3 00

2 35

15

1 25

1 40

14

2 40

65

1 50

27

16

1 75

12

13

15

75

35

5 3 92

5502

2 Trees

3101

1 0 0
89
2 8 70
35
2 32
83
4 30
2 54
4 5 6 7
3 91
30
1 58
46
95
9 2 80

Am Elm

3101

30

30 @

30 *

white
birch

3101

35

350

105

140*

O Styrja

3101

28

55

83 ①

16

99 *

Shippory
Cm

3101

18

1 40

1 58 (1)

37

1 90

3 85

am ash

3101

40

32

1 60

2 32 (-)

19

25

2 76 :

butternut

310!

95

95 ①

60

1 55 *

Canya

Cordif.

3101

28

18

46 (1)

45

47

22

160 *

TREE DATA SUMMARY SHEET

Northern Pine-Hardwoods

Station Number: 3101

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	3	3	3			89	3	1.9	1		4.1	3.8	1.0	8.9	53
A. sacchar	21	23	12	9	2	2870	114	71.3	19		28.8	28.8	30.9	88.5	885
A. spicatu															
Betula lut							1	0.6							
B. papyrif	1	1	1			35					1.4	1.3	0.4	3.1	16
Carpinus c							1	0.6							
Fagus gran	3	3	2	1		232	5	3.1	6		4.1	3.8	2.5	10.4	83
Ostrya vir	2	2	2			83	23	14.4	7		2.7	2.5	0.9	6.1	55
Picea glau															
Pinus Bank															
P. resinosa															
P. Strobus															
Populus ba															
P. grandid	3	3	1	2		430					4.1	3.8	4.6	12.5	25
P. tremulo															
Prunus penn									1						
Quercus alb	3	3	1	2		254					4.1	3.8	2.7	10.6	42
Q. rubra	26	31	15	14	2	4587	1	0.6	2		35.6	38.8	49.2	123.6	618
Tilia amer	5	5	4	1		391	5	3.1	3		6.9	6.3	4.2	17.4	139
Tsuga cana															
Thuja occi															
Ulmus amer	1	1	1			30	1	0.6	1		1.4	1.3	0.3	3.0	24
U. fulva	2	2	1	1		158			2		2.7	2.5	1.7	6.9	55
Caryacord	2	2	2			46	6	3.8	4		2.7	2.5	0.5	5.7	46
Juglanscin	1	1		1		95					1.4	1.3	1.0	3.7	19
	73	80	45	31	4	9282	160	100.0			100.0	100.5	99.9	300.4	2060

AVE. DIST. BTW'N TREES:

17.55

AVE B. A.:

116.0

TREES/ACRE:

177

DOM./ACRE:

20,532

2050

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 3101
101

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam										
Acer rubrum							40			
A. sacchar.	270 (130)	✓ 2	✓ 4	✓ 65 3	✓ 18, 12 3	✓ 110 4	✓ 250 (300)	✓ 160 (13)	✓ 3	✓ 450 (220)
A. spicatum										
Betula lut.										
B. papyrif										
Carpinus car										
Fagus gran										
Ostrya virg	✓ 2		1				(16)	✓ 1	1	
Picea glau										
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand						210 (205)				
P. trem										
Prunus pen. <i>virg</i>									✓	
Quercus ell										
Q. rubra	275 (130)	305 (260)	295 275		325 (28)	✓			18	65
Tilia amer		(45)	(53)	27 (73)	✓ 1			19		1
Tsuga can										
Thuja occ										
Ulmus amer										
U. fulva			(37)	(190)					18	
Fraxinus amer	✓		✓	✓			✓	✓	(19)	✓ 3
Juglans ciner		95							(60)	
Carya cordif						(45)	✓	(47)		(22)
Distance	13	25.5	19	20	21.5	12	20	14.5	17.5	33

128
77106
65

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 3101

STATION NO.	1	2	3	4	5	6	7	8	9	210
Abies balsam										
Acer rubrum							22	23		
A. sacchar.	65	25	100	19	300	150	235	4	3	15
A. spicatum										
Betula lut.			1							
B. papyrif										
Carpinus car										
Fagus gran										
Ostrya virg	2			3		7	3	28	1	
Picea glau										
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand						45				
P. trem										
Prunus pen.										
Quercus ell										
Q. rubra	10	75	280	40	190	13	75	21	105	110
Tilia amer		260	420	85	55	100	290	115		
Tsuga can										
Thuja occ										
Ulmus amer										
U. fulva										
Querc. alba	95				50		200			24
Carya cord.										
Frax. amer								40		
Distance	17.5	25.5	27.5	8.5	9.5	15	16	21.5	14.5	16.5

189
98

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 3101

STATION NO.	21	22	23	24	25	26	27	28	29	30
<i>Abies balsam</i>										
<i>Acer rubrum</i>				1	1					
<i>A. sacchar.</i>	(110)	275	120	325 (123) (140)	2	38 (14)	45 (240) (65)	48 (35) (150)	65 (27)	(16) 4
<i>A. spicatum</i>										4
<i>Betula lut.</i>										
<i>B. papyrif</i>										
<i>Carpinus car</i>										
<i>Fagus gran</i>										
<i>Ostrya virg</i>	2			1	2	2	55			
<i>Picea glau</i>										
<i>Pinus Bank</i>										
<i>P. resinosa</i>										
<i>P. Strobus</i>										
<i>Populus bals</i>										
<i>P. grand</i>					175					
<i>P. trem</i>										
<i>Prunus pen.</i>										
<i>Quercus ell</i>										
<i>Q. rubra</i>	35 (60)	79	70 (40)	70	145 (120) (215)	90 (115)		350	690 (120)	(270) 30
<i>Tilia amer</i>		1								
<i>Tsuga can</i>										
<i>Thuja occ</i>										
<i>Ulmus amer</i>										
<i>U. fulva</i>										
<i>Fraxinus amg</i>	1	32 (25)	1							
<i>Carya cordif</i>	1	1					1	1		28
Distance	22.5	24.5	12	20	14	20.5	16.5	20	7	20.5

$$\frac{168}{8} = 21$$

$$\frac{177}{9} = 19.6$$

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 3101

STATION NO.	31	32	33	34	35	36	37	38	39	40
Abies balsam										
Acer rubrum							(30)		27	
A. sacchar.	(240) (175)	(12)	4 (13)	4 (30) (15)	4 (95) (35) (35)	2	2	4	4 (25)	3
A. spicatum	3									4
Betula lut.										
B. papyrif		(35) (105)								
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau										
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem										
Prunus pen.										
Quercus ell										
Q. rubra	(130)	95	35 (150)	(350)	160	190 (57) (340)	60 (50)	155 (190)	(240) (75)	45 (100) (27)
Tilia amer								(70)		
Tsuga can										
Thuja occ										
Ulmus amer						30				
U. fulva			140							
Corylus cord	18									
Frax. amer				160						
Q. alba										135
Distance	15	15	15.5	22	16	21.5	16	13.5	19	17

$$\frac{10}{6} \frac{4}{4}$$

$$\frac{19}{10} \frac{9}{7}$$

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3101
Quadrat No. /

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
 Cypridium acaule
 Diervilla lonicera
 Dirca palustris
 Dryopteris linnaeana
 Dryopteris phegopteris
 Dryopteris spinulosa
 Epifagus virginiana
 Epigaea repens
Osmunda claytoniana

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. 3101
Quadrat No. 2

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. 101
Quadrat No. 3

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

Osmunda claytoniana

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. 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

Amphicarpa bracteata

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3101
Quadrat No. 5

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. 3101
Quadrat No. 6

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

Desmodium acuminatum

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3101
Quadrat No. 7

<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. 3101
Quadrat No. 8

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. 9

3101

✓ 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

✓ Amphicarpa bracteata

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No.

Quadrat No. 10

3101

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. 3101
Quadrat No. 11

<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. 3101
12

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

Viola pubescens

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 101
Quadrat No. 13

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

Aster sp.
Lupulus sp.

Prunella vulgaris

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3101
Quadrat No. 14

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

Desmod. acut.
Aster spp.

Viola pub.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3101
Quadrat No. 15

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

Poa sp

Ribes ~~sp.~~
Parthenocissus

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3101
Quadrat No. 16

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

Carex sp.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3101
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

Smelanchier
Aster sp.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3101
Quadrat No. 18

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. 3101
Quadrat No. 19

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

Osmunda clayt.
Prunus virgin.
Liriodendron

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3101
Quadrat No. 20

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

Fragaria virginiana
Galium lanceolatum
Galium triflorum
Gaultheria procumbens
Gaylussacia baccata
Geranium maculatum
Geum canadense
Gnaphalium obtusifolium
Helianthemum sp.
Helianthus strumosus
Hepatica acutiloba
Hepatica americana
Impatiens biflora
Linnaea borealis
Lonicera oblongifolia
Lupinus perennis
Lycopodium annotinum
Lycopodium complanatum
Lycopodium lucidulum
Lycopodium obscurum
Lysimachia quadrifolia
Maianthemum canadense
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 clayt.

TABULATION FORM

NORTHERN PINE-HARDWOODS

Stand No. 3101

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>	✓																					1
<i>Actaea rubra</i>																						
<i>Adenocaulon bicolor</i>																						
<i>Adiantum pedatum</i>	✓		✓		✓	✓					✓											4 50
<i>Agrimonia gryposepala</i>																						
<i>Allium tricoccum</i>																						
<i>Alnus incana</i>																						
<i>Alnus rugosa</i>																						
<i>Amphicarpa bracteata</i>	✓				✓					✓												2 10
<i>Anemone canadensis</i>																						
<i>Anemone cylindrica</i>																						
<i>Anemone quinquefolia</i>	✓					✓	✓	✓		✓			✓	✓				✓	✓			8 40
<i>Antennaria</i> sp.																						
<i>Apocynum androsaemifolium</i>	✓																					1
<i>Apocynum cannabinum</i>																						
<i>Aquilegia canadensis</i>	✓																					
<i>Aralia hispida</i>																						
<i>Aralia nudicaulis</i>	✓	✓							✓		✓			✓	✓	✓				✓		8 40
<i>Aralia racemosa</i>	✓																					
<i>Arctostaphylos uva-ursi</i>																						
<i>Arisaema atrorubens</i>	✓		✓																			1 5
<i>Asarum canadense</i>																						
<i>Asclepias exaltata</i>																						
<i>Aster cordifolius</i> sp.	✓												✓	✓			✓					3 15
<i>Aster lateriflorus</i>																						
<i>Aster macrophyllus</i>	✓					✓					✓		✓	✓		✓						5 25
<i>Aster prenanthoides</i>																						
<i>Aster sagittifolius</i>																						
<i>Aster shortii</i>																						
<i>Aster umbellatus</i>					✓																	
<i>Athyrium filix-femina</i> ^{angustum}	✓							✓														1 5
<i>Athyrium thelypteroides</i>																						
<i>Boehmeria cylindrica</i>																						
<i>Botrychium lanceolatum</i>																						
<i>Botrychium matricariaefolium</i>																						
<i>Botrychium virginianum</i>	✓				✓					✓												2 10
<i>Brachyelytrum erectum</i>	✓	✓																				1 5
<i>Bromus purgans</i>																						
<i>Campanula americana</i>																						
<i>Campanula rotundifolia</i>																						
<i>Cardamine pensylvanica</i>																						
<i>Carex albursina</i> sp.	✓															✓						1 5
<i>Carex pensylvanica</i>																						
<i>Carex plantaginea</i>																						
<i>Caulophyllum thalictroides</i>																						
<i>Ceanothus ovatus</i>																						
<i>Celastrus scandens</i>																						
<i>Chimaphila umbellata</i>																						
<i>Cicuta maculata</i>																						
<i>Circaea alpina</i>																						
<i>Circaea quadrisulcata</i>	✓		✓							✓		✓	✓	✓								5 25

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																						
Comandra richardsiana																						
Comptonia peregrina																						
Convolvulus spithameus																						
Coptis groenlandica																						
Corallorhiza maculata																						
Corallorhiza striata																						
Corallorhiza trifida																						
Coreopsis palmata																						
Cornus alternifolia	L																					1
Cornus canadensis																						
Cornus foemina																						
Cornus rugosa	L						L															1 5
Corydalis sp.																						
Corylus americana																						
Corylus cornuta	LL								L													2 10
Cryptotaenia canadensis	L																					1
Cynoglossum boreale																						
Cypripedium acaule																						
Cypripedium parviflorum																						
Cypripedium pubescens																						
Cystopteris fragillis																						
Danthonia spicata																						
Dentaria diphylla																						
Desmodium glutinosum ^{acum.}	L						L								L							2 10
Desmodium nudiflorum																						
Dicentra canadensis																						
Dicentra cucullaria																						1
Diervilla lonicera	L																					
Dirca palustris																						
Dryopteris bootii																						
Dryopteris cristata																						
Dryopteris goldiana																						
Dryopteris disjuncta																						
Dryopteris phegopteris																						
Dryopteris spinulosa																						
Epifagus virginiana																						
Epigaea repens																						
Equisetum arvense																						
Equisetum hyemale																						
Equisetum sylvaticum																						
Erigeron philadelphicus																						
Erythronium albidum																						
Erythronium americanum																						
Eupatorium rugosum																						
Festuca obtusa																						
Fragaria virginiana																						

Stand No. 3101

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

[illegible]

TABULATION FORM

NORTHERN PINE-HARDWOODS

Stand No. 3101

STATION NO.	P.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	T	
Prenanthes alba																							
Prunella vulgaris	✓													✓								1	5
Pteretis pensylvanica																							
Pteridium aquilinum	✓																						1
Pyrola asarifolia																							
Pyrola elliptica	✓																						1
Pyrola minor																							
Pyrola rotundifolia																							
Pyrola secunda																							
Pyrola virens																							
Ranunculus abortivus																							
Ranunculus recurvatus																							
Ranunculus septentrional																							
Rhus radicans																							
Rhus typhina																							
Ribes americanum sp.	✓															✓						1	5
Ribes cynosbati	✓																						1
Ribes lacustre																							
Ribes triste																							
Rosa sp.																							
Rubus idaeus																							
Rubus parviflorus																							
Rubus hispidus																							
Rubus - blackberry	✓																						1
Rubus - dewberry																							
Rubus - raspberry																							
Salix sp.																							
Sambucus canadensis																							
Sambucus pubens																							
Sanguinaria canadensis	✓	✓																					1 5
Sanicula gregaria																							
Sanicula marilandica																							
Schizachne purpurascens																							
Scutellaria lateriflora																							
Senecio aureus																							
Shepherdia canadensis																							
Smilacina racemosa	✓									✓													1 5
Smilacina stellata																							
Smilax ecirrhata	✓																						1
Smilax herbacea	✓																						1
Smilax hispida	✓																						1
Solidago canadensis																							
Solidago flexicaulis																							
Solidago ulmifolia latifolia	✓																						1
Spiraea alba																							
Stellaria longifolia																							
Streptopus amplexifolius																							
Streptopus roseus	✓																						1
Symphoricarpos albus																							
Taxus canadensis																							
Thalictrum dioicum	✓								✓	✓				✓					✓				400

STATION NO.	P.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	T
Trientalis borealis	✓																					1
Trillium cernuum																						
Trillium grandiflorum	✓	✓		✓	✓	✓	✓	✓		✓		✓	✓							✓	8	40
Uvularia grandiflora	✓																					1
Uvularia sessilifolia	✓																					1
Vaccinium angustifolium																						
Vaccinium myrtilloides																						
Veronicastrum virginicum																						
Viburnum acerifolium	✓										✓	✓			✓						✓	4
Viburnum rafinesquianum																						
Viburnum lentago																						
Viola adunca																						
Viola blanda																						
Viola canadensis	✓																					5
Viola conspersa																						
Viola cucullata	✓	✓																				1
Viola pensylvanica																						
Viola incognita																						
Viola pallens																						
Viola pubescens	✓												✓	✓								2
Viola renifolia																						
Vitis aestivalis																						
Vitis riparia																						
Waldsteinia fragarioides																						
Xanthoxylum americanum																						
Zizia aurea																						
Additional species:																						
Poa sp.	✓															✓						1
Amelanchier	✓																	✓				1
Prunus virg.	✓																			✓		1

PRESENCE LIST

NORTHERN PINE-HARDWOODS

STAND NO. 3101

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

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

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

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 phyto-laccoides
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*
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
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
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
Lycopus americanus
Lycopus uniflora
Lysimachia quadrifolia
 ✓ *Maianthemum canadense*

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

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

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

Additional Species:

Desmodium acuminatum

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.....²⁴³²
Abbreviations in the data sheets 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>Cladonia botrytes</i>	<i>Pyxine soorediata</i>	<i>Frullania eboracensis</i>
<i>Cladonia cenotea</i>	<i>Ramalina fastigiata</i>	<i>Heterophyllum</i>
<i>Cladonia chlorophaea</i>	<i>Ramalina pollinaria</i>	<i>haldanianum</i>
<i>Cladonia coniocraea</i>	<i>Rinodina halei</i>	<i>Hypnum reptile</i>
<i>Cladonia cristatella</i>	<i>Rinodina papillata</i>	<i>Hypnum</i> sp.
<i>Cladonia 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. <i>austinii</i>
<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>		<i>phylloidea</i>
<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>Tetraphis 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 rudecta</i>		

Cryptogam Summary. ~~DEH~~ Level BASE. W.L.Culberson. Stand No.....

No. trees	Ac rub	Ac sac	Be lut	Be pap	Fa gra	Os vir	Pi ban	Pi res	Pi str	Po gra	Po tre	Pr ser	Qu alb	Qu ell	Qu rub	Tl ame	Ts can	Ul ame	Total	Frequency
Ba fus		2														1			3	8
Cn con															2				2	5
Cr neg		1													2				3	8
Gr scr		1													1				2	5
Le sym	1	4													3				12	30
Pa aur															3				3	8
Pa rud															1				1	5
Ph orb	1	5													7	1		3	17	43
Py leu		1														1			2	5
Ri hal		1													1				2	5
Pa cap	2	15								1					20	3		7	48	3
Am var		8				1									2	2		4	17	43
An att		2														1			3	8
An min		6				1										4		3	14	35
Campyl	1	4								1					1			2	9	23
Ch acu		13				1				1					9	2		2	28	70
En gla		2													3				5	13
Eu str		1													1				2	5
Fr ebo		3													3	1			7	18
He hal															1				1	3
Hy rep															1				1	3
Léskea										1					2			1	4	10
Li aus															1				1	3
Mn cus		2				1									4				7	18
Plagio		3													2			1	6	15
Pl rep	2	4								1					7	2		3	19	48
Po pla		9														3			12	30
Py spl															1				1	3
Th del		2				1									6			1	10	25
Lo hut																		1	1	3
	3	59				5				4					44	15		18	148	