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## Site 3280: Oak Island, Ashland County. 1957-07-01

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3280

Data Form No. 20

Plant Ecology Research

Univ. of Wisconsin

STAND RECORD

FORESTS

Stand No. 3236

Name: Oak Island

County: Ashland

Date: 7-1-57

Size of Stand

Forest Type: Maple

Topography: Mostly Flat

Locality: north tip

T:

R:

Sec:

Observers:

Beals + Habeck

Size of Area Sampled:

Soil Type:

Slope:

Directions

Condition of Stand: Trees: large + scattered. Thick undergrowth  
 tree seedlings. Browse moderate to heavy  
 some burned stumps. All larger trees have fire scars

Open Crown Trees:

% Canopy: 80%

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 <sub>0</sub> |    |   |   |   |    |    |           |          |        |
| A <sub>1</sub> |    |   |   |   |    |    |           |          |        |
| A <sub>2</sub> |    |   |   |   |    |    |           |          |        |
| B              |    |   |   |   |    |    |           |          |        |

DEPTH

CHARACTERISTICS (Color, Texture, Structure, etc.)

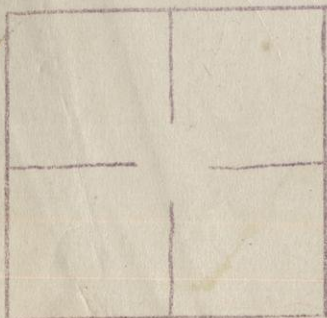
A<sub>0</sub>A<sub>1</sub>A<sub>2</sub>

B

sandy clay

Parent Material:

Map:



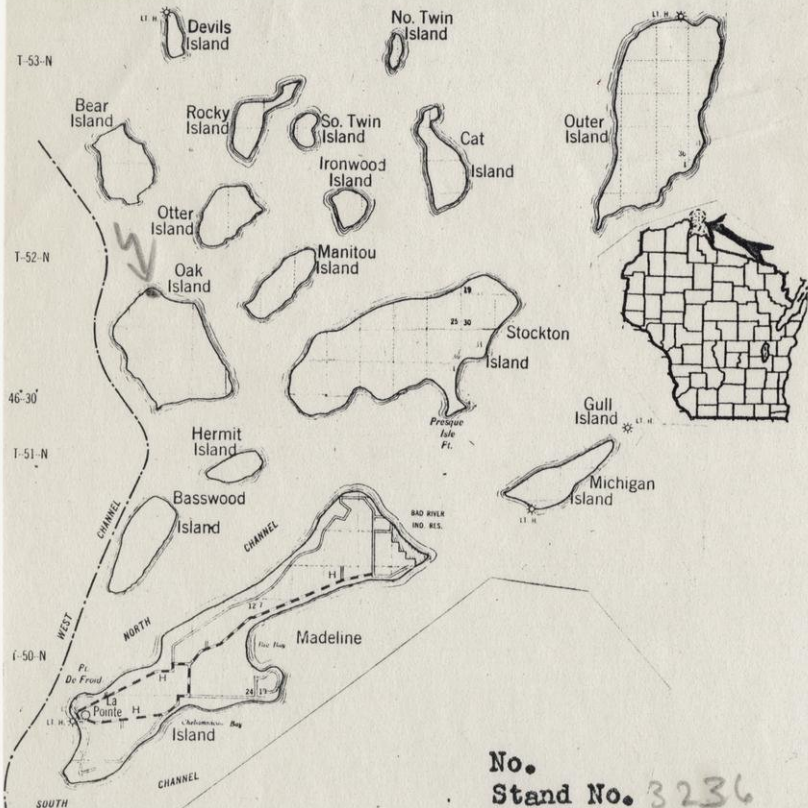
R-3-W

R-2-W

R-1-W

# Northern WISCONSIN ASHLAND County

# APOSTLE ISLANDS in LAKE SUPERIOR



No.  
Stand No. 3236  
Date: 7-1-57

Collected by

Grant Cottam

Richard J. Vogl

## TREE DATA SUMMARY SHEET

## Northern Pine-Hardwoods

Station Number: 3236

| TREE        | # PTS | # TRS | DOM. CLASSES |      |     | TOT. DOM. | # SAP | D. % SAP | F. % SDL. | F. % TRS. | % SUM F. TR. | D. % TRS. | DOM% TRS. | D/D INDEX | C. I. |
|-------------|-------|-------|--------------|------|-----|-----------|-------|----------|-----------|-----------|--------------|-----------|-----------|-----------|-------|
|             |       |       | -80          | -320 | 321 |           |       |          |           |           |              |           |           |           |       |
| Abies bals  | 1     | 1     | 1            |      |     | 16        | 6     | 3.7      |           |           | 19.6         | 0.6       | 0.1       | 2.3       |       |
| Acer rubru  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| A. sacchar  | 40    | 138   | 57           | 73   | 8   | 18,041    | 123   | 76.9     | 100       |           | 65.6         | 86.3      | 84.6      | 236.5     |       |
| A. spicatu  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| Betula lut  | 3     | 3     |              | 2    | 1   | 870       | 1     | 0.6      |           |           | 4.9          | 1.9       | 4.1       | 10.9      |       |
| B. papyrif  |       |       |              |      |     |           | 1     | 0.6      |           |           |              |           |           |           |       |
| Carpinus c  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| Fagus gran  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| Ostrya vir  | 7     | 8     | 8            |      |     | 243       | 18    | 11.3     | 5         |           | 11.5         | 5.0       | 1.1       | 17.6      |       |
| Picea glau  | 7     | 7     |              |      |     |           |       |          |           |           |              |           |           |           |       |
| Pinus Bank  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| P. resinosa |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| P. Strobus  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| Populus ba  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| P. grandid  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| P. tremulo  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| Prunus pen  |       |       |              |      |     |           | 3     | 1.9      | 15        |           |              |           |           |           |       |
| Quercus el  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| Q. rubra    | 2     | 2     |              | 1    | 1   | 993       |       |          |           |           | 3.3          | 1.3       | 4.7       | 9.3       |       |
| Tilia amer  | 7     | 7     | 1            | 6    |     | 1009      | 7     | 4.4      |           |           | 11.5         | 4.4       | 4.7       | 20.6      |       |
| Tsuga cana  | 1     | 1     |              | 1    |     | 150       |       |          |           |           | 1.6          | 0.6       | 0.7       | 2.9       |       |
| Thuja occi  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| Ulmus amer  |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| U. fulva    |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
| Sorbus      |       |       |              |      |     |           | 1     | 0.6      |           |           |              |           |           |           |       |
|             | 61    |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
|             |       |       |              |      |     | 21        | 322   |          |           |           |              |           |           |           |       |
|             |       |       |              |      |     |           |       |          |           |           |              |           |           |           |       |
|             |       |       |              |      |     |           |       |          |           |           |              |           |           |           | 2871  |

AVE. DIST. BTW'N TREES:

14.2'  
20.8 25.4'

AVE B. A.:

133.3

# TREES/ACRE:

306.8  
171.5

DOM./ACRE:

40,896

284.0

## POINT RECORD TREES APOSTLE ISLANDS

3236

| Point Number              | 1                                        | 2                    | 3                       | 4                     | 5                             | 6                   | 7                       | 8                      | 9                      | 10                  |
|---------------------------|------------------------------------------|----------------------|-------------------------|-----------------------|-------------------------------|---------------------|-------------------------|------------------------|------------------------|---------------------|
| <i>Abies balsamea</i>     |                                          |                      |                         |                       |                               |                     |                         |                        |                        | 11                  |
| <i>Acer rubrum</i>        |                                          |                      |                         |                       |                               |                     |                         |                        |                        |                     |
| <i>Acer saccharum</i>     | 265<br>250<br>180<br>11                  | 205<br>25<br>12<br>1 | 290<br>135<br>275<br>11 | 182<br>57<br>170<br>1 | 232<br>14<br>220<br>202<br>11 | 112<br>235<br>11    | 230<br>25<br>110<br>111 | 132<br>215<br>16<br>45 | 110<br>46<br>76<br>100 | 158<br>1            |
| <i>Betula lutea</i>       |                                          | 1                    |                         |                       |                               |                     |                         |                        |                        |                     |
| <i>Betula papyrifera</i>  |                                          |                      |                         |                       |                               |                     |                         |                        |                        |                     |
| <i>Quercus rubra</i>      | 138                                      |                      |                         |                       |                               |                     | 855                     |                        |                        |                     |
| <i>Tsuga canadensis</i>   |                                          |                      |                         |                       |                               |                     |                         |                        | 150                    |                     |
| <i>Thuja occidentalis</i> |                                          |                      |                         |                       |                               |                     |                         |                        |                        |                     |
| <i>Ostrya</i>             | 91<br>1                                  | 34<br>11             | 18<br>1                 | 30<br>11              | 11                            | 14<br>26            | 1                       | 1                      | 28<br>1                |                     |
| <i>Prunella americana</i> | 1                                        | 1                    | 1                       |                       |                               |                     |                         |                        |                        |                     |
| <i>Gilia</i>              |                                          |                      |                         |                       |                               |                     |                         |                        | 96                     |                     |
| Tree distance             | 15<br>20<br>12<br>17<br>3<br>7<br>9<br>4 | 19<br>3<br>25<br>10  | 3<br>7<br>20<br>14      | 14<br>10<br>12<br>16  | 31<br>13<br>6<br>11           | 7<br>12<br>11<br>23 | 5<br>8<br>11<br>23      | 8<br>7½<br>22<br>35    | 14<br>20<br>8<br>13    | 14<br>9<br>2<br>9   |
| Sapling distance          | 3<br>7<br>9<br>4                         | 9<br>9<br>12<br>12   | 7<br>20<br>9<br>20      | 3<br>6<br>7<br>12     | 2<br>8<br>6<br>9              | 8<br>26<br>25<br>35 | 7<br>14<br>23<br>32     | 11<br>28<br>19<br>60   | 6<br>16<br>29<br>33    | 5<br>25<br>34<br>22 |

38

2

1

6

1

539

4064

## POINT RECORD TREES APOSTLE ISLANDS

| Point Number              | 1                              | 2                      | 3                        | 4                       | 5                       | 6                     | 7                        | 8                     | 9                       | 20                      |
|---------------------------|--------------------------------|------------------------|--------------------------|-------------------------|-------------------------|-----------------------|--------------------------|-----------------------|-------------------------|-------------------------|
| <i>Abies balsamea</i>     |                                |                        |                          |                         |                         |                       |                          |                       |                         |                         |
| <i>Acer rubrum</i>        |                                |                        |                          |                         |                         |                       |                          |                       |                         |                         |
| <i>Acer saccharum</i>     | 140 ✓<br>40<br>178<br>20<br>11 | 17<br>217<br>142<br>11 | 215 ✓<br>37<br>17<br>238 | 228<br>133<br>38<br>111 | 16 ✓<br>27<br>173<br>78 | 25<br>57<br>127<br>31 | 162 ✓<br>12<br>38<br>131 | 52<br>16<br>42<br>111 | 245 ✓<br>28<br>32<br>25 | 368<br>288<br>95<br>310 |
| <i>Betula lutea</i>       |                                |                        |                          |                         |                         |                       |                          |                       |                         |                         |
| <i>Betula papyrifera</i>  |                                |                        |                          |                         |                         |                       |                          |                       |                         |                         |
| <i>Quercus rubra</i>      |                                |                        |                          |                         |                         |                       |                          |                       |                         |                         |
| <i>Tsuga canadensis</i>   |                                |                        |                          |                         |                         |                       |                          |                       |                         |                         |
| <i>Thuja occidentalis</i> |                                |                        |                          |                         |                         |                       |                          |                       |                         |                         |
| <i>Ostrya</i>             | 1                              | 1                      | 11                       |                         |                         |                       |                          | 31                    |                         |                         |
| <i>Prunus</i>             |                                |                        |                          |                         | ✓                       |                       |                          |                       |                         |                         |
| <i>Tilia</i>              |                                | 148                    |                          | 131                     |                         |                       | 1                        |                       |                         |                         |
| Tree distance             | 12<br>13<br>35                 | 7<br>12<br>13<br>16    | 15<br>10<br>12<br>14½    | 11<br>10<br>12<br>17    | 15<br>20<br>9<br>11½    | 10<br>7<br>9½<br>30   | 11<br>16<br>14<br>22     | 17<br>8<br>14<br>32   | 13<br>14<br>13<br>14    | 3<br>21<br>12½<br>8½    |
| Sapling distance          | 29<br>19<br>15<br>21           | 22<br>46<br>20<br>45   | 18<br>20<br>17<br>17     | 4<br>18<br>18<br>27     | 8<br>75<br>19<br>24     | 6<br>10½<br>10<br>28  | 6<br>19<br>4<br>31       | 32<br>26<br>17<br>42  | 14<br>36<br>21<br>38    | 20<br>24<br>42<br>48    |

37  
13,937

2268

962

## POINT RECORD TREES APOSTLE ISLANDS

| Point Number              | 21                       | 22                     | 23                     | 24                      | 25                       | 26                     | 27                     | 28                    | 29                       | 30                      |
|---------------------------|--------------------------|------------------------|------------------------|-------------------------|--------------------------|------------------------|------------------------|-----------------------|--------------------------|-------------------------|
| <i>Abies balsamea</i>     |                          |                        |                        |                         |                          |                        |                        |                       |                          |                         |
| <i>Acer rubrum</i>        |                          |                        |                        |                         |                          |                        |                        |                       |                          |                         |
| <i>Acer saccharum</i>     | 22✓<br>290<br>173<br>111 | 20<br>161<br>13<br>111 | 48✓<br>152<br>85<br>47 | 14<br>122<br>112<br>24  | 76✓<br>135<br>22<br>13   | 85<br>110<br>162<br>61 | 350✓<br>54<br>132<br>= | 260<br>58<br>170<br>= | 60✓<br>17<br>342<br>=    | 47<br>115<br>25<br>111  |
| <i>Betula lutea</i>       | 200                      | 200                    |                        |                         |                          |                        |                        |                       |                          |                         |
| <i>Betula papyrifera</i>  |                          |                        |                        |                         |                          |                        |                        |                       |                          |                         |
| <i>Quercus rubra</i>      |                          |                        |                        |                         |                          |                        |                        |                       |                          |                         |
| <i>Tsuga canadensis</i>   |                          |                        |                        |                         |                          |                        |                        |                       |                          |                         |
| <i>Thuja occidentalis</i> |                          |                        |                        |                         |                          |                        |                        |                       |                          |                         |
| <i>Tilia</i>              |                          | 1                      |                        |                         |                          |                        | 310                    |                       | 1                        | 114                     |
| <i>Cornus</i>             |                          |                        |                        |                         |                          |                        |                        |                       |                          |                         |
| Tree distance             | 4<br>8 1/2<br>23<br>23   | 4<br>12<br>10<br>28    | 4<br>8<br>26<br>8      | 4<br>11<br>12<br>30     | 15<br>15<br>26<br>13     | 8<br>20<br>6<br>12     | 4<br>19<br>14<br>12    | 13<br>8<br>22<br>12   | 22<br>11<br>12 1/2<br>11 | 14<br>10 1/2<br>11<br>8 |
| Sapling distance          | 12<br>14<br>20<br>72     | 6<br>19<br>18<br>38    | 2<br>16<br>18<br>21    | 12<br>5<br>13 1/2<br>72 | 17 1/2<br>15<br>42<br>50 | 48<br>48<br>30<br>34   | 34<br>13<br>75<br>32   | 27<br>45<br>44<br>48  | 18<br>30<br>62<br>55     | 20<br>35<br>42<br>62    |

36  
9901

2

1706

2254

## POINT RECORD TREES APOSTLE ISLANDS

| Point Number              | 31                      | 32                     | 33                     | 34                            | 35                              | 36                          | 37                      | 38                             | 39                     | 0                    |
|---------------------------|-------------------------|------------------------|------------------------|-------------------------------|---------------------------------|-----------------------------|-------------------------|--------------------------------|------------------------|----------------------|
| <i>Abies balsamea</i>     |                         |                        |                        |                               |                                 |                             |                         |                                |                        | 16                   |
| <i>Acer rubrum</i>        |                         |                        |                        |                               |                                 |                             |                         |                                |                        | 11                   |
| <i>Acer saccharum</i>     | 310<br>220<br>19<br>410 | 65<br>388<br>248<br>11 | 14<br>25<br>363<br>380 | 65<br>500<br>55<br>205<br>111 | 128<br>260<br>107<br>222<br>111 | 222<br>12<br>12<br>22<br>11 | 148<br>94<br>74<br>111  | 150<br>38<br>258<br>130<br>111 | 99<br>96<br>313<br>122 | 123<br>1             |
| <i>Betula lutea</i>       |                         |                        |                        |                               |                                 |                             |                         |                                |                        | 470                  |
| <i>Betula papyrifera</i>  |                         |                        |                        |                               |                                 |                             |                         |                                |                        |                      |
| <i>Quercus rubra</i>      |                         |                        |                        |                               |                                 |                             |                         |                                |                        |                      |
| <i>Tsuga canadensis</i>   |                         |                        |                        |                               |                                 |                             |                         |                                |                        |                      |
| <i>Thuja occidentalis</i> |                         |                        |                        |                               |                                 |                             |                         |                                |                        |                      |
| <i>Ostrya</i>             |                         |                        |                        |                               |                                 |                             | 1                       | 1                              |                        | 62                   |
| <i>Tilia</i>              |                         | 132<br>1               |                        | 1                             |                                 |                             | 78                      |                                | 1                      |                      |
| Tree distance             | 13<br>21<br>42<br>6     | 18<br>16<br>18<br>23   | 14<br>16<br>18<br>19   | 10<br>11<br>7 1/2<br>12       | 12<br>17<br>12<br>52            | 3<br>21<br>19<br>16         | 14<br>22<br>9 1/2<br>27 | 4<br>21<br>20<br>20            | 6<br>12<br>18<br>10    | 12<br>9<br>11<br>12  |
| Sapling distance          | 45<br>22<br>12<br>30    | 24<br>55<br>16<br>83   | 52<br>50<br>38<br>18   | 21<br>55<br>29<br>22          | 3<br>32<br>31<br>60             | 1<br>6<br>30<br>34          | 25<br>13<br>20<br>22    | 40<br>36<br>35<br>8            | 17<br>10<br>26<br>24   | 17<br>15<br>10<br>80 |

35  
6096

2

1172

3423

## HERB FREQUENCY

## NORTHERN PINE-HARDWOODS

Stand No. 3236  
Quadrat No. 1-10

|                                   |                                    |                                        |
|-----------------------------------|------------------------------------|----------------------------------------|
| <i>Actaea pachypoda</i>           | <i>Fragaria virginiana</i>         | <i>Potentilla simplex</i>              |
| <i>Actaea rubra</i>               | <i>Galium lanceolatum</i>          | <i>Prenanthes alba</i>                 |
| <i>Adiantum pedatum</i>           | <i>Galium triflorum</i>            | <i>Pteridium aquilinum</i>             |
| <i>Allium tricoccum</i>           | <i>Gaultheria procumbens</i>       | <i>Pyrola elliptica</i>                |
| <i>Anemone quinquefolia</i>       | <i>Gaylussacia baccata</i>         | <i>Pyrola rotundifolia</i>             |
| <i>Aquilegia canadensis</i>       | <i>Geranium maculatum</i>          | <i>Pyrola secunda</i>                  |
| <i>Aralia nudicaulis</i> 9        | <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> 5, 7, 9 | <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> 3, 7, 9 | <i>Solidago ulmifolia</i>              |
| <i>Coptis trifolia</i>            | <i>Lysimachia quadrifolia</i>      | <i>Streptopus roseus</i> 1, 3, 5, 7, 9 |
| <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> 9           |
| <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> 1, 3, 9    | <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>Equisetum hyemale</i> 3        |                                    |                                        |

## HERB FREQUENCY

## NORTHERN PINE-HARDWOODS

Stand No. 3236  
Quadrat No. 11-20

*Actaea pachypoda*  
*Actaea rubra*  
*Adiantum pedatum*  
*Allium tricoccum*  
*Anemone quinquefolia*  
*Aquilegia canadensis*  
*Aralia nudicaulis* 11, 13  
*Aralia racemosa*  
*Arisaema atrorubens*  
*Aster macrophyllus* 11  
*Aster sagittifolius*  
*Athyrium angustum*  
*Botrychium virginianum*  
*Brachyelytrum erectum*  
*Carex albursina*  
*Caulophyllum thalictroides*  
*Chimaphila umbellata*  
*Circaea alpina*  
*Circaea latifolia*  
*Clintonia borealis* 11, 15  
*Coptis trifolia*  
*Corallorrhiza maculata*  
*Cornus alternifolia*  
*Cornus canadensis*  
*Cornus rugosa*  
*Corylus americana*  
*Corylus cornuta* 11, 13  
*Cypripedium acaule*  
*Diervilla lonicera*  
*Dirca palustris*  
*Dryopteris linnaeana* 19  
*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* 11, 13  
*Lysimachia quadrifolia*  
*Maianthemum canadense* 11  
*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* 13, 19  
*Rubus* (blackberry)  
*Rubus* (dewberry)  
*Sambucus pubens*  
*Sanguinaria canadensis*  
*Sanicula gregaria*  
*Smilacina racemosa*  
*Smilacina stellata*  
*Smilax ecirrhata*  
*Solidago ulmifolia*  
*Streptopus roseus* 11, 13, 15, 17, 19  
*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*

*Botrychium* sp. 17  
*Dryopteris* sp. 17  
*Big. grass* 19  
*Acer* sp. 19

*Prunus virginiana* 15, 17

## HERB FREQUENCY

## NORTHERN PINE-HARDWOODS

Stand No. 3234  
Quadrat No. 21-30

*Actaea pachypoda*  
*Actaea rubra*  
*Adiantum pedatum*  
*Allium tricoccum*  
*Anemone quinquefolia*  
*Aquilegia canadensis*  
*Aralia nudicaulis* 21, 27, 29  
*Aralia racemosa*  
*Arisaema atrorubens*  
*Aster macrophyllus* 21  
*Aster sagittifolius*  
*Athyrium angustum*  
*Botrychium virginianum*  
*Brachyelytrum erectum*  
*Carex albursina*  
*Caulophyllum thalictroides*  
*Chimaphila umbellata*  
*Circaea alpina*  
*Circaea latifolia*  
*Clintonia borealis* 21, 27  
*Coptis trifolia*  
*Corallorrhiza maculata*  
*Cornus alternifolia*  
*Cornus canadensis*  
*Cornus rugosa*  
*Corylus americana*  
*Corylus cornuta* 23, 25  
*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* 21, 23, 25, 27  
*Lysimachia quadrifolia*  
*Maianthemum canadense* 23  
*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* 23, 29  
*Rubus (blackberry)*  
*Rubus (dewberry)*  
*Sambucus pubens*  
*Sanguinaria canadensis*  
*Sanicula gregaria*  
*Smilacina racemosa*  
*Smilacina stellata*  
*Smilax ecirrhata*  
*Solidago ulmifolia*  
*Streptopus roseus* 21, 25, 29  
*Taxus canadensis*  
*Thalictrum dioicum*  
*Trientalis borealis*  
*Trillium grandiflorum*  
*Uvularia grandiflora*  
*Uvularia sessilifolia* 27  
*Vaccinium angustifolium*  
*Vaccinium pennsylvanicum*  
*Viburnum acerifolium*  
*Viola canadensis*  
*Viola cucullata*  
*Viola pallens*  
*Viola pubescens*  
*Waldsteinia fragarioides*

Acer spic 21, 27, 29

Little Cary 23

## HERB FREQUENCY

## NORTHERN PINE-HARDWOODS

Stand No. 3236  
Quadrat No. 31-40

*Actaea pachypoda*  
*Actaea rubra*  
*Adiantum pedatum*  
*Allium tricoccum*  
*Anemone quinquefolia*  
*Aquilegia canadensis*  
*Aralia nudicaulis* 37, 39  
*Aralia racemosa*  
*Arisaema atrorubens*  
*Aster macrophyllus* 33, 39  
*Aster sagittifolius*  
*Athyrium angustum*  
*Botrychium virginianum*  
*Brachyelytrum erectum*  
*Carex albursina*  
*Caulophyllum thalictroides*  
*Chimaphila umbellata*  
*Circaea alpina*  
*Circaea latifolia*  
*Clintonia borealis* 39  
*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* 33  
*Epifagus virginiana*  
*Epigaea repens*

*Acer spic* 31, 37, 39

*Fragaria virginiana*  
*Galium lanceolatum*  
*Galium triflorum* 39  
*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* 37, 39  
*Lysimachia quadrifolia*  
*Maianthemum canadense* 39  
*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* 31, 33, 37, 39  
*Rubus (blackberry)*  
*Rubus (dewberry)*  
*Sambucus pubens*  
*Sanguinaria canadensis*  
*Sanicula gregaria*  
*Smilacina racemosa*  
*Smilacina stellata*  
*Smilax ecirrhata*  
*Solidago ulmifolia*  
*Streptopus roseus* 31, 33, 35, 37  
*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*

## PRESENCE LIST

## NORTHERN PINE-HARDWOODS

STAND NO. 3236

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 phytolepis  
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  
Lycopus americanus  
Lycopus uniflora  
Lysimachia quadrifolia  
Maianthemum canadense

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

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

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:

## DEER DAMAGE REPORT FORM

Stand No.

3236

| Pt. No. | Sp | Dis   | Con | Sp | Dis   | Con | Sp | Dis   | Con | Sp | Dis   | Con |
|---------|----|-------|-----|----|-------|-----|----|-------|-----|----|-------|-----|
| 1       | AS | 1/2   | M   | AS | 1/2   | O   | CC | 1     | O   | AS | 1     | L   |
| 2       | PS | 1/2   | M   | PS | 1     | H   | RP | 1     | M   | PS | 1     | L   |
| 3       | AS | 1     | M   | PS | 1/2   | M   | PS | 1     | L   | CC | 1/2   | M   |
| 4       | AS | 1     | M   | RP | 1     | L   | AS | 2     | M   | AS | 2     | O   |
| 5       | AS | 1     | M   | AS | 2     | M   | AS | 1     | L   | OV | 2     | H   |
| 6       | AC | 0     | H   | AC | 0     | H   | PS | 0     | M   | PS | 0     | M   |
| 7       | AS | 1/2   | M   | OR | 1/2   | M   | AS | 0     | M   | AS | 1     | M   |
| 8       | AS | 1/2   | O   | RP | 2     | H   | CC | 1     | L   | AS | 1/2   | H   |
| 9       | CC | 1/2   | L   | CC | 1/2   | M   | CC | 1/2   | M   | CC | 1     | H   |
| 10      | AS | 1/2   | M   | RP | 0     | H   | AS | 1     | H   | AS | 1     | H   |
| 11      | CC | 1     | M   | CC | 2     | H   | CC | 2     | H   | CC | 2 1/2 | M   |
| 12      | CC | 0     | L   | CC | 1     | H   | CC | 1     | H   | AS | 2     | L   |
| 13      | CC | 1 1/2 | H   | CC | 0     | H   | AS | 1     | M   | CC | 3     | M   |
| 14      | AS | 1     | H   | AS | 3     | H   | AS | 2     | H   | AC | 9     | H   |
| 15      | AS | 0     | H   | AS | 1/2   | M   | AC | 2     | H   | AS | 1     | M   |
| 16      | AC | 0     | H   | AC | 1     | H   | AC | 1     | H   | PV | 1     | H   |
| 17      | AS | 0     | M   | AS | 1/2   | M   | RP | 1/2   | M   | PV | 1/2   | H   |
| 18      | AS | 0     | L   | AS | 2     | M   | AS | 4     | M   | AC | 5     | M   |
| 19      | AC | 1/2   | M   | AS | 1/2   | H   | AR | 1/2   | M   | AC | 1     | H   |
| 20      | AS | 2     | L   | AS | 5     | H   | AS | 4     | H   | AS | 1     | H   |
| 21      | AS | 0     | M   | AS | 1/2   | O   | CC | 2     | H   | AM | 1 1/2 | H   |
| 22      | CC | 1     | L   | OR | 3     | L   | CC | 0     | L   | AS | 2     | M   |
| 23      | CC | 1/2   | M   | CC | 1     | M   | CC | 1     | M   | CC | 1     | M   |
| 24      | AS | 1     | L   | CC | 3     | L   | AS | 1 1/2 | H   | AS | 2     | L   |
| 25      | CC | 1/2   | M   | CC | 2     | L   | CC | 0     | M   | AC | 8     | H   |
| 26      | CC | 0     | M   | CC | 0     | M   | AC | 2     | L   | CC | 1     | M   |
| 27      | AC | 0     | H   | AS | 1/2   | O   | AS | 1/2   | O   | AC | 1     | H   |
| 28      | RP | 1     | M   | RP | 1     | M   | RP | 0     | O   | AS | 1/2   | O   |
| 29      | RP | 1/2   | O   | AC | 1/2   | H   | AS | 2 1/2 | H   | AC | 1     | M   |
| 30      | AC | 1 1/2 | H   | AS | 0     | H   | AS | 0     | H   | AS | 1/2   | M   |
| 31      | AS | 0     | M   | AS | 0     | M   | AS | 1 1/2 | M   | AC | 1     | H   |
| 32      | AS | 0     | L   | AS | 0     | H   | RP | 1/2   | L   | AS | 0     | M   |
| 33      | AS | 0     | M   | RP | 1     | M   | AS | 1     | O   | AS | 1/2   | H   |
| 34      | AS | 0     | M   | AS | 1/2   | L   | AS | 1/2   | O   | AS | 1/2   | O   |
| 35      | AS | 0     | M   | AS | 0     | L   | AS | 1     | M   | AS | 3     | M   |
| 36      | AS | 0     | L   | RP | 1     | O   | CC | 2     | H   | RP | 1     | L   |
| 37      | AC | 0     | H   | AC | 0     | H   | AS | 1     | M   | AC | 0     | M   |
| 38      | AC | 1     | H   | AC | 1 1/2 | H   | RP | 1 1/2 | L   | AC | 1 1/2 | H   |
| 39      | RP | 0     | L   | OV | 2     | L   | AC | 2     | H   | OV | 3 1/2 | L   |
| 40      | AC | 1     | M   | AC | 1     | H   | AC | 1     | T   | AC | 2     | H   |

PS *Prunus penns.*OV *Ostrya virginica*PI *Prunus virgin.*

see dis. 1.061