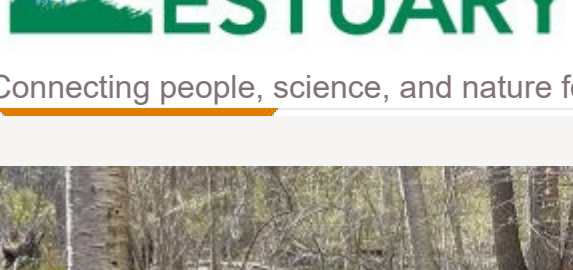
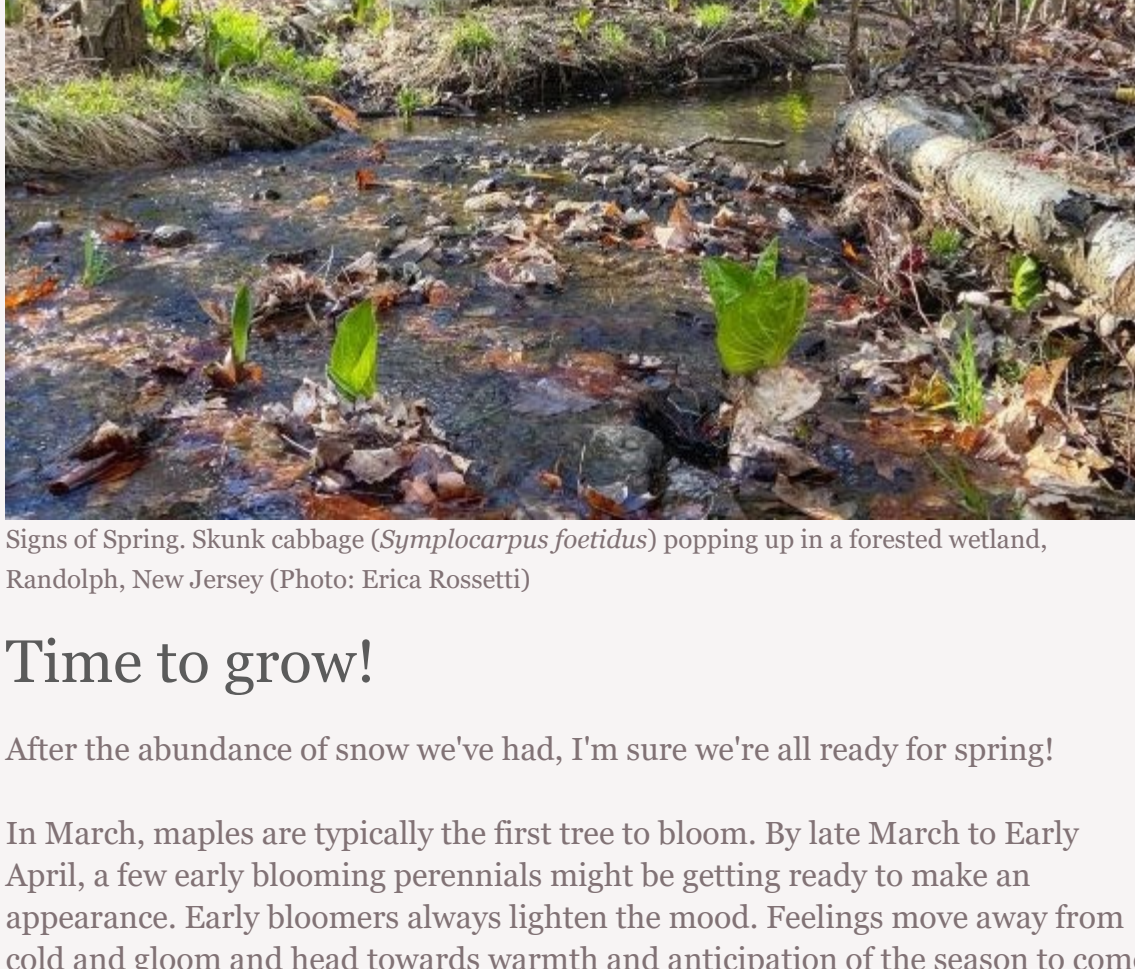


Perennial Pages

Gardens for Clean Water: A Seasonal Newsletter for Habitat Owners & Caretakers



Connecting people, science, and nature for a healthy Delaware River and Bay



Signs of Spring. Skunk cabbage (*Symplocarpus foetidus*) popping up in a forested wetland, Randolph, New Jersey (Photo: Erica Rossetti)

Time to grow!

After the abundance of snow we've had, I'm sure we're all ready for spring!

In March, maples are typically the first tree to bloom. By late March to Early April, a few early blooming perennials might be getting ready to make an appearance. Early bloomers always lighten the mood. Feelings move away from cold and gloom and head towards warmth and anticipation of the season to come.

Unfortunately, spring doesn't last long enough. The unbearably hot days of summer are just around the corner. It seems like there is such a short window to get all the gardening done on our to-do lists, but somehow we do, and hopefully enjoy the effort.

In this issue of Perennial Pages, we go over our usual springtime tasks, and we highlight milkweed and monarch butterflies. Monarchs are frequently the gateway species to native gardening, but there are still many misconceptions about protecting them in your garden. Enjoy!



Dwarf-crested Iris (*Iris cristata*) in bloom, a regional native, Newark, Delaware. (Photo: Sarah Bouboulis)

Time for Action: Spring 2021

Check out past spring issues of [Perennial Pages](#) for more garden tips and tricks. Here are some of the top reminders for spring maintenance.

- Clean-up: You waited all winter, and in April clean-up can finally begin, as most plants and insect are ready for spring too. When you cut down your old stems, bundle them up with twine and leave them around the garden as habitat for insects and any winter stragglers. You can also continue to use the leaves as mulch.
- If you've kept any seeds in the refrigerator over winter, now is the time for planting (either indoors or out). Most native plants need this "stratification," but check the requirements for your specific seeds.
- Start looking for green! Many native plants spread easily, and new plants might not look like their parents. Be careful what you pull. Try to learn to [identify common spring "weeds"](#) so you can avoid pulling any new recruits!
- Get planting! Many native plant sales are still online this year. Here are a few of our favorites:
 - [Delaware Nature Society's Native Plant Sale](#)
 - [New Jersey Audubon Native Plant Sale](#)
 - [Brandywine Conservancy Native Plant Sale](#) (Details have not been posted as of this publication, but sale will be for members only in May).



Two monarch caterpillars munching on butterfly milkweed (*Asclepias tuberosa*), Newark, Delaware (Photo: Sarah Bouboulis)

Gardening for Monarchs

Monarch butterflies are the poster children for native and ecological gardening. They are beautiful and charismatic creatures and their populations are in decline. Monarchs require milkweed plants (*Asclepias* sp.) to lay their eggs. Monarchs generally don't taste good to predators, and they get those "flavors" by eating milkweed as caterpillars. For many, a love for ecological gardening has its roots in planting milkweed to help save the monarchs.

However, this goal of saving the monarchs should not create tunnel vision in our ecological gardening efforts. Our gardens need to create ecosystems which include an innumerable number of species if we really want to support our natural environments.

Pests of Milkweed:

Many milkweed growers are quickly saddened when they see many other insects enjoying their milkweed. Monarchs are not the only ones to take advantage of the foul tasting chemicals the milkweed provides. Milkweed bugs, milkweed beetles (two kinds), and milkweed tussock moth caterpillars most often take advantage. But fear not, these are all native insects who need the milkweed just as much of the plant as the monarchs. They provide important ecosystem services too, and for established plants, there is more than enough to go around.

There is one invasive species, the [milkweed aphid](#), that can be slightly more troublesome. Still, given a healthy stand of milkweed, they will be more unsightly than particularly detrimental to your plant. If milkweed aphids seem to be decimating your milkweed plants, it may be that the milkweed is not in a place to thrive and withstand the herbivorous pressure of the insects. You may want to consider planting more milkweed in a better location. The aphids themselves, however, are also an important part of the food chain, and can be food for other native predatory insects. If you must do something about them, use mechanical methods of control, do not use insecticides that could affect the other insects using the plant (including monarchs).

Rearing Caterpillars in Captivity:

Seeing a child (or adult for that matter) full of wonder and awe as they watch the growth and metamorphosis of a caterpillar into a butterfly can truly be magical! But there's something to be said about removing them from their natural environment. A [recent study](#) showed that monarch caterpillars raised in captivity (particularly indoors) may not have the proper "bearings" for migration. And while a lot more research is certainly needed, this does show that our good intentions may have consequences. So, rather than rearing all the caterpillars you find indoors, perhaps rearing one or two caterpillars in an outdoor enclosure would be a step in the right direction. You can still enjoy the wonder of nature, while also leaving nature to do its job.

But then there is the issue of predators. It's true, the caterpillars you leave outside may succumb to predators (or disease), but those predators need to eat too. Are some predators non-native? Sure. But many are native as well. This is the world we live in and the goal of a native garden is to support the complete ecosystem, whatever that may look like. A garden with only monarchs wouldn't be doing anyone much good, probably not even the monarchs.

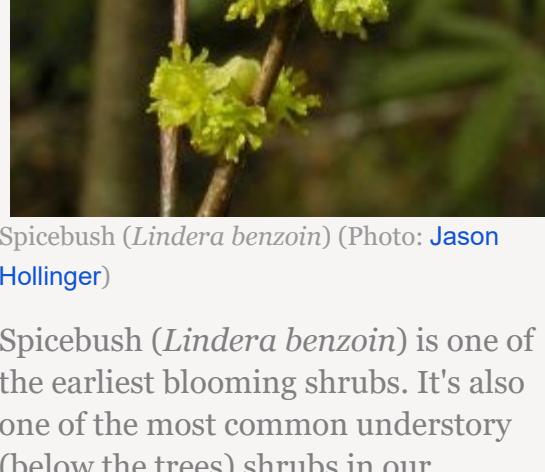
Planting More Milkweed:

Milkweed (of which there are many species) is essential for the monarch life cycle, but it isn't the only plant they need! Adult monarchs survive by feeding on nectar from a wide variety of plants. They also suffer from a loss of habitat throughout their range and particularly their overwintering areas in Mexico and the Pacific Coast. So when you are planning your butterfly garden, think about the whole life cycle, providing both milkweed and other nectar producing plants, and then maybe think about making a donation to [habitat protection in Mexico](#) as well.

Monarchs are beautiful, elegant creatures that need help, but we need to think about their cousins too. We need to think about the predators AND prey, the plants AND the insects that eat the, and the soil AND the water when planning our ecological gardens. All parts of our gardens deserve our full attention and our full appreciation.

What's "up"?

Seasonal Plant Identification



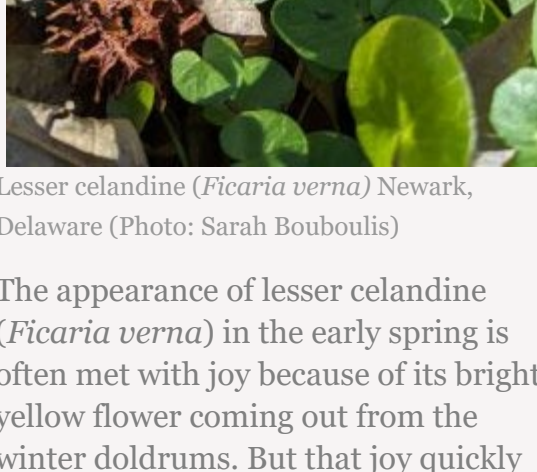
Spicebush (*Lindera benzoin*) (Photo: [Jason Hollinger](#))

Spicebush (*Lindera benzoin*) is one of the earliest blooming shrubs. It's also one of the most common understory (below the trees) shrubs in our piedmont forests. What does that mean for your home garden? It means it will thrive! Spicebush do well in a variety of conditions. Their small flowers bloom just in time for those early pollinators, they have lovely fall color and produce berries for birds and other wildlife. Spicebush, however, is dioecious, which means you need both male and female plants nearby to successfully produce berries. So plant a few for greatest success. Spicebush is also the host of the spicebush swallowtail caterpillar. Not sure if you already have a spicebush? Crush the leaves between your fingers and check for the signature "spicy" scent.

[Read More](#)

Space Invaders

Invasive Species Spotlight



Lesser celandine (*Ficaria verna*) Newark, Delaware (Photo: Sarah Bouboulis)

The appearance of lesser celandine (*Ficaria verna*) in the early spring is often met with joy because of its bright yellow flower coming out from the winter doldrums. But that joy quickly turns to despair when it shows up everywhere. This plant likes disturbed habitat and damp soils (but will grow anywhere!). It frequently takes over lawn areas along stream and river banks. Its tenacity and aggressive nature help it easily out compete our native spring ephemerals. It is also hard to eradicate, several years of digging and hand pulling are generally necessary for complete removal, and even then other controls may be needed. The only bright spot is that it generally dies back in late spring/summer, and you can try to forget about it until next year.

[Read More](#)

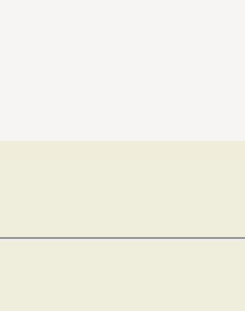
PDE News

Join us for another virtual Earth & Arbor day celebration this year, you can check out all about the event on our [website!](#)

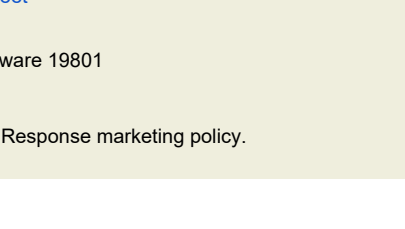
Did you miss the Delaware Estuary Science & Environmental Summit at the beginning of March? You can catch recordings of all the session [on our website!](#)

Feel free to send any of your gardening questions or topic ideas to Perennial Pages editor, Sarah Bouboulis; sbouboulis@delawareestuary.org

Partner



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The Partnership for the Delaware Estuary, host of the Delaware Estuary Program, leads science-based and collaborative efforts to improve the tidal Delaware River and Bay, which spans Delaware, New Jersey, and Pennsylvania.

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