

Helpful Insects & Pollinators

Class Objectives: Habitat for pollinators, Meet the Pollinators and Beneficial Insects, Native plants, Other annuals and perennials, Get Involved, Questions/Wrap-up

1. Gardening Trends: Utilize Native and Pollinator-Friendly Plants, Add natural elements like rocks & boulders, Don't trim hedges – let them go a bit wild
2. Why Pollinators & Helpful Insects are Important
3. Loss of Habitat for Pollinators
4. Gardening for Pollinators
5. Creating Natural Habitats
6. Pollinators: Water and Shelter
7. Natives are Best
8. Best of the Best Trees: Oak, Willow, Birch, Poplar, Crabapple, Pine Spruce, Basswood
9. Best of the Best Perennials/Annuals: Goldenrod, Asters, Sunflower, Joe Pye Weed, Morning Glory, Sedges, Lupine, Black-eyed Susan, Milkweed
10. Meet the Pollinators: Bees, Butterflies, Moths, Beetles, Flies, Birds
11. Pollinators: any organism that moves pollen between flowers
12. Meet the Bees
13. Predators and Parasites
14. Decomposers
15. Bee Stings or bug bits? Use Plantain as a poultice
16. <https://wisconsinbutterflies.org/>
17. Butterfly Gardens: Best colors are red, yellow, orange, pink and purple
18. Plants for Butterflies & Moths
19. Larval Host Plants: Monarch are specialists, most others are generalists
20. Butterfly and Moth favorites for Food

- a. Perennials: Yarrow, Bee Balm, Shasta Daisy, Coreopsis, Verbena, Phlox, Coneflower, Butterfly weed
- b. Annuals: Zinnias, Dill, Cosmos, Petunia, Goldenrod, Morning Glory, Sweet Alyssum, Cleome, Marigold
- c. Host Plants: Borage, Dill, Snapdragon, Nasturtium, Parsley, Fennel, Butterfly Weed, Clover, Violets, Milkweed, Hollyhock

21. Hummingbirds

22. Plants for Hummingbirds: Attracted to red, but also pink, rose, orange and purple; Deep tubular flowers

23. Flowers to plant: bee balm, begonia, bleeding heart, canna, cardinal flower, columbine, dahlia, delphinium, fuchsia, geranium, gladiolus, hollyhock, impatiens, lantana, lily, nasturtium, petunia, phlox, snapdragon, sweet william, verbena, zinnia

24. For the Birds

Plants that Support Pollinators

25. Native Trees best for landscape use: Acer species (maples), Betula species (birch), Quercus species (oaks), Tilia americana (basswood, linden)

26. Native Conifers: Juniper, Balsam fir, White Spruce, White Pine, White cedar-arborvitae

27. Native Landscape Shrubs: *Amelanchier* species (serviceberries), *Ilex verticillata* (winterberry), *Physocarpus opulifolius* cultivars (ninebark), *Potentilla fruticosa* cultivars (shrubby cinquefoil), *Prunus nigra* 'Princess Kay' (Canada plum), *Viburnum* species (viburnums)

Native Perennials

28. Bee Balm (*Monarda*, Wild bergamot)

29. Coneflower (*Echinacea* spp)

30. Iris

31. Columbine (*Aquilegia*)

32. Butterfly Weed (*Asclepias tuberosa*)

33. Aster (*Aster novae-angliae*)

34. Turtlehead (*Chelone Glabra*)

35. Joe-pye weed (*Eupatorium purpureum*)

36. Obedient Plant (*Physostegia virginiana*)

37. Blazing Star or Gayfeather (*Liatris spicata*)

38. Black-eyed Susan (*Rudbeckia hirta* var. *pulcherrima*)

39. Lupine (*Lupinus perennis*)

40. Goldenrod (*Solidago rigida*)

41. Cardinal Flower (*Lobelia cardinalis*)

42. Sedges (*Carex* sp.)

Annuals and Non-natives for Pollinators

43. Hollyhocks (*Alcea rosea*)
44. Cosmos
45. Heliotrope (*Heliotropium arborescens*)
46. Mexican sunflower (*Tithonia rotundifolia*)
47. Morning Glory (*Ipomoea purpurea*)
48. Sedum
49. Starflower (*Pentas lanceolata*)
50. Sun Flowers (*Helianthus annuus*)

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, Observing and Recording, Phenology

Organizations

- Monarch Watch <http://monarchwatch.org/>
- Wild Ones www.wildones.org Website on native plants, natural landscapes
- Pollinator Partnership www.pollinator.org Organization dedicated to the protection and promotion of pollinators and their ecosystems. Download a free 'Pollinator Friendly Planting Guide'.
- Million Pollinator Garden Challenge <http://millionpollinatorgardens.org/> Campaign to register a million pollinator gardens

Resources

- ***A Guide to Natural Gardening***, Jim Knopf, Sally Wasowski, John Kadel Boring, Glenn Keator, Jane Scott, Erica Glasener, Fog City Press 1997
- ***Bringing Nature Home***, Douglas W. Tallamy, Timber Press, 2007.
- ***Pollinators of Native Plants***, Heather Holm, Pollination Press, 2014
- "Supporting native bees: Our essential pollinators", UW Extension bulletin G4001 <https://learningstore.uwex.edu/Assets/pdfs/G4001.pdf>
- Resource-"Selecting Plants for Pollinators"
- <http://www.pollinator.org/PDFs/Laurentian.rx9.pdf>
- Resources
- ***Landscaping with Native Plants of Wisconsin***, Lynn M. Steiner, Voyageur Press, 2007
- UW Madison Insect Diagnostic Lab <http://labs.russell.wisc.edu/insectlab/>
- Wisconsin Bee Identification Guide, <https://hort.extension.wisc.edu/files/2016/08/WI-BEE-IDENTIFICATION-GUIDE.pdf>
- ***The Bees in Your Backyard***, *A Guide to North America's Bees* by Joseph S. Wilson, Olivia J. Messenger Carril
- Bug Finder Identification – searchable database <http://www.insectidentification.org/>