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Site 3145: Forest County. 1950-08-10

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STAND RECORD

FORESTS

Stand No. 3145

Name:

County: Forest

Date: 8/10/50

Size of Stand: Large

Forest Type: Hardwoods

Topography: Level

Locality:

T: 35N R: 14E Sec: 13 SE 1/4

Observers: Cottam, Madach, Brown, Randall

Size of Area Sampled:

Soil Type: Kennan Silt Loam Rolling Phase

Slope:

Directions

Condition of Stand:

Second growth. Burned early. Since then undisturbed.
Many multiple trees.

Open Grown Trees:

% Canopy: 90

Stumps:

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

Soil Data:

	pH	N	P	K	Ca	Mg	Org. Mat.	Colloids	W.H.C.
Ao									
A1									
A2									
B									

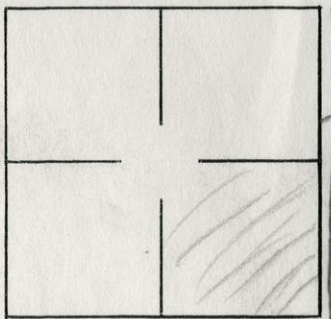
DEPTH

CHARACTERISTICS (Color, Texture, Structure, etc.)

Ao	1/2"	deciduous lvs	
A1	1"	black silt loam	
A2	1/2"	gray silt	
B		heavy silt	

Parent Material:

Map:

Hy 32
Co. Tr. T

normal ✓ 5/52

Prob = .85

black
Cherry

3/4 5

60

60 ⑥

60 *

D. Stuy

3145

22

18

15

68

1 23 ①

14

58

1 95 *

Jugans
cinerea

3145

70

70②

70*

pincherry
31X50

13
13*

Frap
ingra

1 4 5
1 4 5 *

3145

PopTern
3145

1 1 0

1 1 0 *

hemlock

3145

180—

100—

35

315⊙

210—

72

150—

747*

3145

y trees

4832

1687

70

195

110

13

1786

747

1814

457

60

145

11916*

3145

2 Trays

1874

1155

70

123

925

315

996

211

60

5729*

Maxam

3145

42

16

78

75

2 11 ①

30

19

16

1 50 —

17

14

4 57 *

yellow
birch

3145

		20	
1		25	
		45	
		28	
4		80	+
		27	
2		40	
		70	
1		20	
1	1	55	(1)
		23	
		26	
		45	
		45	
		30	
1		10	
		40	
		18	
		30	
		30	
		40	
		40	
		55	
1	6	87	*

Ann
elm

3145

	35	
	18	
	30	
1	30	
2	40	
	18	
	70	
	20	
1	20	
	85	
	80	
	60	
	90	
9	96	0
	90	
	35	
	30	
	30	
	50	
	30	
	58	
1	80	
	75	
1	80	
	60	
18	14	5

Totals distances

3145

1	60
1	10
1	30
1	55
	90
2	10
1	80
1	90
2	30
	85
1	85
1	70
1	30
1	45
1	15
	95
2	35
1	50
1	75
1	20
2	60
2	60
1	60
1	60
1	80
	70
1	70
1	20
	80
1	90
1	65
1	95
1	55
1	15
1	25
	90
1	85
1	15
1	50
1	80
6	185

basewood

3145

	42	
	30	
	25	
	12	
	45	
1	00	
	80	
	17	
	53	
	25	
	23	
	63	
	55	
	35	
	80	
	80	
	65	
	55	
	40	
9	25	①
	28	
1	25	
	43	
	24	
	30	
	25	
	15	
	35	
	55	
	90	
	75	
	65	
	55	
	32	
	85	
	60	
	19	
17	86	*

Sugar maple
3145

	50	
1	55	
	32	
2	50	
	70	
	21	
	13	
	25	
1	30	
	70	
	40	
2	30	
	20	
	16	
	85	
	52	
	30	
	17	
	40	
	16	
	17	
	30	
1	40	
	15	
1	50	
1	60	
1 8	74	(.)
1	65	
	30	
	22	
2	15	
1	70	
3	70	
1	10	
1	00	
1	30	
2	00	
	80	
	75	
	22	
1	35	
1	10	
	95	
	24	
1	00	
2	30	
	25	
	45	
1	70	
	70	
	85	
1	80	
4 8	32	*

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No.

3145

STATION NO.	1	2	3	4	5	6	7	8	9	10
Abies balsam										
Acer rubrum										
A. sacchar.	50 ✓	✓ (165)	✓ 3	✓ 4	✓ 2 (30)	✓ 155	✓ 32 (22)	✓ 250 (215)	✓ 70, 21 (170)	✓ 13, 25 (370)
A. spicatum										
Betula lut.			20 (23)				125			
B. papyrif										
Carpinus car										
Juglans cinerea						70				
Fagus gran										
Ostrya virg		✓ 22, 18	✓ 1					15		(14) ✓
Picea glau										
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem										
Prunus pen.					(13)					
Quercus ell										
Q. rubra										
Tilia amer	(28) (125) ✓	3	1 (43)	42, 30 (24) (30) ✓	25, 12 ✓	2		✓ (25)	3	3 (210)
Tsuga can										
Thuja occ										
Ulmus amer	✓	(90) ✓	✓	✓			✓	✓		
U. fulva										
Prunus serot.	60 ✓	✓	✓		✓			✓		
Fraxinus am.	✓	✓	42		✓	(30) (19) ✓	✓ (16)	✓	✓	✓
Prunus virg.					✓					
Distance	16	11	13	15.5	9	21	18	19	23	8.5

148
96

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No.

STATION NO.	11	12	13	14	15	16	17	18	19	20
Abies balsam										
Acer rubrum										
A. sacchar.	✓ 3	✓ 130	✓ 170	✓ 440	✓ 4110	✓ 3100	✓ 3	✓ 320	✓ 4	475 65
A. spicatum	✓	1	1							
Betula lut.	(26)	(25.45) 25	1						(30)	480
B. papyrif										
Carpinus car										
Fagus gran										
Ostrya virg							✓			✓
Picea glau										
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem			(110)							
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer	13	1	(15)	(35)	(55.80) 45	(75) 100	180	117	1	(65) 55
Tsuga can								190		
Thuja occ										
Ulmus amer	(35) 30	1	19	(50) 30		130	✓	(30) 50	(50) 240	18
U. fulva	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fraxinus amer							(150)			
Distance	18.5	17	13	14.5	11.5 110	9.5	23.5	15	17.5	12

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No.

STATION NO.	21	22	23	24	25	26	27	28	29	30
<i>Abies balsam</i>										
<i>Acer rubrum</i>										
<i>A. sacchar.</i>	¹⁶⁵ ¹³⁰ 2	3	²⁵ ⁸⁰ 2	1	⁷⁵ ⁴ 4	⁵² ²² 1	³⁰ ¹³⁵ 2	1	¹⁷ ¹¹⁰ 4	⁴⁰ ²⁴ 3
<i>A. spicatum</i>										
<i>Betula lut.</i>					¹¹⁰			²⁷ ⁴⁰ 1		
<i>B. papyrif</i>										
<i>Carpinus car</i>										
<i>Fagus gran</i>										
<i>Ostrya virg</i>			1	1				63		⁵⁸
<i>Picea glau</i>										
<i>Pinus Bank</i>										
<i>P. resinosa</i>										
<i>P. Strobus</i>										
<i>Populus bals</i>										
<i>P. grand</i>										
<i>P. trem</i>										
<i>Prunus pen.</i>										
<i>Quercus ell</i>										
<i>Q. rubra</i>										
<i>Tilia amer</i>	53 2	25	²³ ³² 1	35			2	2	63	
<i>Tsuga can</i>		¹⁰⁰ ⁷² 150								
<i>Thuja occ</i>										
<i>Ulmus amer</i>					70, 20	¹²⁰ ⁵⁸	⁸⁵ ¹⁴⁰	1		
<i>U. fulva</i>										
<i>Fragaria amer.</i>		1		¹⁶ ¹⁷ 145	1					78
<i>Fragaria nigra</i>				1		3				1
Distance	26	26	16	16	16	7	17	12	8	19

$$\frac{15}{7} \frac{6}{6}$$

POINT RECORD TREES

NORTHERN PINE-HARDWOODS

Stand No.

STATION NO.	31	32	33	34	35	36	37	38	39	40
Abies balsam										
Acer rubrum										
A. sacchar.		(100) 230	(25) 215	4	3 (45)	4 140	2 (170)	1 (70)	4 150	(85) 160
A. spicatum										
Betula lut.	(30) 240	70	(30)	(40)		(40)		(55) 120		1
B. papyrif										
Carpinus car	1									
Fagus gran										
Ostrya virg										
Picea glau										
Pinus Bank										
P. resinosa										
P. Strobus										
Populus bals										
P. grand										
P. trem										
Prunus pen.										
Quercus ell										
Q. rubra										
Tilia amer	(85) 55	1 35	2 80	80	(60) 65, 55		2			(19) 40
Tsuga can										
Thuja occ										
Ulmus amer	2			(75) 80	1	(140)	60(60) 90			
U. fulva										
Fraxinus Amer							3 75	(14)	2	1
Distance	16.5	19.5	15.5	11.5	12.5	9	18.5	11.5	15	18

$$\frac{157}{8} = 19.625$$

TREE DATA SUMMARY SHEET

Northern Pine-Hardwoods

2 Trees

Prob = .85

Station Number: 3145

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															
A. sacchar	21	26	18	8		1874	96	600	20		30.4	32.5	32.7	95.6	956
A. spicatu							2	1.3	1						
Betula lut	8	9	5	3	1	1155	3	1.9			11.6	11.3	20.2	43.1	345
B. papyrif															
Carpinus c							1	0.6							
Juglans gran	1	1	1			70					1.4	1.3	1.2	3.9	20
Ostrya vir	3	4	4			123	4	2.5	5		4.3	5.0	2.1	11.4	103
Picea glau															
Pinus Bank															
P. resinosa															
P. Strobus															
Populus ba															
P. grandid															
P. tremulo															
Prunus veg									1						
Quercus el															
Q. rubra															
Tilia amer	17	19	18	1		925	35	21.9	2		24.6	23.8	16.2	64.6	517
Tsuga cana	3	3	1	2		315					4.3	3.8	5.5	13.6	109
Thuja occi															
Ulmus amer	11	13	8	5		996	6	3.8	5		15.9	16.3	17.4	49.6	397
U. fulva															
Fraxin	4	4	4			211	8	5.0	17		5.8	5.0	3.7	14.5	116
Prunus ser	1	1	1			60			4		1.4	1.3	1.0	3.7	15
Fraxin							5	3.1							
	69	80				5729	160	100.3			99.7	100.3	100.0	300.0	2578

AVE. DIST. BTW'N TREES:

15.5

AVE B. A.:

71.6

TREES/ACRE:

212

DOM./ACRE:

15,179

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
Quadrat No. 1

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

Fragaria virginiana
Galium lanceolatum
Galium triflorum
Gaultheria procumbens
Gaylussacia baccata
Geranium maculatum
Geum canadense
Gnaphalium obtusifolium
Helianthemum sp.
Helianthus strumosus
Hepatica acutiloba
Hepatica americana
Impatiens biflora
Linnaea borealis
Lonicera oblongifolia
Lupinus perennis
Lycopodium annotinum
Lycopodium complanatum
Lycopodium lucidulum
Lycopodium obscurum
Lysimachia quadrifolia
Maianthemum canadense
Mitchella repens
Mitella diphylla
Mitella nuda
Monotropa uniflora
Myrica asplenifolia
Onoclea sensibilis
Oryzopsis asperifolia
Osmorhiza claytoni
Oxalis montana
Phryma leptostachya
Polygala pauciflora
Polygonatum commutatum
Polygonatum pubescens

Potentilla simplex
Prenanthes alba
Pteridium aquilinum
Pyrola elliptica
Pyrola rotundifolia
Pyrola secunda
Ranunculus recurvatus
Rhus radicans
Ribes americanum
Rosa sp.
Rubus parviflorus
Rubus (blackberry)
Rubus (dewberry)
Sambucus pubens
Sanguinaria canadensis
Sanicula gregaria
Smilacina racemosa
Smilacina stellata
Smilax ecirrhata
Solidago ulmifolia
Streptopus roseus
Taxus canadensis
Thalictrum dioicum
Trientalis borealis
Trillium grandiflorum
Uvularia grandiflora
Uvularia sessilifolia
Vaccinium angustifolium
Vaccinium pennsylvanicum
Viburnum acerifolium
Viola canadensis
Viola cucullata
Viola pallens
Viola pubescens
Waldsteinia fragarioides

✓ *Carex sp.*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
Quadrat No. 2

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

Carex penn.

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. 3145
 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

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 penn.

✓ Viola cucullata

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
Quadrat No. 4

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

Viola eriocarpa
Carex penn.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
Quadrat No. 5*Actaea pachypoda**Actaea rubra**Adiantum pedatum**Allium tricoccum**Anemone quinquefolia**Aquilegia canadensis**Aralia nudicaulis**Aralia racemosa**Arisaema atrorubens*✓ *Aster macrophyllus**Aster sagittifolius**Athyrium angustum**Botrychium virginianum*✓ *Brachyelytrum erectum**Carex albursina**Caulophyllum thalictroides**Chimaphila umbellata**Circaea alpina**Circaea latifolia**Clintonia borealis**Coptis trifolia**Corallorrhiza maculata**Cornus alternifolia**Cornus canadensis**Cornus rugosa**Corylus americana**Corylus cornuta**Cypripedium acaule**Diervilla lonicera**Dirca palustris**Dryopteris linnaeana**Dryopteris phegopteris**Dryopteris spinulosa**Epifagus virginiana**Epigaea repens**Fragaria virginiana**Galium lanceolatum*✓ *Galium triflorum**Gaultheria procumbens**Gaylussacia baccata**Geranium maculatum**Geum canadense**Gnaphalium obtusifolium**Helianthemum* sp.*Helianthus strumosus**Hepatica acutiloba**Hepatica americana**Impatiens biflora**Linnaea borealis**Lonicera oblongifolia**Lupinus perennis**Lycopodium annotinum**Lycopodium complanatum**Lycopodium lucidulum**Lycopodium obscurum**Lysimachia quadrifolia**Maianthemum canadense**Mitchella repens**Mitella diphylla**Mitella nuda**Monotropa uniflora**Myrica asplenifolia**Onoclea sensibilis**Oryzopsis asperifolia*✓ *Osmorhiza claytoni**Oxalis montana**Phryma leptostachya**Polygala pauciflora**Polygonatum commutatum**Polygonatum pubescens**Potentilla simplex**Prenanthes alba**Pteridium aquilinum**Pyrola elliptica**Pyrola rotundifolia**Pyrola secunda**Ranunculus recurvatus**Rhus radicans**Ribes americanum**Rosa* sp.*Rubus parviflorus**Rubus* (blackberry)*Rubus* (dewberry)*Sambucus pubens**Sanguinaria canadensis**Sanicula gregaria**Smilacina racemosa**Smilacina stellata**Smilax ecirrhata**Solidago ulmifolia**Streptopus roseus**Taxus canadensis**Thalictrum dioicum**Trientalis borealis**Trillium grandiflorum**Uvularia grandiflora**Uvularia sessilifolia**Vaccinium angustifolium**Vaccinium pennsylvanicum**Viburnum acerifolium**Viola canadensis**Viola cucullata**Viola pallens*✓ *Viola pubescens**Waldsteinia fragarioides*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. **31** 45
Quadrat No. **76**

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 penn.*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
Quadrat No. 7

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 penn.*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
Quadrat No. 4

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

Carex penn.

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. 3145
Quadrat No. 9

<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>

Carex penn.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
Quadrat No. 10*Actaea pachypoda**Actaea rubra**Adiantum pedatum**Allium tricoccum**Anemone quinquefolia**Aquilegia canadensis**Aralia nudicaulis**Aralia racemosa**Arisaema atrorubens**Aster macrophyllus**Aster sagittifolius**Athyrium angustum**Botrychium virginianum**Brachyelytrum erectum**Carex albursina**Caulophyllum thalictroides**Chimaphila umbellata**Circaea alpina**Circaea latifolia**Clintonia borealis**Coptis trifolia**Corallorrhiza maculata**Cornus alternifolia**Cornus canadensis**Cornus rugosa**Corylus americana**Corylus cornuta**Cypripedium acaule**Diervilla lonicera**Dirca palustris**Dryopteris linnaeana**Dryopteris phegopteris**Dryopteris spinulosa**Epifagus virginiana**Epigaea repens**Fragaria virginiana**Galium lanceolatum**Galium triflorum**Gaultheria procumbens**Gaylussacia baccata**Geranium maculatum**Geum canadense**Gnaphalium obtusifolium**Helianthemum sp.**Helianthus strumosus**Hepatica acutiloba**Hepatica americana**Impatiens biflora**Linnaea borealis**Lonicera oblongifolia**Lupinus perennis**Lycopodium annotinum**Lycopodium complanatum**Lycopodium lucidulum**Lycopodium obscurum**Lysimachia quadrifolia**Maianthemum canadense**Mitchella repens**Mitella diphylla**Mitella nuda**Monotropa uniflora**Myrica asplenifolia**Onoclea sensibilis**Oryzopsis asperifolia**Osmorhiza claytoni**Oxalis montana**Phryma leptostachya**Polygala pauciflora**Polygonatum commutatum**Polygonatum pubescens**Potentilla simplex**Prenanthes alba**Pteridium aquilinum**Pyrola elliptica**Pyrola rotundifolia**Pyrola secunda**Ranunculus recurvatus**Rhus radicans**Ribes americanum**Rosa sp.**Rubus parviflorus**Rubus (blackberry)**Rubus (dewberry)**Sambucus pubens**Sanguinaria canadensis**Sanicula gregaria**Smilacina racemosa**Smilacina stellata**Smilax ecirrhata**Solidago ulmifolia**Streptopus roseus**Taxus canadensis**Thalictrum dioicum**Trientalis borealis**Trillium grandiflorum**Uvularia grandiflora**Uvularia sessilifolia**Vaccinium angustifolium**Vaccinium pennsylvanicum**Viburnum acerifolium**Viola canadensis**Viola cucullata**Viola pallens**Viola pubescens**Waldsteinia fragarioides*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145

Quadrat No. 11

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

Prunella virginiana
Cornus sp.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
Quadrat No. 12

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

Fragaria virginiana
Galium lanceolatum
Galium triflorum
Gaultheria procumbens
Gaylussacia baccata
Geranium maculatum
Geum canadense
Gnaphalium obtusifolium
Helianthemum sp.
Helianthus strumosus
Hepatica acutiloba
Hepatica americana
Impatiens biflora
Linnaea borealis
Lonicera oblongifolia
Lupinus perennis
Lycopodium annotinum
Lycopodium complanatum
Lycopodium lucidulum
Lycopodium obscurum
Lysimachia quadrifolia
Maianthemum canadense
Mitchella repens
Mitella diphylla
Mitella nuda
Monotropa uniflora
Myrica asplenifolia
Onoclea sensibilis
Oryzopsis asperifolia
Osmorhiza claytoni
Oxalis montana
Phryma leptostachya
Polygala pauciflora
Polygonatum commutatum
Polygonatum pubescens

Potentilla simplex
Prenanthes alba
Pteridium aquilinum
Pyrola elliptica
Pyrola rotundifolia
Pyrola secunda
Ranunculus recurvatus
Rhus radicans
Ribes americanum
Rosa sp.
Rubus parviflorus
Rubus (blackberry)
Rubus (dewberry)
Sambucus pubens
Sanguinaria canadensis
Sanicula gregaria
Smilacina racemosa
Smilacina stellata
Smilax ecirrhata
Solidago ulmifolia
Streptopus roseus
Taxus canadensis
Thalictrum dioicum
Trientalis borealis
Trillium grandiflorum
Uvularia grandiflora
Uvularia sessilifolia
Vaccinium angustifolium
Vaccinium pennsylvanicum
Viburnum acerifolium
Viola canadensis
Viola cucullata
Viola pallens
Viola pubescens
Waldsteinia fragarioides

Cornus sp. med. leaved
Laportea

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
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</i> sp.	<i>Ribes americanum</i>
<i>Aster macrophyllus</i>	<i>Helianthus strumosus</i>	<i>Rosa</i> sp.
<i>Aster sagittifolius</i>	<i>Hepatica acutiloba</i>	<i>Rubus parviflorus</i>
<i>Athyrium angustum</i>	<i>Hepatica americana</i>	<i>Rubus</i> (blackberry)
<i>Botrychium virginianum</i>	<i>Impatiens biflora</i>	<i>Rubus</i> (dewberry)
<i>Brachyelytrum erectum</i>	<i>Linnaea borealis</i>	<i>Sambucus pubens</i>
<i>Carex albursina</i>	<i>Lonicera oblongifolia</i>	<i>Sanguinaria canadensis</i>
<i>Caulophyllum thalictroides</i>	<i>Lupinus perennis</i>	<i>Sanicula gregaria</i>
<i>Chimaphila umbellata</i>	<i>Lycopodium annotinum</i>	<i>Smilacina racemosa</i>
<i>Circaea alpina</i>	<i>Lycopodium complanatum</i>	<i>Smilacina stellata</i>
<i>Circaea latifolia</i>	<i>Lycopodium lucidulum</i>	<i>Smilax ecirrhata</i>
<i>Clintonia borealis</i>	<i>Lycopodium obscurum</i>	<i>Solidago ulmifolia</i>
<i>Coptis trifolia</i>	<i>Lysimachia quadrifolia</i>	<i>Streptopus roseus</i>
<i>Corallorrhiza maculata</i>	☒ <i>Maianthemum canadense</i>	<i>Taxus canadensis</i>
<i>Cornus alternifolia</i>	<i>Mitchella repens</i>	<i>Thalictrum dioicum</i>
<i>Cornus canadensis</i>	<i>Mitella diphylla</i>	<i>Trientalis borealis</i>
<i>Cornus rugosa</i>	<i>Mitella nuda</i>	<i>Trillium grandiflorum</i>
<i>Corylus americana</i>	<i>Monotropa uniflora</i>	<i>Uvularia grandiflora</i>
<i>Corylus cornuta</i>	<i>Myrica asplenifolia</i>	<i>Uvularia sessilifolia</i>
<i>Cypripedium acaule</i>	<i>Onoclea sensibilis</i>	<i>Vaccinium angustifolium</i>
<i>Diervilla lonicera</i>	<i>Oryzopsis asperifolia</i>	<i>Vaccinium pennsylvanicum</i>
<i>Dirca palustris</i>	☒ <i>Osmorhiza claytoni</i>	<i>Viburnum acerifolium</i>
☒ <i>Dryopteris linnaeana</i>	<i>Oxalis montana</i>	<i>Viola canadensis</i>
<i>Dryopteris phegopteris</i>	<i>Phryma leptostachya</i>	<i>Viola cucullata</i>
<i>Dryopteris spinulosa</i>	<i>Polygala pauciflora</i>	<i>Viola pallens</i>
<i>Epifagus virginiana</i>	<i>Polygonatum commutatum</i>	<i>Viola pubescens</i>
<i>Epigaea repens</i>	☒ <i>Polygonatum pubescens</i>	<i>Waldsteinia fragarioides</i>

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
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

Carex pa.
Carex plantaginifolia

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
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

Coma ML
Compa.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
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

Corypa.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 5145
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

Choparia
concolor

Viola sp.

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3140
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

Cornus rugosa

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No.
Quadrat No.

3145

19

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

✓ *Lycopodium*
✓ *Cornus m.*

HERB FREQUENCY

NORTHERN PINE-HARDWOODS

Stand No. 3145
Quadrat No. 70

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

TABULATION FORM

Stand No. 3145

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

Data Form No. 23
TABULATION FORM

Plant Ecology Research
NORTHERN PINE-HARDWOODS

Univ. of Wisconsin
Stand No. 3145

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																						20
Claytonia virginica																						
Clematis verticillaris																						
Clintonia borealis	✓																					1
Comandra richardsiana																						
Comptonia peregrina																						
Convolvulus spithameus																						
Coptis groenlandica																						
Corallorhiza maculata																						
Corallorhiza striata																						
Corallorhiza trifida																						
Coreopsis palmata																						
Cornus alternifolia	✓						✓		✓								✓					3
Cornus canadensis																						
Cornus foemina																						
Cornus rugosa																						
Corydalis sp.																						
Corylus americana																						
Corylus cornuta	✓																					1
Cryptotaenia canadensis																						
Cynoglossum boreale																						
Cypripedium acaule																						
Cypripedium parviflorum																						
Cypripedium pubescens																						
Cystopteris fragillilis																						
Danthonia spicata																						
Dentaria diphylla																						
Desmodium glutinosum																						
Desmodium nudiflorum																						
Dicentra canadensis																						5
Dicentra cucullaria																						100
Diervilla lonicera																						
Dirca palustris	✓																					1
Dryopteris boottii																						
Dryopteris cristata																						
Dryopteris goldiana																						
Dryopteris disjuncta	✓																					1
Dryopteris phegopteris																						
Dryopteris spinulosa	✓																					1
Epifagus virginiana																						
Epigaea repens																						
Equisetum arvense																						
Equisetum hyemale																						
Equisetum sylvaticum																						
Erigeron philadelphicus																						
Erythronium albidum	SP																					50
Erythronium americanum																						
Eupatorium rugosum																						
Festuca obtusa																						
Fragaria virginiana	✓																					1

20 5/52

3 15

5 5/52
100

1 5

50 5/52

Stand No. 3145

[illegible]

TABULATION FORM

NORTHERN PINE-HARDWOODS

Stand No. 3145

[illegible]

[illegible]

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>	✓														✓							1 5
<i>Trillium cernuum</i>																						
<i>Trillium grandiflorum</i>	✓											✓										1 5
<i>Uvularia grandiflora</i>																						
<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>																						
<i>Viola adunca</i> sp.	✓																	✓				1 5
<i>Viola blanda</i>																						
<i>Viola canadensis</i>	✓	✓						✓														2 10
<i>Viola conspersa</i>																						
<i>Viola cucullata</i>	✓	✓						✓				✓										3 15
<i>Viola pensylvanica</i>																						
<i>Viola incognita</i>																						
<i>Viola pallens</i>																						
<i>Viola pubescens</i>	✓					✓	✓				✓				✓	✓	✓				✓	7 35
<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>Viola eriocarpa</i>	✓			✓	✓																	2 10
<i>Prunus virg.</i>	✓											✓										1 5
<i>Carex M.L.</i>	✓														✓	✓	✓	✓				4 20

PRESENCE LIST

NORTHERN PINE-HARDWOODS

STAND NO. 3145

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

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

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

HERBS AND SHRUBS

✓ Actaea pachypoda
 ✓ Actaea rubra
 ✓ Adiantum pedatum
 Agrimonia gryposepala
 Allium tricoccum
 Alnus rugosa
 Amphicarpa bracteata
 Anemone canadensis
 ✓ Anemone quinquefolia
 Antennaria sp.
 ✓ Apocynum androsaemifolium
 Apocynum cannabinum
 Aquilegia canadensis
 ✓ Aralia nudicaulis
 ✓ Aralia racemosa
 Arctostaphylos uva-ursi
 ✓ Arisaema atrorubens
 Asarum canadense
 Asclepias phytoecoides
 Aster cordifolius
 Aster lateriflorus
 ✓ Aster macrophyllus
 Aster prenanthoides
 ✓ Aster sagittifolius
 Aster shortii
 Aster umbellatus
 ✓ Athyrium angustum
 Aureolaria pedicularia
 Boehmeria cylindrica
 ✓ Botrychium virginianum
 ✓ Brachyelytrum erectum
 Bromus purgans
 Campanula americana
 Carex albursina
 ✓ Carex pensylvanica
 ✓ Caulophyllum thalictroides
 Celastrus scandens
 Chimaphila umbellata
 Chiogenes hispidula

✓ Circaea alpina
 Circaea latifolia
 Claytonia caroliniana
 Claytonia virginiana
 ✓ Clintonia borealis
 Convolvulus spithameus
 Coptis trifolia
 Corallorrhiza maculata
 Corallorrhiza striata
 ✓ Cornus alternifolia
 Cornus canadensis
 Cornus femina
 Cornus rugosa
 Corylus americana
 ✓ Corylus cornuta
 Cryptotaenia canadensis
 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
 Lycopodium americanum
 Lycopodium uniflora
 Lysimachia quadrifolia
 ✓ Maianthemum canadense

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

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

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

Additional Species:

Botrychium

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.....²⁵⁹⁰
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 sorediata</i>	<i>Frullania eboracensis</i>
<i>Cladonia cenotea</i>	<i>Ramalina fastigiata</i>	<i>Heterophyllum</i>
<i>Cladonia chlorophaea</i>	<i>Ramalina pollinaria</i>	haldanianum
<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. austinii
<i>Lecanora pallida</i>		<i>Lophocolea heterophylla</i>
<i>Lecanora subfusca</i>		<i>Mnium cuspidatum</i>
<i>Lecanora varia</i>		<i>Mnium spinulosum</i>
<i>Lecidea berengeriana</i>		<i>Neckera pennata</i>
<i>Lecidea nylanderi</i>		<i>Orthotrichum</i> sp.
<i>Lecidea vernalis</i>		<i>Plagiochila asplenioides</i>
<i>Lepraria aeruginosa</i>		<i>Plagiothecium</i> sp.
<i>Leptorhaphis epidermidis</i>		<i>Platygyrium repens</i>
<i>Le sym</i> - unknown crustose		<i>Porella platy-</i>
<i>Lobaria pulmonaria</i>		phylloidea
<i>Lobaria quercizans</i>		<i>Ptilidium pulcherrimum</i>
<i>Normandina pulchella</i>		<i>Pylasia</i> sp.
<i>Ochrolechia pallescens</i>		<i>Radula complanata</i>
<i>Opegrapha varia</i>		<i>Tetraphis pellucida</i>
<i>Parmelia andreana</i>		<i>Thuidium delicatulum</i>
<i>Parmelia aurulenta</i>		<i>Uloa 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>		

Ecology Laboratory
University of Wisconsin
Madison

No. trees	14	7									1				7		7	4	6		
	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	Ti ame	Ts can	Ul ame	Frax. amer.	Total	Frequency
Ar imp		2																		2	5
Bu sti		1																		1	3
Cn con		8														7		7	3	25	63
Cn fib																			1	1	3
Co urc		1																		1	3
Cr neg		5										1						1		7	18
Gr scr		10																	3	13	33
Le sym		7	1													1		6	1	16	40
Lo que		1																1		2	5
Pa aur		6														1				9	23
Pe sp.		5																2		5	13
Ph aip		1														3		3	1	8	20
Ph cil																2				2	5
Ph gri		5														2		6	2	15	38
Ph mil		1																		1	3
Ph orb		12	4													7		7	4	34	85
Ph tri		2																		2	5
Ra fas		1																		1	3
Ri hal		6										1						1		8	20
		<u>74</u>	5									<u>2</u>				<u>23</u>		<u>31</u>	18	<u>153</u>	
An min		2																2		4	10
Fr ebo		6	1															2	1	10	25
Li aus		3																	1	4	10
Pl rep		3																2		5	13
Po pla		1																1		2	5
Py sp.		1																2		3	8
Ul cri																1				1	3
		<u>17</u>	0									<u>0</u>				<u>1</u>		<u>9</u>	2	<u>29</u>	