ILTIS ON NATURE

Dr. Hugh Iltis is professor emeritus at University of Wisconsin-Madison. For decades he has crusaded to protect our natural history. He discovered the wild ancestor of modern corn. In the 1960s, Dr. Iltis theorized that humans are genetically pre-disposed to need and enjoy Nature. That theory has been built upon by others and now goes by the moniker 'biophilia.' This text is a reprint of speech Dr. Iltis gave 30 years ago. His message rings as true today as it did then.

Technology has promised us a post-evolutionary heaven in which wild Nature has a very minor role. Molecular biology, too, has gleeful visions of genetic manipulations of DNA which would change the face of all creation and recast man into a 'perfect' image. Others dream about a cheerful, if dull, world with unlimited opportunity for 40 billion people.

But anyone of us, if not blind, who has hunted for prairie flowers in Illinois, or gone exploring in the Peruvian Andes or on the Mexican Plateau, or tried to find a tree growing in Brooklyn, knows that life's diversity is threatened with imminent destruction, that it will be all but over in a matter of decades for this exuberant biotic wealth. The crisis for all the living is here and now. The world of the future promises to be flowerless, animal-less, and lifeless, except for masses of people. In the next century, in nightmare worlds of steel and concrete, of algae steaks and yeast pies, the day may well come when our great-grandchildren will hold hands in a circle and sing: “Spring has sprung, The Grass has ris, I wonder where the flower is”—and wish they could see one.

Is there anyone among us who would like to live in such a world? Today I think that maintaining a lawn is one of the most evil practices of the upper and middle classes. It continues with government support in spite of being flagrantly wasteful of drinking water and non-renewable resources, irresponsibly destructive of our native plant and animal species, cognizant of the defiant and dishonest use of chemicals which are far more threatening to human health than any weed pollen, ignorant and disrespectful of air and water pollution, and finally, because officials are paralyzed by the thought of any economic impact, they condone the inexplicable rudeness of noise pollution.
Indeed, we all love flowers and birds, and seemingly must, through some inner unexplained urge, go exploring for plants and find wild Nature, even if it is in a botanical garden. But is it enough to say that “we need” —that “we love”? The skeptics want to know “why?” and the despoilers of Nature, the technicians of exploitation or the technicians of use, are not impressed by sentiment, but by dollars and profit, board feet and yield per acre. How can we defend sanctuaries for prairie flowers and songbirds and mountain lions and pitcher plants? How can we defend such luxury when our world is plagued with hunger? Can we defend it for reasons other than economic or scientific use? For reasons other than commercial return? Can we defend, in short, a truly human environment for purely selfish human reasons?

Might we not say the best human environment is one in which the human animal can have maximum contact with the natural environment in which it evolved and from which it is genetically programmed without sacrificing the many advantages of civilization; that is, the optimum modern human environment must represent a compromise between our genetic heritage, which we cannot deny, and the fruits of civilization, which we are loath to give up.

Physically, as any evolved animal of the tropics, we are fundamentally adapted to wild tropical or subtropical nature, but culturally, especially away from the equatorial regions, we are dependent on and culturally adapted to towns and cities. Thus, even though we live in houses for our physical well-being, nature must be thought of as an indispensable biological need in our daily life. Every basic adaptation of the human body — be it the ear, the eye, the brain, yes, even of our psyche — demands for proper functioning an environment at least similar to the one in which these structures evolved through natural selection over the past 100 million or so years. For millions of generations, as George Gaylord Simpson points out, any of our monkey ancestors with faulty vision who missed the branches they jumped for fell to the ground, and failed to become our ancestors. Only those that were adapted to Nature contributed to our gene pool.

Who are Darwin’s grandchildren, can thus easily appreciate that like the need for love, the need for nature, the need for its diversity and beauty, has a genetic basis. We cannot exclude Nature from our lives because we cannot change our genes. That must be why we citified and clothed apes continually bring nature and its diversity and its beauty into our civilized lives, yet without really understanding why we do. We have flowerpots and pedigreed pets, members of the “Plasticales” in every bank, and even green beech leaves imprinted on the side of airplane ‘puke bags’ to make us feel better, we do all this to cater to our genetically based appreciation of natural beauty.

In contrast, spend a week in the heart of downtown metropolis, with all its noise, stench, and congestion. No ‘natural’ selection equipped us humans for such insults. In the past 20,000 years we have probably degenerated: in comparison to our ancestors we have poorer powers of sight and smell, less sensitive ears, and much less hair. Some day, if we are not careful, through city-selected degeneration, the 40 billion of half-blind Homo post-sapiens will lead a life resembling that of termites. Then, if quality natural environments still survive someplace by accident, we may well not be able to appreciate any of them. This is not what we should want!

Separated from Nature, the human animal as a biological unit is, in most ways, a meaningless bundle of adaptations. Similarly, Man as a cultural force cannot be understood without his landscape. Today, as never before, there is an overriding urgency to awake in time to prevent the permanent subjugation and extinction of the living landscape, whether wild and free or farmed in a non-intensive way. Senator Ingalls of Kansas said some 80 years ago, “Give the philosopher a handful of soil, the mean annual temperature and rainfall, and his analysis would enable him to predict with absolute certainty the characteristics of the nation.”

We, today, are ignoring this basic truth. We, in this overly rich country, now worship the high standard of living, but forget that ultimately it flows from the land. We credit scientific advances, the pioneer spirit, and the democratic institutions with our great agricultural wealth in the Middle West, but often neglect to mention that due to an accident of Nature we have some of the richest farm soils in the world.

Without the prairie or the forest, we the American people cannot understand where we came from, what we are, or where we are going. Yet today the prairies and the forests have been largely killed, and thousands of species, especially of the prairie flora, are on the verge of extinction. By our avarice, we are losing touch not only with our biology, but with our history and with our culture. Meanwhile, our technological cheerleaders urge us on to more intense utilization and greater destruction.

Does all this really matter? Surely, our technology may keep us rich and
This column focuses on a plant species that is valued by birds found in the upper Midwest. Each submission presents a plant that is in its prime during the time you are likely to be enjoying this publication.

**RED-OSIER DOGWOOD**

*Cornus sericea, aka Cornus stolonifera*

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F_{all}
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Fall means birds are on the move. Some species are making short-distance trips in preparation for our uncertain winter. Others are preparing for remarkable journeys to as far away as South America. Dogwoods are beautiful plants, particularly to the birds that, depending upon the season, will find the shrub useful for nectar, insects, fruit and cover. For us, Red-osier Dogwood (aka Red Twig Dogwood) offers stunning red stems that can brighten the dreariest of winter days. Dogwoods are hardy plants that require little care.

**Characteristics:** Red-osier Dogwood is a vigorous grower and will form substantial shrubby hedges spreading by suckers. These shrubs will grow to approximately 8 feet in height and 6 feet in width. With the help of birds, spreading partially digested seeds, these shrubs may spread even further. Red-osier Dogwoods are easy to transplant, so you can easily overrule inappropriate plantings by birds. In every season, these snappy shrubs dress up the landscape. From their snow-white blossoms in spring and deep green foliage in summer, to the rich red stems in winter, these plants provide color in the landscape. One of the telltale signs of spring after our painfully long winters can be found in the swelling and brightening of the dogwood stems.

**This plant needs:** Any sun conditions are acceptable. Dogwoods perform best in moist conditions, and can tolerate standing water for extended periods. These hardy plants can also easily handle Midwestern temperatures down to zone 3 conditions. This plant can withstand substantial pruning, and young wood has the brightest bark. Dead wood should be removed in spring before flowering.

**Who benefits:** To birds, dogwood berries are like ice cream on a summer day. For birds like Wood Thrushes, Catbirds, and Orioles, who have many miles to travel to their winter homes, dogwood berries are highly sought after energy boosters. The size of dogwood berries make them an easy meal for birds large and small. The dense foliage of this shrub provides good nesting cover in spring and summer. Robins, Catbirds, Cardinals, and even some warbler species have raised countless families behind the branches of dogwoods.

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Steve Mahler, owner of The Wild Bird Center, Menomonee Falls. Steve welcomes your comments and suggestions at 414-255-9955.

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Cardinals and Ruffed Grouse hungrily seek out the seeds of Autumn Witch Hazel.
Whether you are creating a prairie garden or a small pocket meadow in your yard, remember that our native grasses are essential to its success. In a true meadow or prairie, grass is 60 to 70 percent, sometimes more, of the area. Just as there are particular flowers that are indigenous to specific regions and soil types, so there are hundreds of native grass species with a non-competing, clumping habit that occur with flowers in their natural habitat.

If you are not interested in a meadow of flowers and grasses, then consider the natives as a substitute for the non-native turfgrass used for your lawn now.

Broomsedge in winter ... how beautiful are the seedheads and grass in snow.

Eight main genera of grass are used for lawns in the United States and they are all aliens. We have 1,400 species of 170 genera in the grass family that are indigenous to the United States. Of those, approximately 50 have been evaluated or used by horticulturists sufficiently for us to know how they'll behave in a variety of settings. Yet, the only native grass that has received major attention for use in a lawn setting is Buffalograss (Buchloe dactyloides).

More and more homeowners in Texas and the Southwest (where it is indigenous) are using it to replace non-native turfgrass.

Buffalograss grows only 6 to 8 inches, so you can leave it as is or mow for a more even look. It spreads by stolons that run along the surface and root as they grow. It does not require a lot of water; in fact, it resents overwatering. It is hardy from zones 3 to 9.

Some of our other native grasses could be used as well. The only retail supplier I know of who has developed a product of this type is Gail Haggard, owner of Plants of the Southwest (Agua Fria, Rt. 6 Box 11A, Santa Fe, NM 87505). She offers a low-growing, native grass seed mix for the southwest. [Readers should also refer to advertisers on pages 12 and 13 in this issue.]

Those of us in other parts of the country could experiment with grasses native to our areas. These native grass lawns could be mowed or not. I'd suggest not mowing since one of the most beautiful aspects of the native grasses is the seedheads sent up in late summer. Once well-established, the area would need to be cut back to four inches or burned each year in late fall or early spring.

Nearly all turfgrasses are cool-season types which means they generally prefer cooler temperatures and consistent moisture. They start to grow quickly in spring and stay green longer in the fall. They do not like hot summer temperatures and lack of water and usually go dormant when this happens. Warm-season grasses are the opposite—they prefer warmer temperatures and can withstand inconsistent moisture. They start to grow much later in the spring and go dormant fairly early in the fall. The aesthetic of a native-grass ‘lawn’ is different—green for a shorter period of time, taller height, and straw to bronze color through the winter. In warmer climates, such as California and Florida, this would not be true. Some native grasses remain green in those settings.

In my own efforts to reestablish native species in a 10-acre meadow and in a 30 x 40-foot plot at my current home, I've settled on some favorites:

**Little Bluestem (Schizachyrium scoparium)** —A deciduous, clumping, warm-season grass with foliage that reaches about 12 inches in height and flower spikes that rise another 12 inches for an overall height of 2 feet. The foliage color ranges from medium green to bluish-green and has a medium texture and arching habit. Fluffy seeds emerge mostly near the top of the very thin flower spike from late July into October. The entire plant begins to turn purplish in fall, then bronze to flaming orange in late fall and holds the color through the winter.

Little Bluestem is hardy from zones 3 to 10 and indigenous throughout most of North America from Canada to Florida and Maryland.
to Utah. Its preferred habitat is prairies, open woods, and dry hills. I like this grass because it has a soft texture but is sufficiently stocky to provide support for the flowers that grow with it. The color in the fall and winter is beautiful. Because it is a clumping grass and does not creep by rhizomes, flowers can coexist without being crowded out.

**Broomsedge** (*Andropogon virginicus*)—A deciduous, clumping, warm-season grass with foliage that reaches about 8 inches in height and flower spikes that rise another 16 inches for an overall height of about 2 feet. The clump is about 10 inches in width. The foliage color is light green and has a medium texture with an arching habit. Fluffy seeds emerge from folds of leaves along the stem in early fall. The entire plant turns bronze in late fall and stays that way through the winter.

Hardy from zones 4 to 9 and indigenous throughout eastern North America and as far west as Texas and Kansas, it is also found in California. Broomsedge's preferred habitat is meadows, open woods, and dry hills. It is very tolerant of poor soil and widely adaptable. This grass is very similar to Little Bluestem except that the overall texture is more coarse and the seed heads are cottony tufts that poke out from leaf folds all along the stem.

**Prairie Dropseed** (*Sporobolus heterolepis*)—A deciduous, clumping grass ranked between cool- and warm-season growing. It begins to grow sooner in spring than the other warm-season grasses. The fine-textured, emerald-green foliage forms arching clumps of about 12 inches. A very slow-growing plant, it may not send up flowering spikes until its third or fourth year (about 2 feet about the foliage).

Hardy from zones 3 to 9, it prefers dry, rocky situations and is very drought tolerant. The flower panicles have a sweet scent and the entire plant turns orangish in fall, then creamy brown through winter.

I like this grass because it has such a wonderfully fine texture. Mine has not sent up flower spikes yet, but I am hoping this will be the year.

**Sideoats Grama** (*Bouteloua curtipendula*)—A deciduous, warm-season grass with medium-green foliage reaching 1½ to 2 feet in height and width. Initially clumping, it eventually will form a thin turf. The seed spikelets are held along one side of the stem and are reddish-purple when they open. Later they turn a gold color and the whole plant is straw color in winter.

Hardy from zones 4 to 9, it prefers dry soil, is pH adaptable, and tolerant of part shade. This grass is native from Canada to the Gulf of Mexico and from the East Coast to the California desert.

These grasses can all be started from seed, and seed is readily available from nurseries. It is more expensive to use plants, but plants are also available and give a filled-in look quicker. I started with a small area and used clumps of grass and native flowers. Since I didn't have many plants, the area looked bare, but I knew that the existing clumps would spread and that I would gradually add more plants. I also planted some seed and small seedlings I started inside.

Getting to know and using our native grasses is an important part of our overall effort to reestablish indigenous species in our particular locales. Trials in our yards will give us the experience and knowledge to enable us to suggest native species that can be used in place of exotic turfgrasses for lawn-type plantings.

—Stevie Daniels

**WHAT TO DO ABOUT SNAKES?**

Readers of my book have raised one question I haven't been able to solve. They live in parts of the country where poisonous snakes are prominent, and they tell me that tall plant material provides attractive habitat for them. That's the reason for the practice of planting flowers and shrubs away from the house and keeping grass, fields, etc. cut low. If you have a solution, please send it in to share with other readers of *Wild Ones Journal.*—S.D.
METAMORPHOSIS UP CLOSE

Last fall, I watched a fat, brown caterpillar race across the pavement, as if determined to get into my house before I closed the door. After putting it in a screened terrarium, I reached for my dog-eared copy of Peterson First Guide to Caterpillars by Amy Bartlett Wright. This little guidebook (cost $4.95) groups caterpillars by appearance: smooth, hairy, branched spines, etc.

The caterpillar’s markings—two ‘eyespots’ that suggest a snake’s head to predators—matched the picture of a Tiger Swallowtail. But why was it brown instead of green? Just before pupating (forming a chrysalis), caterpillars often change color. They also take on a profound restlessness, crawling faster than you’d imagine possible, in their search for a spot to metamorphose.

Because the caterpillar was ready to pupate, I knew that it was no longer interested in eating. Inside the terrarium I set an upright, rough piece of wood and some stout branches. For about a day it circled the container like a caged tiger, then it crawled up the wood and attached itself in an upside-down position. Two days later, the outer skin had split off to reveal a ridged, brown chrysalis attached to the board with a silken thread, or ‘girdle.’

Many chrysalises are camouflaged to resemble a leaf or thorn, with gold spots that look like dappled sunlight (the Greek word chryso means gold). What’s going on inside that dazzling little package?

Except for the rudimentary pads which develop into legs and wings, there is an almost total breakdown of larval tissue into a kind of ‘soup.’ Cells reorganize within this liquid to form complex adult organs. When the adult butterfly is about to emerge, the chrysalis may become transparent, revealing the brightly colored wings inside.

As for my Western Tiger Swallowtail, it spent the winter months in our unheated garage. Occasionally I gave it a squirt from a spray bottle to make it think it was still in rainy Seattle. By mid-June, when swallowtails were cruising through my garden, it hadn’t shown any sign of life. Because we were leaving on a trip, I took off the lid and set it outside in a shady spot.

Imagine my surprise when I returned two weeks later and discovered a large, yellow/black butterfly resting in the terrarium. Wetting my finger, I gently lifted the beautiful insect out and placed it on a sunlit flower. Rearing caterpillars from an earlier stage or from eggs is an irresistible project for children. Look for caterpillars in the wild or in your garden; observe what plant they’re eating and bring some of it to feed them. Keep a supply moist by enclosing in a plastic bag in the refrigerator—they eat a lot; don’t run out!

The enclosure can be as simple as a cardboard box or large jar with netting fastened tightly on top (the larvae are adept at escaping). Make sure it’s clean to prevent bacterial growth.

If you keep the host plant in a container of water, stuff paper towels around the rim so larvae don’t fall in and drown. Remove frass (excrement) daily, and refresh host plant regularly (let larvae move to the new plant before removing the old one; handle stragglers very gently). It’s essential to use pesticide-free plants.

Don’t know what kind of caterpillar you have? First, look in a guidebook like Peterson First Guide to Caterpillars. You’ll find something that resembles your caterpillar enough to know whether it’s a butterfly or moth. Many butterfly field guides have a host plant index; correct identification of the host plant is a critical identification tool. They’ll also tell you how a species spends the winter—as egg, larva, pupa or adult.

A butterfly will attach itself to a rough wood surface or to the screen at the top of your container. Moths and skippers form a cocoon and may pupate underground; provide crumpled paper towels or a mound of sterile potting soil. Mist pupa regularly and keep in a cool place out of direct sun. A winter pupating butterfly like the swallowtail will emerge too early if kept indoors.

Unless it pupates over the winter, you’ll get to witness the magical transformation from chrysalis to adult in two or three weeks. The newly emerged butterfly will rest for an hour or so and pump fluid into its wings.

Should the day be inviting, release it in your flower garden. If it miscalculated the season, keep it indoors and provide nectar flowers, cut watermelon and/or sugar/water mix on a sponge (1:6 sugar: water, boiled and cooled; change frequently to prevent disease).


Claire Hagen Dole is publisher/editor of Butterfly Gardeners’ Quarterly, P.O. Box 30931, Seattle, WA 98103. You may subscribe to BGQ for $8 a year.
**Other Names:** Squawroot, Papoose Root, Bugbane, Black Snakeroot, Rich-Weed, Rattle-Weed, Rattle-Top, Rattle-Root, Bugwort, False Bugbane. American Black Cohosh.

**Habitat:** Rich open woodlands and cleared hillsides.

**Description:** The plant is very large. If you come across it, you could not help but notice its size and beauty. Its small white flowers grow in several long, narrow clusters on a leafy stalk. The whole plant has a rather disagreeable odor. The flowers are about ½ inch wide. There are four to five sepals which frequently fall as the flower opens. There are no petals. There is a single pistil (the female part) and numerous stamens (male part) in a tuft. The leaves are large, twice divided into threes. They are sharp-toothed, with the leaflets being up to 4 inches long. The fruit is a dry pod with several seeds. **Flowering:** June to Sept. **Height:** 3 to 8 feet.

**Comments:** The plant is reputed to be an insecticide, as well as a snakebite and bee-sting cure. It is one of the host plants for the larva of the Spring Azure butterfly (*Everes comyntas*).

**Medicinal Use:** As a cardiac stimulant, Black Cohosh root slightly depresses the heart rate, while it increases the force of the pulse and equalizes circulation. It has been used effectively in female troubles especially for its estrogen-mimicking substances. It also has a strong effect on the muscular system and is used for various forms of rheumatism, arthritis, and neuralgia. It has recently been discovered and clinically approved for certain forms of asthma, high blood pressure, anemia of the intestines, and as a tonic for the central nervous system. It is best used in combination with other herbs.

Among other afflictions, one pharmacological textbook says the plant can be used as a remedy for tinnitus aurium or buzzing in the ears. Other writers include its use in various spasmodic problems, epilepsy, for coughs, reducing pulse rate, inducing perspiration, whooping cough and St. Vitus Dance of children. At the end of its growing season, the rhizomes and roots are dug, dried, and later powdered for medicinal purposes. It has been used as an official drug for nearly 100 years in the form of an extract, tincture or infusion.

With all the virtues of this plant, it is easy to see why it was a valuable addition to the Indian squaw’s medicine chest. She was just as likely as the medicine man to be responsible for the health of Native American families.

**Name Origin:** The genus name, *Cimicifuga* (sim-mi-siff-you-ga), is from the Latin words cimex, meaning “bug,” and fugio meaning “to flee.” The species name, *racemosa* (ra-see-moe’sa), means “with racemes.” Racemes are long flower clusters on which single flowers each bloom on a small stalk, along a common, larger, central stalk. Some of the plant’s other names refer to the fact that its unpleasant fragrance is repellent to bugs.

**Author's Note:**

When I was doing my research on Black Cohosh and the locally found Wild Yam (*Dioscorea villosa*) several years ago, I entertained the thought of becoming a biochemist because Wild Yam is a natural source of progesterone and Black Cohosh has estrogen-mimicking substances. I thought it would make a great combination for women. As usual, someone has ‘beat me to it.’ A natural progesterone cream is now being marketed with the Mexican Wild Yam and Black Cohosh in combination. It is used transdermally (rubbed on the skin) as a replacement for the synthetic form of hormones which have been used by women for many years.

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**The front forty**

I can't believe summer is almost over. It seemed to go by so quickly this year. The rudbeckias are all doing great at this time and it won't be long before my Big Bluestem starts doing its thing.

For many of you it's time to send the children back to school; so why not think about heading over to a school yourself, not to attend (although that's not a bad idea either) but to see about getting a natural landscape area going. When Curt and I wanted to get involved, we called the principal of Amy Belle School and volunteered to help in a prairie they were going to start. They were delighted to have our help. Though we are not experts in the field of teaching or landscaping, we were able to donate plants and give them information on where and how to get plants and seeds. The rewards for Curt and me have been good feelings, T-shirts, handmade stationery, and thank you's and smiles from some great kids and their teachers.

One thing to keep in mind when doing a school project of this type is location. It should be in a prominent place, but never in a naturally occurring path such as the one between the school door and the playground. Stampeding children and buffalo do not stop to think before running through such areas. If you want to change such a path, it must be done with shrubs, trees, or heavy-duty fences.

The second thing to remember is: This is not only a project for children but by children. This is one place where they won't be judged by how well they can hit and throw a ball, run and jump, or display artistic talents. They must be encouraged to actively participate, otherwise it is just another flower garden.

—Judy Crane

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"**MY FAVORITE (NATIVE) THINGS**" by Mandy Ploch

**Tree:** Serviceberry (*Amelanchier sp.*) is truly a four-season plant. Spring brings fluffy, white clouds of blossoms for the pollinators. They are soon followed by pea-sized red berries, said to make a good jelly. However, you will have a difficult time taking the fruit away from all the birds who dine upon them—Robins, Cedar Waxwings, Bluebirds. The 2-inch-long leaves give a dappled shade and turn orange and red in the fall. The smooth, gray bark and slender winter buds give interest until the cycle begins again. Its smallish size (to 25 feet) makes it ideal for urban settings.

**Shrub:** Dwarf Bush-Honeysuckle (*Dierova lonicera*) is one tough cookie. It is not related to Japanese Honeysuckle—only the name is similar. This is a spreading soft-wooded plant with small yellow flowers in June-July. Although it is not very showy, it is very versatile. It can take sun or shade, wet or dry sites. After the rabbits eat some bushes down to the ground over winter, they soon catch up and equal the other bushes which were not eaten. I control the spread by pulling up the newly anchored stems and removing them. I would like to see this planted more instead of the ubiquitous potentilla

**Perch:** Purple Coneflower (*Echinacea purpurea*) should be in every garden to help people get acquainted with insects. The bees and butterflies are usually so avidly nectarating on this plant that you can get up close and real personal with them. They make nice cut flowers, but I tend to leave them all for the insects. What you don't take indoors, leave the seedheads to mature for the finches over winter. The sturdy stems usually hold up until March; but if you want a tidier look or to bring the birds to a certain place, tie a bouquet of dried stems to your birdfeeder pole or on a stake near a viewing window. In spring you will have baby plants to reposition elsewhere or share with friends.

**Grass:** Little Bluestem (*Schizachyrium scoparium*) is a delightful clump-forming grass that should be used in native restorations as well as manicured perennial beds and borders. Its fine-textured leaves add contrast and its shape offers a nice vertical line. The fluffy, white seedheads glow when backlit by sunlight. Movement with the wind is an added attraction.

**Water:** Several years ago we added two ponds (8x10 feet and 12x16 feet). We excavated 12 inches deep, installed a liner, and returned 6 inches of soil over the liner. We use no pump—the organisms in the soil keep the water clean. We do add some minnows from the bait shop to keep mosquito larvae in control. Do not use goldfish in ponds with soil bottoms—you will have perpetually muddy water. We 'planted' native aquatic perennials by squishing their roots into the muck. When rain is not sufficient, we top off the ponds from the hose. Maintenance involves removing Hair Algae with a rake during warm spells. The best part is watching the life in these small universes. Frogs found the ponds within the first week, five species of dragonflies regularly deposit eggs, there is a cherry-red mite that is hard to miss, the minnows are very prolific, at least once a summer a Great Blue Heron makes a stop for frogs. The ponds have been an experiment which has paid off immeasurably with the enjoyment they have given us.

—Judy Crane
Bob Ahrenhoerster, owner of Prairie Seed Source, North Lake, Wis., is a naturalist at Camp Palmyra, an environmental education program operated by Milwaukee Public Schools for students in grades three through eight. Camp Palmyra, located in the southern Kettle Moraine State Forest, offers teachers a choice of topics for class tours: edible and non-edible plants, pond study, birds, geology/glacial geology, Indian lore, animal tracking, and instrument study. The following is an account of some of Bob’s experiences.

I’ve been working in the Camp Palmyra program for 14 years now. With four high-quality naturalists (two of whom are certified teachers) and a caretaker, the annual operating budget for our environmental education program (including salaries) is under $10,000. Even though we give a lot of ‘bang for the buck,’ our budget is persistently at risk of being cut. The major reason we work here is that we understand the desperate need for the children of Milwaukee (adults as well) to understand that cities are not planets unto themselves.

The surrounding countryside and all its critters are absolutely necessary if they (the city folk) are to continue happy and healthy in the city. What we see time and time again is an enormous lack of knowledge or understanding of what exists outside the city.

To illustrate, I offer a sample of questions and observations made by some of our visitors over the years. New staff members are often tempted to laugh at some of the comments, but many of them make sense if you take into consideration where these individuals are growing up.

A sixth grade girl asked, “Will we see any giraffes today?” Think about it. You see them at the Milwaukee County Zoo—why not out here? You can see her logic.

A fifth grade boy, born and raised in the port city Milwaukee, asked, “Where is Lake Michigan?” He had never seen it.

When we found a coyote-killed raccoon, some children became very sick. When I explained that this is where the predator gets its meat, they became more upset. So I asked, “Where do you get your meat.”

“From the store,” was their reply.

I asked, “And where do they get it?”

“From another store . . .”

And along those lines, when I picked an apple off a tree in autumn, a fifth-grader commented, “Oh, that’s where apples come from.”

We are raising entire generations of individuals who have no—none, zero, zilch—connection to the planet that supports us. And we wonder why people aren’t concerned about themselves or their environment.

We wish more MPS groups would take advantage of this program. We also strongly encourage parents to come along with their children. Naturalists can get groups of up to 35 children each, so extra adults are always appreciated.

Those interested in more information about Camp Palmyra should call Forest Johnson at (414) 647-6065 during school hours. And all parents are encouraged to contact their local school system to find out about the environmental programs available to our next generation.

“From here to there” Judy Crane’s comments about children beating a path from school reminds me of a story a professor related to me 20 years ago.

It seems there were some new buildings erected on an expanding college campus, and the landscape architect made absolutely no plans for sidewalks. School opened in the fall, students began blazing their own trails between classes. Inquiries were made, “Why don’t we have any sidewalks?” Snow fell. Snowblowers could not be dispatched since there were no sidewalks to follow. Complaints poured in. Students trudged on.

Spring came. The snow melted—muddy trails became evident. The architect then ordered up the cement and instructed that the sidewalks simply conform to the patterns designed by the foot traffic—popular, albeit irregular-looking, trails. Planting could then follow, the landscape architect confident of those zones that would never be trampled.

—Joy Buslaff

The opportunity to see geese is more important than television, and the chance to find a Pasque-flower is a right as inalienable as free speech.” —Aldo Leopold

“A teacher affects eternity; he can never tell where his influence stops.” —Henry Adams

—Bob Ahrenhoerster
CONFESSIONS OF AN 'Adequate' Natural Landscaper

Recently, a lady told me that she hesitated joining Wild Ones because her yard "wasn't good enough." The natural landscapes she had seen cultivated by some Wild Ones members were "so good" that she was intimidated. At first, I was a bit bewildered. Wild Ones' mission is to encourage, not intimidate. But, I took a step back and realized, how, yes, natural landscaping can be intimidating and (although repressed) I, too, have felt 'inadequate' when it comes to what my yard looked like.

Why we feel intimidated has much to do with where we came from. We are judged by standards set down by our parents and by society. I was raised by environmentalist parents. Our family traveled to national parks and camped in woods. Copies of Ranger Rick, National Wildlife, and Audubon were always around the house. This was enough back then. Yet, one of my first chores was to cut the almost two acres of lawn on a tractor. Each spring and fall we would spread the Weed 'n Feed, and throughout the summer we would drag what seemed like miles of hose to water the parched turf. My wife's family engaged in much the same regimen.

I could have cultivated a lawn, mowed, preened, fertilized and fretted over the ever-lush green blades. With my green lawn, I could have felt 'adequate' when judged against the yards of my friends and neighbors, who, like me, were raised in homes and in neighborhoods that had lawns. But when Jenna and I bought our home in 1989, we were determined to do something different, something better. We read up on natural landscaping and decided that this was for us.

Before 1989, I had never seen a natural landscape, so I made some visits to Wild Ones' yards. Rochelle Whitman's yard has a softness. There is a gentle, rolling slope from north to south, Tamarack trees, wood-chipped trails, a small pond and a hushed blend of hues throughout the year. Lorrie Otto's yard is a natural landscaper's Mecca. Down the street from Lorrie is Milt Entenheim's front yard meadow. Rae Sweet has wending paths of prairie grasses and forbs that inspire awe through the riot of color in stark contrast with her conventional neighbors. Pat Armstrong's yard is more akin to a preserve than a garden.

At first, I wanted a yard that looked like theirs, but alas, our 1½-acre yard looks nothing like the others. Our journey began in year one when we killed about 5,000 square feet of lawn in the side yard. We ordered a truckload of soil, contoured it, and broadcast the recommended amount of prairie seed mix which we had ordered from Prairie Nursery. Within weeks we had a field of Foxtail. No flowers—no neat prairie plants anywhere.

The next spring, I bought a couple of dozen plugs and put them in. Still nothing. Foxtail everywhere and some other grasses I couldn't identify. But then, by late July, some tall, impressive-looking plants began to appear above the sea of grass. Finally, I thought, something I can show my family and friends who, I am sure, thought we were a bit nuts. I would no longer be inadequate as a natural landscaper. A glance at the field guide and the bubble burst—Giant Ragweed! (I found out later that at least it is native.)

Year three. We burn. Finally, by June there is a glimmer of hope. Coneflower, Black-eyed Susan and Butterfly Weed show up. There is also the non-native-but-still-attractive Queen Anne's Lace. There is enough there to justify the next step. So we plow under another section of yard and this time plant several hundred dollars' worth of plugs and overseed the area. Large traditional flowerbeds in the front lawn are converted to natives.

Years four and five are good. The butterflies show up. Goldfinch, Bluebirds and other fauna come to visit. Now it is year six and the Northern Illinois Chapter is coming for a yard tour. I know my yard doesn't measure up to Rae's, Lorrie's, Rochelle's, or Pat's. I have a quarter acre forest area full of Cottonwood and Buckthorn. The banks of the stream that flows through our yard are encrusted with vines, Burdock and other things I can't even identify. I can't get prairie grasses to grow because the soil is rich in nitrogen and the forbs out-compete the grasses.

Reflecting back on what we have done, I am proud of our relationship to our land. Looking forward to what must be done, I am excited. It has taken a few years to realize what natural landscaping is about. It is not a destination or a goal. Our yard doesn't have to look like this one or that one. Rather, natural landscaping is a process; a partnership and a journey through time as it relates to a community called "The Land."

So as we prepare to host a yard tour, I am gardening with what I feel is an appropriate perspective. It is about what we are doing—not what we have done.*

—Bret Rappaport

*I must confess that I am not all the way there, yet. I went to a local nursery last week and bought some Bergamot, Butterfly weed and Liatris to plant along the prairie path just to spruce things up a tad.
IT'S A GRIND

It was only my second Wild Ones meeting, just last fall, when our chapter president announced, "There is a house not far from here where we've been invited to dig up asters. Remember: If you plant asters by seed, you won't know what color flowers you'll get. This is your chance to see them in bloom and know the color for certain."

Being a Wild Ones novice, I stood quietly, rather like the new kid on the block, and thought a series of things: Gee, this aster-color news is just the sort of information I've wanted to learn ... but I'm not prepared ... I don't have my shovel ... and it should be sharpened ... I bet all these master gardeners keep their tools in immaculate condition and I wouldn't want to embarrass myself.

Yes, that's honestly what I thought, and now we can all laugh at my fear of pretentious, spade-judging Wild Ones.

The fact is, we could all use a lesson in tool care. The folks at Smith & Hawken, one of the preeminent mail order tool companies, offer some simple advice.

To prevent rust, clean your tools at the end of your gardening day. You can use a 'wood man' (rather like a wooden spatula) or a bristle brush to scrape off dirt. When the tools are dry, you can either wipe them with a rag soaked with vegetable oil or (this is much more fun) keep a bucket of coarse sand mixed with vegetable oil near your tool rack and repeatedly plunge in the blade of each tool before storing it.

A sharpening service can put a fresh edge on your tools. But, since Wild Ones tend to be do-it-yourselfers, you can follow these directions.

New tools come with the ideal bevel, so you can use that as a guide. A hoe should be filed to a 45 degree bevel. A knife is typically honed to 30 degrees. The lower the angle of your bevel, the sharper the edge, and the more delicate it will be. That translates to its being easily nicked and bent during heavy use. For spades, forks, and hoes, use a bastard file. For pruners, knives, axes, and scythes, use a whetstone. Remove the least amount of metal necessary to do the job.

A keen edge on your garden tools will make digging easier on you and pruning easier on your plants.  

—Joy Buslaff

SPREADING LIKE WILDFIRE!

—Wild Ones in the news—

• Wild Ones regularly gets coverage in all kinds of media, and certain members' names are repeatedly attached. Bret Rappaport is quoted in The Detroit Sunday Journal of June 30. Reporter Michael Betzold composed a fine article describing the environmental threats of massive lawn maintenance in Michigan and the U.S. in general. Betzold writes, "... taking the lead in the 'wild lawn' movement are ecologically minded homeowners who champion a new strain of flower power." In relating EPA recommendations to reduce the use of lawn maintenance machinery, Betzold describes the native plant beauty in University of Michigan Professor Robert Grese's yard. Not surprisingly, Bob is president of Wild Ones' new Michigan chapter.

• Bret Rappaport gets yet more press coverage in a recent issue of The Chicago Tribune where his yard is pictured and profiled. "This is becoming mainstream stuff," the newspaper quotes Bret as saying. Isn't that wonderful to imagine? A landscape architect, Steve Cannon with P. Clifford Miller, Inc., says within the article, "Our [natural landscape] business is definitely expanding, and it seems that other companies are starting to get their feet wet. I can also tell by what the nurseries are growing. They're growing more native trees and shrubs and prairie wildflowers that maybe 10 years ago were hard to find."

• Who gets more press coverage than Bret? Why, Lorrie Otto, of course. We can't keep up with all the places her name shows up in print. You can find Lorrie pictured within the August/September issue of American HomeStyle & Gardening magazine.

• Lorrie Otto is also name-dropped in a book that's on this editor's winter reading list: The Lawn—A History of an American Obsession by Virginia Scott Jenkins.

—J.B.
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**WILDK ONES YARD SIGNS**

Wild Ones has designed a weatherproof aluminum yard sign that proclaims "This Land Is in Harmony with Nature." The sign is enameled with a white border, beige background, black printing and a scratchboard-effect cone-flower over a purple field. The vertical sign measures 7"x10" and has two mounting holes top and bottom for securing to a support with screws or ties (such as wire or cording). No hardware is included.

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, P.O. Box 23576, Milwaukee, WI 53223-0576. Signs will be sent by first-class mail.

Bulk orders will be accepted from chapters only—not a group of individuals. For bulk orders, remit $20 per sign to the same address. Bulk orders will be sent to one address. Signs will be sent promptly if in stock. Our turn-around time for production of additional signs is short. You will be notified only if there will be a significant delay.

**ILLINOIS**

**NORTHERN ILLINOIS CHAPTER**

Chapter meets the third Thursday of the month at the College of DuPage, unless otherwise noted. Call Pat Armstrong for info, (708) 983-8404.


Oct. 17—Meet in SRC Rm. 1046.

**ROCK RIVER CHAPTER**

Meet at various locations. Call Jarrett Prairie Center, Byron Forest Preserve at (815) 234-8535 for info.

Sept. 19—7-9 p.m. Jarrett Nature Center. David Olson presents "How to Photograph Nature." Bring your camera.


**ILLINOIS**

**KANSAS**


**OHIO**

**COLUMBUS CHAPTER**

Meetings held in Rm. 116, Howlett Hall on Agriculture Campus/Ohio State University, unless otherwise noted.


Oct. 12—9:30 a.m.-noon. Seed collecting at Battelle Darby Park Prairie. Meet at Cedar Ridge Picnic Area. If it rains Fri. eve or early Sat., we’ll cancel. Bring gloves, bag lunch.

**WASHINGTON**

**ROCK RIVER CHAPTER**

Meetings held at Fox Valley Regional Fire Training Center, Neenah, 7 p.m., unless otherwise noted.

Sept. 14—11:45 a.m. Caravan to Ledgeview Nature Center for tour of prairie and caves.

Oct. 12—9 a.m. Seed collecting at Bubolz Nature Preserve, Appleton.

**GREEN BAY CHAPTER**

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

Sept. 7—10 a.m. Botanical Garden and Bret Rappaport, Wild Ones nat'l president.

Oct. 12—10 a.m. Jim Jerzak prairie, Hillcrest Road (FF), seed collection.

**MADISON CHAPTER**

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

Sept. 14—11:00 a.m. Meet at and tour Prairie Dock Farm, N8891 CTH Y, Watertown; (414) 261-4292. To carpool, call Jan, (608) 238-2826.

Sept. 22—1-3 p.m. Greene Prairie Tour. Meet at the E-Way just so. of the South Towne Shopko.

Oct. 12—10:30 a.m.-noon. Seed collecting for Dane County Parks. Meet at the E-Way just so. of the South Towne Shopko.

**MILWAUKEE—NORTH CHAPTER**

Meetings held at Schlitz Audubon Center, second Saturday of the month, 9:30 a.m., unless otherwise noted.

Sept. 14—Meet 9:30 a.m. Carpool to Tour Prairie Dock Farm at Watertown at 11:00. Bring bag lunch. For more info, call Mandy Ploch, (414) 242-3723.

Oct. 12—Seed gathering.

**MILWAUKEE—WEHR CHAPTER**

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

Sept. 14—9:30 a.m. Tour Prairie Dock Farm. Call Mary Ann, (414) 421-3824, to reserve.

Oct. 12—Seed gathering.
Wild Ones in a formal botanical garden? Yes! Our Green Bay chapter was there, May 11, 1996, donating 'spring rescue' plants to the new Green Bay Botanical Garden, 2600 Larsen Rd., Green Bay, Wis. On that memorable day, our chapter became the first community organization to plant donated material at the site. Director Glenn Spevacek stressed that the garden "presents great opportunity for physical involvement" and that the staff "was excited to see volunteers actually planting materials in the new garden." Our Shooting Stars, Wild Geranium, Bloodroot, Trillium and Columbine now grow in the Memorial Grove near the impressive visitors center.

A 20-year dream comes true when the Green Bay Botanical Garden formally opens its gates Sept. 14-21, 1996. The visitors center, completed in December 1995, sits on a high point of the property, and its soaring windows overlook the formal and informal aspects of the developing garden. The Old Larsen Orchard site on Green Bay's west side will be developed in phases and our Wild Ones chapter hopes to participate when and where possible.

Situated near the Northeast Wisconsin Technical College in a growing residential area, the site is a lovely blend of rolling hills, woods, pond, and meadow. Current development includes formal and specimen gardens, as well as a children's garden, near the visitor center. Several wild and lovely spots near the heart of the property could be 'a natural' for natural landscaping. A children's outdoor amphitheater in a wooded hollow may benefit from our future woodland plant rescues, and a later-phase development of a prairie/meadow area is exciting to our chapter's prairie enthusiasts.

The fledgling botanical garden organization had over 1,400 members before a site had been chosen, so their early efforts were directed at starting annual fund-raising traditions of a June Garden Fair and a July Garden Walk. Our Wild Ones chapter has shared a booth at the Garden Fair for several years, and this year two of our members' projects (a woodland garden and a prairie restoration) were featured on the Garden Walk. The green oasis of the woodland garden contrasted dramatically with the surrounding empty yards, and the vivid floral display of the prairie gave us a special opportunity to talk about the beauty of 'weeds.' Chapter members volunteered as guides and shared their knowledge with 1,700 people who visited the properties. It was a mutually rewarding experience ... our chapter had the opportunity to educate the public and our members' willingness to display their projects helped ensure another successful Garden Walk.

The Green Bay chapter appreciates having a wonderful place for our formal meetings, and we hope the Green Bay Botanical Garden enjoys having Wild Ones in the garden! ~

—Kit Woessner

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