

Creating Habitat for Monarchs and Other Pollinators

As the Monarch Butterfly heads south to Mexico, it is a great time of year to start thinking about creating habitat for this butterfly royalty and other pollinators. Whether the area you are thinking about planting is large or small, fall is a good time to start planning and even sowing seeds! And that's as good a place as any to start your plan – how big of an area do you want to convert to habitat? The great thing is that there is no wrong answer to this question! Most pollinators, including the Monarch, can utilize any size habitat. Sure, bigger is better, but if you are a city dweller with only a little plot to work with, you can make a difference for these species. Especially if you inspire your neighbors to put in some habitat too!

How you approach a large plot vs. a small plot is going to be a little different but before we break that down let's list out some of the considerations that are the same regardless of size:

- 1) **Choose Native Plants!** Iowa has a huge variety of native prairie and open woodland plants to choose from: they are beautiful, they are adapted to Iowa's soil and environment and they are old friends to our native pollinators. If you are wondering where you can purchase native plants, the [Plant Iowa Native site has a good list of native seed and plant providers.](#)
- 2) Include Milkweed PLUS other species of wildflower! To provide food for both the caterpillar and adult stage you must include **at least one species of milkweed plus a few other species of flowers.** At a minimum, think about including a species of milkweed plus three species of wildflower (9 species total) that bloom during the early, middle and late portion of the summer. Throwing in a native grass or two rounds things out nicely. Variety is the spice of life and, in this case, has the best chance of attracting the most beneficial insects. Links to some species lists can be found below.
- 3) **Be Patient** especially if planting native plants. Prairie plants have huge root systems and most of them spend much of their energy in the first 1-3 years growing those roots. Once those are established they can then concentrate on putting out showy flowers and lush foliage. You can speed the process up a little bit by using plugs rather than seed.
- 4) **Avoid Using Chemicals.** Pesticides and herbicides can have negative impacts on monarchs and other beneficial insects so it's best to avoid their use entirely or if you must use them, to use them in as targeted a manner as possible, following the application instructions exactly.
- 5) **Register your habitat** with [Plant.Grow.Fly.](#) and inspire others!

LARGE Monarch Habitat

Large in this scenario are plots that are 1 acre or greater. For areas such as this, you are probably looking at planting a natural looking prairie and buying a seed mix, rather than planting plugs, is going to be the best and most economical way to go. Iowa State University has developed an [ideal recommended Monarch seed mix](#) for Iowa which is a good place to start.

The best time to plant prairie seed is in late fall or early winter – late October or November – before the ground freezes and just before or after a light snow is the perfect scenario, but planting anytime during this period is fine. You want to plant the seed on bare ground so if you are replacing turf it's best to kill this with chemical or by some other means. Prairie seed does best if drilled in and there are special drills (Truax Native Seed Drills are a popular brand) which you may be able to rent or it might be worth

hiring a contractor to do your planting. Again the [Plant Iowa Native](#) site will be useful in tracking a contractor down!

Maintenance in the first couple years will be very important to make sure the prairie plants have the best chance to thrive. The area should be mowed 2-3 times during the growing season for the first 2 years. After this, prescribed burning or mowing every 3-5 years will keep the plants healthy and thriving and preserve the plant diversity of the seeding. Best times for mowing and burning for monarchs will be between October and the first of May. If you have concerns about the resident pollinators, on which burning and mowing can be hard, you may consider splitting the area and just doing a third of the field every 3 years.

For larger areas, you may be eligible for some financial assistance in establishing Monarch habitat. You can contact one of the [DNR's private lands biologists](#) for guidance or consult the [funding sources page provided by Plant.Grow.Fly.](#) for more information.

SMALL Monarch Habitat

If you are considering installing a small area of monarch habitat (less than 1 acre), particularly if it is a few square feet, the first thing you need to decide is whether you prefer something formal or you're okay with a little mess. This will drive what plants you choose and the design of the garden. In many urban and suburban areas there may be rules or ordinances governing what plants are allowed or how tall and messy plantings can be, so be sure to check into this first if you want something a little more natural.

If you do want a natural look you can opt for either seed or prairie plant plugs. Plugs have the advantage of maturing faster but are more expensive than seed. If you wish for a more formal garden look, there are plenty of prairie plants that are shorter in stature and do not aggressively spread. For example, Butterfly Weed, Whorled Milkweed and Swamp (Red) Milkweed are all native species that will not overwhelm your garden like Common Milkweed would. An example species list for a native plant home garden that is great for Monarchs and pollinators is listed at the end of this document. The best time to plant plugs is in the spring after the last frost.

Whether you go for plugs or seed, it is best to start with bare ground just like you would for any flower bed. Adding a little compost wouldn't hurt but it's not necessary and other kinds of amendments shouldn't be needed – most prairie plants are used to making the most of poorer soil.

To keep the garden looking nice, you will need to weed the plot, particularly in the first two years to give the native plants a chance to grow. Being familiar with what the plants look like as seedlings can be very helpful for this! If you want to keep a more natural garden from looking too wild, you can add a nice border of rocks (that can double as Monarch sunning spots) or keep a mowed border around it.

There are really no broad-scale cost-share programs to help private landowners putting in a smaller sized area of habitat. It would be worthwhile to do some research on local programs that may provide funding or plants for area homeowners and it's always good to keep a look out for monarch events in your town as milkweed is often freely available. In contrast, there [may be some funding or free plants available for schools, churches or municipal buildings.](#)

Visit the DNR's Website – www.iowadnr.gov/pollinators - for more information on Monarchs and Pollinators in Iowa. THANK YOU for building habitat for this important and declining species!

A Monarch Habitat Web Link Roundup

Collections of Information

[Iowa DNR Pollinators Page](#)

[Plant. Grow. Fly. @ the Blank Park Zoo](#)

[Iowa Monarch Conservation Consortium](#)

[Monarch Joint Venture](#)

[Monarch Watch](#)

[The U.S. Fish and Wildlife Service](#)

[The U.S. Natural Resources Conservation Service](#)

Putting in Habitat

[Plant Iowa Native](#)

[DNR Wildlife Private Lands Biologists](#)

[Iowa State University Wildlife Extension](#)

[Plant. Grow. Fly. – Funding Sources](#)

[Iowa State University – Recommended Seed Mix for Monarch Habitats](#)

Native Plants for Monarchs and Other Pollinators

Plants to use in your home garden ([ISU has a recommended seed mix for larger areas](#))



= Needed by Monarch Butterflies

Common Name	Latin Name	Habitat	Blooming Period	Dominant Flower Color	NOTES
 Common Milkweed	<i>Asclepias syriaca</i>	Well-drained soil, disturbed areas	June/July	Pale Pink	Milkweeds are good nectar providers as well! Common MW can be an aggressive spreader.
 Swamp Milkweed	<i>Asclepias incarnata</i>	Moist soils, wetter areas	July/August	Bright Pink	
 Whorled Milkweed	<i>Asclepias verticillata</i>	Dry to moist soil, prairie, open areas	July/August	White	Relatively short in stature if you don't have a ton of space.
 Butterfly Weed	<i>Asclepias tuberosa</i>	Well-drained soil, prairie	Mid-June/July	Orangey-red	Relatively short in stature if you don't have a ton of space.
Golden Alexanders	<i>Zizia aurea</i>	Prairie	Early	Yellow	
Prairie Phlox	<i>Phlox pilosa</i>	Prairie, open woods	Early	Purple/Pink	Butterflies tend to be especially drawn to purple flowers!
Hoary and Blue Vervain	<i>Verbena stricta, V. hastata</i>	Open areas, forest edges, disturbed areas	Early to late	Deep purple/Blue	
Wild Garlic	<i>Allium canadense</i>	Open Sunny Prairie	Early	White	
Large-flowered Beardtongue	<i>Penstemon grandiflorus</i>	Dry to well-drained soil	May-June	Pale Pink	Another species, Foxglove beardtongue (<i>P. digitalis</i>) blooms later.
Prairie Phlox	<i>Phlox pilosa</i>	Dry to wet soil	Early to Mid	Pink	
Prairie Violet	<i>Viola pedata or pedatifida</i>	Dry to well-drained soil	May	Purple	Very low growing. Good ground cover or edging.
Hoary Puccoon	<i>Lithospermum canescens</i>	Dry to well-drained soil	April-May	Golden Yellow	
Prairie Smoke	<i>Geum triflorum</i>	Dry to wet soil	April-June	Pink and Red	
New Jersey Tea	<i>Ceanothus americanus</i>	Dry to well-drained soil	Early to Late	White	Low growing shrub
Lead Plant	<i>Amorpha canescens</i>	Dry to well-drained soil	May to July	Purple	Low growing shrub
Pale Purple Coneflower	<i>Echinacea pallida</i>	Dry to well-drained soil	June-July	Pale Purple/Pink	Can spread
Rattlesnake Master	<i>Eryngium yuccifolium</i>	Dry to well-drained soil	June-July	White/Green	Very unique foliage and flower, can get taller (4 feet)
Prairie Onion	<i>Allium stellatum</i>	Dry to well-drained soil	July-August	Pink-Purple	
Virginia Mountain Mint	<i>Pycnanthemum virginianum</i>	Dry to Well-drained soil	June-July	White	
Compass Plant	<i>Silphium laciniatum</i>	Wet to Dry Soil	June Through August	Yellow	Very tall (8 feet) and takes a few years to bloom. Cool foliage. Super long roots!
Joe Pye Weed	<i>Eupatorium maculatum</i>	Wet to Well-drained soil	June through August	Pink	Can get very tall - 5+ feet.
Ironweed	<i>Vernonia fasciculata</i>	Wet to Well-drained soil	July-September	Purple	Tall (5-6 feet)

Common Name	Latin Name	Habitat	Blooming Period	Dominant Flower Color	NOTES
Native Thistles (Field and Tall)	<i>Cirsium discolor</i> and <i>C. altissimum</i>	Prairies, open disturbed sites	July-August	Pale Purple	There are many invasive thistles so there may be ordinances against planting them! Goldfinches love them too!
Purple Prairie Clover	<i>Petalostemum purpureum</i>	Dry to Well-drained Soil	July-August	Purple	
Blue-eyed Grass	<i>Sisyrinchium campestre</i>	Dry to Well-drained Soil	Late May to July	Purple	Despite its name this is not a grass. Very short and fine leaved. Good ground cover.
Wild Rose	<i>Rosa blanda</i> or <i>arkansana</i>	Dry to well-drained Soil	June-July	Pink	Shrub. State Flower of Iowa
Wild Indigo	<i>Baptisia leucophaea</i> or <i>leucantha</i>	Dry to Well-drained Soil	June- July	White	Shrubs. <i>B. leucophaea</i> is low growing and <i>B. leucantha</i> is taller and more upright (3-5 feet).
Great Blue Lobelia	<i>Lobelia siphilitica</i>	Wet to Well-drained Soil	July – September	Blue	
Bottle Gentian	<i>Gentiana andrewsii</i>	Wet to well-drained Soil	August-September	Blue	Bumblebees love
Blazing Stars (particularly Rough)	<i>All Liatris spp. but especially Liatris aspera</i> and <i>L. pycnostachya</i> . <i>L. ligulistylis</i>	Dry to Well-drained Soil	August-September	Bright Deep Purple	Needs to be surrounded by other plants to stay upright.
Goldenrods, Rigid or Showy	<i>Solidago rigida</i> or <i>speciosa</i>	Prairies, disturbed areas	August-October	Yellow	
Asters (New England, Frost and Smooth Blue)	<i>All Aster spp. but especially A. novae-angliae, pilosus, laevis</i>	Dry to Well-drained Soil	September-October	Purple, White, Blue	
Showy Sunflowers	<i>Helianthus laetiflorus</i>	Dry to Well-drained Soil	August-October	Yellow	Tall (7+ feet)
June Grass	<i>Koeleria cristata</i>	Dry to Well-drained soil	Early	NA	Grass
Prairie Dropseed	<i>Sporobolous heterolepis</i>	Dry to Well-drained Soil	Middle	NA	Grass
Little Bluestem	<i>Andropogon scoparium</i>	Dry to Well-drained Soil	Middle	NA	Grass – Host plant for Skipper Butterflies
Sideoats Grama	<i>Bouteloua curtipendula</i>	Dry to Well-drained Soil	Middle	NA	Grass – Host Plant for Skipper Butterflies
Big Bluestem	<i>Andropogon gerardi</i>	Dry to Wet Soil	Late	NA	Grass - TALL
Indian Grass	<i>Sorghastrum nutans</i>	Dry to Wet Soil	Late	NA	Grass - TALL
Prairie Cordgrass	<i>Spartina pectinate</i>	Wet Soil	Middle	NA	Grass - TALL