

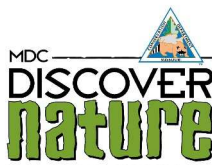
The News From Native Plant School

April 2016



Native Plant School is a partnership between Shaw Nature Reserve, The Missouri Department of Conservation, and Wild Ones Natural Landscapers. Classes are held in the Whitmire Wildflower Garden at Shaw Nature Reserve.

Please register at shawnature.org/NPS



Upcoming classes

April 14, 2016
Gardening With Native Groundcovers
SOLD OUT

May 12, 2016
Spring Flowering Perennials and Grasses

Scott Woodbury
Missouri is full of showy native perennials, grasses and sedges for gardening. This class will focus on showy and useful landscape plants that bloom in spring and how to garden with them. Students will gain knowledge on planting design and plant placement considerations for sun and shade.

3 Spots Left!

June 9, 2016
Flower Arranging with Native Plants

Terri Brandt
Bring a small to medium vase to class and bring it home full of beautiful native flowers. Learn how expert flower arranger, Terri Brandt creates beautiful floral arrangements using a wide-array of plant materials and flowers. Class will be held in the horticulture greenhouse area at Shaw Nature Reserve.

Please register at shawnature.org/NPS

Shaw Wildflower Market Sat, May 7, 9 a.m. - 4 p.m.

Admission is free to members, \$5 for non-members.
More info at: <http://shawnature.org/swm>

Photo by Patsy Hodge



Members Pre-Sale

Missouri Botanical Garden members can shop early on May 6th from 4 to 7:30 p.m. Members get first pick of the plants for sale. Includes live music by Augusta Bottoms Consort!

This years vendors include

Shaw Nature Reserve
Wild Ones St. Louis
MO Wildflowers Nursery
Forest Keeling Nursery
Andy's Native Plants
St. Francis Mt Natives
Pure Air Natives
Pan's Garden
Smiling Sun Garden
Forest ReLeaf
St. Louis Herb Society

Audubon St Louis
SNR Habitat Helpers
St. Louis Herb Society
MO Prairie Foundation
Gateway Gardener
MBG Membership
Edg-Clif Farm & Winery
Williams Brothers Meats
Great Harvest Breads
Colleen's Irish Toffee
Yvonne's Honey

Restore My Soul Photos
Malone Baskets n Books
Think about Tables
Corinne's Honey Farm
Rob's Rings
Kakao Chocolate
Hummingbird Bread
Six Mile Bridge Beer
Song of the Flower Art
Going in Circles Rugs
Miramigoua kids activities

Garden Tours

The Sustainable Backyard Tour
Sunday June 12th.
www.sustainablebackyardtour.com

St. Louis Native Plant Garden Tour
Hosted by Bring Conservation Home
and St Louis Wild Ones.
Saturday June 18 from 9 am -4 pm.
www.stlouisaudubon.org/NPT/

Working Trees

Find out how your tree is benefiting you by decreasing your electric bill, cooling the house, preventing erosion, providing habitat for critters, and much more.

National Tree Benefit Calculator
<http://www.davey.com/arborist-advice/articles/national-tree-benefit-calculator/>

Wild Ones

Wild Ones Gathering
Wednesday, April 6, 6:00 p.m.
Deer Lake Savanna tour
<http://stlwildones.org/>

The Dirt on Soil

May 11th
Wild Ideas Worth Sharing
The Dirt on Soil: Life Underground.
www.deercreekalliance.org/wiws

Gardening Tips

- Begin planting native perennials, grasses, sedges, vines, trees, and shrubs.
- Replace mulch which has been washed out with spring rains. Smooth mulch layer if it has been disturbed. Use leaf compost.
- Prune winter-damaged branches on shrubs or trees that have not leafed out by May (especially beautyberry).
- In late April and early May cut back tall grasses, goldenrods, wild bergamot, sweet coneflower, garden phlox, and asters by 50% to promote more compact growth.

Spotlight on Willows



Our give away plant this year at the Shaw Wildflower Market is the Diamond or Missouri Willow, *Salix eriocephala*, and various milkweed species.

Photo by Darla Preiss

Viceroy caterpillars eat willow leaves. So do many other showy butterfly and moth species including red-spotted purples, hairstreaks, mourning cloaks, sphinx moths, gray furculas, cecropia moths and the darling underwing moth to name a few. Doug Tallamy, author of *Bringing Nature Home*, states that there are 456 butterflies and moths that lay eggs on willows, the second ranking native tree/shrub by ability to support butterflies and moths. Only oaks support more. Makes me think that there needs to be a willow in every garden!

There are eleven species of willow native to Missouri. Few are available to gardeners but Shaw Nature Reserve is striving to change this! We are growing heart-leaved willow (*Salix rigida*), sandbar willow (*Salix interior*), Carolina willow (*Salix caroliniana*) and both varieties of prairie willow (*Salix humilus* var. *humilus* and var. *tristis*) in an attempt to make them available to gardeners. New plantings of prairie willow have been installed in the Whitmire wildflower garden west of the Bascom house and along the fence by the new picnic pavilions. Willow seedlings will be for sale at the Mother's Day Shaw Wildflower Market.

SNR plants have added value!

Do you know that SNR plants have added value? They start from seeds collected by SNR staff and volunteers from wild populations in our region. This is called local ecotype. Why does it matter? Doug Tallamy tells us that insects have very localized relationships with native plants. In other words, blue wild indigo grown from plants originally from Wisconsin may be rejected by local insects. Secondly, SNR introduces 18 species of Mycorrhizal fungi into the potting soil during production. These beneficial fungi grow in pot and when you take them home they continue to grow and thrive in your garden. Mycorrhizal fungi help plants utilize soil nutrients by attaching to plant roots.

A Garden for Zebras and Tigers

Whether your garden is in containers on a balcony or sprawling over acres, it can attract zebras and tigers. Ok, not the four-legged mammals you might be envisioning, but swallowtail butterflies.

<http://blog.nwf.org/2016/02/a-garden-for-zebras-and-tigers/>

GN! Workshop

Grow Native! invites gardeners, conservation enthusiasts, students, municipal employees and others to an all-day workshop, "**Living Landscapes: Native Plants Get Us Back to Our Roots**"

Saturday, May 14, 2016.
9:00 a.m. - 3 p.m.

Arcadia Academy
211 South College Street
Arcadia, Missouri 63621

Attendees will learn from experts about the beauty and benefits of using plants native to the Lower Midwest in your landscaping. This includes native plant design, maintenance and species selection to support beneficial insects or meet your other landscaping priorities.

Cost is \$18 for GN/MPF Members, \$22 for Non-Members and \$15 for Students (includes lunch).

<http://grownative.org/events/may-15-native-plant-workshop-in-arcadia/>

Million Pollinator Garden Challenge

A campaign to register a million public and private gardens and landscapes to support pollinators.

Register your pollinator habitat below. It is free and easy! Explore other pollinator friendly SHARE landscapes all over the globe!

millionpollinatorgardens.org



Mycorrhizal Fungi

Mycorrhizae are symbiotic relationships that form between fungi and plants. The fungi colonize the root system of a host plant, providing increased water and nutrient absorption capabilities while the plant provides the fungus with carbohydrates formed from photosynthesis.

Below is an article from the Missouri Prairie Journal of the Missouri Prairie Foundation (MPF). About some very exciting research on mycorrhizal fungi.

Mycorrhizal Research on MPF Prairies

Alice Tipton, a graduate student at the University of Missouri-Columbia, will conduct research at multiple MPF sites in 2014 as part of a large Missouri grassland mycorrhizal study. Mycorrhizal interactions are relationships between fungi and plants in which the fungi provide the plant with nutrients and water in exchange for some of the plant's carbon resources.

These relationships are ancient, dating back to the first land plants on earth. More than 80 percent of land plants make mycorrhizal relationships with arbuscular mycorrhizal fungi (AMF), which are also the most common mycorrhizal fungi associating with prairie plants. Some prairie plants cannot grow without AMF. Surveys in other grasslands have shown that AMF diversity is strongly associated with plant diversity, and that agricultural disturbances and invasive plant species can alter AMF communities below ground.

Tipton will be working at MPF's La Petite Gemme Prairie, Stilwell Prairie, Schwartz Prairie, and many other prairie and glade sites across southern Missouri. The survey will examine the diversity and richness of AMF taxa living on plant roots in restored and remnant glades and prairies of different land use histories and soil types. Tipton will genetically sequence AMF DNA and use these sequences to identify different taxa of AMF living in and on grassland plant roots.

This research will help identify whether current grassland restoration practices are restoring the community of AMF needed by native plants, and whether it may be helpful to begin implementing soil microbial restoration in Missouri grasslands. Tipton's research is funded through the Missouri Department of Conservation's Wildlife Diversity Fund.

To see the results of Alice Tipton's research go to;

https://www.researchgate.net/profile/Alice_Tipton/publications

"We don't have to—indeed, we neither can nor should—each provide all habitats, every sort of food. You plant nut trees and I'll plant spruce, you keep a berry thicket and I'll do the tall grass, or the bog, the woodlot, the crowds of fruiting shrubs and beds of wildflowers. But let us weave them together into something big enough to matter by connecting each patch with others at the corners and along the boundaries. This is the rich, new landscape; this is the new kind of gardener who asks not whether he should plant this ornament or another but which patch is missing from his community, how he can provide it, and how animals will move from his patch to the next. This is the ark."

~ Sara Stein

Native or Not

What is native? What is not? When does it matter?

“Definitions of native plants abound. None is entirely satisfactory in all circumstances but each may serve a specific function. Some strive for scientific accuracy; others serve practical purposes. Moreover, in some instances the nativity of a plant may not matter to the native-plant gardener. None of us is about to give up growing tomatoes regardless of their non-native status.”

<http://beautifulnativeplants.blogspot.com/2016/03/what-is-native-what-is-not-when-does-it.html>

Spring Fling

Weekends in April at the Butterfly House
For all ages. Join us as we celebrate the important insects that help to make our gardens grow! Each week, we will highlight a different beneficial insect through fun facts, crafts, games, and other family-friendly activities. Come and learn more about bees, ladybugs, ants, and of course, butterflies!

Editors Note:

Please send me your before and after photos of your yard. I am especially interested in pictures of the transformation of honeysuckle infested woodlands to native plant gardens.

An archive of this newsletter is available at: <http://www.missouribotanicalgarden.org/visit/family-of-attractions/shaw-nature-reserve/gardens-gardening-at-shaw-nature-reserve/native-landscaping-for-the-home-gardener/native-plant-school/the-news-from-native-plant-school.aspx>

Monarch Garden Resources

There are many online resources for planting monarch gardens and waystations.

The Xerces Society has a wonderful resource focusing on pollinator plants of the Central US that discusses appropriate milkweed species for particular habitats and best planting practices: Milkweeds of Central US
http://www.xerces.org/wp-content/uploads/2013/07/Milkweeds-of-Central-US_plus-vendors_XercesSociety.pdf
Also from Xerxes Society: Milkweeds: A Conservation Practitioner’s Guide
<http://www.xerces.org/milkweeds-a-conservation-practitioners-guide/>
Missouri Department of Conservation has a great brochure about backyard monarch gardens: Backyard Habitat for Monarch Butterflies
http://www.greenschoolsalliance.org/files/mdc.mo_.gov-Backyard%20Habitat%20for%20Monarch%20Butterflies.pdf

Also from Missouri Department of Conservation — two wonderful articles in The Conservationist magazine:
The Plight of the Pollinator by Bill White, Plight of the Pollinator
<http://mdc.mo.gov/conmag/2016/02/plight-pollinator?page=0,0>

Homegrown Milkweeds by Norman Murray Homegrown Milkweeds
<http://mdc.mo.gov/conmag/2016/01/homegrown-milkweeds>

If you are a landowner and want to establish or improve grassland habitat for monarchs, cost-share programs are available from the Natural Resources Conservation Service.
<http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/>

If you are interested in starting a school garden, Monarch Lab at the University of Minnesota has several resources at: Monarch Lab School Gardens
<http://monarchlab.org/education-and-gardening/>

You can purchase seeds and plants from Grow Native! Professional Members who are retail garden centers, nurseries, or see producers. Find seed plant vendors at Grow Native! Resource Guide and note which businesses sell retail, wholesale, and/or mail order.
<http://grownative.org/resource-guide/>

Provided by our friends, Missourians for Monarchs

