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

September 8, 2016
**Ethnobotany and Native Plant Folklore**
April Anderson
Have you ever wondered how "boneset" or "rattlesnake master" got their names? Explore historical uses of native plants and the stories which connect them to our predecessors. Enjoy a hike to look at some of the native plants we discuss. (Adults)

September 9, 2016
**Shaw Wildflower Market**

October 13, 2016
**Fall Flowering Perennials and Grasses**
Scott Woodbury

November 10, 2016
**Grapevine Wreath Making**
April Anderson
Learn how to identify, ethically harvest, and weave beautiful grapevine wreaths of various sizes to decorate your home. See how weeds and pods can be incorporated into your design. We will be outdoors during part of the class to gather our materials, so please dress for the weather. (Adults and teens)

Please register at shawnature.org/NPS

Create an Insect Buffet

Between the Carriage house and the Pavilions is a native hedge row demonstration along a split rail fence. Former employee David Middleton planted an insect buffet with Butterfly milkweed in a long row in front of the fence for Monarch caterpillars to munch and provide nectar for many species. Behind the fence is a row of prairie willow. According to the caterpillars, willow is the second tastiest species after oak. We are looking forward to next season when this planting fills in and becomes a favored spot for many birds that are in search of delicious caterpillars and other insects to feed their young. We hope you can find space in your garden for a hedge row or other planting for insects. Insect buffets are easy to maintain, attractive, and functional.
Fall Wildflower Market

Shaw Wildflower Market in the Whitmire Wildflower Garden Friday, Sept 9th from 4 - 7:30pm. Shop for locally produced native plants, food and crafts. Enjoy local wine, beer, and music by Downstream while you shop. Also, experts will answer your native gardening questions.
www.shawnature.org/swm

Prairie Day

FOLLOW THE HERD TO PRAIRIE DAY AT SHAW NATURE RESERVE

Biennial Event
10 a.m. to 4 p.m.,
Saturday, Sept. 17, 2016

Hitch up the wagons and head out to Prairie Day at Shaw Nature Reserve in Gray Summit. This fun-filled family event portrays prairie heritage through activities and demonstrations, and showcases the Reserve’s 250-acre re-created tall grass prairie. Hike with a naturalist through the prairie to learn about prairie life, check out the teepee, play pioneer games, listen to a live band, and watch weavers, spinners and other craft demonstrations.

“I was born upon the prairie, where the wind blew free, and there was nothing to break the light of the sun. I was born where there were no enclosures, and where everything drew a free breath.”
~ Laura Bush

Gardening Tips

• Expect some leaf fall, a normal reaction to summer drought, especially on red and Ohio buckeye. Continue watering young plantings.
• Trim back any groundcover overhanging curbs or sidewalks.
• Remove deformed plants that have aster yellows virus (like purple coneflower, blazing star, and black-eyed Susan) by digging entire plant and disposing in trash. Composting will spread the virus.

New Staff in the Whitmire Wildflower Garden

By Besa Schweitzer

Jen Sieradzki has joined our team this spring. She has 20 years of native plant gardening experience. On the weekends Jen enjoys kayaking on the Missouri river. She feels connected to the Missouri because of her experiences with stream team and Missouri River relief doing trash pick ups. She also likes looking for edible plants. If she offers you shortbread cookies watch out because she puts Salvia azurea in them for added flavor.

James Faupel has been an outdoor enthusiast all his life but really got inspired in college by professors Dave Tylka and Dan Billman. Shortly after college he started his own native landscaping company but recently changed direction and joined the staff here at SNR. He is excited to work in an inspiring setting where he can continue to spread his leaves. James loves to talk about board games especially the game Splendor because he can play it with his wife and daughter.

Grace Johnson was previously a SNR intern in 2012 and enjoyed it so much she came back to work full time. You might find Grace wading around in the spring pool with her new hip boots. She is on a mission to make room for more water garden plants, especially Sagittaria because the leaves are “super neat”. On weekends she loves hiking to Mina Sauk falls in Taum Sauk Mountain State Park with her dog, Lily. Lily likes to eat all of Grace’s favorite plants.

Our intern, Isaac Newberry, is starting his second summer with us. Isaac works in the trial garden and cleans native seeds. Isaac attends West Minster College majoring in environmental studies.
**Events**

On Saturday August 27th, U City Bird Garden at Centennial Commons is having “Breakfast in the Garden” from 9a to 12p. If you've never been to this Cindy Gilberg-designed garden, you really should make some time to see it; it's really quite something! [http://www.ucityinbloom.org/gardens/bird-garden/](http://www.ucityinbloom.org/gardens/bird-garden/)

2016 Native Plant Expo at the Schlafly Bottleworks on Saturday, September 24th from 9a to 2p

Exciting opportunity for the public to pick up some free plants and seeds, swap seeds and mingle with native plant enthusiasts.


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**Monarch Madness**

*Missourians for Monarchs – Naturalists and Gardeners* is proud to present the second annual Monarch Madness.

Discover all things monarch and celebrate their amazing lives at Monarch Madness, Saturday, September 10, from 10 a.m. to 3 p.m. at the Weldon Interpretive Center in St. Charles, MO. The event is free and open to all! Enjoy kids crafts, games, native garden demonstrations, butterfly tagging, Citizen Science information, BBQ and more. You can even purchase native plants and receive free seeds in a fun, seed ball activity to support monarchs at your home.

100% of all proceeds from this event are used to increase pollinator habitat by providing assistance with site evaluation, distribution of seeds and plants, and to provide information and advice on how to maintain planted areas.

We really need everyone’s help so please consider joining us on September 10th!

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**A Unique Native Fern for the Shade Garden**

*By James Faupel*

Over twenty years ago Tom and Angel Kruzen, owners of Pan’s Garden, a native plant nursery that specializes in woodland plants, sold us plants of bulblet fern. Ever since it has been spreading in the lower woods of the Whitmire Wildflower Garden and has been thriving with very little care. Bulblet fern (*Cystopteris bulbifera*) is uncommon and native to the eastern half of North America. It can be found growing on North facing, shaded limestone bluffs that stay relatively moist. They resemble other ferns of the genus *Cystopteris* (bladder ferns) and grow about two feet tall. Bulblet ferns grow alongside wild hydrangea (*Hydrangea arborescens*) and American bladdernut (*Staphylea trifolia*). In a garden setting the bulblet fern would need well drained, organic soils.

What is unusual about this fern is that it has one more way of reproducing than all other ferns. Bulblet fern reproduces sexually by spores like other ferns, and clonally by rhizomatous root systems. But it also reproduces by growing small globoid bulblets on the underside of the fronds. These bulblets are about the size of a BB, with a cleft on the top. They resemble a split shot lead sinker for fishing line. When the bulblets are mature, usually in early summer, they fall from the frond to a new spot along the cliff face. If the conditions are suitable, the bulblet will open up at the cleft, and push out its first fronds. This reproduction trait is unique to only this fern! Recently horticulturist Terri Brandt and I were able to collect bulblets from the garden, and we are attempting to cultivate them in this way. Hopefully we will have success in recreating the suitable growing habitat.

Bulblet’s collected from *Cystopteris bulbifera*

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“What the caterpillar calls the end of the world the master calls a butterfly.”

~Richard Bach
**Beneficial Guests**

Welcome Beneficial Guests to an Insect Hotel by Kelly Allsup

“Did you know that with minimal investment, you can open a hotel? Insect hotels offer places for beneficial insects and pollinators to survive winter’s chill and to nest in spring and summer. You can use them to employ garden warriors in any flower bed, vegetable garden, or fruit orchard.”

http://web.extension.illinois.edu/lmw/eb255/entry_11473/

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**SNR Seed Bank**

Meg Engelhardt has contributed a brand new post to our MBG blog Natural History of Ecological Restoration. Everything you always wanted to know about seed banking but were afraid to ask! Meg’s collection at Shaw Nature Reserve now contains almost 500 taxa.

mbgecologicalrestoration.wordpress.com/2016/06/20/seed-banking-for-conservation-and-restoration/

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**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.


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**Tom Kruzen**

**1946-2016**

By Scott Woodbury

Tom Kruzen passed away after a long battle with cancer. Tom and his wife, Angel, made significant contributions to native plant horticulture in Missouri when they started Pan’s Garden, a native plant nursery in Shannon County not far from the Jack’s Fork River a long, long time ago. Tom and Angel have been selling their plants at the Shaw Wildflower Market for 20 years. Their nursery produced mostly woodland species, ferns, and the spring ephemerals that nobody else grew. Most of the woodland species in the Whitmire Wildflower Garden come from Pan’s Garden including Indian pink, maidenhair fern, Christmas fern, fragile fern, broad beach fern, narrow-leaved spleenwort, Soloman’s seal, false soloman’s seal, white trillium, wake-robin, rue anemone, false rue anemone, zig-zag spiderwort, Palmer’s spiderwort, white garden phlox, clove currant, Ozark crocus, Bush’s skullcap, mayapple, harebell, wild geranium, dwarf larkspur, Dutchman’s breeches, black cohosh, Treleas’s larkspur, and many more! The Whitmire Wildflower Garden was largely populated with woodland plants in the early years (1991-2000) from Pan’s Garden. We are indebted to Tom and Angel and the great works they have done over the years promoting and propagating woodland native plants. May the wildflower garden live on in Tom’s honor.

Tom’s witty sense of humor, watchful eyes, informative nature and good cheer will be sorely missed. Our warmest regards go out to Tom’s wife and business partner Angel who kept the numbers straight and tirelessly cared for Tom in recent years.

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**Pollinator Problem**

By Besa Schweitzer

The endangered western prairie fringed orchid (Platanthera praeclara) has a pollinator problem. Our native hawk moth is the pollinator of the orchid but recently a non native moth has established itself in the orchid’s habitat. The new moth has a very long tongue and can reach the nectar of the orchid without sticking it’s head into the center of the flower. When the new moth drinks from the orchid it does not come into contact with the orchid’s pollen and does not pollinate the orchid. The native hawk moth has a shorter tongue and perform proper pollination of the orchid but when the non native moth arrives at a flower first and drinks all the nectar the orchid will not get pollinated. Now in addition to habitat loss this little orchid is facing fertility challenges when a non pollinator robs all of it’s nectar.

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“I went to the woods because I wished to live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived.”

~Henry David Thoreau