

GOING NATIVE

The trend of 'rewilding' yards and how it benefits gardeners and the globe

BY JENNIFER BARDONER



Purple coneflowers

Brown-eyed Susans

Milkweed

American beautyberry



In the mornings, Lisa Lemza's yard takes on an ethereal glow. Yet her Missionary Ridge home is shaded by thick trees that have grown up with the century-old houses.

"[It's] the shimmer of flying creatures so tiny you can see them only from movement, like a golden little cloud of shimmer," she says.

Her yard is a certified wildlife habitat — which are becoming harder and harder to find in the natural world. The World Wide Fund for Nature (formerly the World Wildlife Fund) estimates that half of the world's forests have been lost, and continue to be at a rate 10 times faster than regrowth can occur. Wetlands, too, have suffered a 50% decline in the U.S., according to the World Animal Foundation, with Europe having lost 60-70% of its wetlands.

It isn't just devastating for the vegetation in those areas, but also for the animals that depend on them. Habitat loss is listed as a primary threat to 85% of the world's designated "endangered" and "threatened" animals, WWF reports.

"We are currently going through the largest extinction [of wildlife] that we've known of, purely due to human influence, and most of that is coming from habitat destruction," says Reflection Riding Arboretum and Nature Center's Dylan Hackett, citing a 70% decline in all species.

Replacing non-native plants with native varieties is one of the easiest ways to replenish the balance, he and Lemza agree. Hackett is the arboretum and nature center's nursery manager. Lemza is a Master Gardener and a member of Tennessee Valley Wild Ones, a group dedicated to sustainable landscaping and supporting biodiversity.

Using native plants also comes with



City regulations can sometimes interfere with native landscape design, which can tend to look less managed than traditionally designed yards. The national Wild Ones gardening group recently released a series of free templates incorporating native plants into more traditional designs.

benefits for homeowners, they say — like the slumbering bumblebees that can be found nestled in Lemza's blooms like an Anne Geddes photograph.

THE PROCESS

There are multiple certifications a yard can receive, but the National Wildlife Federation's Certified Wildlife Habitat designation is "sort of the grandmother of them all," says Lemza, who holds that in addition to one through the Audubon Society. "A lot of the requirements overlap," she says.

The NWF certification costs \$20,

Lisa Lemza has spent the last six years replacing the landscaping at her Missionary Ridge home with native plants. The spring woodland-type garden that lines the sidewalk just outside her gate "can stop traffic," she says. "I actually had a guy stop his car and take his granddaughter's picture there."

which grants the homeowner a one-year subscription to the federation's monthly magazine and weekly newsletters filled with tips, plus discounts on NWF merchandise including bird baths, feeders and other enhancements that make yards more attractive both to the eye and to wildlife.

In order to receive the certification, homeowners must prove their yard offers:

- ▶ Food (essentially native plants)
- ▶ Water, whether it's an elaborate feature or a simple bird bath
- ▶ Cover (Lemza rakes fallen leaves into her garden beds and at the base of trees)
- ▶ Places for animals to raise their young, whether that be a mature tree or something you purchase, like a nesting box
- ▶ Sustainable practices, from composting to cutting out chemicals to creating a rain garden to reduce runoff

"The native plants and the removal of invasives really check most of those boxes right off," Hackett says. "Manicured, maintained lawns really aren't environmentally friendly at all. They're basically a biological desert." They also



Though Lisa Lemza has spent years working to make her landscape at least 70% native, she still has some non-native plants. "Anything is better than nothing," she says.

cost homeowners time and money that native landscapes don't, he adds.

Lemza, a "traditional" gardener for many years, says she'll never go back. Gardening with native plants is "so much more interesting and so much more rewarding than simply gardening for a look," she says.

It's also easier. Because native plants evolved over millennia in conjunction with the area, they are often heartier and better suited to local conditions, which means less maintenance for the homeowner.

"It's the most low-maintenance, low-intensity gardening you can do," says Hackett.

Lemza estimates she spends an hour a week weeding in the springtime and 30-45 minutes every four to six weeks

once the weather really warms. Planting densely — "the way nature does" — helps keep unwanted sprouts in check, she says.

"It's mind-blowing what you can do with actually less effort," Lemza says. Though, she cautions, "There's no such thing as no maintenance. Even a parking lot has to be repaved every 10 years."

While native plants can get a bad rap for not being as showy as their cultivated counterparts, Lemza and Hackett disagree, pointing to species like the oakleaf hydrangea.

"We have somehow confused the aesthetic of neatness and tidiness with what is beautiful," she says. "A house should be tidy, a yard should be interesting.

"It's sterile, boring and actually killing things."

RESOURCES

› **National Wildlife Federation Native Plant Finder:** Search by ZIP code for a suitable list of native plants, ranked by their importance to butterflies and moths.

› **Audubon Native Plants Database:** Enter your ZIP code and email address, and you'll receive a listing of the best native plants for birds in your area, plus tips on creating a bird-friendly habitat.

› **Tennessee Valley Wild Ones:** In addition to its annual symposium and sale, the chapter offers monthly classes, presentations and networking opportunities.

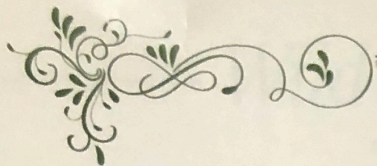
› **Reflection Riding Arboretum and Nature Center:** The center's nursery grows and sells native plants through its semiannual sales and, now, during operating hours, and nursery manager Dylan Hackett says he's available to answer questions via phone, email or in person. The center is also working to establish a system for site visits, he says.

THE IMPORTANCE

Not only do non-native plants not fulfill the biological roles animals depend on flora for, Lemza says, they can directly harm wildlife. The berries of the popular landscaping shrub *Nandina*, for example, contain cyanide and can be lethal for animals, especially birds like cedar waxwings, which gorge on berries to sustain themselves during their cross-country migrations.

Birds are a good indicator of the health of an environment, naturalists say. They're also extremely important to maintaining that balance.

Birds help control insect and pest populations, and pollinate and disperse seeds through their travels. Some seeds — including those of highly invasive



This sign shows Lisa Lemza's participation in the Chattanooga Area Pollinator Partnership through Tennessee Valley Wild Ones. Pollinators like bees, butterflies and moths are suffering dramatic declines in habitat and, consequently, population.

Chinese privet — essentially get activated by passing through a bird's digestive system.

Without pollinators like birds and bees, the outlook isn't good for humans, either. The United States Department of Agriculture puts it simply: "Without pollinators, the human race and all of earth's terrestrial ecosystems would not survive."

Almost 80% of the world's crops depend on pollination by animals, according to the USDA, and while there may be ways around this, it would cost trillions of dollars. "In the United States alone, pollination of agricultural crops is valued at 10 billion dollars annually," the USDA states on its website. "Globally, pollination services are likely worth more than 3 trillion dollars."

Just as plants like pollinated grains and fruits make up the base of our food pyramid, native plants do so for pollinators — many of which are the first link in the overall food chain, further entwining them with global survival. Kristina Shaneyfelt, president of the Tennessee Valley Wild Ones chapter, explains that without insects like the passion fruit bug (*Diactor bilineatus*), birds have trouble reproducing and feeding their young. It can take as many as 3,000 insects a day for a single bird to get the protein necessary for nesting season, she says. And those birds, in turn, can serve as food sources for animals like foxes, other birds and even some large insects.

"Without native plants, you can see this cataclysmic effect that inevitably



"When you add water into your home landscape, you have tremendously amplified its service ... for everything from sweat bees to a fox that might wander through," says Lisa Lemza, whose yard carries the National Wildlife Federation's Certified Wildlife Habitat designation. A water source, while required for certification, doesn't have to be showy. It could be as simple as a birdbath or old tub.

TOP PICKS

Reflection Riding Arboretum and Nature Center nursery manager Dylan Hackett recommends the following native plants for sustainable yet showy bloomage:



Purple coneflowers: "They're a really great pollinator plant. Butterflies really love them," he says. While that applies to all coneflowers, Hackett says the purple varieties are the most popular.



Brown-eyed Susans: "They're really hearty and they're prolific seeders. They're great for mass plantings and look good in big groups," he says.



Milkweed: All kinds of this "gorgeous, showy" plant are "really, really important for monarch butterflies," he says, adding, "Monarch butterflies are very close to extinction right now."

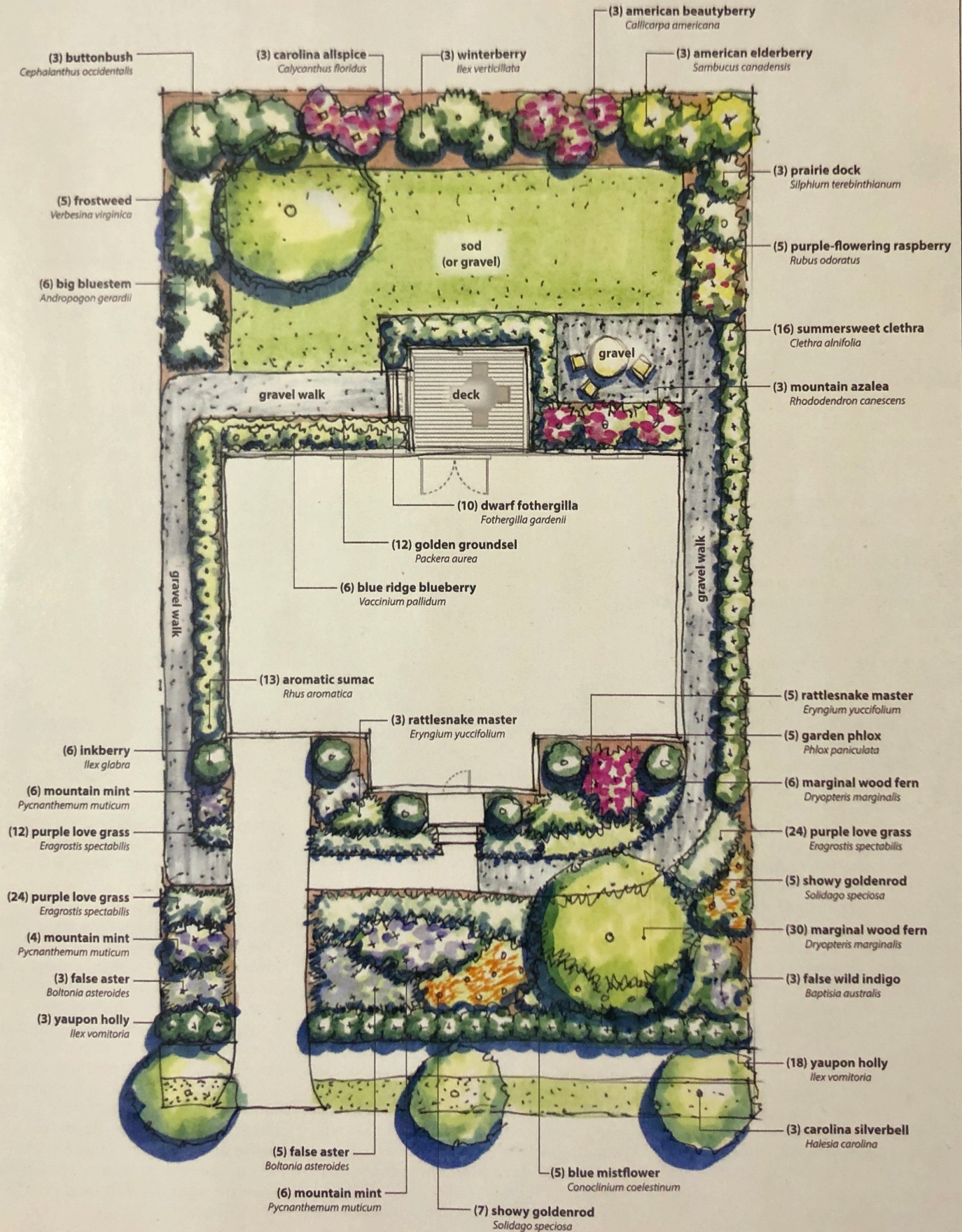


American beautyberry: "It's a really beautiful alternative to Chinese privet. I think it's somewhere in the millions of dollars it costs the state to mitigate and manage Chinese privet," Hackett says.

Wild Ones' native garden design

CONTRIBUTED GRAPHIC BY CALEB MELCHIOR

Wild Ones received a grant to design templates for different cities where it has chapters, including this one for Chattanooga. The designs are available for free online.





In order to support songbirds, yards should ideally be 94% native, and a minimum of 70%, according to a University of Delaware graduate study done in partnership with the Smithsonian Institution's citizen science program. It's a goal Lisa Lemza has spent six years working toward.

impacts the whole food chain," Hackett says. "You're going to start seeing a decline in deer, rabbits and then coyotes, birds of prey. It really is a chain reaction and it all comes down to native plants."

Whereas humans can supplement their food sources, many animals cannot.

"You don't have a lot of generalist insects that can eat anything," says Lemza.

As its name implies, the passion fruit bug can only eat from the passion flower vine, one of Tennessee's state wildflowers. The monarch butterfly, meanwhile, has come to rely entirely on milkweed.

"Invasive plants may have tasty berries, but the plants that have grown here [naturally] and evolved with these species of birds and insects have adjusted to each other," Shaneyfelt explains, citing things like protein and sugar content. "As invasives replace [native plants], our birds, insects and all those other things, they're not evolving fast enough to make up for all the changes. ... It's the difference between Coke and milk."

Due to their broader significance, Lemza and Hackett urge landscaping with pollinators primarily in mind. By creating a habitat for bees, butterflies and moths, you are also preserving our own.

"Without biodiversity, it's hard to imagine a world where we thrive as well," Hackett says. "Mending biodiversity starts at the place that's impacted it the most: restoring habitat."

COMING UP

Tennessee Valley Wild Ones' annual Native Plant Symposium is March 19-21. The seminars, being presented virtually this year, feature nationally recognized speakers on a variety of topics to help gardeners get started or troubleshoot. The chapter's Native Plant Marketplace and Expo featuring an array of vendors, including Reflection Riding, is planned for March 27 at First Horizon Pavilion.

THE SHIFT

Both Hackett and Shaneyfelt say interest in native landscaping is growing. Though started in Wisconsin in 1977, Tennessee Valley Wild Ones is the second-largest chapter in the nationwide network of 60, she says.

Hackett offers anecdotal evidence of the trend: "It's a big championing idea in town right now, rewilding your backyard habitat," he says. "This year I've already seen more interest in the phone calls and emails I'm getting than last year."

To help show homeowners the possibilities, Wild Ones recently released a series of free landscape designs using

BY THE NUMBERS

1 million

Number of acres of habitat lost annually to development in U.S.

40 million

Number of acres lawns account for in the U.S.

70

Percent of yard that needs to be native to support songbirds.

\$36 billion

Amount spent annually on lawn care in the U.S.

17 million

Gallons of gas spilled annually trying to refill lawn equipment — 6 million more than the Exxon Valdez oil spill.

5

Percent of U.S. air pollution for which gas mowers account

Sources: National Wildlife Federation, University of Delaware graduate study, People Powered Machines, History.com

plants native to some of the different cities where it has chapters. Not only does this take the guesswork out of plant selection and placement for a more put-together look than the wild meadow and forest ecosystems being mimicked, it makes native landscaping more attainable for those subject to related HOA and city regulations, says Shaneyfelt. For instance, Chattanooga city code states that "all premises which contain grass, underbrush or weeds shall be maintained at a height less than ten inches," making more thoughtful designs more practical.

Walking down her driveway in the mornings, peeking at the sleeping bumblebees tucked in the stalks and blooms of native flowers, Lemza chuckles to herself. "That same driveway was just bermuda grass on a hill that I mowed at extreme peril," she says.