

# Lake Forest's Nature

## *What Are Native Plants?*

Native plants are plants that have uniquely adapted to their indigenous environment. Because of this, native plants are typically hardier than their exotic counterparts, and thrive with little outside assistance or maintenance. These natives are better equipped to withstand the climate conditions of their given region, including aspects such as rainfall, temperature, sun exposure, and available soil nutrients. Native plants are the gift that keeps on giving, for they are important in providing resources for native animal species, such as birds and insects, as well as maintaining the delicate balance of a functioning ecosystem.



Illinois natives pictured: *Sarracenia purpurea*, *Nelumbo lutea*, *Echinacea purpurea*, *Floerkea proserpinacoides*, *Asclepias syriaca*, *Phlox pilosa*, *Carex pensylvanica*, *Betonica officinalis*, *Sporobolus heterolepis*

## ***What Are Invasive Plants?***

Invasive plants are plants that have been introduced into an environment of which they are not native ***and*** are known to actively cause harm to that environment. These plants often lack the natural predators and other limitations that they contend with in their native homes, and are thus able to spread and grow rapidly. These invaders crowd and outcompete important native plants for vital resources. In addition to this, invasive plants can introduce foreign infectious agents to native inhabitants. Because of these factors, invasive plants threaten biodiversity across the world.

It is important to also note that not all non-native plants are invasive. Likewise, while native plants themselves cannot become invasive, some may be aggressive and detrimental to their respective environments. For example, the woodland sunflower (*Helianthus divaricatus*) can overrun other natives, decreasing the plant diversity in a given area.

Garlic mustard (*Alliaria petiolata*) is an Illinois invasive that spreads readily.

Worryingly, the plant is known to negatively impact mycorrhizae (fungi that form symbiotic relationships with plants).



The maligned common buckthorn (*Rhamnus cathartica*) is the bane of ecological restorationists. As well as being host to numerous diseases and pests, the plant is poisonous if ingested.

Japanese honeysuckle (*Lonicera japonica*) is an invasive vine. Though beautiful, this invader is known to starve other plants of their much-needed resources, often smothering natives under its weight.



## ***What Are Native Pollinators?***

Native pollinators are an important part of what makes our gardens thrive. Certain hymenopterans (ants, wasps, and bees), lepidopterans (butterflies and moths), dipterans (true flies), and coleopterans (beetles) all play an undisputed role in the propagation of pollen. These insect helpers allow for the direct fertilization of gymnosperms and angiosperms across an innumerable species of plants. This task, however, is not limited to the insects. The Ruby-throated Hummingbird (*Archilochus colubris*), for example, which often visits Illinois backyards during the Spring and Summer months, is another charismatic pollen transporter. Want to see more of these charming birds flitting around your doorstep? Plant eye-catching native flowers like scarlet bee balm (*Monarda didyma*) or trumpet honeysuckle (*Lonicera sempervirens*)!

Many butterflies are specialists that rely entirely on one variety of host plant. The caterpillar of the well-loved, endangered monarch butterfly (*Danaus plexippus*) feeds exclusively on milkweed. If you'd like to see more of these animals, plant milkweeds of the genera *Asclepias* or *Ampelamus*. Not sure what milkweed you'd like to plant? Consider a federally endangered species like oval milkweed (*Asclepias ovalifolia*) or Mead's milkweed (*Asclepias meadii*). Other striking native host plants for butterfly larvae include, but are not limited to, field pussytoes (*Antennaria neglecta*), white prairie clover (*Dalea candida*), and purple coneflower (*Echinacea purpurea*). Native wildflowers are also a great choice for encouraging adult butterflies and bees to visit your yard. Some excellent nectar sources for native pollinators include prairie blazing star (*Liatris ligulistylis*), black-eyed Susan (*Rudbeckia hirta*), Canada goldenrod (*Solidago canadensis*), and butterfly weed (*Asclepias tuberosa*).

While butterflies and bees are certainly the showiest variety of pollinators, it's important that the underappreciated insects, like flies and beetles, are acknowledged as ecological powerhouses. Hoverflies, for one, are recognized as one of the most important pollinators, alongside honeybees!

One of the most reliable methods used to help native pollinators is planting a pollinator garden. This is done by planting a variety of natives, including caterpillar host plants and nectar plants.



## ***Endangered Pollinators of Illinois***

Endangered species are those at risk of permanent extinction. Some pollinators that are considered endangered or threatened in Illinois include:

- ❖ Rusty Patched Bumble Bee (*Bombus affinis*)
- ❖ Swamp Metalmark (*Calephelis muticum*)
  - ❖ Ottoe Skipper (*Hesperia ottoe*)
  - ❖ Regal fritillary (*Speyeria idalia*)
- ❖ Karner Blue Butterfly (*Lycaeides melissa samuelis*)

If you're interested in learning more about endangered species and what you can do to help, see the link below:

<https://dnr.illinois.gov/education/edu-pages-main/q-z/edusavingspecies.html>



# DIY Garden Projects for Wildlife

## *Insect Hotels*

Crafting a DIY insect hotel is one of the easiest ways to foster populations of beneficial insects in your yard. This typically multi-tiered, rustic-looking structure can be made with wood, twigs, dead leaves, hollow stems and sticks, cardboard, pinecones, egg cartons, grass clippings, terracotta pots, and more. Essentially, an insect hotel is exactly what it sounds like; it provides shelter and nesting areas for various insect species. Depending on what materials you use and how you structure your insect hotel, you can attract a multitude of animals like bees, wasps, butterflies, and ladybugs.

A popular variety of insect hotel is the so-called “bee house.” These birdhouse-shaped containers, typically made from bamboo or wood, are stuffed with hollow tubes. Solitary bees and wasps will use these tubes as nesting houses, laying their eggs within them. Though storebought bee houses are an option, the simplest bee houses are made by tying together some hollow plant stalks and hanging them up in a sunny spot in the yard. These houses are popular spots for mason bees, which are excellent pollinators. Not only this, but the solitary wasps that these structures attract are predators which parasitize common garden pests like caterpillars.

Keep in mind any insect hotel is an entirely customizable project. Have fun with it and explore!



A simple DIY bee house.



A storebought bee house.



An extravagant homemade insect hotel.

## ***Log Piles***

If the idea of an insect home doesn't appeal to you, there's no shortage of simple and accessible alternatives to attract wildlife to your yard.



A log pile is as straightforward as it sounds. To start this project, dig a relatively shallow pit in a quiet, shady and (preferably) moist area of your yard. This plot can then be lined with sticks, rocks, and logs of varying shapes and sizes. It's a great idea to utilize materials from native tree species, like certain oaks, maples, or birches. The logs should be stacked in such a way that the structure is stable and sturdy. In addition, you can also arrange dead leaves, bark, and other organic materials in and around the pile to diversify the habitat. You'll find that this pile will serve as an excellent habitat for a wide range of animals, like insects, centipedes, millipedes, isopods, arachnids, small mammals, reptiles, and amphibians. Birds too, will be drawn in by the wealth of insect prey available. The biologically rich log pile will also inevitably grow host to various kinds of fungi, mosses, and lichen.

## ***Hibernaculum***

A hibernaculum is a structure designed to house hibernating animals. Similar to a log pile, the first step is to dig a hole. The hole must be deep enough that the temperature will remain relatively constant throughout the Winter months. The hole is then filled with logs, rocks, leaf litter, and other natural materials. Ensure that there are an adequate number of entry points for the amphibians and reptiles, as well as a variety of nooks and crannies for shelter. The hibernaculum should be built in a sheltered and secluded area, near a pond if you have one.

## ***Bird Feeders and Bird Baths***

There are few delights greater than being able to observe wild birds as they flit around bird feeders, swooping down from the tree canopy to grab tasty morsels. Enjoyed by passionate ornithologists, resident birdwatchers, and everyday gardeners alike, birds bring a symphony of sights and sounds to the landscape. Thus, the idea of attracting birds to the garden has become popular all around the world. And, it's easy to do so!

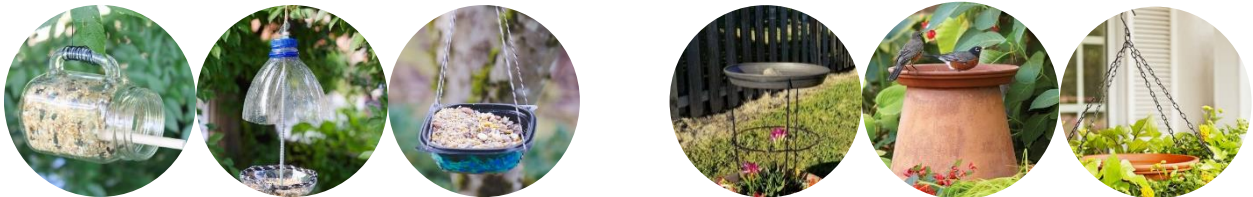
You'll find that a surefire way to coax birds into your yard is to hang birdfeeders around the property. Different bird feeders will encourage different species of birds. Tube feeders, for example, are the most widely recognized variety of bird feeder. They tend to draw in smaller birds like finches and sparrows, who will perch on the pegs as they gobble up seed. Other birds, like mourning doves, prefer flat surfaces like platform or tray feeders, as they tend to feed off the ground. There are no shortage of other specific bird feeders that you can put up around your yard, including suet, thistle, jelly, nectar, hopper, and peanut feeders. Certain feeders will attract a

large variety of birds, like tray feeders. Other feeders are more specialized, like nectar feeders which mainly attract hummingbirds, or jelly feeders which mainly attract orioles.

Bird seed can be purchased in any wildlife or hardware store, or, you can make your own mix. Keep in mind that birds will eat a vast array of food items, including sunflower seeds, safflower seeds, peanuts, (cracked) corn, millet, thistle seeds, and jelly. Take care not to feed birds (or other wildlife) unsafe foods such as chocolate or highly processed human food. Do not feed bread to wildlife.

As with many other wildlife implements, bird feeders should be cleaned often for the health of the visiting birds. It is important that the feeders stay dry, so check regularly for moisture and mold.

The most hassle-free option to invite birds to your yard is to set up a bird bath. The only maintenance required is cleaning and refilling. You might wonder, “will birds even use my birdbath?” and the answer is yes! Birds can be observed bathing themselves in shallow water, especially on hot days. And if not that, birds (and other wildlife) will certainly use the bath as a water source to drink from, one that offers them clean and uncontaminated water!



### ***Nesting Boxes, Roosting Boxes, and Nesting Materials***

Nesting boxes are what the term “birdhouse” refers to. A nesting box is designed for birds to lay their eggs in.

A roosting box, however, is not intended for rearing young. Instead, it offers shelter and safety to birds from predators and the elements. Multiple birds can use a roosting box at once.

Both nesting boxes and roosting boxes can be either made or bought.

Additionally, consider supplying birds with safe nesting material, like cotton or twigs.





## ***Other Ideas***

### **Toad House**



A toad house is a smaller, more accessible approach to the hibernaculum.

You can fashion a simple toad house out of a broken flowerpot. The flowerpot should be partly buried into the soil in a shaded part of the yard. Take care that there is a big enough opening for toads to enter and exit freely. Kept safe from the harsh sun, toads will gladly take shelter in a designated moist, dark space. Be sure to place the house near a water source (a small bowl will do just fine). Avoid pesticides.

### **Native Wildflower shaker**

Not interested in maintaining your own garden, but still want to encourage the growth of native plants locally? Eco enthusiasts have had the great idea to repurpose everyday items like salt and pepper shakers to help propagate native wildflowers. Instead of throwing away an old spice shaker, fill it with native wildflower seeds! The design of the lid will allow you to sprinkle out seeds wherever you feel inclined. Scatter the seeds around your neighborhood, in random patches of dirt, or even in your own backyard.



### **Butterfly Puddler**



Adult butterflies feed on nectar, but they are not necessarily limited to it. Butterflies exhibit a behavior called puddling, where they frequent mud puddles, wet soil, or even carrion. They do this to obtain salt and other nutrients unavailable to them through nectar. You can help butterflies by placing a puddler in or near your butterfly garden. It's as easy as taking a saucer, filling it with sand, compost (or manure) and water. If you want to go the extra step, scatter pieces of decomposing fruit around to help attract the butterflies. Ensure that the water is shallow enough that the butterflies are not at risk of drowning. You can reduce this risk by placing small stones on the water for perching.



# Resources

## ***Native Plant Resources:***

Native Plant Trust:

<https://gobotany.nativeplanttrust.org/>

Illinois Native Plant Society:

<https://illinoisplants.org/>

Native Plant Finder:

<https://www.nwf.org/NativePlantFinder/>

Native Plant Guide:

<https://www.nrcs.usda.gov/sites/default/files/2022-09/Native%20Plant%20Guide.pdf>

## ***Native Gardening Resources:***

Backyard Ecology:

<https://www.backyardecology.net/>

Native Plant Nurseries:

<https://illinoisplants.org/native-plant-nurseries/>

Native Trees and Shrubs for Pollinators:

<https://extension.illinois.edu/sites/default/files/trees-forever-trees-and-shrubs-for-pollinators.pdf>

Native Shrubs for Landscaping:

[https://extension.illinois.edu/sites/default/files/native-shrubs-midwest\\_morton\\_arboretum.pdf](https://extension.illinois.edu/sites/default/files/native-shrubs-midwest_morton_arboretum.pdf)

## ***Gardening for Pollinators Resources:***

Pollinator Resources:

<https://dnr.illinois.gov/pollinatorresources.html>

Plant a Pollinator Pocket:

[https://extension.illinois.edu/sites/default/files/plantapollinatorpocket\\_brochure\\_2022\\_logo\\_0.pdf](https://extension.illinois.edu/sites/default/files/plantapollinatorpocket_brochure_2022_logo_0.pdf)

Butterfly Gardens:

<https://dnr.illinois.gov/content/dam/soi/en/web/dnr/publications/documents/00000130.pdf>



Promoting Pollinators:

<https://gardenillinois.com/category/learn/promoting-pollinators/>

## ***Attracting Wildlife Resources:***

Welcoming Wildlife

<https://www.welcomewildlife.com/>

Attracting Wildlife with Native Plants:

<https://extension.illinois.edu/blogs/good-growing/2022-09-15-attracting-wildlife-native-plants>

How to Make Your Garden Wildlife Friendly:

<https://www.discoverwildlife.com/how-to/wildlife-gardening/how-to-start-a-wildlife-garden/>

Backyard Wildlife Habitat Projects and Ideas:

<https://gardentherapy.ca/backyard-wildlife-habitat/>

