

Helpful Insects & Pollinators

Habitat

1. Loss of Habitat for Pollinators
2. Natives are Best
3. Gardens for Pollinators: Sunny location, add host & nectar plants, provide nesting areas, avoid pesticides. WI Pollinator Habitat Assessment tool: www.pollinators.wisc.edu/habitat
4. Pollinators & helpful insects are important
5. Pollination Steps: Pollinator seeks nectar, anther produces pollen, pollen sticks to pollinator then transfers to another flower

Meet the Pollinators- Bees, Butterflies, Moths, Wasps, Beetles, Flies, Birds

6. Bees: United States: ~4,000 species; Wisconsin: ~400 species; “Wild” Bees
7. Butterflies: 18,000 species of butterflies found worldwide, They can see red and colorful warm colors
Organizations: North American Butterfly Association (www.naba.org), Monarch Watch (www.monarchwatch.org) Xerces Society (www.xerces.org)
8. Other Insect Pollinators- Beneficial Insects, Predators and Parasites, Decomposers
Pollinators: Wasps, Moths, Flies, Beetles
Predators: Beetles, True Bugs, Stink Bugs, Flies, Lacewings
Parasitic: Wasps & Flies
9. UW Madison Insect Diagnostic Lab www.insectlab.russell.wisc.edu
10. Bee Stings or bug bites? Crush the Plantain leaves and rub the juice on the site

Plants that Support Pollinators

11. Insectary: Lemon Balm, White Alyssum, Fennel, Dill, Parsley, Cosmos, Borage, Sunflower, Achillea, Lemon Verbena
12. Best Flower Families for Beneficials: Carrot (*Apiaceous*), Aster (*Asteraceae*), Legumes (*Fabaceae*), Mustard (*Brassicaceae*), Verbena (*Verbenaceae*)
13. Controlling Pests: Barriers, encourage beneficial insects, insecticides with little residual effects (insecticidal soap, horticultural oil, botanical insecticides)
14. Host Plant Finder
<https://nativeplantfinder.nwf.org/>
15. Best of the Best Trees (#of butterfly & moths supported)
Oak (534), Willow (455), Birch (413), Poplar (368), Crabapple (311), Pine (203), Spruce (156), Basswood (150) Compare: Norway Maple (0)
16. Best of the Best Perennials/Annuals (# of butterfly & moths supported)
Goldenrod (115), Asters (112), Sunflower (73), Joe Pye Weed (42), Morning Glory (39), Sedges (36), Lupine (33), Black-eyed Susan (17), Milkweed (12)
17. Larval Host Plants – some examples
Monarchs – Milkweed (*Asclepias*)
Swallowtails - Golden Alexanders (*Zizia aurea*), parsley, dill, and fennel
Orange Sulphur, Painted Lady, moths, Frosted Elfin – Wild Lupine (*Lupinus perennis*)
Moths – Bee Balm (*Monarda*)

18. Top Plants for Your Pollinator Garden (from: U.S. Fish & Wildlife Service)

Spring blooming: Red columbine (*Aquilegia canadensis*), Wild geranium (*Geranium mac ulatum*), Blue wild indigo (*Baptisia australis*), Ohio spiderwort (*Tradescantia ohiensis*), Large-flowered beardtongue (*Penstemon grandiflorus*), Golden Alexanders (*Zizia aurea*)

Summer blooming: Rough blazing star (*Liatris aspera*), Prairie blazing star (*Liatris pycnostachya*), Common milkweed (*Asclepias syriaca*), Butterfly milkweed (*Asclepias tuberosa*), Yellow coneflower (*Ratibida pinnata*), Wild bergamot (*Monarda fistulosa*)

Fall blooming: Cardinal flower (*Lobelia cardinalis*), Common boneset (*Eupatorium perfoliatum*), Stiff goldenrod (*Oligoneuron rigidum*), Showy goldenrod (*Solidago speciosa*), New England aster (*Symphotrichum novae-angliae*), Smooth blue aster (*Symphotrichum laeve*)

19. How You Can Get Involved: Knowledge, become a citizen scientist; Address habitat loss in your backyard; Support organizations that preserve pollinators; Add host and food plants to your garden

Organizations

North American Butterfly Association (www.naba.org), Monarch Watch (www.monarchwatch.org)
Xerces Society (www.xerces.org), Wild Ones www.wildones.org Pollinator Partnership
www.pollinator.org

Resources

- ***Bringing Nature Home***, Douglas W. Tallamy, Timber Press
- ***Pollinators of Native Plants, Wasps, Bees***, Heather Holm, Pollination Press
- “Supporting native bees: Our essential pollinators”, UW Extension bulletin G4001
“Pollinators” UW Garden Facts XHT1213 <https://learningstore.uwex.edu>
- Wisconsin Bee Identification Guide, <https://hort.extension.wisc.edu/files/2016/08/WI-BEE-IDENTIFICATION-GUIDE.pdf>
- ”Selecting Plants for Pollinators” <http://www.pollinator.org/PDFs/Laurentian.rx9.pdf>
- UW Madison Insect Diagnostic Lab <https://insectlab.russell.wisc.edu>
- Bug Finder Identification – searchable database <http://www.insectidentification.org/>
- National Wildlife Federation-Native Plant Finder <https://nativeplantfinder.nwf.org/>
- U.S. Department of Agriculture www.usda.gov/pollinators
- UW Extension – Horticulture- Pollinators <https://hort.extension.wisc.edu/pollinators>

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