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Site 3146: Arbutus Lake, Forest County. 1950-08-10

[s.l.]: [s.n.], 1950-08-10

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STAND RECORD

FORESTS

Stand No. 3146

Name: *Arbutus lake* Locality: *N shore arbutus lake*
 County: *Forest Co.* T: *34N* R: *13E* Sec: *27-28-21-22*
 Date: *Aug 10, 1950* Observers: *Cottam et al*
 Size of Stand: *160+* Size of Area Sampled: *20 acres*
 Forest Type: *aspen white Birch +* Soil Type: *Vilas Sandy loam and Plainfield*
 Topography: *Rolling* Slope: _____ Directions: *Sand*

Condition of Stand: *Large well rotted stumps w abundant evidence of fire. - No recent disturbance*

Open Grown Trees: *1 Hemlock 1 poplar.* % Canopy: *Variable ave. 70*

Stumps:

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

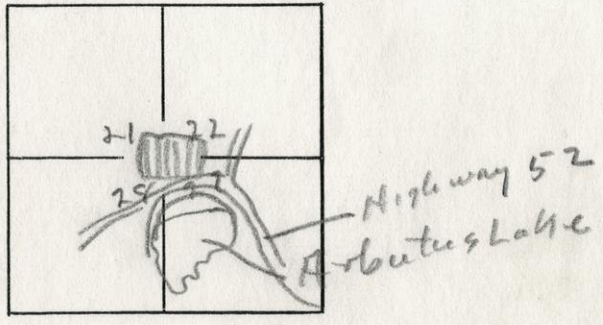
Soil Data:

	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 <i>1/2"</i>	<i>Deciduous leaves</i>
A ₁ <i>1-1 1/2"</i>	<i>Black silt loam</i>
A ₂ <i>1/2-3/4"</i>	<i>Grey silt</i>
B	<i>yellow silt</i>

Parent Material:

Map:



Prob = .38

red oak

31 lb

1 05

1 30

2 35 (1)

1 2

2 47 *

Ostya

3146

30

30*

red pine

3146

32

32 (1)

19

28

79 *

4 trees
Totals
3146

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

red maple

3146

15

24

14

19

40

21

19

17

12

50

2 31 (1)

12

13

12

15

2 83 *

2 Trees

3146

totals

1 24

2 31

1 87

7 94

32

59

9 03

6 30

2 35

44

32 39

hemlock

3146

26

18

44 (*)

14

50

1 08 *

Sugar
maple
3146

14
12
16
1 10
13
22
1 87 (1)
14
32
20
20
15
15
3 03 *

white
pine

3146

40

19

59 (9)

20

19

98 *

Balsam

3146

	19	
	50	
	55	
1	24	⊙
	12	
	12	
	12	
	20	
	20	
2	00	*

Popgnard

3146

80

95

60

29

18

28

53

90

35

45

65

65

2 40

9 03

1 40

78

90

65

50

85

43

1 15

85

65

43

24

60

75

45

1966*

Papstern
3146

40
30
19
18
44
37
45
45
~~53~~
~~90~~
~~53-~~
~~90-~~
37
60
1 15
80
60
6 30
35
53
38
40
65
40
55
57
85
1 00
60
1 20
53
75
~~25~~
~~25-~~
35
70
85
24
1 7 20 *

distances

3146

1 40

1 45

2 65

1 55

65

1 30

1 40

1 40

1 60

2 60

1 95

1 95

1 35

1 45

40

1 40

1 35

1 25

1 80

1 95

1 60

1 60

65

2 65

1 45

1 00

70

1 05

1 00

1 00

1 00

1 10

95

1 60

1 05

1 55

2 15

1 45

1 55

2 15

5 8 10 #

white
birch
3146

29

40

22

29

14

13

21

22

30

40

16

32

~~92~~

28

27

17

13

43

50

40

12

30

35

24

13

30

18

14

7 94 (9)

17

40

16

17

20

24

32

~~22~~

~~22~~

21

14

35

16

16

23

30

55

58

60

52

32

20

12

16

18

14

1 4 52 *

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No.

3146

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam								19		
Acer rubrum	✓		(12)	1		✓	✓	✓	15	✓ 24
A. sacchar.			14	(14)	12	4	(32)	4		3
A. spicatum							✓			
Betula lut.				2						
B. papyrif	1	(17)	3	(40)	29		40	(24)	(32)	✓ 22
Carpinus car							(17)	(20)		
Fagus gran										
Ostrya virg										1
Picea glau								1		
Pinus Bank										
P. resinosa	(19)							32		
P. Strobus	(20)									
Populus bals										
P. grand	80, 95					(140)				(78)
P. trem		40, 30	19	18	✓ 44	37	45	✓ 40		(63)
Prunus pen.										
Quercus ell										
Q. rubra					✓			✓	105	(12)
Tilia amer										
Tsuga can										
Thuja occ										
Ulmus amer	1									
U. fulva										
Prunus serot.	1				✓			✓	2	
Distance	14	14.5	26.5	15.5	6.5	13	14	14	16	26

10 3
7 3

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 3146

STATION NO.	11	12	13	14	15	16	17	18	19	20
Abies balsam										(12) 2
Acer rubrum	✓ 2	✓	✓	(13)		✓	1	14, 19 (17) 2	40	✓
A. sacchar.		110(20)	13(20)		2	1	3	7	22	1
A. spicatum										
Betula lut.										
B. papyrif	29 2	(21)	14	13, 21 (19) 2	22, 10 (35)		30, 40 (16, 23)	(30)	7	(55)
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau										
Pinus Bank										
P. resinosa	(28)									1
P. Strobus										
Populus bals										
P. grand	60				29	90, 19 (65) 28, 1			(50)	(85)
P. trem	(40)	✓	(55)							45
Prunus pen.			1	2	2	2				✓
Quercus ell										
Q. rubra		130				✓				✓
Tilia amer										
Tsuga can										26
Thuja occ										
Ulmus amer										
U. fulva										
<i>Prunus serot</i>						2			2	1
Distance	19.5	19.5	13.5	14.5	4.0	14.0	13.5	12.5	18.0	19.5

15 77
8 5

C. canadensis

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No.

STATION NO.	21	22	23	24	25	26	27	28	29	30
Abies balsam	50		1	1						
Acer rubrum	21			1		4	19	1	17	
A. sacchar.	1				3				2	1
A. spicatum								2		
Betula lut.			1				1	1	1	2
B. papyrif	(58)	16, 32 (60)	92, 28 (52) (30)	27	(20)	17 (12)		13	43	
Carpinus car										
Fagus gran										
Ostrya virg										
Picea glau										
Pinus Bank										
P. resinosa										
P. Strobus	(19)									
Populus bals										
P. grand				43 (115)	53, 90 (85)	35 (65)	45, 24 (43)			
P. trem		(57)		37				60 (85) (100)	(60) (120)	115 (80) (53) (75)
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer										
Tsuga can	2						1			
Thuja occ										
Ulmus amer										
U. fulva										
Prunus serot.	1			1		2	1			
Distance	16	16	6.5	26.5	14.5	10	7	10.5	10	10

14 8
8 6

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No. 3146

STATION NO.	31	32	33	34	35	36	37	38	39	40	
Abies balsam		55 (12)		2	1		1	1	(12)	2 (20)	2
Acer rubrum	12	(15)	1		1					2 50	
A. sacchar.	(15)	4			1	2		2	(15)	2	2
A. spicatum											
Betula lut.				1							
B. papyrif	50	40		(16)	12 (18)	30	35 (14)	24 1	13 1	30 18/14	
Carpinus car											
Fagus gran											
Ostrya virg							(30)				
Picea glau											
Pinus Bank											
P. resinosa			1	1							
P. Strobus			40 1			19					
Populus bals											
P. grand	(60)			65 (75)	65 (45)					240	
P. trem				60		(35) 70		(45) 24			
Prunus pen.				1							
Quercus ell											
Q. rubra											
Tilia amer											
Tsuga can			18 (1750)								
Thuja occ											
Ulmus amer											
U. fulva											
Prunus serot			1				2				
Distance	10.	11.0	9.5	16.0	10.5	15.5	21.5	14.5	15.5	21.5	

13 9
8 6

TREE DATA SUMMARY SHEET

Prod. 38

Northern Pine-Hardwoods

2 Trees

Station Number: 3146

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	3	3	3			124	13	8.4			4.5	3.8	3.8	12.1	85
Acer rubru	9	10	10			231	23	14.9	12		13.4	12.5	7.1	33.0	198
A. sacchar	6	6	5	1		187	43	27.9	3		9.0	7.5	5.8	22.3	223
A. spicatu							2	1.3	1						
Betula lut							14	9.1							
B. papyrif	21	28	27	1		794	20	13.0	1		31.4	35.0	24.5	90.9	455
Carpinus c															
Fagus gran															
Ostrya vir							1	0.6	1						
Picea glau							1	0.6							
Pinus Bank															
P. resinosa	1	1	1			32	3	1.9			1.5	1.3	1.0	3.8	11
P. Strobus	2	2	2			59	1	0.6			3.0	2.5	1.8	7.3	37
Populus ba															
P. grandid	10	13	10	3		903	2	1.3			14.9	16.3	27.9	59.1	118
P. tremulo	11	13	12	1		630	2	1.3	3		16.4	16.3	19.4	52.1	104
Prunus pen							6	3.9	2						
Quercus el															
Q. rubra	2	2		2		235	1	0.6	4		3.0	2.5	7.3	12.8	77
Tilia amer															
Tsuga cana	2	2	2			44	4	2.6			3.0	2.5	1.4	6.9	55
Thuja occi															
Ulmus amer							1	0.6							
U. fulva															
Prunus ser							17	11.0	2						
	67	80	72	8		3239	154	99.6			100.1	100.2	100.0	300.3	1363

AVE. DIST. BTW'N TREES: 14.5

AVE B. A.: 40.5

TREES/ACRE: 243

DOM./ACRE: 9841

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
Quadrat No. 1

Actaea pachypoda	✓ <i>Fragaria virginiana</i>	<i>Potentilla simplex</i>
Actaea rubra	<i>Galium lanceolatum</i>	<i>Prenanthes alba</i>
Adiantum pedatum	<i>Galium triflorum</i>	✓ <i>Pteridium aquilinum</i>
Allium tricoccum	<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. 3146
Quadrat No. 2

Actaea pachypoda	✓ <i>Fragaria virginiana</i>	<i>Potentilla simplex</i>
Actaea rubra	<i>Galium lanceolatum</i>	<i>Prenanthes alba</i>
Adiantum pedatum	<i>Galium triflorum</i>	✓ <i>Pteridium aquilinum</i>
Allium tricoccum	<i>Gaultheria procumbens</i>	<i>Pyrola elliptica</i>
Anemone quinquefolia	<i>Gaylussacia baccata</i>	<i>Pyrola rotundifolia</i>
Aquilegia canadensis	<i>Geranium maculatum</i>	<i>Pyrola secunda</i>
Aralia nudicaulis	<i>Geum canadense</i>	<i>Ranunculus recurvatus</i>
Aralia racemosa	✓ <i>Gnaphalium obtusifolium</i>	✓ <i>Rhus radicans</i>
Arisaema atrorubens	<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. 3146
Quadrat No. 3

- | | | |
|-----------------------------------|--------------------------------|---------------------------------|
| Actaea pachypoda | ✓ <i>Fragaria virginiana</i> | <i>Potentilla simplex</i> |
| Actaea rubra | <i>Galium lanceolatum</i> | <i>Prenanthes alba</i> |
| Adiantum pedatum | ✓ <i>Galium triflorum</i> | ✓ <i>Pteridium aquilinum</i> |
| Allium tricoccum | <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> |
| ✓ <i>Luzula saturensis</i> | | |

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
Quadrat No. 4

- | | | |
|-----------------------------------|--------------------------------|---------------------------------|
| Actaea pachypoda | ✓ <i>Fragaria virginiana</i> | <i>Potentilla simplex</i> |
| Actaea rubra | <i>Galium lanceolatum</i> | <i>Prenanthes alba</i> |
| Adiantum pedatum | ✓ <i>Galium triflorum</i> | <i>Pteridium aquilinum</i> |
| Allium tricoccum | <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> |

✓ *Smilax hispida*
 ✓ *Carex penn.*
 ✓ *Luzula saltuensis*
 ✓ *Amelanchier*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
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
 Cyripedium 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
 Mitchellia 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

✓ Carex penn.

✓ Viburnum affine

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
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

✓ Carex penn.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

3146
Stand No.
Quadrat No. 7

Actaea pachypoda	✓ <i>Fragaria virginiana</i>	<i>Potentilla simplex</i>
Actaea rubra	<i>Galium lanceolatum</i>	✓ <i>Prenanthes alba</i>
Adiantum pedatum	<i>Galium triflorum</i>	✓ <i>Pteridium aquilinum</i>
Allium tricoccum	<i>Gaultheria procumbens</i>	<i>Pyrola elliptica</i>
Anemone quinquefolia	<i>Gaylussacia baccata</i>	<i>Pyrola rotundifolia</i>
Aquilegia canadensis	<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>Onclea 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>

✓ *Carex penn.*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
Quadrat No. 8

- | | | |
|-----------------------------------|--------------------------------|---------------------------------|
| Actaea pachypoda | ✓ <i>Fragaria virginiana</i> | <i>Potentilla simplex</i> |
| Actaea rubra | <i>Galium lanceolatum</i> | <i>Prenanthes alba</i> |
| Adiantum pedatum | ✓ <i>Galium triflorum</i> | <i>Pteridium aquilinum</i> |
| Allium tricoccum | <i>Gaultheria procumbens</i> | <i>Pyrola elliptica</i> |
| Anemone quinquefolia | <i>Gaylussacia baccata</i> | <i>Pyrola rotundifolia</i> |
| Aquilegia canadensis | <i>Geranium maculatum</i> | <i>Pyrola secunda</i> |
| Aralia nudicaulis | <i>Geum canadense</i> | <i>Ranunculus recurvatus</i> |
| Aralia racemosa | <i>Gnaphalium obtusifolium</i> | <i>Rhus radicans</i> |
| Arisaema atrorubens | <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> |
| ✓ <i>Convolvulus pithameus</i> | | |
| ✓ <i>Hieracium scabrum</i> | | |
| ✓ <i>Carex penn.</i> | | |

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
Quadrat No. 9

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. 3146
Quadrat No. 10

Actaea pachypoda	✓ Actaea 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. 3146
Quadrat No. //

Actaea pachypoda	<u>Fragaria virginiana</u>	Potentilla simplex
Actaea rubra	Galium lanceolatum	Prenanthes alba
Adiantum pedatum	Galium triflorum	<u>Pteridium aquilinum</u>
Allium tricoccum	Gaultheria procumbens	Pyrola elliptica
Anemone quinquefolia	Gaylussacia baccata	Pyrola rotundifolia
Aquilegia canadensis	Geranium maculatum	Pyrola secunda
Aralia nudicaulis	Ceanothus canadense	Ranunculus recurvatus
Aralia racemosa	Gnaphalium obtusifolium	Rhus radicans
Arisaema atrorubens	Helianthemum sp.	Ribes americanum
<u>Aster macrophyllus</u>	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	<u>Smilacina racemosa</u>
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	<u>Maianthemum canadense</u>	Taxus canadensis
Cornus alternifolia	Mitchella repens	<u>Thalictrum dioicum</u>
Cornus canadensis	Mitella diphylla	Trientalis borealis
Cornus rugosa	Mitella nuda	Trillium grandiflorum
Corylus americana	Monotropa uniflora	<u>Uvularia grandiflora</u>
Corylus cornuta	Myrica asplenifolia	<u>Uvularia sessilifolia</u>
Cypripedium acaule	Onoclea sensibilis	Vaccinium angustifolium
<u>Diervilla lonicera</u>	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

Carex, m.l.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
Quadrat No. 12

Actaea pachypoda	<u>Fragaria virginiana</u>	Potentilla simplex
Actaea rubra	Galium lanceolatum	<u>Prenanthes alba</u>
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
<u>Aster macrophyllus</u>	Helianthus strumosus	Rosa sp.
Aster sagittifolius	Hepatica acutiloba	Rubus parviflorus
Athyrium angustum	Hepatica americana	Rubus (blackberry)
Botrychium virginianum	Impatiens biflora	<u>Rubus (dewberry)</u>
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	<u>Maianthemum canadense</u>	Taxus canadensis
Cornus alternifolia	Mitchella repens	Thalictrum dioicum
Cornus canadensis	Mitella diphylla	<u>Trientalis borealis</u>
Cornus rugosa	Mitella nuda	Trillium grandiflorum
Corylus americana	Monotropa uniflora	<u>Uvularia grandiflora</u>
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

Amelanchier

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
Quadrat No. 13

<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>

Rubus (raspberry)
Viola sp.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
Quadrat No. 14

Actaea pachypoda	<u>Fragaria virginiana</u>	Potentilla simplex
Actaea rubra	Galium lanceolatum	Prenanthes alba
Adiantum pedatum	<u>Galium triflorum</u>	Pteridium aquilinum
Allium tricoccum	Gaultheria procumbens	Pyrola elliptica
<u>Anemone quinquefolia</u>	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
<u>Aster macrophyllus</u>	Helianthus strumosus	Rosa sp.
Aster sagittifolius	Hepatica acutiloba	Rubus parviflorus
Athyrium angustum	Hepatica americana	<u>Rubus (blackberry)</u>
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	<u>Smilacina racemosa</u>
Circaea alpina	Lycopodium complanatum	Smilacina stellata
Circaea latifolia	Lycopodium lucidulum	Smilax ecirrhata
<u>Clintonia borealis</u>	Lycopodium obscurum	Solidago ulmifolia
Coptis trifolia	Lysimachia quadrifolia	Streptopus roseus
Corallorrhiza maculata	<u>Maianthemum canadense</u>	Taxus canadensis
Cornus alternifolia	Mitchella repens	Thalictrum dioicum
Cornus canadensis	Mitella diphylla	<u>Trientalis borealis</u>
Cornus rugosa	Mitella nuda	Trillium grandiflorum
Corylus americana	Monotropa uniflora	Uvularia grandiflora
Corylus cornuta	Myrica asplenifolia	Uvularia sessilifolia
Cypripedium acaule	Onoclea sensibilis	Vaccinium angustifolium
<u>Diervilla lonicera</u>	Oryzopsis asperifolia	Vaccinium pennsylvanicum
Dirca palustris	<u>Osmorhiza claytoni</u>	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 sp.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No 3 T 4 6
Quadrat No. 15

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

Melampyrum
Viola sp.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
Quadrat No. 76

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. 17

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	Ceanothus 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

Carex m. /

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
Quadrat No. 18

Actaea pachypoda	Fragaria virginiana	Potentilla simplex
Actaea rubra	Galium lanceolatum	Prenanthes alba
Adiantum pedatum	Galium triflorum	Pteridium aquilinum
Allium tricoccum	Gaultheria procumbens	Pyrola elliptica
<u>Anemone</u> quinquefolia	Gaylussacia baccata	Pyrola rotundifolia
Aquilegia canadensis	Geranium maculatum	<u>Pyrola</u> secunda
Aralia nudicaulis	Geum canadense	Ranunculus recurvatus
Aralia racemosa	Gnaphalium obtusifolium	Rhus radicans
Arisaema atrorubens	Helianthemum sp.	Ribes americanum
<u>Aster</u> 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	<u>Smilacina</u> 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	<u>Maianthemum</u> 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
<u>Diervilla</u> lonicera	<u>Oryzopsis</u> 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

Rubus, raspberries

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
Quadrat No. 19

Actaea pachypoda	Eragaria 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

Lactuca sp.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3146
Quadrat No. 29

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

Carex sp.

Smilax hispida

TABULATION FORM

NORTHERN PINE-HARDWOODS

Stand No. 3146

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 circaezans</i>																							
<i>Galium concinnum</i>																							
<i>Galium lanceolatum</i>																							
<i>Galium triflorum</i>																							
<i>Gaultheria hispidula</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 biternatum</i>																							
<i>Krigia biflora</i>																							
<i>Lactuca canadensis</i> sp																							
<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> sattuensis																							

6 30

2 10

4 20

1 3

1 5

2 10

161

373

451

TABULATION FORM

NORTHERN PINE-HARDWOODS

Stand No. 3146

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>Trientalis borealis</i>	✓				✓	✓	✓	✓	✓	✓			✓		✓		✓					10	51	
<i>Trillium cernuum</i>																								
<i>Trillium grandiflorum</i>	✓				✓	✓				✓												5	25	
<i>Uvularia grandiflora</i>	✓				✓	✓			✓			✓										6	30	
<i>Uvularia sessilifolia</i>	✓										✓											1	5	
<i>Vaccinium angustifolium</i>																								
<i>Vaccinium myrtilloides</i>																								
<i>Veronicastrum virginicum</i>																								
<i>Viburnum acerifolium</i>	✓																						1	
<i>Viburnum rafinesquianum</i>																								
<i>Viburnum lentago</i>	✓																						1	
<i>Viola adunca</i> sp.	✓														✓	✓	✓					3	15	
<i>Viola blanda</i>																								
<i>Viola canadensis</i>	✓																						1	
<i>Viola conspersa</i>																								
<i>Viola cucullata</i>																								
<i>Viola pensylvanica</i>																								
<i>Viola incognita</i>																								
<i>Viola pallens</i>	✓																							
<i>Viola pubescens</i>	✓				✓	✓	✓	✓	✓													4	840	
<i>Viola renifolia</i>																								
<i>Vitis aestivalis</i>																								
<i>Vitis riparia</i>																								
<i>Waldsteinia fragarioides</i>																								
<i>Xanthoxylum americanum</i>																								
<i>Zizia aurea</i>																								
Additional species:																								
<i>Myrica asplenifolia</i>	✓																						1	108
<i>Viburnum affine</i>	✓				✓																		1	5
<i>Amelanchier</i> sp.	✓				✓	✓							✓										3	15

315
335

PRESENCE LIST

NORTHERN PINE-HARDWOODS

STAND NO. 3146

✓ *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 phytolaccoides
Aster cordifolius
Aster lateriflorus
 ✓ *Aster macrophyllus*
Aster prenanthoides
 ✓ *Aster sagittifolius*
Aster shortii
Aster umbellatus
 ✓ *Athyrium angustum*
Aureolaria pedicularia
Boehmeria cylindrica
Botrychium virginianum
 ✓ *Brachyelytrum erectum*
Bromus purgans
Campanula americana
Carex albursina
 ✓ *Carex pennsylvanica*
 ✓ *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 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
Lycopus americanus
Lycopus uniflora
Lysimachia quadrifolia
 ✓ *Maianthemum canadense*

- | | | |
|--------------------------|----------------------------|--------------------------|
| ✓ Melampyrum lineare | ✓ Pyrola elliptica | Smilax herbacea |
| Mitchella repens | Pyrola rotundifolia | ✓ Smilax hispida |
| ✓ Mitella diphylla | ✓ Pyrola secunda | Solidago latifolia |
| Mitella nuda | Ranunculus abortivus | Solidago ulmifolia |
| ✓ Monarda fistulosa | Ranunculus recurvatus | Streptopus amplexifolius |
| Moneses uniflora | Ranunculus septentrionalis | ✓ Streptopus roseus |
| Monotropa uniflora | ✓ Rhus radicans | Taxus canadensis |
| ✓ Myrica asplenifolia | Rhus typhina | ✓ Thalictrum dioicum |
| Onoclea sensibilis | Ribes americanum | Tiarella cordifolia |
| ✓ Oryzopsis asperifolia | Ribes cynosbati | ✓ Trientalis borealis |
| ✓ Osmorhiza claytoni | Ribes lacustre | Trillium cernuum |
| Osmunda cinnamomea | Ribes triste | ✓ Trillium grandiflorum |
| ✓ Osmunda claytoniana | Rubus idaeus | ✓ Uvularia grandiflora |
| Oxalis montana | Rubus parviflorus | ✓ Uvularia sessilifolia |
| Panax quinquefolia | Rubus hispidus | Vaccinium angustifolium |
| Parietaria pennsylvanica | ✓ Rubus - blackberry | Vaccinium pennsylvanicum |
| Parthenocissus vitacea | ✓ Rubus - dewberry | ✓ Viburnum acerifolium |
| Pedicularis lanceolata | ✓ Rubus - raspberry | ✓ Viburnum affine |
| Phyrma leptostachya | Sambucus canadensis | ✓ Viburnum lentago |
| Podophyllum peltatum | Sambucus pubens | ✓ Viola canadensis |
| Polemonium reptans | Sanguinaria canadensis | Viola cucullata |
| ✓ Polygala pauciflora | ✓ Sanicula gregaria | Viola incognita |
| Polygonatum commutatum | Schizachne purpurascens | ✓ Viola pallens |
| ✓ Polygonatum pubescens | Scutellaria lateriflora | ✓ Viola pubescens |
| Potentilla simplex | Shepherdia canadensis | Vitis aestivalis |
| ✓ Prenanthes alba | ✓ Smilacina racemosa | Vitis riparia |
| Pteretis nodulosa | Smilacina stellata | Waldsteinia fragarioides |
| ✓ Pteridium aquilinum | Smilax ecirrhata | Zanthoxylum americanum |

Additional Species:

- ✓ Cynoglossum boreale
- ✓ Hieracium scabrum
- ✓ Pyrola minor
- ✓ Luzula sativensis
- ✓ Solidago canadensis