DESIGNING SUSTAINABLE SYSTEMS

Building a sustainable relationship with the living earth requires that our actions be grounded in environmental realities. In a culture-driven society, this requires an ethic. From the past 11,000 years to the present, an important component involved in the shaping of the landscape has been humankind. Human beings are not only governed by random interactions with the ecosystem, but also by choice. Fundamental interactions such as predation, competition and foraging, are further complicated by the fact that humans can decide how to act, with no ecological parameter coming to bear on this decision, other than a human ethic. According to Leopold, A Sand County Almanac with Essays on Conservation from Round River, "all ethics so far evolved rest upon a single premise: that the individual is a member of a community of individual parts. His instincts prompt him to compete for his place in the community, but his ethics prompt him also to cooperate. The land ethic simply enlarges the boundaries of the community to include soil, waters, plants and animals, or collectively: the land. We can be ethical only in relation to something we can see, feel, understand, love and otherwise have faith in. A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land."

Currently, we define progress, economic health and prosperity by per annum growth rates, the standard of living and other indices that do little to forecast or ensure the security of tomorrow.

What if we learned to define progress by the extent to which we (continued on next page)

By James M. Patchett and Gerould S. Wilhelm
reinvested in the natural resources of the earth, and stewarded the land, that it might work with us in that pursuit? Imagine the jobs, prosperity and capital formed, as we redesigned and rebuilt agricultural, corporate, residential and industrial North America intelligently, attentive to sustainable realities and keeping an eye toward tomorrow. Humans would again become connected to the land, connected to something solid, something incorrupt, where memories of yesterday foreshadow the glories of tomorrow.

Too often, the response of people who are acquainted with a new idea or an unlikely vision is to dismiss it. "That will never work", or "Nobody would ever do that", or "Current ordinances won't allow that." Think back to 1830. In Chicago, prior to the steel plow, the prairies around Chicago and west into Iowa were too tough to till, and in many instances, too wet anyway. A young farmer, standing at Fort Dearborn and looking west across the vast land, could not have imagined, in his wildest fantasies, that it would be farmed from there to the Rocky Mountains in his lifetime. There was no market for it, no government to administer it, and no community base to support it. Yet it occurred, and it was achieved by one farmer, one at a time and in the aggregate, seeking to accommodate the economic imperatives of their day.

Currently, we have only a glimpse of such a tomorrow. If we are to create lands and ultimately regions, woven together by interconnected, sustainable systems, it cannot be done all at once. Rather, it will be implemented in increments, by a diversity of people, in a diversity of places, learning from small mistakes, and making small progresses.

Given acclamation to a sustainable ethic, the only Achilles heel, with respect to our tomorrow, is the continued loss of our natural areas. These areas contain the capital, principal, the endowment upon which tomorrow's sustained economy depends, the living fabric of the earth that we must graft back into our land. There is wisdom for those that believe in an ancient metaphor: the creator, in defining the human being, established a covenant between the human and the very earth itself. The creator mandated that the human being has dominion over the birds of the air, the fishes of the sea and the beasts of the land. It is an awesome responsibility, subject to the casual, sometimes self-destructive tendencies of humans, because if that covenant is real, then the corollary is true: The extent to which we impoverish the air of birds, the sea of fishes and the land of the beasts, is the extent to which we forsake our humanity.

The world has its realities, yet its possibilities are infinite if we stay within the rules. Let us learn and flourish in them. If we apply ourselves to those realities, set out the specifications to accommodate them, only few of which we know how to achieve at the moment, whole new technologies, industries, agricultural societies will develop, each needing its practitioners.

Let us set the specifications for tomorrow, driven by an underlying ethic of sustainability. This ethic makes the idea of waste obsolete, replacing it with a view that all things are a resource. This ethic dispels the conundrum of growth, the division of "human" and "natural". Sustainable growth renews this important but imperiled symbiosis, opening the avenue to an infinite tomorrow.

Pilots must know the limits of their aircraft. They are immediately accountable for understanding the laws of flight, having an intuitive but thorough knowledge of aerodynamics, weather and the controls of an airplane. If they are inattentive, or simply unaware of these laws, they may die. If they fail to observe the limits of their aircraft, it does not matter if they are a caring, well-meaning person. On the other hand, if the pilot is attentive to the limits of the vessel in which they fly, infinite freedoms are available. As the nucleus of a movement to create a sustainable planet, let us strive to understand this vessel and guide it to a place where our culture will weave itself into a wellspring of life.

Mr. Patchett is the president of Conservation Design Forum, Inc., in Naperville, Illinois. Mr. Wilhelm is a noted field taxonomist and co-author of the definitive treatise on native plants of the Chicago region. Mr. Wilhelm will be the Julie Marks Memorial Speaker at the 17th Annual Milwaukee Natural Landscaping Seminar on March 8, 1997. This article is the summary of a paper presented at the Second International Green Building Conference and Exposition - 1995, NIST Special Publication 888.

VOLUNTEERS NEEDED

Park People, Friends of Milwaukee County Parks, are organizing to remove Garlic Mustard from Grant, Jacobus, Lake and Whitnall Parks on Sunday, May 18, 14-4 p.m., Saturday, May 24, 9-12 Noon, Saturday, May 31, 9-12 Noon, Saturday, June 7, 9-12 Noon. Training sessions to educate participants about invasive plants will be held at Lincoln Park Pavilion on Saturday, April 12, from 9-10:30 a.m. Sunday, May 4, 2:00-3:30 p.m.; and at Boerner Botanical Gardens on Sunday, April 13, 2-3:30 p.m. and Saturday May 3, 9-10:30 a.m.

For more information contact Park People, 1301 W. Hampton Avenue, Milwaukee, WI 53209 or call Vell or Liz at (414) 332-7275.

Lucy Schumann's page number art is of the Mayapple (Podophyllum peltatum).
NATURAL LANDSCAPING WINS ONE

Sandra Bell beat City Hall, Toronto, Canada, to be specific. The subject of her battle was the right to grow her native plants. The Toronto ordinance, under which she was prosecuted, prohibited "excessive weeds." Ms. Bell testified that when she moved to her home in 1990, the front lawn contained only three species: Virginia Creeper Vine, sedum and Kentucky Bluegrass. It was her aim to create an "environmentally sound wild garden." She cited numerous benefits of such a landscape, and testified that her wild garden "creates a natural setting for children and it exemplifies peaceful, nurturing coexistence with nature for them." "I have a child," she told the court, "and I feel it is important to him that I show him that we can exist within nature's way, not just our way."

At the trial, York University Geography Professor Harry Merren testified that traditional landscape practices reflected a value system which carries "a commitment to the achievement of certain static effects that are considered attractive by manipulating, dominating or manicuring the environment and which express an urge to dominate or control nature to achieve particular pictorial effects."

He testified that "In contrast to the prevailing practices... during the last 20 to 25 years in North America, an increasing number of people have adopted a different model with a more restrained approach to controlling nature. While the movement has produced a variety of forms, they are usually lumped together and described simply as "naturalistic gardens." These gardens reflect different ecological or environmental goals. They involve a commitment to living in greater harmony with nature, not stunting or altering nature, but allowing it to express itself in a more spontaneous way.

Such gardens still involve some degree of control, with many emphasizing native, rather than non-native plant species, but they eliminate the need for chemical herbicides, pesticides and power tools to control shrubbery or grass, and they reduce the use of water. People who are part of the naturalistic gardening movement are generally motivated by a philosophy with ecological, economic and spiritual goals that seek a more harmonious and restorative relationship with nature."

The Canadian appeals court found the practice of natural landscaping to be a matter of conscience that could not be prohibited without a compelling reason. The only reason for the weed law, as applied to natural landscapes, was to further an aesthetic preference and, as such, it violated that homeowner's right to free expression. Justice Fairgrieve spoke to the claim of those who just don't like the "look" of natural yards: "The objective of creating neat, conventionally pleasant residential yards does not warrant a compete denial of the right to express a differing view of man's relationship with nature. As between a total restriction of naturalistic gardens and causing some offence to those people who consider them ugly or incon siderate of other's sensibilities, some offence must be tolerated."

Amen! ~

As of this issue, I will be the new editor of Wild Ones Journal. Layout of the Journal will be continued through the capable hands of Graphic Designer Kerry Thomas. In my paying job, I'm an architect. I've previously worked as a landscape architect, owned a wildflower nursery and landscape consulting business, and have taught elementary school science. In my free time, after taking care of my children, I'm a naturalist, educator and writer. I'm looking forward to a new, exciting year, growing with the Wild Ones Journal.

—Babette Kis
In the 1950's and 1960's, rural Mount Pleasant was dotted with numerous ponds, marshes and swamps. In spring, on my way home from school or after chores, I often headed out to explore these wetlands.

During mid-April, a chorus of thin, peeping sounds beckoned from a clear, Swamp White Oak-bordered farm pond that I passed on my way to and from elementary school. Despite dire warnings from my mother not to get my clothes muddy, I searched this pond, hoping to see or, better yet, catch, a tiny, tan Spring Peeper.

After I had caught my fill of Spring Peepers, I followed the sedge and Bluejoint Grass-bordered creek that fed the farm pond back to a fifty-acre cattail marsh. There, I searched among the previous years cattails for Sora Rails and their fuzzy black chicks. Teal ducks, nesting among cattails near open water, protested my passing with splashes and quacks. Frogs were here, too, but these were sleek, easily seen Leopard frogs, which bounded into the marsh waters at the sound of my squishy boots. In deeper waters, industrious muskrats swam and built cattail houses.

At the end of May, after chores and when the sun was still up, I walked to the thirty-acre swamp some three quarters of a mile behind my parents' house. Like the farm pond it, too, had a creek that fed it; a creek that ran brown with spring plowing and dried into great, cracked slabs of mud in the summer. The swamp was filled with Silver Maple, Box Elder and scattered Red Elm trees, many of which were dead. The Prothonotary Warbler made his home in one of these dead, gray trees which leaned over the murky water. When he flew, his feathers flashed blue and gold, lighting both the dank swamp and my spirits.

These wetlands—the farm pond, cattail marsh and swamp—were my neighbors' lands: "unused" lands surrounded by grassy pastures, haymeadows and fields.

Compared to these wetlands, my parents' one-acre prairie pothole, which dried up during the middle of most summers, appeared insignificant. But it was at this little pothole that I spent most of my time, partly, because it was in my back yard, partly because it was mine. "My" pothole was one of half a dozen that I passed on my way to school. It was distinguished from the others by the double trunk Cottonwood tree which grew in its middle.

When my family moved here this Cottonwood boasted a foot diameter trunk. That first summer, clouds of cotton wafted from the pond to the house and collected on the window screens. I thought they were pretty, like great clumps of summer snow. My mother didn't. There was enough work to do, she told my father, without having to clean off the screens. My father cut the tree down. However, the Cottonwood stump promptly resprouted, and within a few years' time, two of the sprouts reached a height of about thirty feet.

In addition to the Cottonwood, "my" prairie pothole boasted a cattail marsh to the north, in which Red Winged Blackbirds squawked and nested. Bracken Fern, Winged Loosestrife, Blue Flag Iris and Boneset grew at the south side. In the shallow water, Ladyfingers, sedges, and seedling Cottonwoods prospered.

After spring thaw, American Toads came out of hibernation and found their way to this, their ancestral breeding ground. Through most of the day and much of the night, male toads trilled prodigiously for mates. By early May, strings of toad eggs surrounded many of the greening cattails and sedges.

It was a favorite pastime of some neighborhood boys to collect these eggs and threaten to throw them onto neighborhood girls. A twelve-year-old neighborhood boy once approached me with a handful of gooey toad eggs. He had previously gotten several neighborhood girls to scream and cry by tossing eggs on them, and he was determined to get the same reaction from me. However, I was
not intimidated by toad eggs. I wrestled him to the ground, took the eggs, and told him to grow up. I then returned the blob of jelly-covered eggs to the water where they belonged.

As the days stretched to summer, I watched tadpoles transform into toads and frogs. I admired blooming clumps of Blue Flag Iris, Winged Loosestrife and Swamp Milkweed. I followed amber-winged dragonflies from the marsh, to the fields, and back to the marsh again, where I sometimes saw them lay their eggs. I watched teal ducklings perfect their diving skills. In the shadows of the swamp, I witnessed the first awkward flights of the young Prothonotary Warblers. In fall, I said goodbye to the warblers, rails and Red Winged Blackbirds, and tried not to think of how much I would miss them. In winter, after cold rains had turned the surface to gleaming ice, my brothers, sister and I would lace up our skates, clump to the center of “my” pond, and play crack the whip.

These wetland places, except for my parents’ seasonal pond, are gone now, filled with subdivisions. One of the subdivisions boasts new, man-made ponds surrounded by mowed grass. Canada Geese and Mallard Ducks swim in these ponds and eat the surrounding lawn and potted plants that have been placed out on the patios.

At my house, I have lawn, too—a stretch of green, where my children practice and play soccer. Between this lawn and the vegetable garden is a 500-gallon, rubber-lined pond. Pondweed, sedges and bulrush live here in the muddy bottom, or in sunken pots. In spring, several American Toads, brought here as tadpoles, return to lay their strings of eggs. During hot summers, the pond provides a ready supply of water for neighboring birds.

**Low areas at two downspouts at the south side of the garage provide homes for Wild Leek, Jack-in-the-Pulpit, Skunk Cabbage, Shooting Star, Virginia Waterleaf, Cardinal Flower and Wild Ginger. In my front yard, a small depression in my prairie planting bed sustains Bottle Gentians, Prairie Hyssop, Culver’s Root, Nodding Wild Onion, Blue Monkey Flower, and a variety of short sedges.**

The wetland planting areas at my house are miniatures of the natural wetlands I grew up with. Walking by them, I recall my childhood wetlands, filled with so many more plants and animals than could live here. My children often accompany me on walks through “our” wetlands. They delight in watching toad eggs turn into squirming tadpoles in the plastic pond. They watch Cardinals sip water from the shallow end of the pond. On weekends we drive to private and state-owned native Wisconsin ponds, swamps, marshes and bogs, where we look for and listen to wetland wildlife. From these experiences, my children form memories of Wisconsin wetlands. I hope that their memories will be as brilliant to them as mine are to me.

—Babette Kis
When Designing Your Woodland Planting...

Take tips from nature. Visit a native woodland with trees and shrubs that are the same species as the ones in your yard. Write down the names of the plants you see in the native woodland. If you are unfamiliar with the plants, take pictures. Natural history museums, state department of natural resources and local universities often have staff members who are able to identify plants from photographs. From your list of woodland plants, choose trees, shrubs, wild flowers and grasses for your natural landscape.

Are most of your trees Sugar Maple, American Basswood, or American Beech? Some naturally occurring shrubs and vines in a Maple-Beech-Basswood Woods include Climbing Bittersweet, Prickly Gooseberry, American Bladdernut and Bush Honeysuckle. Wildflowers and ground cover plants commonly found here are Spring Beauty, Wild Geranium, Sharp-lobed Hepatica, Virginia Waterleaf, Racemose False Solomon's Seal, Wild Leek, Blue Cohosh, Pennsylvania Sedge and Lady Fern.

Is your woodland dry, with Black Oak, White Oak and Bur Oak trees? In a naturally occurring Dry Oak Woodland, you might find such shrubs as Prickly Gooseberry, Prickly Ash, Gray Dogwood, American Hazelnut and Grape Honeysuckle. Wildflowers and grasses often found under these oaks include Sweet Cicely, Mayapple, Early Meadow Rue, Wild Geranium, Short's Aster and Bottlebrush Grass.

If your woodland is made up of mixed deciduous and evergreen trees, such as White Pine, Red Pine, Jack Pine, Paper Birch, and Quaking Aspen, you may want to plant shrubs such as Round-leaved Dogwood, Bush Honeysuckle, Fly Honeysuckle, Hairy honeysuckle and Beaked Hazelnut. Wildflowers to consider are Red Baneberry, Round-lobed Hepatica, TWINflower and American Dog Violet.

The communities described above are just a few of the many types of woodlands that are found in nature. Information on types of woodlands found in your area may be available from your county agricultural or horticultural extension office, local university, state department of natural resources, native plant nurseries, The Nature Conservancy, other conservation groups and at your Wild Ones chapter meetings.

—Babette Kis

Editor's note: The Honeysuckles cited above are native plants. Morrow's Honeysuckle, Tatarian Honeysuckle, Amur Honeysuckle, and Japanese Honeysuckle are weedy alien shrubs and vines invasive to woodlands.
Solarizing - An Easy way to Prepare Soil for Planting

Why use a shovel to turn over eight to ten inches of soil, then rake weeds out? Solarizing is much easier to do, and often gives better results.

Solarizing is the use of materials to cover the soil to kill weed seeds and plants. Clear or black plastic or rubber roofing material are commonly used solarizing materials. The soil and plants under the material heat up during days of late spring and summer.

With solarizing, plant materials die and decay under the hot blanket that covers them. Because it is not dug or plowed, soil structure—the arrangement of soil particles into aggregate that hold air and water and ensure good plant growth—is not damaged. Many microorganisms which aid plant growth remain. Other harmful organisms are killed by the heat. The solarizing material protects top-soil from being eroded by gusty winds, snow melt, or heavy rain. No chemical residue is left on the soil.

I have used solarizing successfully for four years. A large piece of roofing rubber is placed on the area to be planted with wildflowers. In about four to six weeks, most of the vegetation and many weed seeds have been killed, and the area is ready to be planted.

When I remove the black rubber, I often notice worms and insects on the plant-free, undisturbed soil. Transplants are planted in holes just large enough to accommodate their roots. I start growing transplants from seed on April 15th of each year for use in my wildflower garden.

My first solarizing experiment, four years ago, was very successful. My plants flourished and hardly any weed seeds became established. Now, I move my large piece of roofing wherever I want to plant. By solarizing the soil, I can get native plants where I want them, with less work. This gives me more time to raise plants for my next project.

—Jan Koel

Solarizing - More Effective than Tilling or Herbiciding

In June 1976, clear plastic was placed over three weedy areas, each 12x12 feet. It was removed between six and eight weeks later. In the test plot where plastic had been removed at six weeks, a few scattered weeds, mainly Field Bindweed, Kentucky Bluegrass and Knotweed, were growing. In the test plots where the plastic was removed at seven and eight weeks, no weeds were found. Many of the weed seeds present on the surface did not germinate during a six week period following removal of the plastic. Also killed were several types of fungi that cause plant diseases, including Verticillium Wilt, Fusarium Wilt, and Dampoff Fungus (Pythium ultimum), which had been found on the plots earlier. Seeds germinated and grew faster in solarized areas when planted within a few weeks of the solarizing treatment, than they did in nearby areas, where the ground had been tilled and weeds mechanically removed or herbicides had been used.


Use of soil solarization has been recorded since the early 1970's.
ROUND-LOBED HEPATICA
(Hepatica americana)

Family: Ranunculaceae (Crowfoot or Buttercup)

Other Names: Mayflower, Blue Anemone, Round—Lobed Liverleaf, Heart-Liverwort, Three-Leaf Liverwort, Livermoss, Mouse Ears, Spring Beauty, Crystalwort, Golden Trefoil, Ivy-Flower, Herb Trinity, Squirrel-Cup, Noble Liverwort, and Kidney Liver-Leaf.

Habitat: Rich woods.

Description: A solitary pinkish, lavender-blue, or white flower arises from round-lobed basal leaves and several hairy stalks. The flowers are 1 to 1 in. wide. There are 5 to 9 petal-like sepals (petals are lacking); numerous stamens (male) and several pistils (female). Three green, sepal-like, broadly oval to elliptic bracts surround the flower. The leaves are 2 to 2 in. wide, with the basal leaves having 3 rounded lobes.

Height: 4 to 6 in. Flowering: March to June

Comments: The leaves of the Hepatica persist throughout the winter, with the new leaves appearing after the plant blooms. Hepatica is a symbol of confidence and a quick cure. When farmers saw the blossoms in spring, they knew it would soon be time to start planting. American naturalist and author, John Burroughs (1837-1921) wrote: “nothing fairer, if as fair, as the first flower, the Hepatica. I find I have never admired this little firstling half enough. When at maturity of its charms, it is certainly the gem of the woods.”

Medicinal Use: Early herbalists believed that the plant was an effective remedy for all sorts of liver ailments (the leaves are shaped like a human liver). According to the *Doctrine of Signatures, the plant was believed to cure problems of the liver. The Indians used the plant to cure vertigo, cross-eyes and coughs.

In 1883, a Canadian pharmaceutical bulletin stated, “Gehe’s Circular states that large quantities of Liverwort have been brought up at advanced prices for the U. S. market, but nothing definite could be learned as to its use. We believe the greatest part of it is used for the manufacture of patent medicines notably for making the so-called kidney cure.”

Name Origin: The Genus Name, Hepatica (he-PAT-ika), is feminine of the Latin word, hepaticus, pertaining to the liver, from the shape of the leaves. The Species Name, americana (a-me-ri-CAY-na), means “from North or South America.”

Author's Note: When I see the evergreen leaves of the Hepatica poking through the snow in winter, it encourages me to “hang on” just a bit longer with the assurance that spring is just around the corner. The plants are often found at the base of a tree, where the runoff of spring rains will give them an extra amount of moisture.

As I meander through our Wisconsin woodlands in search of wildflowers, my mind flashes back to what early explorers might have seen when they first laid eyes on the beautiful, flourishing understory of our forests. Now that 400 years have passed, what might they think if they were to return in 1997 to view what is left of the vast forests, the lush, green open meadows and the pristine, sparkling streams they discovered? Would they be appalled by what civilization has wrought with its lumber harvesting, farming, subdivisions, factories, air pollution, and predator destruction, allowing for over-population of surviving species?

Many of the plants early explorers identified (which were growing in abundance) have become extinct or endangered. Sadly, future generations will never know what was once here, except through the miracle of photography or the brushes and pens of artists who have tried to capture the essence of the gifts this land once held before they are lost forever.

* Doctrine of Signatures: a theory proposed by a Swiss physician in 1657, suggesting that some plants had “signatures” to help man know which herbs and wild plants were useful medicines. These “signatures” were parts of the plant that physically resembled parts of the human body whatever the plant looked like was what it would cure. Example: since the leaf of Hepatica resembles the human liver, it was thought that Hepatica had been put on the earth to cure problems with the liver.

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Plymouth, Wisconsin
Frogs and Toads are amphibians that often make their homes near and around wetlands. **You can tell frogs from toads by looking at their legs and skin. Frogs have long legs, and are good jumpers. Toads make short hops. Frogs almost always have smooth skin. Toads have warty or bumpy skin.**

In spring, American Toads and Leopard Frogs are found in Cattail and Sedge Marshes. They can be found sitting on or swimming near these plants, or floating just under Duckweed or other small plants that cover the pond. Wood Frogs and Chorus Frogs are found in and around swamps and vernal ponds. In spring, look and listen for them by the water near Swamp White Oaks, Red Oaks, Box Elder and Red Elm trees. They may also be found by shrubs or under pondweed.

Female frogs and toads lay jelly-covered eggs in water. After a week or more, the eggs hatch into tadpoles. Tadpoles have gills, which they use to breathe under water, and tails, which help them swim. When tadpoles are very young, they eat tiny plants, like algae. As they get older, they eat tiny insects, like mosquito larvae. Frogs and toad tadpoles grow hind legs, then front legs. Their tails get smaller. It takes about six to eight weeks for American Toad tadpoles to change into small toads. It takes about two to three months for Leopard Frog tadpoles to change into small frogs.

Most tadpoles never grow up. They are eaten by dragonfly nymphs, ducks, and other animals. Frogs and toads are often eaten by birds, snakes and foxes. Frogs and toads eat insects, worms, spiders, millipedes and other tiny animals. In an afternoon, a toad may eat over a hundred mosquitoes. If an American Toad or Leopard Frog is very fortunate, it may live to be ten years old.

**DO YOU KNOW THAT...**
- Frogs and Toads lay often their eggs in the same pond or other water they grew up in.
- Toads can see only movement.
- The white liquid on a toad’s skin can be used to make an antibiotic, which people might use to cure diseases.
- Toads can’t give you warts.

**THINGS TO DO**

1. Visit a pond in spring and listen for frog or toad calls.
- Spring Peepers sound like baby birds cheeping.
- Bullfrogs make a “jug-o-rum” sound.
- American Toads make a single or repeated long trill.
See if you can make sounds just like theirs.

2. In early summer, take a trip to a prairie or near a marsh. Look for toadlets hopping from the water to dry land. Or see if you can find adult frogs or toads. Do not pick up frogs or toads.

3. If you find a toad in your garden, you can make it a toad house. Use a curved piece of wood with bark on it, or a six or eight inch diameter clay flower pot with part of the top broken out. Place the pot top down in the shade. Don’t move the pot or wood. The toad won’t move in if it’s new house is moved around.
By this time of year, most folks have had enough winter abuse and welcome opportunities to be thinking spring. Wisconsin’s state tree is more than happy to help us begin at least our mental journey into warmer temperatures, sunny skies, and more abundant and obvious plant and wildlife. Sugar Maples are to us synonymous with maple syrup and maple sugar, while birds are just as excited about these fast growing, colorful trees. Thousands of people pay annual homage to these spectacular trees in fall as their colors light up the skies. In spring, the colors of birds light up these trees, to the delight of many.

characteristics: Sugar Maples can grow to be the centerpiece of any small yard and complement larger yards as well. These trees can grow to be 60 feet tall and between 60 and 80 feet in width. One Sugar Maple in Connecticut has grown to be over 93 feet tall, and is supported by a trunk exceeding seven feet in diameter. Sugar Maples have well-textured, dark bark and bright green leaves through the summer. As fall approaches, these trees develop spectacular colors ranging from clear yellow to golden orange to scarlet.

This Plant Needs: Full sun to shade. In full sun Sugar Maple trees tend to develop a wider crown and more substantial trunk. Planted in more shady spots, these maples grow taller, with a narrower crown and trunk. Many moisture conditions can be tolerated by these impressive woodland trees. They are often seen growing particularly well where the soil is moist in spring.

Plant caretakers need to give some thought to where these trees are placed, as they do become quite substantial. I highly recommend planting these trees on the south side of your residence, as they offer natural air conditioning (with their shade) in summer, and let the sun shine in during winter. Sugar Maples are hardy in planting zones 3-7.

Who Benefits: I have seen countless birds enjoy Sugar Maples, particularly during spring and fall migration. But these fashionable trees are also appreciated by birds (and other wildlife) year round. In spring, kinglets are the first to dance across their branches in search of small insects before the “spring insect population explosion.” Sapsuckers and woodpeckers leave their mark in the maple bark, returning later to enjoy the insects trapped in the sweet smelling sap. Many birds choose maple branches in which to make their nests and raise their young, including Cardinals, Blue Jays, Mourning Doves and even Northern Orioles. I have also witnessed Cedar Waxwings and Grosbeaks gorging themselves on emerging maple buds. During fall, squirrels often make maple-leaf nests, which keep them warm through winter’s chill. Finally, even when the life is gone from the Sugar Maple, the somewhat penetrable wood becomes a welcome wagon for cavity-nesting birds, hibernating butterflies, roosting bats, and ever-important bees.

—Steve Mahler
THE MOSS THAT SAVED A LIFE

The lush, green mosses that inhabit our woodlands have always been a fascination to me. If you look very carefully, you will notice that there are many different kinds—some are bluish green, others are deep forest green and several are light “moss green.” There is one particular moss that thrives in our woodland along the Mullet River, called Plume Moss or Split-Leaf Moss (Fissidens spp.). Most books say that this moss likes the nooks and crannies of seepy limestone bluffs. We don’t have limestone bluffs, but we to have lots of “nooks and crannies.” Plume Moss is identified by two-ranked, well-defined, leaves attached to the stem at 70 degree angles and lying in a single plane. These leaves are light green and quite large, in comparison to the low-growing nature of the moss. It does not form mats, each individual appears separately. The sketch I have included here shows the sporophyte (fruiting body) arising from the base of the plant. It can also arise from the center of the plant.

Many of the mosses found in our area are also flourishing in other parts of the world as well. This particular moss has a very interesting story, dating back 200 years to a remote site in Africa. Mungo Park was an Englishman—exploring in Africa—who was captured by Arabs but managed to escape after four months. Clothed in rags, ill, and penniless, he faced a journey of 2,000 miles through unfamiliar country alone. In addition to other obstacles, such as starvation, he was robbed of his priceless, cherished compass. In fact, all he had were the clothes on his back (shirt, trousers and hat). In his Travels in the Interior of Africa, he wrote, “I considered my fate as certain, and that I had no alternative but to lie down and perish.” At that moment, as he was sprawled on the ground in total exhaustion, he observed the extraordinary beauty of a small moss in fructification (Fissidens spp.). As he admired its sporophyte and unusual green leaves, he thought, “Can that being, who planted, watered and brought to perfection in this obscure part of the world a thing which appears of so small importance, look with unconcern upon the situation and sufferings of creatures formed after his own image? Surely not!” Reflections like these would not allow him to surrender his hope. He arose from the ground, disregarding both hunger and exhaustion, and traveled onward, assured that relief was at hand. He made his way back to England, arriving there in 1797 after 19 months of hardship.

Mungo Park’s luck ran out, however. When he returned to Africa in 1805, he perished in rapids on the Niger River during an attack by natives.

—Janice Steifel

For Further Reading on Wetlands Topics...

General information about Wetlands found throughout the United States.

Common Dragonflies of Wisconsin Karl and Dorothy Legler, Illustrated by Dave Westover. 1996.
Bob Ahrenhoerster recommended this book during his December presentation at Milwaukee-North Wild Ones. A must-have if you want to identify these aerodynamic wetland insects. Loaded with color photographs and paintings.

Pond and Brook Michael J. Caduto 1985.
Top-notch pictures and supplemental text about pond and brook habitats.

Books on Wetlands for Children...

Good color pictures help beginners identify these cold-blooded creatures.

A good reference if you and your child are planning to visit a pond, take a look at pond water, or maybe raise toad tadpoles in your aquarium.

Tapes...

By listening to this tape, you will be able to identify frogs and toads by their calls. Very handy for drives by woodland ponds, spring hikes, and for teachers who want to introduce nature sounds into their wetland presentations.

All books and tapes available from Schlitz Audubon Center Bookstore, Milwaukee, WI
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Each sign costs $18 (plus $3 shipping and handling). Checks for $21 should be made payable to Wild Ones. Mark the envelope “Sign” and mail to Wild Ones, PO Box 23576, Milwaukee, WI 53223-0576. Signs will be sent by first-class mail. Signs will be sent promptly if in stock. You will be notified only if there will be a significant delay.

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NOTE: The January-February issue of this newsletter was replaced with the Wild Ones Handbook. Additional copies are available for $7 each. Send check payable to Wild Ones mail to our P.O. Box; marked Handbook on envelope.

ILLINOIS

LAKE TO PRAIRIE CHAPTER
April 8—7:15 p.m. Prairie Crossing’s Byron Colby Community Barn, Grayslake, Ill. Annette Alexander will discuss the five-year conversion of her suburban yard from plain lawn to community a of native plants.

GREATER DuPAGE CHAPTER
Chapter meets the third Thursday of the month at the College of DuPage, unless otherwise noted. Call Pat Armstrong for info, (708) 993-8404.


April 18—7 p.m., Christ Lutheran Church, Clarendon Hills. Floyd Swink: “Native Flora with Emphasis on the Wild Ones”. First Annual Potluck Dinner—RSVP Jan Smith (630)653-3958. Call Jean Lyall at (630)887-0541 to help with planning, set-up or clean-up.

ROCK RIVER VALLEY CHAPTER
Meet at various locations. Call Jarrett Prairie Center, Byron Forest Preserve at (815) 234-8535 for information.

March 20—7 p.m., Jarrett Nature Center, Byron, Ill. Prairie Habitats—a talk and slide presentation on the prairie of Illinois by Kenneth Robertson.

April 17—7-9 p.m., Jarrett Nature Center, Byron, Ill. “Going Wild! Why and how we use native plants in the landscape”. Speakers: Sally Baumgarten, Anne Meyer, Lisa Johnson, Fran Loman.

KANSAS


OHIO

COLUMBUS CHAPTER
Meetings held in Rm. 116, Howlett Hall on Agriculture Campus/Ohio State University, unless otherwise noted. Call Joyce Stephens (614) 771-9273 for information.

OKLAHOMA

Meetings are held on the last Saturday of the month at 10:00 a.m., Oklahoma State University, Colvin Center, Room 118, unless otherwise noted.

March 29—Jackie Savage will discuss “Creative Ways to Use What is in Your Backyard.”

April 26—Michelle Ragge will present “Our Step-by-Step Proposal for an Oklahoma Native Butterfly Garden.”

MICHIGAN

Call Dave Borneman for more information (313)994-4834.

March 27—Designing landscapes with native plants.

April 9—Landscaping with native wetland plants.

WISCONSIN

FOX VALLEY AREA CHAPTER
Meetings are held at the Fox Valley Technical College Regional Fire Training Center, 1470 Tallar Road, Neenah at 7 p.m., unless otherwise noted.

March 27—“Echo Artscapes & Beyond Surface Design” by Rochelle Whiteman.

April 8—Board Meeting
April 27—Fox Valley Area Chapter Regular Meeting.

GREEN BAY CHAPTER
Meetings held at Green Bay Botanical Garden, 7 p.m., unless otherwise noted.

March 12—See local newsletter for program. Call Marylou Kramer for information (414)375-1565.

April 9—Denis Prusik, Editor and artist for Wisconsin Phenology Calendar published by N.E. Wisconsin Audubon Society.

MADISON CHAPTER
Meetings held at McKay Center in UW Arboretum, 6:30 p.m., unless otherwise noted.

March 8—A Spring Kick-Off! Kathy Wildman presents “Take a Butterfly to Lunch” and discusses butterfly sanctuaries.


MILWAUKEE—NORTH CHAPTER
Meetings held at Schiltz Audubon Center, second Saturday of the month, 9:30 a.m., unless otherwise noted.

March 8—17th Annual Natural Landscaping Conference. University of Wisconsin Milwaukee Union, 7:45 AM-4:15 PM

April 12—Wild Ones President, Atty Brett Rappaport discusses natural landscaping, lawns and the law.

MILWAUKEE—WEHR CHAPTER
Meetings held at Wehr Nature Center, second Saturday of the month, 1:30 p.m., unless otherwise noted.

March 8—17th Annual Natural Landscaping Conference. See above for details.

April 12—Wild Ones President, Atty Brett Rappaport discusses natural landscaping, lawns and the law.
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**Attention Wild Ones**

Have you discovered something interesting about your natural landscape? Do you have a time-saving tip for growing or planting? Do you know of an interesting seasonal event that takes place in May and June? If you do, please write.

**Deadlines for sending typed articles or illustrations are as follows:**

- Jan./Feb. Nov. 7
- Mar./April Jan. 7
- May/June March 7
- July/Aug. May 7
- Sept./Oct. July 7
- Nov./Dec. Sept. 7

All articles should be sent to: **Babette Kis, 6048 N. 114th Street, Milwaukee, WI 53225.**

If material is to be returned, please include a stamped, self-addressed envelope.

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**NATURE CALENDAR**

**March through April**

**When and Where**

In fields, gardens and prairies after snow melt.

March, before dawn

On a warm day or night.

First warm spring rain, evening.

Open woods, oak openings, residential areas, farmlands.

Dusk and dawn, when Pasque Flowers bloom.

Bur Oak trees flower and Shooting Stars begin to grow on prairies.

**Event**

- Meadow Voles look for seeds or run in grasses.
- Jupiter shines above the southeast horizon.
- Sugar Maple trees flower; Hepatica, Bloodroot bloom.
- Ladybugs come out from under leaves or brush.
- Spring Peepers chorus in woodland ponds and swamps; Salamanders scurry to ponds to mate and lay eggs.
- Red Fox pups are born
- Woodcocks court and flutter.
- Marsh Marigolds and Swamp Saxifrage bloom; American Toads trill at ponds and marshes
Wild Ones—Natural Landscapers, Ltd. is a non-profit organization with a mission to educate and share information with members and community at the ‘plants-root’ level and to promote biodiversity and environmentally sound practices. We are a diverse membership interested in natural landscaping using native species in developing plant communities.

Wild Ones—Natural Landscapers, Ltd. was incorporated in 1990 in the State of Wisconsin, under the Wisconsin Non-Stock Corporation Act for educational and scientific purposes. Wild Ones is a non-profit, tax-exempt corporation under Section 501(c) (3) of the Internal Revenue Code and is publicly supported as defined in Sections 170(b) (1)(iv) and 509(a). Donations are tax deductible as allowed by law.

**TIME TO RENEW?? ??**

Check your mailing label above for membership expiration date.

Send a $20 check (or a larger amount is much appreciated) to Wild Ones, P.O. Box 23576, Milwaukee, WI 53223-0576 (covers all in household). Notify us if you move, so we may update your address (bulk mail is not forwarded).

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