

# Let it Bee: Our Freedom Lawn Can Be Yours Too

By Jim and Willow Sirch



A carpenter bee gathers pollen from meadow phlox growing in the Sirchs' yard. Photo: Jim Sirch

**W**e bought our first house when we were married and ended up living in it for 19 years. The best thing about it — it had no lawn! Nestled on a rocky ledge, it was entirely landscaped with mountain laurels and mature oaks. As the trees and our family grew, however, we longed for a guest room, a larger-than-galley-sized kitchen and a sunny spot for gardening.

In time, we found and moved to our dream house — a circa 1850 “fixer-upper” farmhouse (which we’re still fixing up) with plenty of gardening space and enough grass to more than make up for our years of lawn sloth. We figured out pretty quickly that we would need something other than the traditional approach to maintaining our yard. For one thing, we wanted to nurture, rather than harm, the birds and pollinators that shared our new space. What’s more, our first spring, we were thrilled by the colors of the many native flowers that were part of this former pasture. Ours was not to be a dull expanse of green — and we liked that!

Where some people find lawns aesthetically pleasing, all we see is a dead zone. Coming from an environmental perspective in our respective training and work lives, we knew a chemically-based lawn was not for us. Unfortunately, today’s turf culture advocates the use of:

- dangerous chemical pesticides that kill not only the insects that birds eat, but the birds themselves
- overuse of heavy-duty fertilizers that wreak havoc in our waterways by causing a build-up of algae that robs the water of oxygen, thereby killing organisms
- frequent mowing, and time and money spent, while providing nothing for bird or pollinator survival.

There’s even some debate as to whether letting your children run barefoot through a chemically treated lawn is a good

idea. Some towns have banned certain pesticides, herbicides and fertilizers to reduce the dangers associated with their use. Pesticides and fertilizers have been implicated in a wide range of physical and neurological symptoms in human beings as well as serious symptoms in animals. America’s agricultural landscape is now 48 times more toxic to honeybees and other insects than 25 years ago almost entirely due to the widespread use of systemic neonicotinoid pesticides, according to a study in the *Journal PLOS O1*. These pesticides are not only deadly to bees and other insects. They can remain toxic in the environment for up to three years.

Harvard entomologist E. O. Wilson famously called insects “the little things that run the world.” Without them, the natural world as we know it would grind to a halt. Many pollinator populations, in particular, are declining. Why do pollinators matter? For one thing, they help feed us. Next time you bite into an apple or a juicy peach, just think: for about one-third of the food that you eat, including fruit, vegetable and cereal crops, you can thank a native bee or honeybee. Many pollinators are also beneficial to home agriculture, controlling pest insects found in our gardens and yards. Pollinators are also integrally tied to the larger food web. Butterfly and moth caterpillars constitute more than 90 percent of what birds feed their young during the nesting season. The loss of these insects is tied to declines in songbird populations and other wildlife.

With our new home, we knew we needed a new paradigm for our lawn. We wanted to, as entomologist Doug Tallamy puts it, “give ecological purpose to our landscape[s].” A natural or “freedom lawn,” is how we chose to benefit the ecology of our corner of the world, reduce time spent on lawn maintenance, and also save money.

## GETTING STARTED

Here are some easy things we did right away and continue to do:

- We set our mower level high — 3” to 4” is good — and our grass thanks us by growing stronger root systems that withstand drier conditions and consequently need less mowing. Often, people set their mower low, resulting in sunburnt patches. By keeping our lawn length high, we don’t have to water it at all.
- When we mow, we don’t bag our clippings. Mulching them right from the mower provides a natural fertilizer for our lawn, so we skip the chemical fertilizers altogether.
- In some areas of our lawn, we have reduced turf by using ground covers like creeping thyme, clover or violets. All these low growing, flowering plants provide nectar and pollen for bees and require virtually no maintenance.
- In the fall, instead of raking our leaves and getting rid of them, we run our lawn mower over the dried leaves to chop them up. Leaving a thin layer of chopped leaves on the grass improves the soil. Or, we bag the chopped leaves in paper leaf bags, store them and use them as a nutritious garden mulch.

### KEEP IT NATURAL

Then there are things we have done over time. One way we improved our lawn for pollinators is by allowing the natural “weeds” to seed in among the turf — then leaving them alone. In spring, our lawn is a carpet of humble blue violets, followed soon thereafter by swaths of yellow buttercups. We give our neighbors a good chuckle



Willow Sirch mows a strip of lawn beside a native wildflower garden that includes dark purple New York ironweed and light purple Joe Pye weed. Photo: Jim Sirch

as we swerve our lawn mower around these colorful patches, avoiding what’s in bloom. A lawn that includes flowering plants, along with typical Kentucky bluegrass and fescues, can promote more soil diversity, while providing ecosystem services for bees and butterflies.

Many native plants can find their way into a natural lawn. These include: common blue violet *Viola sororia*, which is the larval food plant of the beautiful orange great spangled fritillary butterfly; field or plantain-leaved pussytoes (*Antennaria spp.*) which is the food plant of the American lady butterfly; and lance-leaved coreopsis (*Coreopsis lanceolata*) which is a good all-around nectar plant for bees and butterflies. Although not native to our region, white clover, (*Trifolium repens*) is not invasive in our lawns, has a lovely little white flower and is a great bee plant. It can actually improve soil by fixing and increasing nitrogen through the symbiotic soil bacteria that live in nodules on clover roots. Self-heal (*Prunella vulgaris*), is another non-native that is not invasive, yet provides an early source of nectar for native bees.

We tested our soil. You can do it either through the Connecticut Agricultural Experiment Station or UConn Extension. Lawns, like garden plants, are built from the soil up. If we need to add lime or use a natural fertilizer such as compost, testing helps us know what we need where and how much. Besides supplying necessary plant nutrients, the benefits of compost include improved soil structure, soil biodiversity, increased water retention and reduced runoff.

Many homeowners think they need to apply chemical pesticides to eliminate Japanese beetle larvae that kill turf. Often, pesticides that kill grubs can actually set up a vicious cycle. You use this pesticide which also kills the natural biome — the unique microbe community of the soil — which means you need to apply more fertilizer to get a green lawn. Frequently, you end up with as many grubs as ever. Natural grub killers, like milky spore and nematodes, are a better alternative but need to be applied properly.

### LOSE THE LAWN

Another way we improved our lawn for pollinators is simply by getting rid of some of it. Where feasible, we have replaced lawn with native shrubs, trees and herbaceous plants. Losing the lawn or part of it can have great effects. For instance, when our daughter was in third grade, we received a Lowe’s Small Toolbox for Education grant to replace part of the lawn in front of her elementary school with a pollinator garden. Before we even got started, parents expressed concern: would it lead to children being stung by bees? We assured them that if the students didn’t bother the bees, the bees wouldn’t bother the students. Our daughter is now a freshman in college. Recently, the school principal assured us that no one has been stung — ever. The teachers and students, however, still love watching hummingbirds, bees and butterflies in their schoolyard garden.

At home, we remove a bit of lawn each year and plant the space with pollinator plants. We have found that an easy way to get rid of lawn is to cover it with cut up cardboard, spray it





Jim Sirch shows a milkweed pod growing in his yard to two young neighbors. Photo: Willow Sirch

down with a hose, cover with at least four inches of compost, then a two-inch layer of chopped up leaves. (Remember, we ran over our fall leaves, chopping them up with the mower and bagging them for just such a use.) A good time to do this is in late summer/early fall. Let it sit through the winter, then in spring just punch through where you would like to plant. This no-till method of planting preserves the vital soil biome.

We decided to also help monarch butterflies, whose caterpillars eat only milkweeds, by putting in a few plants of common milkweed (*Asclepias syriaca*.) This plant spreads by rhizomes and soon we had a dedicated patch. We just decided to let the grass grow and added other native plants such as gayfeather (*Liatris spp.*), Joe Pye weed (*Eutrochium maculatum*) and other great pollinator magnets. Other Connecticut native milkweeds that don't "run" are the pink or white swamp milkweed (*Asclepias incarnate*) and the orange butterfly weed (*Asclepias tuberosa*).

### GET TO KNOW YOUR NEIGHBORS

Your pollinator neighbors, that is. In Connecticut, there are more than 300 native bees and 120 butterflies. About 75 percent of native bees are ground nesting species which are solitary and very unaggressive, unlike hornets such as yellow jackets which are not bees, but are social insects and can be aggressive.

The rest of our native bees are tunnel nesters, making their homes in dead trees. We enjoy watching the tiny native bees swarm over our pollinator plants gathering nectar and pollen. They either can't or don't want to sting and their small size belies their importance in pollinator services. Many are specialists, some only coming to certain species of goldenrods and asters, which are two of the best groups of plants for bees. But, don't forget that native trees and shrubs have more flowers as well as leaves for caterpillars to munch on, and can help even more. Our oaks are food plants for more than 400 kinds of moths and butterflies, and bring in the birds.



A monarch butterfly lights on butterfly weed in the Sirchs' yard. Photo: Jim Sirch

### KICK OUT THE THUGS

We are diligent about making sure that our natural lawn is not taken over by invasives like Japanese stilt grass (*Microstegium vimineum*) The battle, we have to admit, is constant. Our friend recently asked us what those pretty little white flowers in her lawn were. Unfortunately, they were garlic mustard (*Alliaria petiolate*) another really ugly invasive. We had to tell her. As we know too well, invasive plants take over native plants and don't provide any ecosystem services as our native insects haven't evolved to feed on them.

A natural lawn is good for the local ecology, and good for homeowners who want to save time and money. Ours pays back our investment of time and energy many times over in our enjoyment of the birds and pollinators that find an oasis in our yard. What's more, the knowledge that we are improving the land and water where we live just can't be beat.

### For more information:

#### PESTICIDES:

- Penn State Extension: <https://extension.psu.edu/potential-health-effects-of-pesticides>
- PLOS 01: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0220029>

#### COMPOSTING:

- Environmental Protection Agency: <https://www.epa.gov/recycle/composting-home>

#### POLLINATORS AND BEST NATIVE PLANTS:

- Connecticut Agricultural Experiment Station, Pollinator Portal: <https://portal.ct.gov/CAES/Publications/Publications/Pollinator-Information>

#### INVASIVE PLANTS:

- Connecticut Invasive Plant Working Group: <https://cipwg.uconn.edu>

#### INSECTS AND LANDSCAPING:

- *The Little Things that Run the World, (The Importance and Conservation of Invertebrates)*, by Edward O. Wilson
- <http://cthort.org/beyond-the-rock-garden-giving-ecological-purpose-to-your-landscape-by-douglas-w-tallamy/>