

MHc38 Central Mesic Cold-Slope Hardwood-Conifer Forest Pollinator Resources

Hardwood-conifer forests on steep north-facing bluffs, often associated with algific talus slopes where cold air vents enhance the cool, moist microclimate of the community. Characterized by northern species otherwise absent in southeastern Minnesota.

Examples of insect pollinators (and their associated host plants in parentheses) that use MHc38 include:

Bees:

Andrena uvulariae (*Uvularia*)

Andrena integra (*Cornus* [*Swida*])

Hylaeus sparsus (*Apiaceae*)

Andrena geranii (*Hydrophyllum virginianum*)

Butterflies:

Erynnis lucilius (*Aquilegia canadensis*)

Polygonia progne (*Ribes*)

Erynnis juvenalis (*Quercus*)

Moths:

Cucullia convexipennis (*Solidago flexicaulis*)

Papaipema leucostigma (*Aquilegia canadensis*)

Leucanthiza dircella (*Dirca palustris*)



Polygonia progne (gray comma) uses *Ribes* (currant, gooseberry) species as a host plant.

Photo: Bob Dunlap



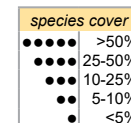
Papaipema leucostigma (columbine borer) uses *Aquilegia canadensis* (eastern red columbine) as a host plant.

Photo: Kyle Johnson

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Pollinator Resources Table

MHc38 Class Factsheet. Based on 7 plots. November 2024



Forbs	species frequency in NPC (%)	species cover (when present)	Compatibility	Longevity	Clonality	Principal Pollen Vector	Pollinator requirements	Pollination Index
Maidenhair fern (<i>Adiantum pedatum</i>)	100	●	SC	Perennial	Present	wind, water	Generalist	0
Early meadow-rue (<i>Thalictrum dioicum</i>)	100	●	SI	Perennial	Present	wind	Generalist	0
Canada mayflower (<i>Maianthemum canadense</i>)	100	●	SI	Perennial	Present	insects	Early spring insect	5
Zigzag goldenrod (<i>Solidago flexicaulis</i>)	100	●	SI	Perennial	Present	insects	Generalist	4
Wild ginger (<i>Asarum canadense</i>)	100	●●	SC	Perennial	Present	insects	Early spring insect, Somewhat specific insect	3
Red baneberry (<i>Actaea rubra</i>)	100	●	SC	Perennial	Present	insects	Early spring insect	3
Bulblet fern (<i>Cystopteris bulbifera</i>)	86	●●●	SC	Perennial	Present	wind, water	Generalist	0
Two-leaved miterwort (<i>Mitella diphylla</i>)	86	●	UNK	Perennial	Present	insects	Early spring insect	4
Sharp-lobed hepatica (<i>Anemone acutiloba</i>)	86	●	SC	Perennial	Present	insects	Early spring insect	3
Columbine (<i>Aquilegia canadensis</i>)	86	●	SC	Perennial	Present	insects	Early spring insect, Somewhat specific insect	3
Large-flowered bellwort (<i>Uvularia grandiflora</i>)	86	●	SI	Perennial	Present	insects	Early spring insect	5
Bloodroot (<i>Sanguinaria canadensis</i>)	86	●	SC	Perennial	Present	insects	Early spring insect	3
Wood anemone (<i>Anemone quinquefolia</i>)	71	●	UNK	Perennial	Present	insects	Early spring insect	4
Jack-in-the-pulpit (<i>Arisaema triphyllum</i>)	71	●	SI	Perennial	Present	insects	Early spring insect, Somewhat specific insect	5
Wild sarsaparilla (<i>Aralia nudicaulis</i>)	57	●	D	Perennial	Present	insects	Generalist	4
Rose twistedstalk (<i>Streptopus roseus</i>)	57	●	UNK	Perennial	Present	insects	Early spring insect	4
Virginia waterleaf (<i>Hydrophyllum virginianum</i>)	57	●	SC	Perennial	Present	insects	Somewhat specific insect	3
Northern bedstraw (<i>Galium boreale</i>)	57	●	SI	Perennial	Present	insects	Generalist	4
Blue cohosh (<i>Caulophyllum thalictroides</i>)	43	●	SC/SI	Perennial	Present	insects	Early spring insect	4
Shining bedstraw (<i>Galium concinnum</i>)	43	●	UNK	Perennial	Present	insects	Generalist	3
Sweet-scented bedstraw (<i>Galium triflorum</i>)	43	●	UNK	Perennial	Present	insects	Generalist	3
Clayton's sweet cicely (<i>Osmorhiza claytonii</i>)	43	●	D	Perennial	Absent	insects	Generalist	5
Lady fern (<i>Athyrium filix-femina</i>)	43	●	SC	Perennial	Present	wind, water	Generalist	0
Common false Solomon's seal (<i>Smilacina racemosa</i>)	43	●	UNK	Perennial	Present	insects	Early spring insect	4
Slender cliff brake (<i>Cryptogramma stelleri</i>)	29	●	SC	Perennial	Present	wind, water	Generalist	0
Common polypody (<i>Polypodium virginianum</i>)	29	●	SC	Perennial	Present	wind, water	Generalist	0
Dwarf raspberry (<i>Rubus pubescens</i>)	29	●	SC	Perennial	Present	insects	Generalist	2
Touch-me-not (<i>Impatiens</i> spp.)	29	●●	SI/SC	Annual	Absent	insects	Somewhat specific insect	6
Nodding wild onion (<i>Allium cernuum</i>)	29	●●	SC	Perennial	Present	insects	Generalist	2
Grasses and Sedges								
Long-stalked sedge (<i>Carex pedunculata</i>)	71	●	SC	Perennial	Present	wind	Generalist	0
Bearded shorthusk (<i>Brachyelytrum erectum</i>)	57	●	UNK	Perennial	Present	wind	Generalist	0
Climbing Plants								
Virginia creeper (<i>Parthenocissus</i> spp.)	86	●	SC	Perennial	Present	insects	Generalist	2
Shrubs								
Chokecherry (<i>Prunus virginiana</i>)	86	●●	SI	Perennial	Present	insects	Early spring insect	5
Downy arrowwood (<i>Viburnum rafinesquianum</i>)	86	●	UNK	Perennial	Present	insects	Generalist	3

Canada yew (<i>Taxus canadensis</i>)	57	●●●	UNK	Perennial	Absent	wind	Generalist	0
Highbush cranberry (<i>Viburnum trilobum</i>)	57	●	UNK	Perennial	Present	insects	Generalist	3
Bush honeysuckle (<i>Diervilla lonicera</i>)	57	●●	SC	Perennial	Present	insects	Somewhat specific insect	3
Pagoda dogwood (<i>Cornus alternifolia</i>)	57	●●●	UNK	Perennial	Present	insects	Generalist	3
Poison ivy (<i>Toxicodendron rydbergii</i>)	57	●●	D	Perennial	Present	insects	Generalist	4
Round-leaved dogwood (<i>Cornus rugosa</i>)	57	●	UNK	Perennial	Present	insects	Generalist	3
Prickly gooseberry (<i>Ribes cynosbati</i>)	43	●	SI	Perennial	Present	insects	Generalist	4
Common elder (<i>Sambucus canadensis</i>)	43	●	UNK	Perennial	Present	insects	Generalist	3
Red-berried elder (<i>Sambucus racemosa</i>)	43	●	UNK	Perennial	Present	insects	Generalist	3
American hazelnut (<i>Corylus americana</i>)	43	●	Di	Perennial	Present	wind	Generalist	0
Leatherwood (<i>Dirca palustris</i>)	43	●	SC	Perennial	Absent	insects	Somewhat specific insect	4
Beaked hazelnut (<i>Corylus cornuta</i>)	43	●●	Di	Perennial	Present	wind	Generalist	0
Missouri gooseberry (<i>Ribes missouriense</i>)	43	●	SI	Perennial	Present	insects	Generalist	4
Bladdernut (<i>Staphylea trifolia</i>)	29	●●●	SC	Perennial	Present	insects	Generalist	2
Tree Canopy								
Sugar maple	100	●●●●	D	Perennial	Absent	insects	Early spring insect	6
Northern red oak	86	●●●	SI	Perennial	Present	wind	Generalist	0
Ironwood	71	●●	UNK	Perennial	Present	wind	Generalist	0
White pine	71	●●●●	SI	Perennial	Absent	wind	Generalist	0
Basswood	57	●●	SI	Perennial	Absent	insects	Generalist	5
White oak	43	●●	SI	Perennial	Present	wind	Generalist	0
Paper birch	43	●●●	Di	Perennial	Present	wind	Generalist	0
Yellow birch	43	●●●	Di	Perennial	Present	wind	Generalist	0
Bitternut hickory	29	●	UNK	Perennial	Present	wind	Generalist	0
Balsam fir	29	●●●	UNK	Perennial	Absent	wind	Generalist	0
Green ash	29	●	D	Perennial	UNK	wind	Generalist	0
Black ash	14	●	D	Perennial	Absent	wind	Generalist	0
Blue beech	-	-	UNK	Perennial	Present	wind	Generalist	0
American elm	-	-	Di	Perennial	Absent	wind	Generalist	0
Tree Subcanopy								
Sugar maple	100	●●●	D	Perennial	Absent	insects	Early spring insect	6
Northern red oak	14	●	SI	Perennial	Present	wind	Generalist	0
Ironwood	86	●●●	UNK	Perennial	Present	wind	Generalist	0
White pine	-	-	SI	Perennial	Absent	wind	Generalist	0
Basswood	57	●	SI	Perennial	Absent	insects	Generalist	5
White oak	14	●	SI	Perennial	Present	wind	Generalist	0
Paper birch	29	●	Di	Perennial	Present	wind	Generalist	0
Yellow birch	43	●	Di	Perennial	Present	wind	Generalist	0
Bitternut hickory	-	-	UNK	Perennial	Present	wind	Generalist	0
Balsam fir	43	●●●	UNK	Perennial	Absent	wind	Generalist	0

Green ash	29	•	D	Perennial	UNK	wind	Generalist	0
Black ash	14	•	D	Perennial	Absent	wind	Generalist	0
Blue beech	43	•	UNK	Perennial	Present	wind	Generalist	0
American elm	14	•	Di	Perennial	Absent	wind	Generalist	0
<i>Tree Shrub Layer</i>								
Sugar maple	86	•••	D	Perennial	Absent	insects	Early spring insect	6
Northern red oak	43	•	SI	Perennial	Present	wind	Generalist	0
Ironwood	71	•	UNK	Perennial	Present	wind	Generalist	0
White pine	43	•	SI	Perennial	Absent	wind	Generalist	0
Basswood	86	•	SI	Perennial	Absent	insects	Generalist	5
White oak	14	•	SI	Perennial	Present	wind	Generalist	0
Paper birch	29	•	Di	Perennial	Present	wind	Generalist	0
Yellow birch	14	•	Di	Perennial	Present	wind	Generalist	0
Bitternut hickory	43	••	UNK	Perennial	Present	wind	Generalist	0
Balsam fir	43	•	UNK	Perennial	Absent	wind	Generalist	0
Green ash	29	•	D	Perennial	UNK	wind	Generalist	0
Black ash	29	•	D	Perennial	Absent	wind	Generalist	0
Blue beech	43	•••	UNK	Perennial	Present	wind	Generalist	0
American elm	29	•	Di	Perennial	Absent	wind	Generalist	0