a voice for the natural landscaping movement



JOURNAL

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Earth Day, April 22

"... caring for the Earth begins at home with each of us long before it can ascend to a national and global attitude."

These are the words of Gaylord Nelson, the founder of Earth Day in his latest book, *Beyond Earth Day, Fulfilling the Promise.* The Wild Ones organization has been built on this premise, informing our members and ourselves about wise stewardship of our home landscapes. In the process, we learn about many environmental issues that can affect our landscaping efforts—water quality and quantity, erosion, loss of species and habitat, invasive exotic species, the carrying capacity of the land (and hence population issues, such as deer dominating many of our local landscapes, as we humans are dominating the planet), air pollution, chemical pollution and more. And we learn to make a difference—to improve our own small piece of turf. We hope the following article and others in this issue of the *Wild Ones Journal* will inspire you to make a special effort this coming Earth Day, April 22, to create a more sustainable and healthy environment in your own yards. Moreover, we urge you to read Nelson's fine book in which he provides an analysis of the environmental challenges facing us and provides a compelling strategy for global stewardship.

Mariette Nowak, National Vice-President and Editor-in-Chief

Earth Day was begun in 1970 by Gaylord Nelson, former U.S. Senator from Wisconsin. It is celebrated in 184 countries.

"A GREAT PIECE OF TURF"

Sarah Little

In a radio interview recently, I heard a man explaining that he had to have a manicured green lawn around his house because, like his necktie, it was the first and most lasting impression he gave to the world. I wondered immediately how many people would admire his tie if they knew he was being strangled by it—as the environment is choking from over-applications of pesticides on lawns. And then I thought about it a little more and I also had to wonder how many people would have a good impression of a man who wore the same green necktie, day



"A Great Piece of Turf," Albrecht Durer, 1503, watercolor and goache

Continued p. 3

Notes from the president...

Presenting Both Sides Now

Recent conversations between the members of the Journal Editorial Committee (Journal Team) and comments from the membership were tied together for me in that both topics are related to the health of the Wild Ones organization. The Journal Team was discussing whether non-native species should be mentioned in the Journal. The membership comments were about proper subjects of a Wild One's Chapter meeting.

One camp of the Journal Team is strongly opposed to any mention of nonnative species in the Wild Ones Journal, our primary public voice and educational vehicle—unless it has to do with invasive aliens. The other camp suggests that in order to educate our membership and the public about the value of using natives in our landscapes, we must at times mention and make comparisons between natives and non-natives.

Both camps agree that the promotion of native plants and environmentally sound landscaping practices, in relation to native plants, is the sole purpose of the Journal. Do our arguments become less persuasive when we mention non-native species? Or, do we strengthen a point through comparisons? Can we explain that it is more environmentally correct to utilize native grasses and forbs to add color, texture and habitat to our landscapes if we don't show what would exist otherwise? How do we discuss the potential danger to local species through the introduction of "hybridized" natives to our "native landscapes" without mentioning them? In other words, how do we educate by presenting only one side?

In regard to the Chapter meetings, should meetings always be focused on native plant materials and the planting of them? Can a meeting be focused instead on subjects such as advocacy or organization? If organizational issues are to be left to the leaders of the Chapter, how will we develop new leaders? Should we leave advocacy to other groups? Will members who have heard the "plant native" pitch for the third or fourth time stop coming to the meetings?

Both issues have to do with how narrowly we maintain our focus. I believe that like a healthy landscape, we need to have both diversity and balance. Too few topics for presentation and discussion result in needless repetition, loss of vigor and susceptibility to decline. Without full and open discussions, we appear to present biased arguments and are open to suggestions of fanaticism and intolerance. It is essential to the future of Wild Ones that we find alternative ways to the classroom to involve the membership in advocating our mission.

Let me know what you think!

DE YOVELKA

Joe Powelka, National President

Wild Ones: Native Plants, Natural Landscapes promotes environmentally sound landscaping practices to encourage biodiversity through the preservation, restoration, and establishment of native plant communities. Wild Ones is a not-for-profit environmental, educational, and advocacy organization.

NATIONAL OFFICE:

EXECUTIVE DIRECTOR
DONNA VANBUECKEN
P.O. BOX 1274, APPLETON, WI 54912-1274
(877) FYI-WILD [394-9453]
(920) 730-3986
Fax: (920) 730-8654
E-mail: execdirector@for-wild.org

PRESIDENT
JOE POWELKA • (608) 837-6308
E-mail: president@for-wild.org

VICE PRESIDENT & EDITOR-IN-CHIEF MARIETTE NOWAK • (262) 642-2352 E-mail: vicepresident@for-wild.org

SECRETARY
PORTIA BROWN • (502) 454-4007
E-mail: secretary@for-wild.org

TREASURER
KLAUS WISIOL • (847) 548-1649
E-mail: treasurer@for-wild.org

PAST PRESIDENT Bret Rappaport E-mail: pastpresident@for-wild.org

SEEDS FOR EDUCATION DIRECTOR STEVE MAASSEN • (920) 233-5914 E-mail: sfedirector@for-wild.org

WEB SITE COORDINATOR
PETER CHEN • webmanager@for-wild.org

LIBRARIAN

ROBERT RYF • (920) 361-0792 E-mail: library@for-wild.org

CALENDAR COORDINATOR

MARY PAQUETTE • (920) 994-2505 E-mail: calendar@for-wild.org

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EDITOR

FRAN GUSTMAN • (617) 787-4274

14 Lane Park

Brighton, MA 02135-3118

E-mail: journal@for-wild.org
(please indicate topic in subject line of e-mail.)

FEATURE EDITOR

MARYANN WHITMAN • (248) 652-4004 E-mail: featureseditor@for-wild.org

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A Great Piece of Turf

Continued

after day after day, whether it was appropriate or not.

There are really two issues. The first is that the pesticides most people think are needed to maintain a well-kept lawn—herbicides, insecticides, and fungicides—are poisons, plain and simple.

Those who doubt this for even a moment should read some of the thousands of scientific studies on the sub-The National iect. Institutes for Health have just published two more: one showed that a common weed killer used by homeowners on lawns caused failed pregnancies in laboratory ani-

mals at extremely low doses (September, 2002); the other showed that the use of indoor professional pest control services any time from one year before a child's birth to three years of age was associated with a significantly increased risk of childhood leukemia (August, 2002).

The second issue, which is more basic than the first, is that many Americans are afraid of nature, of commonplace suburban nature like crickets and toads and earwigs. My children jump when they see an ant, scream when a bee lands on them, react in disgust when a blade of grass tickles their leg, and totally freak out when a slug leaves its distinctive trail across the sidewalk. I work to get my children used to their non-vertebrate neighbors. We let sections of our suburban yard go wild. We make bridges and cities for the ant, we talk to the bee and gently move it away, we pick a grass stem and make a bracelet, we rescue a slug and put it under some moist leaves. The other day a five-year-old neighbor ran screaming from our yard because a dragonfly had landed nearby on a flower stalk. I took him on my lap and explained that a dragon fly was beneficial, that it wouldn't hurt him, and that he was ever so lucky to have it land near enough to see its beautiful compound eyes.

But I have learned that to really control pests you have to understand what they want. And then they are a lot less scary and you never have to use pesticides. The winning steps to insect control are: 1) identify the insect, 2) learn about the insect, 3) modify the habitat (which may be your house), 4) monitor for results.

There are always ways to turn a pest's habits against itself. For example, a

Wild Ones members who use

herbicides in site preparation

Remember that herbicides are

mammals, and people as well as

plants. Use protective clothing,

gloves and masks and keep pets

poisons and can affect birds.

must use extreme caution.

and children far away.

key element in insect control moisture: we had pill bugs in the bathroom until we fixed the leaky toilet, at which point they all disappeared; carpenter ants attack moist wood: earwigs need moisture to live. My favorite and most dramatic

method of insect control is a clever and very safe trick to rid yourself of dangerous in-ground hornet nests: late in the evening, take a jar of cheap honey and carefully pour it around and down the hole of the hornet nest; usually no later than the next morning, you will find that a skunk has dug up the nest and eaten the hornets.

Unfortunately, lawns are the landscape of choice for many people; but children, and a great many adults, find wild turf infinitely more interesting. One square yard of meadow is more diverse, biologically active, robust, and interesting than an entire quarter-acre of manicured, insecticided, herbicided, short-cropped lawn.

In 1503, the German artist Albrecht Durer accurately detailed all the plants in a small section of earth. The painting, called "A Great Piece of Turf", looks a lot like my own backyard. It even has dandelions in it. I think it would make a beautiful pattern for a necktie.

Sarah Little, Ph.D. in Geophysics, lives in Massachusetts. She is the Wellesley Pesticide Awareness Coordinator and Coordinator of the Massachusetts Pesticide Awareness Collaborative, Wellesley Natural Resources Commission. Contact her at www.ci.wellesley.ma.us/nrc/pesticide, 781-431-1019x294, or nrc@ci.wellesley.ma.us.

Earth Day Activities with Wild Ones

The Mid-Missouri Chapter in Columbia will be setting up its tables side by side with the Missouri Native Plant Society to increase awareness between the two groups. The Louisville Area (KY) Chapter celebrated Earth Day one year with a tour of unique plant communities, topped off with prairie restoration; this year, members will hike, camp, and ID plants on a 100-acre preserve near Harrison County Forest. The Milwaukee-North (WI) Chapter will continue its restoration of the Schlitz Audubon Nature Center, which is supported by donations in the names of deceased members; Milwaukee-North also will have its display in the lobby of the Milwaukee Public Museum. The Green Bay (WI) Chapter will celebrate by pulling invasive garlic mustard from the grounds of the Lost Dauphin State Park. Last year, the Flint (MI) Chapter participated in Earth Day on two days-you can't have too much of a good thing! Both the Flint and Milwaukee-Southwest/Wehr chapter (WI) chapters use a display board with photographs and explain Wild Ones principles with handouts and lots of verbal communication.

Many Earth Day celebrations are geared to encourage children to help the planet. Last year, the Columbus (OH) Chapter gave out activity sheets on wildflowers, native trees and other plants at the Columbus Zoo. In 2002, the Menomonee River Area (WI) Chapter, worked with the local elementary school on a prairie and woodland area; the relationship has continued with another work day and now the monthly chapter meetings are at the school-a good deal all round. There are rumors that "Mother Nature" (below) will appear at the Lake-to-Prairie Chapter, Illinois, celebration; the chapter will promote water conservation through rain gardens and rain water collection-let's hope Mother Nature doesn't provide a hands-on demonstration of watering that day!



Mother Nature (Janice Aull, President, Lake-to-Prairie Chapter) teaches everyone to play a role in caring for our planet.

Missing Link:

The New England Wild Flower Society

NEWFS Staff



Potentilla robbinsiana NEWFS, photographer unknown

Success story

n 2002, The New England Wild Flower Society (NEWFS) celebrated an historic conservation accomplishment that was achieved through goodwill and collaboration, and with almost no budget at all. Potentilla robbinsiana, Robbins' cinquefoil, a New England native, was removed from the Federal List of Endangered and Threatened Plants. This is only the 14th species in three decades to be rescued from the Endangered Species List, a list that includes both plants and animals, and it is the first plant species to be removed due to sufficient recovery. A yellow, early-spring bloomer, Robbins' cinquefoil looks somewhat like a buttercup, with fine-textured leaves in a clump. In 1980, when it was placed on the Endangered List, it could be found only on Mt. Washington, in the alpine zone of New Hampshire's White Mountain National Forest, in one patch. The U.S. Fish and Wildlife Service, U.S. Forest Service, Appalachian Mountain Club and NEWFS collaborated to propagate and plant it. In the early part of the 20th century, collecting was the major danger to the plant; today the threat comes from increased recreational activity. Several patches were planted and fenced to protect the plants from being trampled. Robbins' cinquefoil has increased from 3,700 known plants in 1980 to over 14,000 today.

History

Established in 1900, The New England Wild Flower Society is the nation's oldest organization dedicated to the con-

servation of native plants. Its founders were part of the growing wilderness movement that also inspired the establishment of the national park system and the conservation movement.

Today, the Society provides leadership throughout New England and shares its message nationally. 5,800 members (primarily in the New England region), a staff of 25 and over 500 volunteers work together to further the Society's mission "to promote the conservation of temperate



Garden in the Woods

North American flora through education, research, horticulture, habitat preservation and advocacy."

Horticulture

1600 native plant species and cultivars grow in the Garden in the Woods, the Society's 45-acre botanical garden, including many that are rare and endangered. The beautiful sanctuary, located in Framingham, Massachusetts (west of Boston), includes 17 acres of landscaped gardens, which highlight conditions from xeric to pond and plants suited to them. Created in 1931 by property owners Will C. Curtis (a landscape designer) and Howard O.

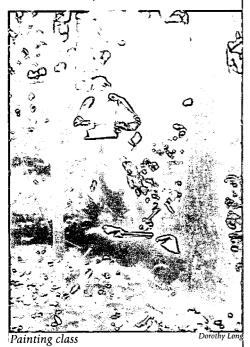
Stiles, the Garden was entrusted to the Society in 1965. But the identity of Garden in the Woods is based on the Society's mission to preserve native plants rather than on historic garden preservation. It is renowned for horticulture, propagation, and cultivation research and was honored with accreditation from the American Association of Museums in 2002. It offers the largest selection of nursery-propagated plants for sale in the Northeast. The Garden is a green resource for local towns, as well as a guide towards ecologically appropriate choices for the region and the country.

Education

In its earliest years the Society focused on education through lectures and publications featuring native flora and endangered populations. In the late 1940's, the Society offered its first formal botany classes. Since then, courses, field trips, garden tours, teacher training, family programs, and publications comprise the most extensive native plant education in the United States. Professional horticulturists and botanists, avid home gardeners, and families participate. On-line educational offerings are currently in the works.

The Certificate Program in Native Plant Studies was launched in the 1980s, providing a comprehensive background in native plant horticulture, botany, ecology, and conservation. Graduates of the program often become teachers of conservation or take on other leadership roles. Professionals use the program to update and supplement their training. Teacher training is available to local public school systems. Eighty docents lead guided tours through Garden in the Woods. International botanical tours of China in 2002 and New Zealand in 2003 are also offered. Plant propagation studies recently received a boost with the publication of Nursery Manager Bill Cullina's books, The New England Wild Flower Society Guide to Growing and Propagating Wildflowers of the United States and Canada, and Native Trees, Shrubs, and Vines: A Guide to Using, Growing, and Propagating North American Woody Plants.

New England Wild Flower Society continued from p. 4



Conservation Programs

The challenge world wide to native plants is habitat loss and degradation. Of the 2,000 New England native species, over 400 are known to be threatened. An estimated 12% of the world's known plant species and 29% of native U.S. plant species are at risk. Understanding problems inherent in invasive plants, even attractive ones, is a key part of the educational goals. The Conservation Department organizes a network of professionals and volunteers into four major areas, discussed below.

The New England Plant Conservation Program (NEPCoP) was created in 1991. It is a collaboration of botanists and federal, state and conservation agencies to monitor rare plants and reintroduce them, control invasive exotic plants, and manage and restore habitat. A regional advisory council chooses conservation actions, while six state task forces monitor volunteer surveys of rare plant sites. In 2002 alone, over five hundred actions were completed. Regionally, NEP-CoP monitors and manages over one hundred species of rare plants. NEPCoP has become a national model for plant conservation.

The Plant Conservation Volunteers (PCV's) started in Massachusetts in 1993 and is now implemented in all six New England states. It is comprised of amateur field botanists (many of whom are former

students of the Society's education program) and trains over four hundred volunteers. Actions include rare plant surveys and management, control of exotic invasive plants, and botanic surveys on public lands.

The Invasive Plant Atlas of New England (IPANE) is a four-year project to provide data on 100 invasive species, and to identify habitats most vulnerable to invasive plants. Volunteers are extensively trained. Each chooses a portion of targeted land to survey and record. In 2002, 122 volunteers surveyed 110 "topo quad" land portions.

The Herbarium Recovery Project and Flora of New England is a survey of New England herbaria with the goal of verifying the accuracy of the collections and adding more information on rare or poorly documented vascular plants. The database will be the basis of a new Flora of New England.

The Future

The Society's goal is no net loss of native species in New England. Executive Director, David DeKing sees invasive exotic plant control and establishment of supporting regulations as an important part of the focus. With like-minded regional organizations working together, The New England Wild Flower Society is optimistic that its goal is well within sight.

For more information about the New England Wild Flower Society, visit www.newfs.org or phone 508-877-7630. For volunteer information, contact Bonnie Drexler at bdrexler@newfs.org. For conservation volunteer information, contact Chris Mattrick at mattrick@newfs.org.

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FIGHTING THE INVADERS Donald R. Dann

In the Midwest, we have plant invasives, such as garlic mustard, European (common) buckthorn, purple loosestrife, and Japanese honeysuckle, and animal invasives, such as zebra mussel, Asian long-horned beetle, house sparrow, and Norway rat. Similar problems plague other sections of the country but with different invasives. However, this is an environmental problem about which we can all do something.

*Learn more about invasives at http://www.for-wild.org/download/invasive.html.

Red Hot: CONTROLLED BURNS Chicago Park District

The Chicago Park District regularly conducts prescribed burns. Greater DuPage Chapter Member Carolyn Ulrich says, "They're hoping to do a burn on a prairie-type planting in a park near my house that was planted by neighborhood folks, including me. It needs a burn to help clear out some of the pests. The burn will take place right next to a 3-story apartment building, but everyone seems to be okay with this."

Prescribed burns are conducted in late fall and early spring, when prairie grasses are dormant and dry. Fire is an economical, natural and efficient tool, especially when compared to tools such as chemicals, mechanical removal or mowing. Prairies benefit in a number of ways: control of invasive weed species; stimulation of native plant growth; increase in flower and seed production; removal of thatch and other organic build-up; nutrient recycling. Increased soil temperature in early spring also stimulates new prairie germination.

The Chicago Park District posts notifications and alerts the fire department. Specialists prepare maps of the area, ignition patterns, ideal weather conditions, staff duties, equipment, and firebreaks (areas where the fire is stopped and contained, such as a road or mown path).

For more information, contact Katherine Gierut McGurie, (312)742-4791, katherine.gierut@chicagoparkdistrict.com or Angelynne S. Amores, (312)742-4786.

For How to Manage Small Prairie Fires, see p. 18.

- Buy appropriate natives for your garden.
- * Remove invasives on your property.
- * Participate in a workday.
- * Join a local invasives control organizations.

One of the most satisfying things you can do is participate in a workday. You can go to a nearby forest, grassland, or wetland, and with other volunteers cut brush, pull undesirable weeds, or plant. Call your local forest preserve or park district office to get dates and areas where you can assist.

Don Dann is a member of the Lake-to-Prairie (IL) Chapter.

Using Native Perennial Woodlanders For Winter Color

Gene Bush

The landscape becomes almost a monochrome in Indiana from December until February. Nature rests in near nudity, cloaked only by the heavy gray of gloomy clouds. It can be hard to stay upbeat and cheerful amid the lack of color.

Now, in March, we anticipate the awakening of spring. If you use the spring as a time of planning, you can make your winter garden a place of quiet joy, one that will lift the gray gloom of overcast skies. garden arranged so I can find fresh. clean, green foliage, Mitchella repens bark textures and colorful

berries, along with blooms, twelve months of the year.

I am an active, outdoors person and remaining inside too long causes cabin fever. Unless the weather is so raw that I could not force a polar bear outside with a clear conscience, I will be walking in my garden each day. Sometimes I look at my garden; at other times, it is simply a place to be. While sitting on the big rock beneath the old cedar in the center of the garden, bad days drain away, a new strength flows inward through my connection with the earth, and I feel centered.

Ferns

There are always little surprises to greet me as I walk the paths in my woodland garden. Some of my favorite finds are the ferns. The bright, shiny green fronds of Christmas fern (Polystichum acrostichoides), a steadfast friend, can be counted on to lighten a dark corner of the woods and my spirits. Current season's fronds will be pretty beaten up by February but, come spring, the fern renews. The hairy lipfern (Cheilanthes lamosa) is a spreading fern less than twelve inches in height that

Long stormy spring-time, wet contentious April, winter chilling the lap of very May; but at length the season of summer does come.

-Thomas Carlyle, Scottish-born English historian, essayist (born 12/5/1795)

forms tight clumps. Great for a dry rocky site, it will be comfortable at the outside edge of the woods rather than the deep interior. The fronds are covered with soft, rusty-colored hairs giving it a fuzzy appearance; two or three days of not shaving and I feel a real affinity for this species. The feature I like best is its ability to take whatever Mother Nature has to deliver and remain stiffly upright. The grape fern (Botrychium obliquum) and its frilly sister, the cut-leaf grape fern (B. dissectum) are found near the path in stands of three to six. Growing only around six inches high, they each put a single frond on display. One of our more colorful natives, grape fern emerges a pinkish-mahogany. As winter progresses, the fern turns to a deeper bronze with pink to red overtones. Get this one from a friend's garden, with a ball of soil for it needs a second party mycorrhizae—present to feed. Transplants without this fungus present seldom live for more than two or three years, declining with each year.

Orchids

Orchids have fascinating foliage during winter months. Showiest is the rattlesnake orchid (Goodyera pubescens). The broad rounded leaves form a basal

Acquire your plants from nurseries that guarantee that their plants are not collected from the wild!

rosette of two to four inches in diameter. The downy foliage is bright green with a white stripe down the midrib. Each leaf is overlaid with a distinct netted pattern of white on green. The cranefly orchid (*Tipularia discolor*) sends up a single elliptical leaf in autumn that persists until late spring. It is heavily veined and pleated in appearance, blackish green, with dark spots between the pleats and a reverse side of rich purple. The blooms are a bonus

come August. Putty-root (Aplectrum hy-

male) always makes me think of seersucker suits. One leaf emerges during autumn to show off through the winter and into early spring. Larger than the cranefly leaf, it reaches six or seven inches. It is a dark dull green with light veins that give it a pleated and pinstriped effect.

Groundcovers

There are several great native groundcovers that belong beneath shrubs and small trees in the winter garden. All put on a twelve-month display, coordinate well with other plants and exist peacefully with their neighbors.

Goodyera

Partridge berry (Mitchella pubescens repens) is a tiny, trailing creeper that hugs the ground to form a bright, waxy-green mat. Individual leaves are less than an inch long, rounded, with a whitish-green midrib. It will have fuzzy, white flowers in pairs during June and July, followed by red berries into fall and early winter. It covers bare earth left when Jack-in-the-pulpit or trillium goes dormant in summer.

Wintergreen (Gaultheria procumbens) is a miniature shrub with underground connections—nothing sinister, simply shallow runners that pop up as four-inch shrubs, then take off once more to form another until there is an loosely knit colony. A stiff little stem carries lustrous, leathery leaves, matte-green with prominent lighter veins. During winter, the leaves take on bronze-red tones to form a background for the red berries that stay most of the winter. I place this where I can pick a minty leaf or berry to chew on as I pass.

Galax (*G. aphylla*) isn't frequently found in local woods or nurseries, for it was almost collected into oblivion. Better hotels, until relatively recently, used the leaves to decorate plates and it was used in many holiday greenery decorations. Once seen, it is not hard to

Winter Color

Continued from p. 5

understand why galax was so highly coveted. The rounded, heart-shaped leaves are large in size and have saw-toothed margins. Each leaf is a highly polished, bright green. Come cold weather the leaves turn copper.

Trailing arbutus (Epigaea repens) is a small creeping shrub with large leaves. This ground hugger reaches only three inches in height and each leaf is also that long, causing the shrub to lie on the ground. Foliage is heavily veined and textured, a light, glossy green. The quiet beauty of this little shrub, along with its heavenly scent in bloom, has almost been its undoing. Everyone wants a large mat in the garden, and it has been taken home only to slowly die because its needs are not understood. Location is of primary importance. It has a strong preference for a northern or eastern exposure. Soil pH must be highly acidic. There must be high humus content so that the roots have ample access to moisture, but in a well drained position, such as a raised bed. Do not allow the shallow roots to dry out the first two to three years after transplanting. Finally do not mulch too heavily or allow leaves to smother the plants.

Pachysandra procumbens, or Allegheny spurge, is a favorite on my favorites list. The large, felt-green leaves are highly mottled and veined. Foliage is at the end of lax stems that reach just under a foot. It is evergreen in a protected area in my garden, but becomes deciduous not too much farther north. It is one of the nicest native ground than the non-native covers. nicer pachysandra species or cultivars that establish a bit faster. Once our native is established it is very tolerant of drought and heavy clay soils. Flowers appear in April and are a lovely shade of shell-pink. I like mine with Christmas ferns, Jack-in-the-pulpit and green dragons (Arisaema triphyllum, A. dracontium). Later in the season our maidenhair ferns (Adiantum pedatum) are great companions.

When cabin fever strikes this winter, give some thought to an all-year garden. In a well-planned garden, there is no such thing as the "dead of winter."

©Gene Bush, 2002

Gene Bush is a garden writer, photographer, lecturer and owner of Munchkin Nursery (www.munchkinnursery.com), specializing in native and nonnative shade perennials. His gardening experiences are drawn from his hillside garden in Southern Indiana. Gene is a member of the Louisville (KY) Chapter.

All plants mentioned by Gene are native to the Eastern half of the U.S. Create an all-year garden using colorful native plants local to your area. Check with your local Wild Ones or Native Plant Society, nature center or state natural resources department.

Gaultheria

procumbens



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Jay D. Hair, In Memoriam

The National Wildlife Federation, lost a powerful member this November. Dr. Jay D. Hair, the Federation's president from 1981-1995, helped make the National Wildlife Federation into a powerful lobby for the environment

The causes that he promoted included shielding wetlands, protecting bald eagles and wolves, cutting toxic discharges into the Great Lakes, and strengthening the Clean Air Act.

Losing biodiversity

The Nature Conservancy reports that almost one quarter of U.S. states may be losing 10 percent or more of their native species. The report examines the status of more than 21,000 wild plants and animals and ranks each state by both its biodiversity, and the risks to that biological wealth.



Botanical Latin 101

Fran Gustman

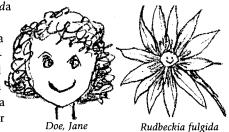
Recently I was discussing loosestrife with a friend. She thought it was yellow. I was sure it was purple. It turns out that loosestrife is the common name for two different plants. One is *Lythrum salicaria*, which is also known as purple loosestrife and is highly invasive and banned in many states. The other is *Lysimachia ciliata*, which is native and is yellow. This is a good example of how learning the Latin names will help you know your plants and make the best choices.

Long after the Roman civilization had disappeared and Latin was no longer spoken, a formula based on Latin roots was created as a way of maintaining consistency in the naming of living beings. Botanic Latin was created in the eighteenth century by Carolus Linnaeus (1707-1778), a Swede who also Latinized his own name, as was common among the educated at the time.

Living beings are now divided and positioned in a family tree called the Taxonomic Hierarchy. All plants are in the category called the Kingdom Plantae. Following Plantae are more and more specific categories, which the mnemoic device "Kings play chess on fine green slate" may help in keeping straight: Kingdom, Phyllum, Class, Order, Family, Genus, and Species. While it is possible to list all the different parts of the family tree when talking about a plant, it would be like naming parents, grandparents, great grandparents and their parents whenever someone was introduced. It is easiest to just use genus and species.

In print, Genus is indicated by italics and it is capitalized—as in *Rudbeckia*. The species is also in italics but is in lower case—*Rudbeckia fulgida*. This is a black-eyed Susan that is native to eastern North America, with a range from Indiana to New Jersey. If there were a natually occuring purple *Rudbeckia fulgida*, it could have been identified as

a special "variety" and called Rudbeckia fulgida variety purpurea (which can be abbreviated as Rudbeckia fulgida var. purpurea.) However, if a human being rather than nature has created a new plant, the result is not natural and is called a "cultivar" (cv.) instead of a variety. One cultivar of Rudbeckia fulgida is Rudbeckia fulgida 'Goldsturm'. The cultivar name is put in single quotes and is not in italics. (And if you are writing the names and are



getting tired of repeating them over and over, after the first naming, it is OK to abbreviate, as with *R. f.* 'Goldsturm') To sum it all up: if the plant name is all in italics, it is a naturally occuring plant, as is another black-eyed Susan, *R.hirta*. If the last part of the name is in single quotes and is not italicized, the plant has been genetically altered by a breeder.

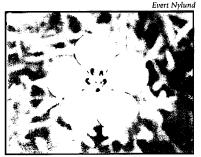
Since Latin was not spoken when this system was created, there is disagreement over how to pronounce the names. If you look at the pronunciation guides in British gardening books, you will find that the accents are on different syl-LA-bles than in American books! However, the good thing is that the whole horticultural world uses these same names, whatever the pronunciation.

A good reference for plant names is the International Code of Botanic Nomenclature and the International Code of Nomenclature for Cultivated Plants: http://www.ashs.org/resources/plantnames/nomenclatureinfo/plantnomenclature.html.

Fran is the new editor of Wild Ones Journal. She is also Editor of HortResources Newsletter of New England.

Rancho Santa Ana Botanic Garden Claremont, CA

Bob Huffman



Nemophila maculata

This is a prime garden for someone with an interest in native flora. It has a quiet, collegial air, and I have seen no place with a display of Southern California flora to match it. The relatively small, 86-acre garden, on the side of the San Gabriel Mountains, has had much influence in conserving native plants. I walked among a carpet of lowgrowing orange California poppies (Escholzia californica), tidytips (Layia platyglossa), baby blue eyes or five spot (Nemophila menziesii), and chick lupine (Lupinus sp.). Shrubs were manzanita (Spanish for "little apple," Arctostaphylos sp.) with blueberry-colored blossoms in spring; Mahonia, with its holly-like leaves and yellow flowers and blue fruit to follow; and Ceanothus, with blue or white odorless blossoms (sometimes called California lilac). Giant sequoia (Sequoiadendron gigantea), California fan palm Washingtonia fillifera), coast live oak (Quercus agrifolia), and madrone (Arbutus menziesii) provided the upper-level interest. Visit here and you will save a lot of time wandering over the mountain and seaside trails searching for botanical treasures!

Bob Huffman is a home gardener who lives west of Boston, MA.

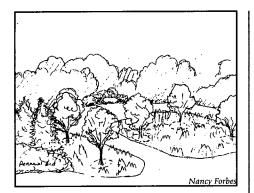
Hoeing: A manual method of severing roots from stems of newly planted flowers and vegetables.

Henry Beard, American author

PREPARING TO PLANT:

MAKING A MEADOW GARDEN

Nancy Forbes



meadow garden has always existed on the periphery of my imagination, just beyond the place where orderly perennial beds behave themselves with their subdued colors in orchestrated drifts. I had long wanted to create a place where both plants and I could enjoy more freedom: a place where bright flowers intermingled with their grassy neighbors, reaching a perfect balance of height and color early in the season (having grown so quickly that not a single weed had a chance to grow). This lovely picture would gradually fade to muted tones of beige and russet, swaying gracefully all winter until cut down in the spring. Of course everything would again grow quickly and repeat the same orderly progression the following season.

These were the idealized images that came to mind when a client called to ask if we could carve a 2000-square-foot garden out of a half acre of lawn in a suburb west of Boston. She and her husband regretted the loss of the meadow that had existed when they first bought the house; it had disappeared during the course of extensive renovations and earthmoving. Their previous attempt to retrieve some naturalistic feeling had not been successful: two groups of crabapples were marooned in rings of mulch in a manicured lawn.

Following is a description of how we approached this project, including mistakes made and lessons learned. Although we could not duplicate the meadow that had been lost, we were able to create a space filled with the textures and movement of a meadow, a place we called a "meadow garden." The same

technique could be followed using plants suited for the particular ecosystem that you are restoring.

November - December 1999: I removed the mulch from around the crabapples and sowed winter rye seed. Unseasonably warm weather allowed much of it to germinate, and as the grass began to grow up to the crabapples' trunks, the lawn began to look more orchard-like. A wild turkey arrived and nibbled on it, the first wildlife to be attracted. We met and looked at images of meadows to find one that captured the look and feel we wanted: not as colorful as their perennial bed but not as monochromatic as a planting of grasses. The most helpful images were in The Natural Habitat Garden by Ken Druse, crammed with photographs of every variation of a meadow, individual grasses and perennials. There were also descriptions, although not complete instructions, of how each meadow was created and maintained. Looking at these pictures made my clients realize they wanted plantings that were a bit more garden-like, less laissez-faire, than a meadow proper. Plants would be chosen for color, texture and height and arranged in loose, interlocking drifts.

January - February 2000: We had to decide whether to use seeds or plants. The sources I consulted said that a seeded meadow would be a three- to five-year undertaking, with carefully timed mowings or burnings (the latter not possible in this suburban location).

Anne Lovejoy points out in Naturalistic Gardening that "it is almost impossible to replace a lost meadow with its original inhabitants, especially after the soil has been disturbed and replaced. In suburban situations, where wind-blown seeds make any attempt to naturalize futile, it is not even worth trying." Despite its promising title, Lovejoy's book had little information on meadow, gardening. Some advice

Goldenrod

seemed plainly wrongheaded, such as the suggestion to plant "stubborn placeholders" like chicory and Queen Anne's Lace. Stubborn is right. And neither one is native

Two books I did find very helpful were The Wild Lawn Handbook: Alternatives of the Traditional Front Lawn by Stevie Daniels and Easy Lawns: Low Maintenance Native Grasses for Gardeners Everywhere, one of Brooklyn Botanic Garden's 21st Century Gardening series. We were convinced to use plugs and larger plants instead of seeds and to plant them in spring. This would allow them a better chance to grow fast and to fill in by the end of the summer.

March 2000: We worked on selecting plants, eliminating everything we knew from bitter experience that the

Check with your local Wild Ones Chapter or other local resources to learn which plants are native to your local ecoregion. For more on ecoregions, see www.forwild.org or the May/June 2002 issue of the *Journal*.

resident woodchucks liked. I wanted the native grass, little bluestem (Schizachyrium scoparium) as the mainstay, having witnessed its dependably beautiful progression from blue-gray to golden orange every season for twenty-five years on Cape Cod. Unlike some other grasses, it remains upright through the entire winter. Warm shades of yellow and orange predominated in the perennial flowers we ordered, with some touches of deep red and white to enliven the planting. These colors would stand out from the grasses but also be muted by them.

April 2000: The first week of April the ground was dry enough for the lawn service to come and cut the beds. I had made rough outlines with dashes of orange spray paint, and my client chose the configurations she liked best. That was the extent of our plan, other than a rough sketch I had done in the fall. The landscaper removed the grass with a sodpeeler, a remarkable machine that lifts the turf like a sardine tin lid being rolled back. I did not add a great quantity of soil amendments, knowing that the plants

continued p.10

Meadow garden, continued from p. 9

we were using tolerated, and even liked, a poor soil. The grasses arrived the second week of April and had unexpectedly large root systems. This was good news because they would grow fast but bad news because, as I started to dig the first hole, my shovel practically bounced off the hard, rock-laden clay.

After using a post-hole digger to remove the soil, I planted the little bluestem at 18-inch intervals. Forbs were planted the following week. They repeated some colors and species from the perennial bed: black-eyed Susan (Rudbeckia); sneezeweed (Helenium spp.); and Heliopsis. To these were added some meadow forbs, such as goldenrod (Solidago), Gaillardia, butterfly weed (Asclepias tuberosa), and cupplant (Silphium perfoliatum).

Gaillardia is native only to the western U.S. and is not recommended for use in the east by Wild Ones. We suggest a locally native species in its stead.

May - June 2000: The rapid growth I had anticipated did not occur, due to frequent rains and cool temperatures. These conditions did little to hamper crabgrass growth, however, and I found myself struggling to keep it from overtaking the new plants. Had I thought to mulch between the plants with salt marsh hay, the weeds would have been somewhat suppressed.

July - August 2000: I could barely keep the weeds at bay and my assistant begged to be posted elsewhere in the garden, afraid she would not be able to distinguish a large clump of crabgrass from a stunted native grass. I was relieved when seedheads appeared and clarified matters. Despite the slow start, the plants were growing taller and fuller. Black-eyed Susan, gaillardia, and cupplant were blooming profusely and the grass was growing tall enough to sway in a gentle breeze. One day, weeding on hands and knees, I heard a slight rustle nearby and found myself eye to eye with a rabbit. A few butterflies hovered. Clearly these creatures knew that the meadow garden was becoming a reality.

September - October 2000: I had ordered a shipment of twenty-five little bluestem to fill in the bare spots. I planted everything immediately to take advantage of the warm weather left in the season. After a couple of weeks, there was no perceptible growth. Planting with plugs should be a spring or early summer activity; they need very warm weather to grow. Therefore I purchased some mature big bluestem (Andropogon gerardii) for the back of the beds where something taller was needed. Their hefty roots had no problem getting established and made the garden look dense right away. I would have liked to have tried Indian grass (Sorghastrum nutans) and Canada wild rye (Elymus canadensis) to add different textures, but I could not find them so late in the season.

November - December 2000: The seedheads of the grasses developed and caught the waning light. The grasses turned varying shades of pale beige and were surprisingly bright in the winter sun. The little bluestem was the only intense color, a russet orange that stood out, yet harmonized, with the form and color of its companions.

January - March 2001: After repeated snows and heavy rains, most plants have collapsed, except little bluestem. But there is some color and texture adding interest to the winter. A few round black seed heads remain upright and a few touches of green are beginning to appear. Once the soil is dried out and the washouts have been filled in, it will be time to mow the garden, the only time it will be done until next spring. In the meantime, I must decide whether to use a product that will prevent seed germination. But it will eliminate ALL seeds including those of welcome self-seeders. I am not sure I can live with that. I would not want to eliminate weeding entirely. After all, there is always the possibility of seeing the rabbit or butterflies at close range again.

Postscript, December 2002: Another year has passed in the meadow garden. The prodigious growth of the grasses and forbs has reduced the number of weeds, and the ones that do emerge are hidden by the "better" plants. In the end, I decided not to use Preen, the non-toxic product that prevents seed germination, because I wanted to see which plants would self-seed and to learn how

the garden would behave when left to its own devices. I still weed around the edges, but that is all.

As for the future...I would like to add more color, and I have the excellent 100 Easy-to-Grow Native Plants by Lorraine Johnson (Wild Ones Board member) to guide me. There are no "woodies" in this book and only a few grasses; the focus is on flowering perennials, which is fine for my purposes. I especially love the "Quick-Reference Charts" at the end which have photographs of all the featured plants, in categories such as "Prairie Habitat." Although the photographs are small, one can immediately see how the plants would look in combination.

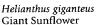
Another good resource is the recently-published Grasses: Versatile Partners for Uncommon Garden Design (2002) by Nancy Ondra. The images of the individual grasses, as well as countless tantalizing combinations, make this book both gorgeous and informative. The text is straightforward and clear, as are the concise descriptions of each grass. The book does not differentiate between native and non-native grasses, however, so a companion book would be needed to sort this out.

The meadow gardener has many more resources than even just a few years ago. There are now books and nurseries that specialize in grasses and forbes for meadow and prairie settings. These resources are enabling gardeners to

recreate and restore habitats that are an integral component of our horticultural heritage.

Originally published in HortResources Newsletter, Vol. 9, No. 3, May-June 2001.

When not making eye contact with rabbits and crabgrass, Nancy Forbes works at her landscape design/build business west of Boston. Contact her at forbesgardensaol.com.





Invasives: Yank a Weed!

Mary Lee Croatt

Sometimes it takes an aerial view to get the big picture. I was on a flight, seated next to Steve Kessler, a wildlife biologist with the United States Department of Agriculture Forest Service. I told him that I wrote stories about my experiences as a land restorationist for the Prairie Enthusiasts and Wild Ones. Steve challenged me: "Well, how do you inspire others to care about our native plants?"

This question brought to mind my neighbor, Judy, who has a natural garden in the front yard of her urban Whitefish Bay, Wisconsin home. This summer, she proudly pointed to a plant. "Isn't that the prettiest flower!" she exclaimed with delight. Pretty? Sure, one alone was pretty. But Judy did not realize that her plant was garlic mustard (Alliaria petiolata), which has invaded Milwaukee woods and parks. Where there once was a diversity of beautiful native plants-trillium, bloodroot, Mayapple, Jacob's ladder, wild ginger, spring beauty, hepatica, and meadowrue there now is a carpet of garlic mustard, ad infinitum and ad nauseum.

It took repetition and an educational pamphlet on the villainy of the garlic mustard to encourage Judy, but she plucked it out.

Purple loosestrife (Lythrum salicaria) is a wetland villain. Another acquaintance was so enraptured with the color that she planted purple loosestrife in the wetland meadow behind her condominium complex. She had to kiss goodbye her marsh marigolds, skunk cabbage, and other wetland plants. In losing those plants, she also lost a habitat for native insects, amphibians, and the furry and feathered friends that survive on them. The axiom: save the habitat or lose existing animal life.

The Department of Natural Resources and our local sportmen's club planted reed canary grass (*Phalaris arundinacea*) on the riprapping (concrete blocks or other material) of the stream banks of the west fork of the Kickapoo River in Wisconsin to control erosion. It did control the erosion. However, its thick mat crowded out native plants and the resulting monoculture does not support native wildlife.

Crown vetch (Coronilla varia) was also introduced to our landscape by the DNR and the Department of Transportation for erosion control. Without constant vigilance, it too will likely eliminate plant diversity.

Will garlic mustard, purple loosestrife, reed canary grass, and other weeds impact your life? Why should you care? If left unchecked, your grandchildren will not be able to experience the same beauty and wondrous variety of native plant life that you have experienced.

So, please, give a yank! Pull an invasive weed. Consider financially supporting the environmental groups that do this labor intensive work! Save our native plants, animals, and habitats.

Mary Lee is a member of the Milwaukee-North (WI) Chapter.

WORST WISCONSIN INVASIVE PLANTS

from: www.for-wild.org/land/wibirdpl.html

Purple Loosestrife (*Lythrum salicaria*)
Tartarian Honeysuckle

(Lonicera tatarica)

Garlic Mustard (Alliaria petiolata)

Reed Canary Grass

(Phalaris arundinacea)

Crown Vetch (Coronilla varia)

Common Buckthorn

(Rhamnus cathartica)

Glossy Buckthorn (Rhamnus Frangula)

White Sweet Clover (Melilotus alba)

Yellow Sweet Clover (Melilotus alba)

Canada Thistle (Cirsium arvense)

Wild Parsnip (Pastinaca sativa)

Musk or Nodding Thistle

viusk of Induding Till

(Carduus nutans)

Alliaria petiolata

Compare the Rhode Island list of invasives, at the right, to the Wisconsin list, above– the same plants may not be considered invasive in different areas. Factors include the acidity and texture of the soil, climate, and temperature.

The New England Wild Flower Society has produced *Invaders*, a primer on invasives. For a copy, send \$4 (includes postage) to:

Invaders, NEWFS 180 Hemenway Road Framingham, MA 01701-2699.



QUARTERLY NATIONAL BOARD MEETINGS

All Wild Ones members are invited to attend the quarterly meetings of the National Board of Directors. More details will be printed as they become available, or can be obtained from your officers, at www.for-wild.org or from the Executive Director.

March 1: Oakland (MI) Chapter

June 21: Green Bay (WI) Chapter

Sept. 13: *Annual Meeting,* St. Louis (MO) Chapter

Sept. 14: St. Louis (MO) Chapter

Oct. 25: Twin Cities (MN) Chapter

OTHER CONFERENCES

March 1: The Michigan Wildflower Conference will host the first Wild Ones quarterly meeting of the year at the University's Kellogg Conference and Hotel Center. Ones members.

March 2-3: 16th Annual Michigan Wildflower Conference, Michigan State University, East Lansing, MI. Contact:

Marji Fuller, phone (269) 948-2496; e-mail

marjif@iserv.net; web site

http://www.wildflowersmich.org.

Speakers include Joe Powelka, Wild Ones

president, Marilyn Wyzga, Wild Ones board

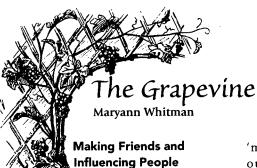
More listings p. 15.

member, and other Wild Ones members.

WORST RHODE ISLAND INVASIVE PLANTS

Rhode Island Invasive Species Council (RIISC)
Official List of Invasive Plants

Fanwort, Cabomba caroliniana (native)
Asiatic Bittersweet, Celastrus orbiculatus
Autumn Olive, Elaeagnus umbellata
Japanese Honeysuckle, Lonicera japonica
Purple Loosestrife, Lythrum salicaria
Japanese Knotweed, Polygonum cuspidatum
Curly Pondweed, Potamogeton crispus
Common Buckthorn, Rhamnus cathartica
Multiflora Rose, Rosa multiflora
Black Swallowwort, Vincetoxicum nigrum



Reeser Manley, who teaches landscape horticulture at the University of Maine in Orono, is launching an interesting re-

"search project in collaboration with Marjorie Peronto, University of Maine Cooperative Extension Horticulturist.

Peronto and Manley believe, "Horticulturists are becoming increasingly interested in creating regionally unique landscapes that are environmentally friendly, landscapes that are extensions of surrounding native plant communities and thus function to provide habitat for native plants and animals... Currently only 5% of land in the U.S. is protected from development and many ecologists feel that even a conservation goal of 10% may be too low to prevent mass extinctions...if the remaining landscape succumbs to development...To prevent an environmental crisis, isolated islands of protected land areas will have to be connected by vegetation corridors with a strong component of native plant species. Managed landscapes of all sizes can fill this critical need. Even residential plantings can provide food, water and shelter for small mammals, birds, insects and amphibians as they move about the landscape."

Peronto and Manley hope to add to knowledge available about the adaptability of native plant species to managed landscapes. They are creating a database from information gathered by Master Gardeners on the tolerance of thirty native trees and shrubs to stresses associated with urban landscapes. They hope that this network of Master Gardeners throughout Maine will be an educational resource for the design function of native trees and shrubs in managed landscapes.

"We probably know more about the environmental stress tolerances of non-native species, and thus their 'marketability', than we do about our native species. It is a mistake in thinking to assume that because a species is regionally native that it will be able to deal with the environmental stresses of managed landscapes. Even the climate in the managed landscape, because of heat island effects and the like, may be different from the climate in the native habitat. So to assume that a species, because it is native, is better adapted, is incorrect. We need to investigate and demonstrate the tolerance of each species to soil compaction, deicing salts, drought, heat island effects, air pollution and root restriction, if we want to know how and where we can use each species in our managed landscapes."

This sounds like a long term project. I hope Peronto and Manley will share the results with Wild Ones as they become available.

Catch-22

Many of us have experienced these scenarios: native plant species are not available at our otherwise well-stocked garden center, and in response to a request for them, we are told that there simply is no demand. And, if native species—unmodified, unselected, unnamed—should happen to be available, the supplier cannot tell us their provenance.

Last fall I cornered my local large grower/seller, who "explained"that most growers don't keep "diaries" of the sources of their seeds. He laboriously tried to explain that the ferns at which I was looking had come to him from a grower in eastern Ontario, Canada. But, he knew that she had close contacts in British Columbia. Therefore, he thought that her starting stock might have come from there. It simply had not occurred to him to ask her.

Here in southeastern Michigan, I avoid buying from any but small native plant growers like Bill Schneider at Wildtype, Mike Appel at the Native Plant Nursery, or Jewel Richardson of Wetlands Nursery (all Wild Ones members and supporters), who

Continued p.14

Introduction to New Editor, Fran Gustman of Boston

As the new editor of Wild Ones Journal, I am covering a lot of country—all of the United States and into Canada! I can't say I'm well traveled. Most of what I know about the midwest comes from Garrison Keillor on the Prairie Home Companion. I've been to San Francisco twice and did a grand tour of many of the national parks on the western side of the Rockies twenty years ago and I've been to Florida to visit the in-laws several times.

But, I do know New England and I am well read. I have a strong plant background and the concept of native plants holds true even if the specifics change. For the past 5 years, I have edited the horticultural newsletter, *HortResources*, for readers across New England. I look forward to doing the same for *Wild Ones* readers.

I live across the Charles River from Harvard College, which is in Cambridge—not Boston—and both communities would appreciate it if people kept that straight! The Charles separates Cambridge and Boston, creating wonderful river views for both towns, and empties into Boston Harbor, where we "love those dirty waters." Once labeled the dirtiest harbor in the country, Boston now has a brand-new water purification system. Brighton, where I live, is in the western part of Boston and feels like a small town but we are fortunate in the use of Boston's public transportation, or the "T," the train/subway system.

While, at my desktop in Brighton, my fingers do my flying. If you have information that would be of interest to native plants enthusiasts anywhere in this huge country and Canada (I've been to Montreal!), I would be happy to receive it.

Thank you to past Editor Merry, Mason Whipple, who has brought the newsletter to its present level of excellence and has made the transition smooth for me.

Welcome! PALOUSE CHAPTER

The Palouse Chapter, in north-western Idaho, takes its name from the Palouse Prairie restoration in Latah and Whitman Counties in Idaho and Washington.

Planting: Doing Right by Trees & Shrubs

Fran Gustman

How trees and shrubs "breathe"

igh school botany has taught us that leaves take in CO2 and use it to photosynthesize, thus producing food. However, many people don't know that plants also take in oxygen, through all their surfaces—leaves, stems, trunks and roots. The oxygen is used as fuel for energy and produces carbon dioxide.

The root of a plant can survive lower levels of oxygen and higher carbon dioxide levels than trunk tissues. After all, roots are designed to be below the surface. A tree's fibrous roots are generally less than two feet deep, stretching like a pancake around the trunk. Oxygen filters downward through the soil particles to the root hairs. Carbon dioxide moves upward until it is expelled into the air. Growth slows if there is too much carbon dioxide around the root tips. If root tips cannot expand into new soil because of pavement or because the soil is compacted, the tree experiences the equivalent of being "pot-bound"—eventually rootlets smother and the tree dies.

Large buttress roots generally fill the diameter equal to that of the canopy but feeding rootlets extend way beyond the branch system. In fact, a tree's stability is primarily the result of the wide horizontal spread of the roots. Sixty percent of the roots are outside the drip line—the root system of one willow specimen was the length of a football field!

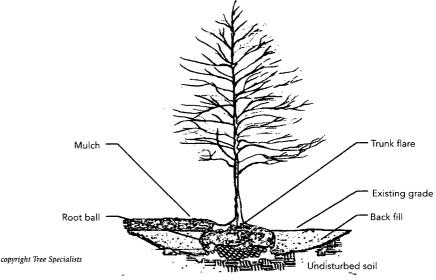
Purchasing

Start out with a healthy plant. Inspect the roots before planting. Poor culture will be manifested by such symptoms as soil above the root collar, which causes trunk rot, root circling, and weak growth of the fibrous roots.

Proper Planting

When a tree or shrub is planted too deeply, the weight of the fill can compact the soil below to make it as impervious as asphalt. The tree may even die of drought in a season of plentiful rain. Under too much fill, roots also smother or the cells in the trunk will die from lack of oxygen and the tree will be girdled.

Improper planting is a major cause



of tree death. Common planting mistakes include compacted soil, excessive depth, constricted area for root spread, burlap or wire remaining on the root ball, and root-circling. Roots under stress will head upwards and circle. Eventually as their girth expands, their boa constrictor-like grip may choke off circulation of the trunk or of other roots.

Symptoms

The first symptoms of poor planting will be scorched and smaller leaves, defoliation, and branch dieback. A first symptom that water is not reaching the roots will be in the crown, (because it is the area farthest from the root system), including yellowing, wilting or curling leaves. The tree may show symptoms after one year or it may take over twenty years, depending on factors such as the depth of planting, texture of the fill, wetness, and the species.

Correct planting

It used to be recommended that the hole be made deep and narrow and filled with amendments. It is now recommended that the hole be shallow and saucer-shaped and no deeper than the root ball. The tree or shrub should rest on solid ground to prevent settling. If the hole is too deep add dirt and tamp it down. The trunk flare (where the roots spread from the trunk) MUST be above the soil. The hole should be three to five times the width of the root ball with the roots spread out horizontally. Don't amend the soil, unless it is very poor, or the roots will prefer to remain in their comfortable home rather than leaving in search of nutrients and water.

Add back half the soil and then add water to force soil particles into contact with the root hairs. The loose, newly aerated

soil is holding lots of oxygen for the plant so don't step on or otherwise tamp it down. When the hole is full, add more water.

Smaller plants typically catch up quickly to larger plants planted at the same time.

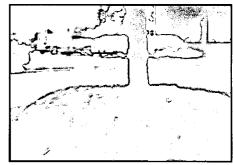
Watering

A field-dug tree has only 5-10 percent of its root system remaining and is not able to find sufficient water for itself. A new tree should receive five gallons of water a week for each one inch in diameter, so a 3-inch caliper tree should receive 15 gallons.

A drought is defined as a condition in which the top 6 inches of the soil is dry for 8 weeks or more. Much of the country is currently experiencing drought. Even established plants need to be monitored for water.

People often do not think to water trees. They appear so self-sufficient. However, a plant that has survived a drought will not necessarily be able to survive the next stress, whether it is a lack of water or an infestation if insects or disease.

Around young trees, it is a good idea to use mulch and to wait a few years to plant ground covers, which compete for water and nutrients.



This is what you should NOT do!
"Mulch volcanoes" create "lollipop trees."
Virginia Cooperataive Extension

continued p. 16

meet us on line at www.for-wild.org

Chapters, please send your chapter newsletters or events notices to:
Calendar Coordinator Mary Paquette
N2026 Cedar Rd., Adell, WI 53001
(920) 994-2505 • meeting@for-wild.org
(Please note new e-mail address.)



The meeting place

You are invited to participate in all Wild Ones activities, even when you travel! For complete details about upcoming events, consult your local chapter newsletter or call the local contacts listed for each chapter. Customary meeting information is included here, but because it is subject to change, please confirm dates and locations.

ILLINOIS

GREATER DUPAGE CHAPTER
MESSAGE CENTER: (630) 415-IDIG
PAT CLANCY: (630) 964-0448
clancypj2@aol.com
Third Thursday, 7 p.m., College of DuPage,
Building K, Room 161.

LAKE-TO-PRAIRIE CHAPTER KARIN WISIOL: (847) 548-1650 Second Monday, 7:15 p.m., Byron Colby Community Barn at Prairie Crossing, Grayslake (Rt. 45, about 1/2 mile south of III. 120).

NORTH PARK CHAPTER BOB PORTER: (312) 744-5472 bobporter@cityofchicago.org Second Thursday, 7 p.m., North Park Nature Center, 5801 N. Pulaski, Chicago.

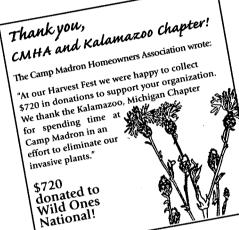
ROCK RIVER VALLEY CHAPTER TIM LEWIS: (815) 874-3468 Third Thursday of month, 7 p.m. usually at Burpee Museum of Natural History, 813 N. Main St., downtown Rockford, (815) 624-4225.

IDAHO

PALOUSE CHAPTER (Seedling)
BILL FRENCH: (208) 883-3937
prairiedoc@moscow.com
Second Sunday of month, 2 p.m.,
Room 2B, Latah County Courthouse,
522 S. Adams St., Moscow.

INDIANA

GIBSON WOODS CHAPTER JOY BOWER: (219) 989-9679 or (219) 844-3188 Jbower1126@aol.com First Saturday during winter, 10 a.m., Gibson Woods Nature Center, 6201 Parrish Ave., Hammond.



KENTUCKY

FRANKFORT CHAPTER KATIE CLARK: (502) 226-4766 katieclark@vol.com Second Monday, 5:30 p.m., Salato Wildlife Education Center Greenhouse #1 Game Farm Rd, off US 60 W (Louisville Rd.).

LEXINGTON CHAPTER
SUSAN HOFMANN: (859) 252-8148
sillyserpent@wildmail.com
Usually first Wednesday, 7 p.m.,
McConnell Spring. Schedule & location vary.

LOUISVILLE CHAPTER
PORTIA BROWN: (502) 454-4007
wildones-lou@insightbb.com
Fourth Tuesday. Location varies.
Woods Saturday Work Day:
WARD WILSOND: (502) 299-0331,
ward@wwilson.net

MICHIGAN

ANN ARBOR CHAPTER
JOHN LOWRY: (810) 231-8980
john@kingbird.org
SHANNON GIBB-RANDALL: (734) 332-1341
gibbrand@mich.com
Usually second Wednesday.
For details: www.for-wild.org/annarbor

CADILLAC CHAPTER
PAT RUTA: (231) 745-4631
pat_ruta@hotmail.com
Fourth Thursday, 7-9 p.m.,
Lincoln School, 125 Ayer St.

Grapevine

Continued from p. 12

I know collect their starter seeds within a hundred miles of my land. This makes sense to me as I am trying to restore a bit of native landscape that has not been significantly modified since the 1850's.

The Wild Ones "Guidelines on the Selection of Native Plants and the Importance of Local Ecotype," published recently in the Wild Ones Journal May-June 2002, makes good ecological sense to me. I find I have already been living by them. But, how do we go about getting "local ecotypes" into the hands of a contractor who is land-scaping a subdivision down the road from us? Into the garden centers? To folks who have not heard of Wild Ones?

Beyond suggesting that we raise a hue and cry to let our local garden centers know that there is indeed a public demand, I have no answers.

I am very curious to know what conditions are like in other parts of the country regarding the supply of local ecotype. My e-mail address is featureseditor@for-wild.org and my mailing address is Box 231, Lake Orion, MI 48361.1'd really appreciate hearing from you.

Maryann Whitman is Features Editor of Wild Ones Journal and a member of the Oakland (MI) Chapter.

CALHOUN COUNTY CHAPTER
MARILYN CASE: (517) 630-8546
mcase15300@aol.com
Fourth Tuesday, 7 p.m.,
Calhoun Intermediate School District building
on G Drive N. at Old US27, Marshall.

CENTRAL UPPER PENINSULA CHAPTER TOM HAUZER: (906) 428-3202 thauzer@chartermi.net

DETROIT METRO CHAPTER
ELIZABETH MCKENNEY: (248) 548-3088
ebmck@hotmail.com
Third Wednesday, 7-9 p.m.,
Royal Oak Library, Historical Room,
222 E. Eleven Mile Rd., Royal Oak.

FLINT CHAPTER
GINNY KNAG: (810) 694-4335
mtknag@ameritech.net
Second Thursday, 7 p.m.,
Woodside Church, 1509 E. Court St.

KALAMAZOO CHAPTER NANCY & TOM SMALL: (616) 381-4946 Fourth Wednesday of month, 7:30 p.m., Christian Church, 2208 Winchell.

RED CEDAR CHAPTER
MARK RITZENHEIN: (517) 336-0965
mritz@acd.net
Third Wednesday, 7-9 p.m.,
Hancock Turfgrass Research Center, MSU
For details: www.for-wild.org/redcedar.

continued

Continued from p. 14

OAKLAND CHAPTER
MARYANN WHITMAN: (248) 652-4004
maryannwhitman@comcast.net
Third Thursday, 7 p.m.,
Old Oakland Township Parks/Police Building,
4392 Collins Rd., Oakland Township.

MINNESOTA

ARROWHEAD CHAPTER
CAROL ANDREWS: (218) 727-9340
carol_andrews@hotmail.com
Fourth Thursday, 6:00 p.m. Location varies.
For details: www.d.umn.edu/~wildones

OTTER TAIL CHAPTER
KAREN TERRY: (218) 736-5520
terry714@prtel.com
Fourth Monday, 7 p.m.,
Prairie Wetlands Learning Center, Fergus Falls.

ST. CLOUD CHAPTER GREG SHIRLEY: (320) 259-0825 shirley198@charter.net Fourth Monday, 6:30 p.m., Heritage Nature Center

TWIN CITIES
MARTY RICE: (952) 927-6531
jcrmfr@msn.com
Third Tuesday except December,
6:30 p.m. social time; 7 p.m. meeting.
Nokomis Community Center,
2401 E. Minnehaha Pkwy, Minneapolis.
Location may vary.

MISSOURI

MID-MISSOURI CHAPTER LESA BEAMER: (573) 882-6072 wildonesmo@yahoo.com Second Saturday of month, 10 a.m. Location varies. For details: wildones.missouri.org.

ST. LOUIS CHAPTER SCOTT WOODBURY: (636) 451-3512 scott.woodbury@mobot.org First Wednesday except December, 6:00 p.m. Location varies. See web site.

NEW YORK

NEW YORK CITY METRO /LONG ISLAND CHAPTER JENNIFER WILSON-PINES: (516) 767-3454 jwpines@juno.com Members Room, Brooklyn Botanic Gardens, 1000 Washington Avenue, Brooklyn.

оню

GREATER CINCINNATI CHAPTER ROBERTA TROMBLY: 513-751-6183, btrombly@fuse.net LESLIE HAID: 513-868-1488 Monthly meetings or field trips; see web site.

COLUMBUS CHAPTER
MARILYN LOGUE: (614) 237-2534,
mlogue@sprintmail.com
Second Saturday, 10 a.m.,
Innis House, Inniswood Metropolitan Park,
940 Hempstead Rd., Westerville.

SOUTH CAROLINA

FOOTHILLS CHAPTER KAREN HALL: (864) 287-3294 kcarlso@clemson.edu Third Saturday, Red Caboose, State Botanical Gardens, Clemson University.

WISCONSIN

CENTRAL WISCONSIN CHAPTER
PHYLLIS TUCHSCHER: (715) 384-8751
toosch@tznet.com
Fourth Thursday, 7 p.m., Rooms 1&2,
Portage County Extension Building,
1462 Strongs Ave., Stevens Point.

DOOR COUNTY CHAPTER
JUDY RENINGER: (920) 854-5783
jreninger@dcwis.com
November - April, first Monday, 7-9 p.m.
Location varies.

ERIN CHAPTER BOB & BEV HULTS: (262) 670-0445 Third Thursday, 7 p.m., Erin Town Hall, 1846 Hwy. 83, Hartford.

FOX VALLEY AREA CHAPTER
CAROL NIENDORF: (920) 233-4853
niendorf@northnet.net
DONNA VANBUECKEN: (920) 730-3986
dvanbuecken@new.rr.com
Indoor meetings: 7 p.m.,
either at Memorial Park Arboretum,
1313 E. Witzke Blvd., Appleton,
or Evergreen Retirement Community,
1130 N. Westfield St., Oshkosh.

GREEN BAY CHAPTER
HAL SUNKEN: (920) 469-0540
hdsunken@cs.com
Usually third Wednesday.
Most meetings at Green Bay Botanical Garden,
2600 Larsen Rd., except in summer.

MADISON CHAPTER
SUE ELLINGSON: (608) 259-1824
ozzie@chorus.net
Last Wednesday, 7 p.m. Location varies.

MENOMONEE RIVER AREA CHAPTER JAN KOEL: (262) 251-7175 DIANE HOLMES: (262) 628-2825 Indoor meetings: second Tuesday, 6:30 p.m., cafeteria, Valley View School, W180 N8130 Town Hall Rd., Menomonee Falls.

MILWAUKEE NORTH CHAPTER
MESSAGE CENTER: (414) 299-9888
Second Saturday of month, 9:30 a.m.,
Schlitz Audubon Center,
1111 E. Brown Deer Rd., Bayside.

MILWAUKEE SOUTHWEST-WEHR CHAPTER MESSAGE CENTER: (414) 299-9888 Second Saturday, 1:30 p.m., Wehr Nature Center, 9701 W. College Ave., Franklin.

NICOLET TEC (Seedling)
DIANE WILLETTE: (715) 362-6870
diane@bfm.org

ROOT RIVER AREA CHAPTER
NAN CALVERT: (262) 681-4899
prairiedog@wi.rr.com
Sept. - May, first Saturday of month, 1:30-3 p.m.,
Riverbend Nature Center, Racine.

On the Horizon, continued from p. 11

May 5-10: North America Native Plant Society. 10:00 a.m. to 4:00 p.m. - Plant sale. 10:30 a.m. to 12:30 p.m. - book signing by noted Canadian author Lorraine Johnson, Wild Ones National Board Member. New Ontario Naturalized Garden, Civic Garden Centre, Toronto, Ontario. Contacts: www.nanps.org, e-mail nanps@nanps.org, (416) 631-4438.

September 13-14: Shaw Nature Reserve Conference, Gray Summit, MO (near St. Louis) and site for the Wild Ones Annual Meeting. Conference will include a series of presentations and workshops relative to natural landscaping using native plant species. Wild Ones members will be able to book accomodations in the newly reconstructed Nature Reserve log cabins. Details and costs in next issue of *Journal*.

Information about conferences and meetings is listed as space is available with preference to meetings sponsored or co-sponsored by Wild Ones chapters. E-mail information to: journal@for-wild.org; or send to: Fran Gustman, Editor, Wild Ones Journal, 14 Lane Park, Brighton, MA 02135-3118.

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Proper Planting, continued from p. 13

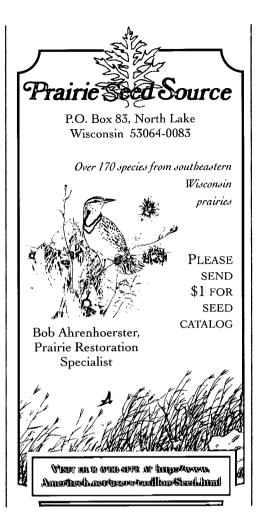
Mulch also helps to conserve water. DON'T make a volcano of mulch around your tree! 2-4 inches is plenty. Besides looking completely unnatural, too much mulch provides a well-appreciated home for voles and other rodents that gnaw on the trunks. And don't let the mulch touch the bark—constant contact with the moisture in the mulch encourages rot and infestation of disease and insects.

Siting

Be kind to your green-leaved friends. Trees planted alongside roads must survive road glare, salt, and compaction. Plant trees on the house side of a sidewalk whenever you can, to keep them farther from traffic. Irrigation will be better there and there will be more space for root spread. Towns may plant trees on private property rather than on the sidewalk grass strip, if requested.

Besides the aesthetic benefits, trees also provide needed shade. Cities are typically 10 degrees warmer than suburbs and have been getting warmer by one degree per decade. If one tree is planted for every 10 parking spaces, trees will even cool a parking lot.

Fran Gustman is the new editor of Wild Ones Journal.





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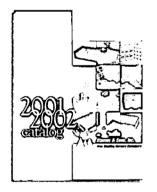
For more information, or to request a class schedule, please contact:

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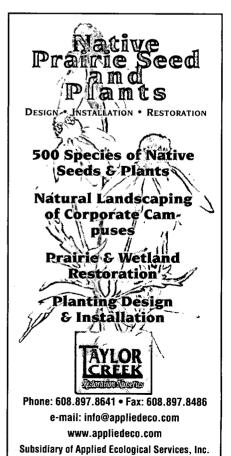
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For more information, contact Donna by calling (877) FYI-WILD or by e-mailing merchandise@for-wild.org (sorry, charge cards not accepted). Mail your check (payable to Wild Ones) to: Wild Ones Merchandise, P.O. Box 1274, Appleton, WI 54912-1274.

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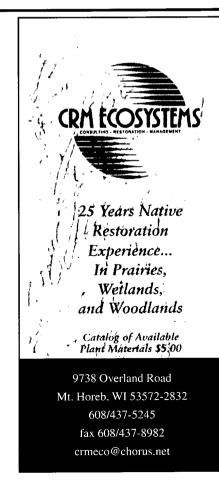
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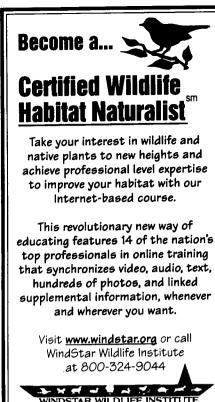
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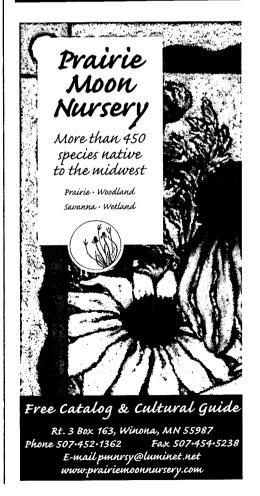
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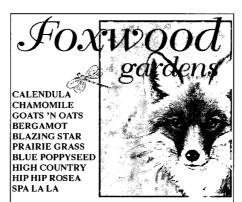
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The Next Generation Establishing a State Grass

Kim Lowman Vollmer

y interest in state grasses began in 1998, when I had been a fourth grade teacher for 16 years, a member of Wild Ones for several years, and was growing prairie plants in my yard. I was awarded a \$5000 grant to establish a prairie garden at my school, Clinton Elementary, in Clinton, Wisconsin. I knew the importance of native plants in the environment, and I knew that kids had to be involved in every level of a project if it were to be a success. So from the beginning, kids were involved in spreading sand and leaves, selecting a plan for paths, planting almost 2000 plants, building Aldo Leopold style benches, spreading wood chips on the paths, weeding, filling the bird bath, measuring rain, and everything else that needed and still needs doing. The prairie is integrated into the curriculum in many ways and enjoyed during recess.

Last year while using the computer for research, students came upon a site with information about state grasses. They discovered that there were only 14 states that have designated a state grass (see sidebar). They decided to try to establish a state grass for Wisconsin, hoping that this act would help preserve the prairies by bringing some status to a native grass. Last year's fourth graders researched grasses and contacted the Department of Natural Resources, greenhouses and other experts. They chose little bluestem (Schizachryium scoparium, formerly called Andropogon scoparius) because it is native, it grows in a variety of habitats, it survives all kinds of weather—and the name is easy to remember!

The next step was to contact our local state representative. We were informed that a law had to be passed to create a state symbol. This meant that a bill had to be written and presented for approval by the legislative branch and then signed by the governor. My students got busy. They e-mailed and posted letters to the over-400 school districts in Wisconsin to encourage them to write to their state representatives in support. In January, our local representative, Dan Schooff, came to the school and spoke to the fourth graders. He was willing to sponsor the bill to establish little bluestem as Wisconsin's state grass. We were thrilled!

Our next step is to continue our PR work and to bombard the State Assembly with letters (www.legis.state.wi.us/assembly-pages). Our hope is that environmentalists and activists, both kids and adults, will actively support this project. The more signatures on the bill the better chance it has of passing. We have our fingers crossed! This is a wonderful project to do with children to teach them about the legislative process and the value of active participation.

Kim is a member of the Rock River Valley (IL) chapter. She may be reached at kimlowvol@aol.com.



State Grasses

This is an excellent site for elementary school children, with useful links: www.geobop.com/Symbols/plants/grasses/index. The information below is from this site.

Colorado: blue grama (Boeteloua gracilis)
Illinois: big bluestem (Andropogon gerardii)
Montana: western wheatgrass (Agropyron smithii)
Nebraska: little bluestem (Andropogon scoparius)
Nevada: Indian ricegrass (Oryzopsis hymenoides)
New Mexico: blue grama (Boeteloua gracilis)
North Dakota: western wheatgrass (Agropyron smithii)
Oklahoma: Indian grass (Sorghastrum nutans)
Oregon: bluebunch wheatgrass (Agropyron spicatum)
South Dakota: western wheatgrass (Agropyron smithii)
Texas: sideoats grama (Bouteloua curtipendula)
Utah: Indian ricegrass (Oryzopsis hymenoides)
Washington: western wheatgrass (Agropyron smithii)
Wyoming: western wheatgrass (Agropyron smithii)

Proposed State Grasses

Arizona: sideoats grama (Bouteloua curtipendula) and bush muhly (Muhlenbergia porteri)
California: purple needlegrass (Stipa pulchra)
Idaho: Idaho fescue (Festuca idahoensis)
Oregon: bluebunch wheatgrass (Agropyron spicatum)