

## FDn33 Northern Dry-Mesic Mixed Woodland Pollinator Resources

Dry-mesic conifer, conifer-hardwood, or hardwood woodlands dominated by red pine, white pine, jack pine, black spruce, quaking aspen, or paper birch. Most common on sandy soils but also present on shallow, loamy soils over bedrock. Crown and surface fires were common historically.

**Examples of insect pollinators (and their associated host plants in parentheses) that use FDn33 include:**

**Bees:**

*Andrena melanochroa* (Rosaceae)

*Andrena frigida* (Salix)

*Andrena persimulata* (Cornus [Swida])

**Butterflies:**

*Satyrium titus* (Prunus)

*Phyciodes tharos* (*Eurybia macrophylla*)

*Oeneis macounii* (*Oryzopsis asperifolia*)

*Erynnis icelus* (*Populus tremuloides*)

**Moths:**

*Amphipyra pyramidoides* (*Corylus cornuta*)

*Cerastis tenebrifera* (*Anemone quinquefolia*)

*Phyllonorycter apparella* (*Populus tremuloides*)



*Cerastis tenebrifera* (reddish speckled dart) uses *Anemone quinquefolia* (wood anemone) as a host plant. Photo: Kyle Johnson



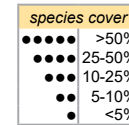
*Andrena melanochroa* (rose miner bee) uses species in the Rosaceae (rose) family as a host plant.

Photo: Max McCarthy

# FDn33 Northern Dry-Mesic Mixed Woodland

## Pollinator Resources Table

FDn33 Class Factsheet. Based on 124 plots. November, 2024.



| Forbs   | species frequency in NPC (%) | species cover (when present) | Compatibility | Longevity           | Clonality | Principal Pollen Vector | Pollinator requirements                                | Pollination Index |
|---|------------------------------|------------------------------|---------------|---------------------|-----------|-------------------------|--|-------------------|
| Canada mayflower ( <i>Maianthemum canadense</i> )                 | 98                           | ●●●                          | SI            | Perennial           | Present   | insects                 | Early spring insect                                    | 5                 |
| Wild sarsaparilla ( <i>Aralia nudicaulis</i> )                    | 91                           | ●●                           | D             | Perennial           | Present   | insects                 | Generalist   | 4                 |
| Bracken ( <i>Pteridium aquilinum</i> )                            | 84                           | ●●●                          | SC            | Perennial           | Present   | wind, water             | Generalist   | 0                 |
| Large-leaved aster ( <i>Aster macrophyllus</i> )                  | 84                           | ●●●                          | A             | Perennial           | Present   | insects                 | Generalist   | 2                 |
| Common strawberry ( <i>Fragaria virginiana</i> )                  | 81                           | ●                            | SC            | Perennial           | Present   | insects                 | Early spring insect                                    | 3                 |
| Wood anemone ( <i>Anemone quinquefolia</i> )                      | 74                           | ●                            | UNK           | Perennial           | Present   | insects                 | Early spring insect                                    | 4                 |
| Sweet-scented bedstraw ( <i>Galium triflorum</i> )                | 70                           | ●                            | UNK           | Perennial           | Present   | insects                 | Generalist   | 3                 |
| Dwarf raspberry ( <i>Rubus pubescens</i> )                        | 68                           | ●●                           | SC            | Perennial           | Present   | insects                 | Generalist   | 2                 |
| Bunchberry ( <i>Cornus canadensis</i> )                           | 66                           | ●●                           | SI            | Perennial           | Present   | insects                 | Generalist   | 4                 |
| Starflower ( <i>Trientalis borealis</i> )                         | 65                           | ●                            | SI/sc         | Perennial           | Present   | insects                 | Generalist   | 3                 |
| Bluebead lily ( <i>Clintonia borealis</i> )                       | 65                           | ●●                           | SI            | Perennial           | Present   | insects                 | Generalist   | 4                 |
| Rose twistedstalk ( <i>Streptopus roseus</i> )                    | 63                           | ●                            | UNK           | Perennial           | Present   | insects                 | Early spring insect                                    | 4                 |
| Spreading dogbane ( <i>Apocynum androsaemifolium</i> )            | 50                           | ●                            | SI            | Perennial           | Present   | insects                 | Generalist   | 4                 |
| Pale vetchling ( <i>Lathyrus ochroleucus</i> )                    | 44                           | ●                            | SI            | Perennial           | Present   | insects                 | Somewhat specific insect                               | 5                 |
| Lindley's aster ( <i>Aster ciliolatus</i> )                       | 43                           | ●                            | UNK           | Perennial           | Present   | insects                 | Generalist   | 3                 |
| Veiny pea ( <i>Lathyrus venosus</i> )                             | 42                           | ●                            | SI            | Perennial           | Present   | insects                 | Somewhat specific insect                               | 5                 |
| Twinflower ( <i>Linnaea borealis</i> )                            | 42                           | ●●                           | SC            | Perennial           | Present   | insects                 | Generalist   | 2                 |
| One-sided pyrola ( <i>Pyrola secunda</i> )                        | 28                           | ●                            | UNK           | Perennial           | Present   | insects                 | Somewhat specific insect, Facultative buzz pollination | 4                 |
| Red baneberry ( <i>Actaea rubra</i> )                             | 28                           | ●                            | SC            | Perennial           | Present   | insects                 | Early spring insect                                    | 3                 |
| Columbine ( <i>Aquilegia canadensis</i> )                         | 28                           | ●                            | SC            | Perennial           | Present   | insects                 | Early spring insect, Somewhat specific insect          | 3                 |
| Pale bellwort ( <i>Uvularia sessilifolia</i> )                    | 27                           | ●                            | SI            | Perennial           | Present   | insects                 | Early spring insect                                    | 5                 |
| Early meadow-rue ( <i>Thalictrum dioicum</i> )                    | 27                           | ●                            | SI            | Perennial           | Present   | wind                    | Generalist   | 0                 |
| Groundpine ( <i>Lycopodium dendroideum</i> or <i>L. hickeyi</i> ) | 24                           | ●                            | SC            | Perennial           | Present   | wind, water             | Generalist   | 0                 |
| Round-leaved pyrola ( <i>Pyrola rotundifolia</i> )                | 23                           | ●                            | UNK           | Perennial           | Present   | insects                 | Buzz pollination                                       | 5                 |
| Northern bedstraw ( <i>Galium boreale</i> )                       | 23                           | ●●                           | SI            | Perennial           | Present   | insects                 | Generalist   | 4                 |
| Hairy Solomon's seal ( <i>Polygonatum pubescens</i> )             | 23                           | ●                            | UNK           | Perennial           | Present   | insects                 | Somewhat specific insect                               | 4                 |
| Maryland black snakeroot ( <i>Sanicula marilandica</i> )          | 22                           | ●                            | UNK           | Perennial           | Absent    | insects                 | Generalist   | 4                 |
| Cow wheat ( <i>Melampyrum lineare</i> )                           | 21                           | ●●                           | SC            | Annual              | Absent    | insects                 | Somewhat specific insect                               | 5                 |
| American vetch ( <i>Vicia americana</i> )                         | 18                           | ●                            | SI            | Perennial           | Present   | insects                 | Somewhat specific insect                               | 5                 |
| Large-flowered bellwort ( <i>Uvularia grandiflora</i> )           | 17                           | ●                            | SI            | Perennial           | Present   | insects                 | Early spring insect                                    | 5                 |
| Spinulose shield fern or Glandular wood fern*                     | 17                           | ●                            | SC            | Perennial           | Present   | wind, water             | Generalist   | 0                 |
| Gaywings ( <i>Polygala paucifolia</i> )                           | 15                           | ●                            | CH and CL     | Annual or perennial | Absent    | insects                 | Somewhat specific insect                               | 6                 |
| <b>Grasses and Sedges</b>   |                              |                              |               |                     |           |                         |  |                   |
| Mountain rice grass ( <i>Oryzopsis asperifolia</i> )              | 77                           | ●●●                          | UNK           | Perennial           | Absent    | wind                    | Generalist   | 0                 |
| Pennsylvania sedge ( <i>Carex pennsylvanica</i> )                 | 29                           | ●●                           | SC            | Perennial           | Present   | wind                    | Generalist   | 0                 |
| False melic grass ( <i>Schizachne purpurascens</i> )              | 23                           | ●●                           | UNK           | Perennial           | Absent    | wind                    | Generalist   | 0                 |

| Low Shrubs   |    |      |        |           |         |         |  |  |        |
|--|----|------|--------|-----------|---------|---------|--|--|--------|
| Lowbush blueberry ( <i>Vaccinium angustifolium</i> )                             | 81 | ••   | ± SC   | Perennial | Present | insects | Somewhat specific insect, Facultative buzz pollination |  | 3      |
| Red raspberry ( <i>Rubus idaeus</i> )  | 52 | •    | SC     | Perennial | Present | insects | Generalist   |  | 2      |
| Wintergreen ( <i>Gaultheria procumbens</i> )                                     | 40 | •    | SC     | Perennial | Present | insects | Somewhat specific insect                               |  | 3      |
| Velvet-leaved blueberry ( <i>Vaccinium myrtilloides</i> )                        | 24 | •    | SC     | Perennial | Present | insects | Somewhat specific insect, Facultative buzz pollination |  | 3      |
| Shrubs   |    |      |        |           |         |         |  |  |        |
| Beaked hazelnut ( <i>Corylus cornuta</i> )                                       | 95 | •••• | Di     | Perennial | Present | wind    | Generalist   |  | 0      |
| Juneberries ( <i>Amelanchier</i> spp.)   | 86 | ••   | Varies | Perennial | Present | insects | Early spring insect                                    |  | Varies |
| Bush honeysuckle ( <i>Diervilla lonicera</i> )                                   | 80 | ••   | SC     | Perennial | Present | insects | Somewhat specific insect                               |  | 3      |
| Fly honeysuckle ( <i>Lonicera canadensis</i> )                                   | 60 | •    | SC     | Perennial | Absent  | insects | Somewhat specific insect                               |  | 4      |
| Chokecherry ( <i>Prunus virginiana</i> )   | 58 | •    | SI     | Perennial | Present | insects | Early spring insect                                    |  | 5      |
| Prickly or Smooth wild rose ( <i>Rosa acicularis</i> or <i>R. blanda</i> )       | 52 | •    | SC     | Perennial | Present | insects | Generalist   |  | 2      |
| Round-leaved dogwood ( <i>Cornus rugosa</i> )                                    | 34 | ••   | UNK    | Perennial | Present | insects | Generalist   |  | 3      |
| Mountain maple ( <i>Acer spicatum</i> )  | 31 | •••  | SI     | Perennial | Absent  | insects | Early spring insect                                    |  | 6      |
| Downy arrowwood ( <i>Viburnum rafinesquianum</i> )                               | 28 | •    | UNK    | Perennial | Present | insects | Generalist   |  | 3      |
| Prairie willow ( <i>Salix humilis</i> )  | 22 | •    | D      | Perennial | Present | insects | Early spring insect                                    |  | 5      |
| Hairy honeysuckle ( <i>Lonicera hirsuta</i> )                                    | 21 | •    | SC     | Perennial | Weakly  | insects | Somewhat specific insect                               |  | 3      |
| Green alder ( <i>Alnus viridis</i> )   | 18 | ••   | Di     | Perennial | Present | wind    | Generalist   |  | 0      |
| Snowberry or Wolfberry ( <i>Symphoricarpos albus</i> or <i>S. occidentalis</i> ) | 13 | ••   | SC     | Perennial | Present | insects | Generalist   |  | 2      |
| Tree Canopy  |    |      |        |           |         |         |  |  |        |
| Red pine   | 49 | •••• | UNK    | Perennial | Absent  | wind    | Generalist   |  | 0      |
| Paper birch  | 47 | •••  | Di     | Perennial | Present | wind    | Generalist   |  | 0      |
| Quaking aspen  | 35 | •••  | D      | Perennial | Present | wind    | Generalist   |  | 0      |
| White pine   | 31 | •••• | SI     | Perennial | Absent  | wind    | Generalist   |  | 0      |
| Red maple  | 27 | ••   | D      | Perennial | Absent  | insects | Early spring insect                                    |  | 6      |
| Balsam fir   | 20 | •••  | UNK    | Perennial | Absent  | wind    | Generalist   |  | 0      |
| Jack Pine  | 18 | •••  | UNK    | Perennial | Absent  | wind    | Generalist   |  | 0      |
| Big-toothed aspen  | 15 | •••  | D      | Perennial | Present | wind    | Generalist   |  | 0      |
| White spruce   | 12 | •    | UNK    | Perennial | Absent  | wind    | Generalist   |  | 0      |
| Northern red oak   | 11 | •    | SI     | Perennial | Present | wind    | Generalist   |  | 0      |
| Black spruce   | 6  | •••• | UNK    | Perennial | Absent  | wind    | Generalist   |  | 0      |
| Tree Subcanopy   |    |      |        |           |         |         |  |  |        |
| Red pine   | 27 | •••  | UNK    | Perennial | Absent  | wind    | Generalist   |  | 0      |
| Paper birch  | 65 | •••  | Di     | Perennial | Present | wind    | Generalist   |  | 0      |
| Quaking aspen  | 30 | •••  | D      | Perennial | Present | wind    | Generalist   |  | 0      |
| White pine   | 19 | ••   | SI     | Perennial | Absent  | wind    | Generalist   |  | 0      |
| Red maple  | 51 | •••  | D      | Perennial | Absent  | insects | Early spring insect                                    |  | 6      |
| Balsam fir   | 38 | •••  | UNK    | Perennial | Absent  | wind    | Generalist   |  | 0      |
| Jack Pine  | 8  | ••   | UNK    | Perennial | Absent  | wind    | Generalist   |  | 0      |

|                         |    |     |     |           |         |         |                     |   |
|-------------------------|----|-----|-----|-----------|---------|---------|---------------------|---|
| Big-toothed aspen       | 15 | ••• | D   | Perennial | Present | wind    | Generalist          | 0 |
| White spruce            | 15 | ••  | UNK | Perennial | Absent  | wind    | Generalist          | 0 |
| Northern red oak        | 31 | ••  | SI  | Perennial | Present | wind    | Generalist          | 0 |
| Black spruce            | 7  | ••  | UNK | Perennial | Absent  | wind    | Generalist          | 0 |
| <b>Tree Shrub Layer</b> |    |     |     |           |         |         |                     |   |
| Red pine                | 6  | •   | UNK | Perennial | Absent  | wind    | Generalist          | 0 |
| Paper birch             | 32 | •   | Di  | Perennial | Present | wind    | Generalist          | 0 |
| Quaking aspen           | 50 | •   | D   | Perennial | Present | wind    | Generalist          | 0 |
| White pine              | 39 | •   | SI  | Perennial | Absent  | wind    | Generalist          | 0 |
| Red maple               | 69 | ••  | D   | Perennial | Absent  | insects | Early spring insect | 6 |
| Balsam fir              | 65 | •   | UNK | Perennial | Absent  | wind    | Generalist          | 0 |
| Jack Pine               | -  | -   | UNK | Perennial | Absent  | wind    | Generalist          | 0 |
| Big-toothed aspen       | 9  | •   | D   | Perennial | Present | wind    | Generalist          | 0 |
| White spruce            | 22 | •   | UNK | Perennial | Absent  | wind    | Generalist          | 0 |
| Northern red oak        | 44 | •   | SI  | Perennial | Present | wind    | Generalist          | 0 |
| Black spruce            | 3  | •   | UNK | Perennial | Absent  | wind    | Generalist          | 0 |

\*Spinulose shield fern or Glandular wood fern (*Dryopteris carthusiana* or *D. intermedia*).