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# Landscaping to Keep Inland Lakes Alive and Beautiful

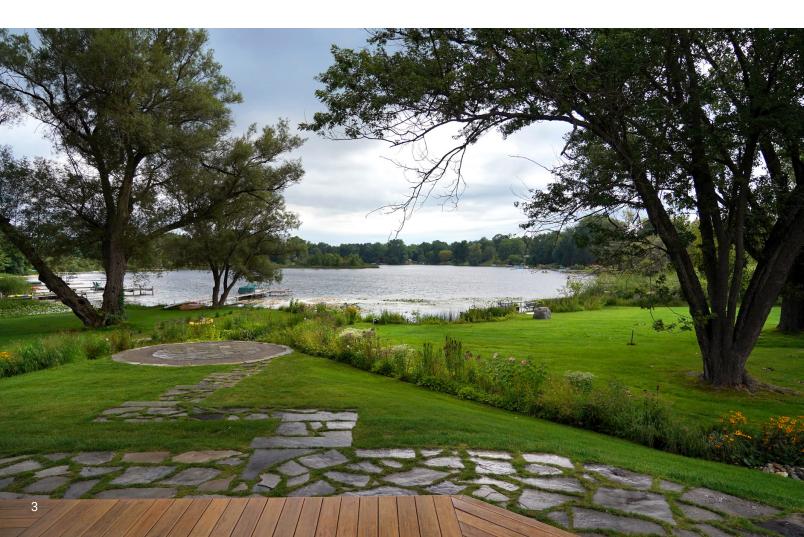
### BY TOM SPRINGER

There's something magical about spending time at a lake, whether you're swimming, boating, fishing, or just sitting and listening to the lapping waves. There are simple steps property owners can take to keep their lakes clean and healthy for generations to come. This publication shares examples of five ordinary families who have done something extraordinary. Each is taking steps in their own way to do their part to care for the lake.

From small steps on a relatively manicured property to an almost fully forested and natural landscape, the articles within feature the efforts of people just like you.

Traditional lake landscaping practices – large expanses of lawn, seawalls, and removal of aquatic plants – may be harming thousands of Midwestern lakes. While the ordered beauty of a flawless yard has its appeal, it's

crucial to remember that lakes are living systems. What a lake's wild creatures need are leafy shoreline edges with aquatic plants where they can feed, rest and raise their young. What turtles and frogs need are natural shorelines where they can easily move from land to water and back again. What all lakes need is clean water to support the minnows, mayflies and other tiny organisms that sustain life up and down the food chain.



## Time wasted at the lake is time well spent. - UNKNOWN

With native landscaping, homeowners can have the best of both worlds. They can keep stretches of mowed turf grass around the house for paths and play areas. Yet along the shore, they can plant a border of native grass and wildflowers that will filter out contaminants, such as lawn fertilizer and dog feces, before they run into the lake to cause weed and algae growth. Homeowners can also plant native trees - or leave existing trees standing - as a means to enhance the lake's vitality. Tree roots will hold the soil in place to prevent bank erosion and branches that fall into the lake provide habitat for fish and other animals.

Beyond their value as habitat, native plants will make lake properties beautiful and distinct in ways that turf grass cannot. The varied blooms, colors and textures of native plants change with the seasons, much like a woods, wetland or prairie. This ever-changing tableau will make your yard a visual focal point on the waterfront. It will also set a positive example for neighbors who may want to try something similar on their property.

And, there's no need to abandon turf grass all at once. While some hire landscapers to install large plantings, others start with a few native plants and build from there.



Native landscapes can be as personal and diverse as the people who plant them. What they have in common, however, are these popular benefits:

### **Adding Beauty Across the Seasons:**

As landscapes go, turfgrass lawns are fairly binary: they're either green or they're not. Not so with native plants in the Midwest. In spring, an array of hazy greens emerges with the new growth of buds and leaves. In summer, wildflowers bloom in vibrant hues of yellow, orange, red, pink and purple. Then after first frost, the colors soften to an earthy palate of wine reds, flame crimson and dusky bronze. From December on, the rustle of sere beige stalks in the breeze add a note of interest to the quiet season.

Keeping Geese at Bay: Canada
Geese are beautiful birds, but their
gooey droppings and turf-plucking
ways can make a slimy mess of a
turfgrass lawn. How to keep them
away? Plant a buffer strip of native
plants along the shore. Geese won't
pass through the buffer, because
they have a natural fear of upright
vegetation – they think it provides
cover for predators.

**Reducing Yard Maintenance:** It's often hard to mow next to a lake, because the grass there is soggy and spongy, or dangerous because of



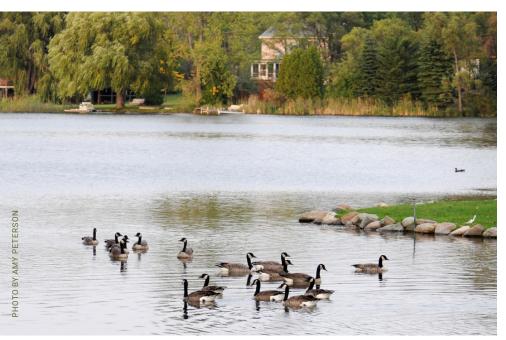


the slope. It's a naturally wet transition zone between the uplands and the water. In many cases, the lake "wants" wetland plants to grow there. With a buffer strip of native plants, you can give that stretch back to nature and rest easy. You will have less yard to mow, and compared to turf grass, far less maintenance. Once native plants are established, they'll thrive without fertilizer or sprinkling systems.

Attracting Butterflies, Hummingbirds, Frogs and More: This is one of best draws of all: the bevy of butterflies,



hummingbirds, songbirds, turtles and frogs that a natural landscape attracts. Your backyard can become a minisanctuary, with live nature lessons for kids and adults alike. On milkweed, for instance, observers can see the life cycle of a monarch butterfly as it transforms from caterpillar to chrysalis to adult. Even in winter, the seed heads of plants can nourish chickadees, finches and cardinals – another chapter in the ongoing story of a native landscape.



Expansive lawns attract Canada Geese whose droppings can wash into the lake and be a nuisance for homeowners.



# **Building with Nature** on a Waterlogged Site

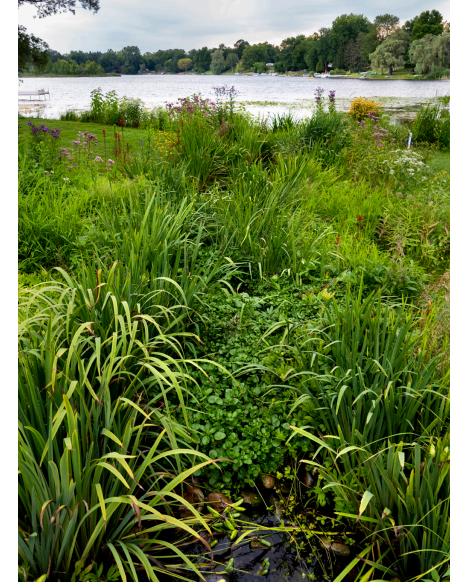
### BY TOM SPRINGER

Homeowners can never be certain what they'll find when they prepare the building site for a new house. For Susan Yun and her family, the big underground reveal was a "perched water table." Basically, it's a geologic feature that traps accumulated water above the usual water table. For anyone who wants a dry basement, dealing with trapped water creates a quandary.

Unless, like the Yuns, you have a University of Michigan-trained landscape architect in the family. They've made the perched water table the source of life for a thriving, native plant landscape.

"I knew this would be a sensitive site to develop," said son Michael Yun, from Portland, Oregon. "The conventional way to handle excess runoff would be with detention ponds or tanks. But we wanted to use low-impact principles and keep runoff to pre-development levels."

This comprehensive approach makes the Yun's project unusual. While many home owners hire native landscapers to plant beds and gardens, the Yuns did so with a new house on undeveloped land. During construction in 2017, the entire property was sculpted and







plumbed with an eye toward native habitat and wetland restoration.

The Yun's home occupies a pieshaped parcel on a suburban lake. The wide end faces the road, and the narrow end points towards the lake. In a high-growth area where vacant lake property is nearly unheard of, the land had sat idle for 60 years. Then one morning, Susan saw a new For Sale sign there. She called the owner posthaste and made an offer that day on the one-acre lot.

"It was empty for so long that everyone thought the township owned it," said Susan, an oncology

## "I love birds and nature, and this is all about creating habitat"

nurse. "The last thing here was a little stand where the farmer across the street sold milk and ice cream from his cows."

The cows are gone, but a walking tour of the property shows a bounty of native plants that a 19th century farmer might recognize. Bright daisies, vervain and purple coneflowers, abuzz with bumblebees, grow on a new berm by the driveway. On the other berm, hemlock and poplar saplings

promise more shade in the years to come. The berms create a sound and privacy barrier between the house and busy a busy nearby road.

"We built the berms with fill from the basement to keep the soil on site," Michael said. "The berms also stop runoff from the road which would otherwise run to the lake."

To collect yard runoff, Michael designed swales that run along each side of the lot. They act as drain fields that collect water



and direct it to the backyard via underground PVC pipes. The swales have cobblestone bottoms, lined with native plants to promote water absorption. But as Michael explains, not just any wetland natives will do here.

"You need plants with thin stems at ground level, such as sedges, that can take inundation," he said. "Plants with hummocks can channelize water flow and cause erosion."







The outdoor seating area behind the house also does its share to manage runoff. Instead of a solid concrete patio, Michael had flagstones set in the ground without mortar. The grass between the flagstones soaks up rain and gives the lawn a more natural feel.

Yet if one feature symbolizes the project's sustainable spirit, it would have to be the new backyard wetland. This is where a drain pipe brings excess water from the perched water table down to the lake.



On most lake properties, the drain pipe would run straight into the lake. The Yuns, however, wanted their water delivered in a less intrusive fashion. The pipe empties into a weir that Michael built 40 feet back from the lake. It slows the water and spreads it out, like a miniature river delta. Wetland plants grow along its length to form a wild, dense corridor by the shore.

The weir cost more to design and build than a length of pipe would. But for the Yuns, it was a crucial opportunity to work with their contractors on ecofriendly practices.

"I love birds and nature, and this is all about creating habitat," Susan said. "I saw a Baltimore Oriole in a tree this morning, and that tells me we're doing something right."

- Address drainage problems by building them into your landscape design
- Look beyond the waterfront for other places that native plants might add beauty, privacy and habitat to your property
- Native trees, along with native plants, play a major role in restoring habitat.
   Species such as Bradford Pear provide little in the way of natural benefits.
- Don't discourage a child who wants to study landscape architecture!

# Native Plants Stand Fast to Protect the Shore

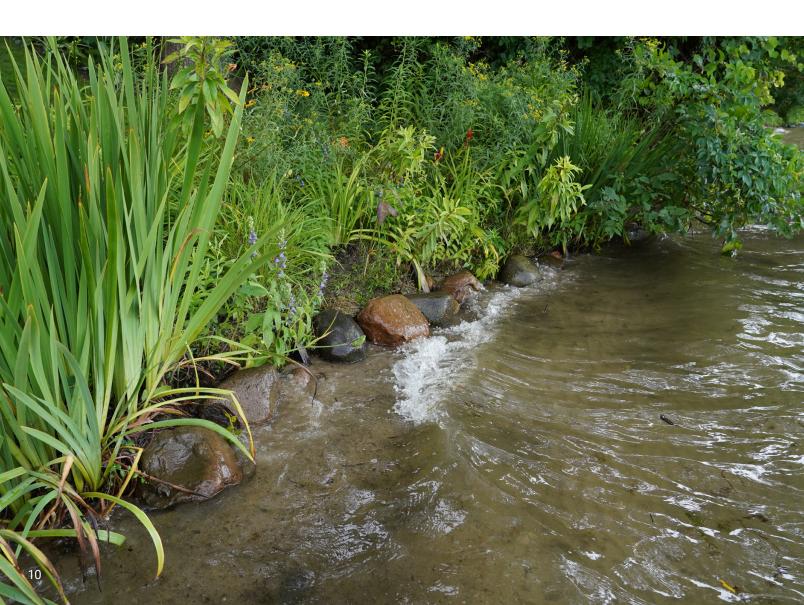
### BY TOM SPRINGER

David and Betsy Patterson have seen the wild world in all its far-flung glory. Lions and giraffes on the plains of Africa; giant tortoises and frigate birds in the Galapagos Islands; a rookery of 100,000 gabbling penguins in Antarctica. But back in the Midwest, it's everyday backyard encounters that keep their wild spirits fed.

"There's a deer that comes by often to drink from the lake and chew a few wildflower buds," said David, with no small sense of wonder. "We have a blue heron that

fishes from our dock and some mallard ducks that gave birth to a little family this year. And every year now, we see more native plants and color than before."

The Patterson's magnet for backyard wildlife has been the 100 feet of shoreline on Watkins Lake that they restored with native plants in 2013. "We're outdoor people," David said. "Having lived here all our lives, we like things natural. We think this is how an inland lake should be."



Yet keeping the 500 lakes of this urbanized region natural has become ever more difficult. Larger homes, more runoff from lawns and streets and destruction of shoreline habitat has taken its toll on water quality. Out of their concern for the natural well-being of Watkins Lake, the Pattersons – who have been married for 51 years – decided to try something new.

The opportunity came when they bulldozed the old house that once stood on their property. Built in 1910 as a two-bedroom cottage, it belonged to Betsy's family and she'd spent many happy summers there swimming and sailing. Then, as often happens on Midwestern lakes, the Pattersons decided to replace the cottage with a larger year-round home. They built a two-level brick house that nestles into the hillside, with floor-to-ceiling windows that face the lake. Except unlike most "tear downs," they want theirs to have a modest ecological footprint.

## "We like things natural. We think this is how an inland lake should be."

"I don't like to see new houses bring in tons of rocks for the shore or put in steel seawalls," said David, who retired after a 30+ year career in information technology. "But with higher water levels, our beach was eroding, and we had to do something." And, that "something" would prove cheaper and safer than a seawall – and easier to maintain than a turf-grass yard.

While seawalls seem like a simple solution, they come with a built-in design flaw: by stopping erosion in one place, they can cause erosion someplace else. It has to do with the physics of wave action. On a natural lake, waves dissipate force as they lap against shoreline vegetation or roll up the gradual incline of a beach. Yet when waves smack into a sea wall, they bounce off with a rolling action that stirs the bottom. This forces a scouring, muddied current to flow "down lake" where it can erode the beach of a neighbor who doesn't have a seawall.







The Pattersons hired Jim Brueck, a Certified Natural Shoreline Professional, to address their erosion problem. For a solution, Brueck installed rolled mats of coconut fiber known as coir logs at the water's edge. The coir logs were held in place with wooden stakes, and the area behind them was covered with burlap sheets and top soil. Then, plugs of native plants were buried in the coir and soil. Today, the biodegradable logs are barely visible. What remains is a gently sloped barrier of native plants that looks identical to a natural beach.

After the Pattersons return from Florida in spring, David gets busy with annual maintenance on the shoreline. He rakes out excess oak leaves – there's a majestic white oak whose limbs stretch like rugged arms above the back yard – and cuts back the dead plant stalks. "The hardest part is identifying what's a weed and what's not," he says. "But I'm learning."





On this August day, the brilliant red of a cardinal flower and fuzzy yellow of goldenrod make identification easy. Yet looks aside, it's not the individual plants that matter most. It's how all of them, together, weave a sturdy matrix of roots and stalks that protects the shore. And, create a rich habitat for untold creatures that a turf-grass monoculture alone could never attract.

"It didn't cost as much as a seawall, and there's no big boulders or metal breakwater that could hurt our grandkids," David said. "It just makes for a nicer home environment."

- To learn more about native plants, study how they change across the seasons.
- Be sure to haul away any grass clippings or vegetation that's cut along the shore – if dumped into the lake, it can fuel weed and algae growth.
- If you must use stones to prevent shoreline erosion, use the smallest ones possible to make access easy for turtles and other wildlife.
- Even tearing down a smaller home to build a larger one can be done in ways that protect the environment.

# Wildly Civilized: Native Plants for the Well-Ordered Yard

### BY TOM SPRINGER

From a passing pontoon boat on Base Line Lake, it's the bubble-gum pink heads of Joe Pye weed that make Jan Arps-Prundeanu's beach stand out. They grow on leggy green stalks as tall as the gardener who planted them. And if plants can look friendly, then these surely do – they nod a gentle welcome in the late afternoon breeze.

Friendly, yes, but also a little subversive. Because for Jan, the Joe Pye weed and other native plants in her lakefront garden offer a quiet contrast to the socially accepted status quo. Which on a midwestern lake, usually means turf grass that runs right down to the water's edge.

"My main goal was to help the lake be as healthy as possible," said Jan, a retired social worker. "I wanted to prevent the fertilizer runoff from lawns that makes weeds grow in the lake. I wanted it to look pretty, but also serve a natural purpose."

The result is a 750-square foot buffer strip of native plants that's









part garden, part mini-wildlife sanctuary. Today, it's alive with butterflies – monarchs, Eastern tiger swallowtails and Aphrodite fritillaries. They flit from purple coneflowers to blue lobelia, along with honeybees, bumblebees and ruby-throated hummingbirds. It looks natural, but accessible. There's a Y-shaped path of flagstones, and a fresh layer of bark mulch to keep the weeds at bay.

"All the butterflies and frogs and turtles have returned since we planted this. And the *smell*," Jan said, as she drew a deep, contented breath. "It all smells so much better now."

Jan and Octavian "Tavi" Prundeanu, her Romanian-born husband, share a

## "All the butterflies, frogs and turtles have returned since we planted this. And the **smell**. It all smells so much better now!"

rambling, 1900s home on Base Line Lake. On this Saturday in August, Tavi has just returned from a business trip of sorts. He flies World War II bombers to air shows as a pilot for the Yankee Air Museum. But at home, he's clearly not the captain of what grows along the waterfront.

"This area is mine – Tavi doesn't mess with it," Jan said. He was "done with the garden" after carting endless wheelbarrows of soil to establish the beds for his late wife, Marti, in the 90s. Marti planted a butterfly garden that included

many bee balm plants and other natives. Yet the garden had been left unattended for more than three years and Jan found it unattractive; she laboriously pulled out what she considered weeds. This included Joe Pye weed, which Jan wasn't fond of at first: it was called a weed. Then over time, as Jan grew more concerned about the lake's health, she learned to see its ecological benefits. "It's funny how your concept of 'pretty' can change when you learn to appreciate a plant for what it does, not just how it looks."



An epiphany of sorts came when Jan met landscaper Janee Kronk at a 2017 conference hosted by the Michigan Natural Shoreline Partnership. Janee specializes in native landscapes, rain gardens and green roofs. "I wasn't familiar with native plants," said Jan, who grew up on a dairy farm in Ohio. "But I liked them, because they could survive in the existing soil and not need fertilizer."







On this day, Janee stopped by for a visit bearing two plug trays of vervain, a purple wetland wildflower. Summer stylish in a bright yellow dress, she was soon barefoot and calf-deep in her native element: an inland lake. She looked approvingly at the dense tangle of Joe Pye weed roots, which have stood firm against the waves to protect the shore from erosion.

Janee sees her business as part plant installation and part ecological education. She knows that big lawns can harm lakes, but doesn't hit people over the head with that knowledge.

"I try to get people excited about natural shorelines in a way that doesn't shame them,"' said Janee, who teaches elementary school during the off season. "When people hear you say that they're doing something wrong, they tend to quit listening."



Instead, Janee helps customers use native plants in ways that suit their preference and circumstances. For Jan, that means a modicum of control over what goes where.

"As much as I want a natural shoreline, I still want order," said Jan. "I like to plant things in neat clumps; it's part of my German heritage! The hardest is part has been finding where things should go. The garden has varying levels of nutrients, so I move things around a lot. If they're not happy, I find a place where they are happy."

Can good ideas, like roots and seeds, spread from one lake property to the next? They've done so at the Prundeanu's. Their next-door neighbors now have their own native garden by the water, planted by Janee.

"That's why demonstration plantings like Jan's are so important," Janee said. "Keeping up with the Joneses is a good thing when it encourages people to protect the environment."

- There's no need to replace all non-native plants with natives.
   Jan has a mixture of both.
- Stepping stones can be easily moved as the garden grows – cement walkways cannot!
- It's OK to stake or prune native plants, should they become too tall and weedy.
- Study your plants often to find which ones attract the wild creatures you like best.

### For a Wild Life, Let Natives Bring Wildlife to You

### BY TOM SPRINGER

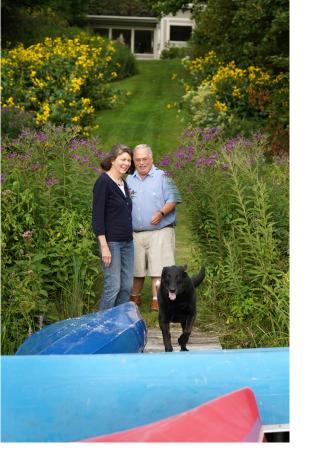
Landscaping a lawn with perennials bought from a chain store might look easier than using native plants. The familiar hostas and day lilies are in one aisle, the lawn fertilizer and dandelion killer in another. Take it all home, dig some holes, plop it in, unroll some sod and voila – an American yard attained.

By contrast, native plants require a little outside-the-big-box thinking. With names like Joe Pye weed and big bluestem, they can sound like something out of Little House on the Prairie. And given their wild origins, there's a (false) perception that runaway natives will turn a neat yard into a Jumanji-like nightmare.

Yet Susan Houseman, a convert from common perennials to natives, has learned otherwise.

For one thing, nurseries that specialize in natives are staffed by helpful experts who sell *only* natives – not stoves, sinks or 2x4s. And while natives may require more







research upfront, they're a better bargain in the long run. They offer more changing beauty across the seasons. They attract more bees, birds, butterflies and other wildlife than non-native plants. They need no fertilizer and little watering, which means far less upkeep than store-bought perennials – a key selling point for Susan.

"I have a busy personal and professional life, and spend less time on my yard than most people do," said Susan, a labor economist. "But I can do all the maintenance on our native gardens over two or three weekend days in the spring."

Susan and her husband bought their house on Little Long Lake in 2000. It sits atop a ridge, with a horizontal layout that provides commanding views of the lake below. "My four kids

### "Perhaps the truth depends on a walk around the lake." - WALLAGE STEVENS

loved to sled here, it's a 40-foot drop to the water," said Susan. "When the snow was fast, they'd shoot right out onto the ice."

Despite its exalted location, the yard was Midwest-ordinary when they moved in. A non-descript lawn rolled to the lake, and at the waterfront, a thicket of multiflora rose and other invasive species blocked their view of the water. Susan, who had lived in town "but always been a gardener attuned to environmental issues," decided to give nature the upper hand.

"We got rid of maybe half our lawn and turned the rest into native garden," she said. They hired a native plant consultant to plan and prepare the landscaping. Susan doesn't believe it's essential to hire a landscaper for all the work – she and her son planted much of their gardens. But she says landscapers can offer great advice about which plants are best suited for which locations.

Nonetheless, going native did require that Susan shed some of her neatnik-gardener ways.

"At first, my image of native gardens was that they'd be like perennial gardens, very well-organized" she said. "I'd get upset if something shifted around and crowded out another plant."

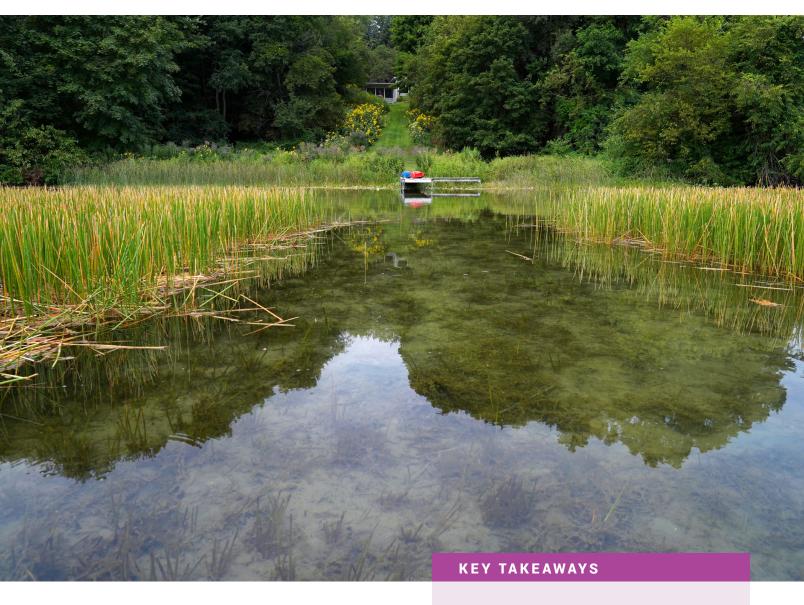




Then she talked to Steve Keto, a native plant guru. In guru fashion, Susan found his advice both wise and simple: "He told me that, 'No, nature will do what it wants. You put in the plants, and they'll sort themselves out and grow where they grow best.'"

The plants on the high ground include coneflowers and lead plant, browneyed susans and pale Indian plantain. And most striking, cup plants that reach a Jumanji-like height of eight feet. By the shore, there are moisturelovers such as blue lobelia, Monkey flower, cardinal flower and blue flag iris. All told, natives cover all 300 feet of the shoreline. They've turned a once sterile yard into a haven for green herons, great blue herons and belted kingfishers – along with wild turkeys and a resident deer herd. In spring, a spiny softshell turtle scales the hill to lay her eggs in the flower beds. Baltimore orioles and indigo buntings add bright darts of orange and cobalt blue.

But for all they've done on their 3.5 acres, such restoration begs a question about the rest of the 186-acre lake:
How do you convince a critical mass of lakefront owners to use native landscaping – instead of a select few? On Little Long Lake, the key has been education and positive peer pressure. A local water quality group has spread the word about natives, and how they help prevent the runoff and algae blooms that plague nearby lakes. And when neighbors see the beauty and utility of native plants in that light, it makes them eager to plant their own.



"When you see a new house put in a native buffer strip, it sets the tone for others to follow."

"Our lake is under pressure now for development," Susan said. "But when you see a new house put in a native buffer strip, it sets the tone for others to follow. Increasingly, we see that people want to keep their shorelines natural."

- Use native plants in your landscaping to save time and effort.
- Nature will do what it wants plants will sort themselves out and grow where they're best suited.
- Be the change you want to see and set an example for your neighbors with your landscaping.
- Find a good native plant nursery (near you or online) and ask plenty of questions.
- Share plants with curious neighbors so they can start a native garden on a small scale.



## On Blue Lake, a Light Touch Keeps the **Landscape Wild**

### BY TOM SPRINGER

Very few people in Michigan (pop. 9.8 million) have visited as many inland lakes as Howard Wandell. For a limnologist, that comes with the territory. Howard spent a long career with the Michigan Department of Natural Resources (DNR), crisscrossing the state to help landowners improve their lakes' environmental health.

So, given his vast experience, what does Howard do to manage his own waterfront property? Well ... nothing. Or at least, as little as humanly necessary.

"If you put away the lawnmower, and let nature do its thing, it can be easy. You really don't need to work that hard," he says. "I do very little maintenance, except rake plants out of our little beach, so the kids can swim and we can get our rowboat in and out."

Of course, Howard can get away with no lawn mower because he has no lawn. He and his wife, Kyoko, live in a home on Blue Lake, in the Manistee National Forest. In backwoods fashion, it was a "basement house" when the Wandells bought it 35 years ago. The first owner planned to live in the basement until she built the upper level, but it was the Wandells who finished the construction.

## "If you put away the lawnmower, and let nature do its thing, it can be easy."

The first owner also left most of the lot's native vegetation intact – which was fine with the Wandells. Other than pruning limbs, or cutting a tree that might fall on the house, they've taken a hands-off approach to the landscape. And it shows. On a summer afternoon their grey-sided home glows hazy green in the diffused light that filters through the big pines and hardwoods overhead. There's an almost monastic serenity to the place, its human impact reduced to a few essentials: a demure dwelling in the woods; a modest footpath to a small beach; a no-frills rowboat, powered by oars, that's tethered to a wooden dock.

Given what was already there, the Wandell's woodsy cottage may not seem like a noteworthy example of native lakescaping. They didn't need to rebuild an eroded shoreline, tear out a seawall, or scrape off turf and bring in a truck load of native plants.

Yet it's precisely what the Wandells haven't done that's worthy of attention. Across the Upper Midwest, there are still hundreds of semi-wild places like Blue Lake that face more development pressure each year. How and what homeowners build there will affect their ecology for generations to come. And even on developed lakes there are often a few wild parcels – little arks of habitat, with woody debris along the shore where turtles and dragonflies doze in the sun – that deserve protection.











"So lovely was the loneliness of a wild lake." - EDGAR ALLAN POE

To that point, Howard tells a story from his DNR days about a lake he visited in southeast Michigan.

"It was almost completely developed. From the shore, I saw only one small, natural lot still standing," he recalled. "Then a guy from the lake association says, 'Boy, I wish we could get that owner to sell. We'd really like to 'clean' that lot up!' Here it was, the last natural remnant, and all they could think to do was get rid of it!"

Yet across the Midwest, lake associations do function as a positive force for conservation. At Blue Lake, the association oversees the control of aquatic invasive plants. They use a selective herbicide that kills only invasives such as Eurasian milfoil and curly-leaf pondweed. They also enforce a quiet lake designation, which limits boat motors to 10 horsepower.

Ever the limnologist, Howard still uses his knowledge for the public good. He'll lower his black and white Secchi disk into the depths to monitor Blue Lake's water clarity. He can still see the disk at 30 feet – a high score for an inland lake.

"As I've told the Blue Lake Association, 'ladies and gentlemen, you've got a gold mine here, don't lose it!" Howard says. For the most part, his neighbors have agreed. As a classic "Up North" lake, steeped in generations of outdoor family memories, the residents seem unwilling to turn their loon and lily-pad paradise into a clone of the 'cleaned up' suburban lakes they see down state.

And, much as he'll use a Secchi disk to gauge water quality, Howard also has a rule of thumb to measure how residents treat their lakefront.

"There are three kinds of views for a lake house," he says. "The first is Wide Open – cut down all the trees for a clear view of the lake." This suburban approach often features a full lawn that runs down to a seawall.

"The second kind," Howard says, "is the Tunnel View, where you leave most trees, but remove and trim some for a narrow view of the lake." About 75 percent of Blue Lake properties look like this.









Then, there's the Wandell way: The Filtered View. They've left nearly every tree standing, and trimmed just enough limbs for the canopy to cast a dappled shade on the ground below. From their house, the lake shimmers away in the distance as it might from a canoe portage trail in Canada. "It gives you a feeling of solitude, even though you're on a lake with lots of people on it," Howard says.

At a place so endowed with natural beauty, the Wandells need little in the way of human diversions. They'll stand motionless on the dock for 10 minutes rather than startle a hummingbird as it sips nectar from a purple pickerel weed flower. They'll watch loons dive and study bullfrogs. For exercise, Kyoko rows the boat while Howard swims the six-tenths of a mile across the lake and back.

"The Norwegians have two sayings," Howard says, "'There is no such thing as bad weather, just bad clothes,' and more importantly, 'To live is to be outside.'"

- On undeveloped waterfront, 'First, do no harm.' Before you cut or remove anything, take inventory of the native plants and trees that are already there.
- Look for any terrain between the house and lake that will be prone to erosion.
   Design your walkways to protect such places.
- Serve on your lake association as a friendly advocate for native shoreline habitat.
- Shrubs growing along your property boundaries and shoreline create privacy and serenity.
- Don't forget the value of near-shore woody debris, such as down logs or aquatic shrubs, which are havens for fish and wildlife.







### Learn More

Want to learn more about how you can benefit your lake through a project on your property? Check out the resources below in your state.

### **ILLINOIS**

Program: Illinois Nonpoint Source Management
Website: www2.illinois.gov/epa/topics/waterquality/watershed-management/nonpoint-sources/
Pages/default.aspx

### **INDIANA**

Program: Lake and River Enhancement Program Website: <a href="https://www.in.gov/dnr/fishwild/2364.htm">www.in.gov/dnr/fishwild/2364.htm</a>

### **IOWA**

Contact the Iowa Department of Natural Resources
District Fisheries Biologist for your area:
Spirit Lake District - 712-336-1840
Clear Lake District 641-357-3517
Black Hawk Lake District 712-657-2638

### **MICHIGAN**

Program: Michigan Natural Shoreline Partnership Website: <a href="https://www.mishorelinepartnership.org">www.mishorelinepartnership.org</a>

### **MINNESOTA**

Program: Restore your Shore Website: www.dnr.state.mn.us/rys

### **NORTH DAKOTA**

Program: Save Our Lakes Program Website: gf.nd.gov/plots/landowner/sol

Program: Watershed Management Program Website: <a href="mailto:deq.nd.gov/WQ/3\_Watershed\_Mgmt/">deq.nd.gov/WQ/3\_Watershed\_Mgmt/</a>

1\_NPS\_Mgmt/NPS.aspx

### **SOUTH DAKOTA**

Contact: Jason Jungwirth, 605-223-7610

Jason.Jungwirth@state.sd.us

### **WISCONSIN**

Program: Wisconsin Healthy Lakes Program

Website: www.Healthylakeswi.com

