

HOW DO I... CREATE A NATIVE POLLINATOR GARDEN?

This guide provides all the basics to get you started planning your pollinator garden, which is a garden designed to attract animal and insect species that spread pollen. There are many ecoregions—large areas with similar climate and soil. Knowing which you live in helps you pick native species to plant and pollinators to tempt. This guide applies across the U.S. but some resources are Mid-Atlantic specific.

Birds, bees, moths, butterflies, beetles, bats, flies, wasps and small mammals are all pollinators. To attract certain species, you may want to do some extra research to assure you choose appropriate plants and shelter materials. Going above and beyond in learning about pollinators and plants will only improve your garden!

WHAT YOU NEED



CURIOSITY



RESEARCH

Internet or Library



PLANT EXPERT

For any additional help and tips



PEN & PAPER



FRIENDS

For large projects



MATERIALS

For water sources



MATERIALS

For shelters



NATIVE PLANTS

BENEFITS



Pollinators



Food



Beautify



Eco-Friendly

GETTING STARTED

1 WHERE? Learn what ecoregion you live in. Enter your zip code here: www.pollinator.org/guides.htm.

2 WHAT PLANTS? Understand what plant characteristics are good for pollinators.

- Use the Pollinator Partnership (P2) Planting Guide for your ecoregion to help you decide what plants are best for your pollinator garden. Choosing plant species can seem overwhelming, but there are many good resources for learning about plants—the P2 Planting Guides are a comprehensive place to begin. (See Resources.)
- Visit your local nursery to see what is available in your area (a native plant nursery, if possible, as they will likely have a wider selection). Speak with plant experts on staff about your options.
- Include host plants. Host plants are plants that caterpillars (i.e., butterfly and moth larvae) need to survive. They are required for a successful pollinator garden.

3 HOW MUCH SPACE? Measure the area in your garden where you will put plants. This will help you figure out how many plants to get. Remember that plants in the nursery are often much smaller than their mature size. Ask nursery staff or check plant tags for proper spacing.

- It is better to cluster plants together by species, because it allows pollinators to visit their preferred plants more quickly. This clustering is known as “massing.” Where possible, create masses of 4-foot+ diameter. If your garden is very small, simply keep like plants together.

4 HOW MUCH SUN? Determine about how much sun/shade your garden gets each day. This is important because some plants prefer shady areas and some sunny. Some do well in both.

- Go out in the morning, midday and afternoon/evening to see what parts of the garden are sunny and what is shady. Remember this changes seasonally! The most critical concern is what areas get late afternoon sun (that is the hottest, and

if a plant prefers shade, you don't want to put it in lots of direct, late afternoon sun). If you already have trees or want to add them, make sure the shrubs, perennials and herbs you put underneath them prefer shade or partial shade.

- Preferences for sun, part-shade and shade are listed in horticultural publications and websites, like www.wildflower.org/plants.

5 GET YOUR PLANTS. Now that you've decided on what plants you need, find them at the nursery!

6 PROVIDE FOOD (PLANT YOUR PLANTS).

- Need instructions on planting? See our Action Guide “How do I...Plant a Tree?”
- Care for your new plants. Remember to avoid pesticides.

7 PROVIDE WATER. See Tips & FAQs on “Water.”

- Build or buy a water source. If installation requires digging, be sure not to disturb the root zone of your plants.
- Clean all containers that hold water, and change water regularly—at least twice a week to keep mosquitoes from breeding.

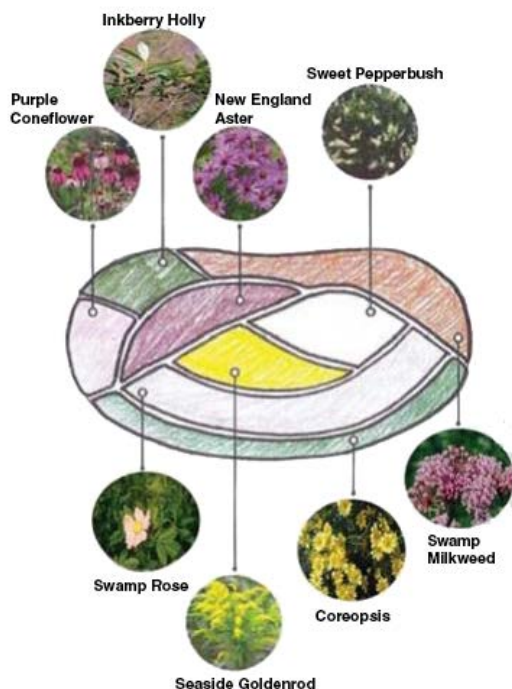
8 PROVIDE SHELTER. See Tips & FAQs on “Shelter.” Here are some housing options for your insect and animal friends:

- If you go the “messy” route, simply spend less time “cleaning” your garden! Leave a few small piles of leaves and twigs.
- Leave some bare soil.
 - If you want bare soil to be less visible, strategically leave it behind taller plants or other visual barriers. Think about where the garden will usually be seen from and how it is used, so you can decide how to block the view of the bare areas. Keep an eye on bare areas—they may need extra weeding.
- Buy or build a shelter or two.

9 GET TO KNOW YOUR POLLINATORS. Keep track of what pollinators you see and what plants and shelter they use. This will help you improve your garden next season.

TIPS & FAQs

- ✓ **Draw it out.** Simple doodles can help you decide what will go where in your garden and visualize what your garden will look like.



Easy-to-draw, colored bubbles help you think about plant placement.

- ✓ **The importance of pollination.** The process of pollination is part of the plant reproductive cycle. The vast majority of plants need help with pollination, which means getting their pollen transported from one individual plant to another. Birds, bees, moths, butterflies, beetles, bats, flies, wasps and small mammals are pollinators. Because bees are very efficient at pollinating and they pollinate a lot of different plants, many leading organizations and scientists consider bees to be the most important group of pollinator species. Bats are not pollinators in the Mid-Atlantic, but they provide important ecosystem services, so feel free to welcome them to your garden—they love to eat mosquitoes! Attracting a variety of species with different plants also enhances native wildlife biodiversity.
- ✓ **Specialized anatomy & preferences.** Pollinators have different mouth parts, shapes and sizes, and they often only fit certain types of flowers: provide different flower sizes and shapes. Bees and

butterflies favor bright colors, but bees can't see red! Butterflies need very shallow, muddy puddles where they get water and mineral nutrients.

- ✓ **Are you a wildlife enthusiast?** Interested in more than just pollinators? Consider the Certified Wildlife Habitat program by the National Wildlife Federation or the Humane Backyard program by The Humane Society. See Resources for links.
- ✓ **Call Miss Utility before you dig.** Two weeks before you plant, call Miss Utility at 1-800-257-7777. (MD, DC & DE residents)

WHY THE ESSENTIALS ARE ESSENTIAL

- ✓ **Food.** Different pollinator species visit different plant species, partly based on flower shape and color. Nectar and pollen are the major food sources that plants provide, but some pollinators eat other plant parts such as fallen fruit. To attract a variety of pollinators, pick a range of native plants with different bloom times, heights, flower color and fragrance.

A note about native plants: Non-natives can survive in pollinator gardens, but because natives are what pollinators evolved to like, natives are best for a garden in which pollinators can thrive! Some exotic—i.e., non-native—plants can be okay in moderation, as long as you are sure they are not invasive. Invasive species, which are aggressively growing plants that are foreign to the region, will take over your garden and grow where you (and your neighbors) don't want them.

- ✓ **Water.** Pollinators need a clean, reliable source of fresh water to survive. A water source can be as simple as the saucer from a plant pot or bird bath or as fancy as a koi pond or mechanical waterfall. Be creative! Make mini-ponds using shallow lids or pie plates, and add some decorative stones or marbles on the bottom. Allowing items to stick out of the water gives smaller species such as bees and butterflies a place to stand while drinking. No budget

for decorative perches? Corks will float to the top of water area, making wonderful basking places.

Whatever you choose, always keep in mind the safety of the pollinators. Containers and ponds must have a shallow or sloping side. Pollinators need to have easy access and exit—you don't want them to drown because it is too hard to get out! Don't forget those with wings, which may have gotten injured or too wet to take off.

✓ **Shelter.** The type of shelter can vary based on the pollinator species, but all need refuge from predators and the elements. One major (and easy!) way to provide shelter to many species is to create a garden design that resembles a natural landscape. Think about the beauty of a forest—forests are not neat and trim! Many native bees and other pollinators use twigs, snags, clumps of leaves and bare soil (to make tunnels) for shelter and nest building. You can make simple shelters—search the Internet for “diy bee home,” and you'll find many fun options. Shelters can also be a small pile of rocks (butterflies love to bask!) or an upside down plant pot.



Letting your garden go a bit wild and natural can be beautiful!

✓ **Pollinator-friendly practices.** Pesticides and herbicides are very toxic to pollinator species, so in order to create the healthiest

habitat possible, eliminate or minimize use of chemicals. Also, wildlife in general need connectivity between pieces of habitat. Pollinators will be better able to thrive if you create one large area for them rather than several small, separate areas.

RESOURCES

The Pollinator Partnership (aka, P2) covers **pollination basics** at www.pollinator.org/pollinators.htm.

Xerces Society houses **extensive info on Mid-Atlantic native pollinators** at www.xerces.org/pollinators-mid-atlantic-region. For a list of **native plant nurseries in the Mid-Atlantic**, click on the gray drop-down menu.

Some other Baltimore area nurseries:

Herring Run
www.bluewaterbaltimore.org/herring-run-nursery

Poor Boy's Garden Center
www.poorboysgardencenters.com

Valley View Farms www.valleyviewfarms.com

Watson's Garden Center www.watsonsgarden.com

Some other Prince George's County nurseries:

The Behnke Nurseries Co. www.behnkes.com

Ed's Plant World www.edsplantworld.com

Homestead Gardens www.homesteadgardens.com

Discover butterflies in your area and what plants they need at www.gardenswithwings.com/facts-info.html.

Details about **host plants for butterflies and moths** are at www.xerces.org/fact-sheets, under “Butterfly Conservation,” click “Butterfly Gardening.” Also see “SE Monarchs, Milkweeds, & Hostplants” at www.xerces.org/butterfly-conservation. Finally, check out the table “Plants that Attract Pollinators” in the P2 Planting Guides. There is a useful column, “Also a host.”

The U.S. Fish & Wildlife Service's **comprehensive booklet about “Native Plants for Wildlife Habitat** and Conservation Landscaping” in the Chesapeake Bay watershed is worth a lingering look. At www.nps.gov/plants, under “Native Plant

Landscaping Guides,” click “Chesapeake Bay Watershed.”

The P2 Planting Guides are organized by ecoregion, downloadable and readable online at www.pollinator.org/guides.htm.

Search for **comprehensive info** on a plethora of native plants at www.wildflower.org/plants.

Find **options for adding water sources for wildlife** by reading www.humanesociety.org/animals/resources/tips/water_wildlife.html and www.birdsandblooms.com/blog/butterflypuddlingspot. Get creative inspiration by doing a web image search of “diy puddling butterflies.”

Pollinator-friendly practices. Click on “Pollinators” in the left-hand menu, then “Pollinator Friendly Practices.” www.fs.fed.us/wildflowers.

Make your garden a “**Certified Wildlife Habitat**” through the National Wildlife Federation, at www.nwf.org/How-to-Help/Garden-for-Wildlife/Create-a-Habitat.aspx.

Or you can certify your garden through the Humane Society’s “**My Humane Backyard**” program at www.humanesociety.org/animals/wild_neighbors/humane-backyard/humane-backyard.html.