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:**

Thur, Feb. 12, 1-4 p.m.
**Nature Connection; Overwintering Wonders**
Reprinted from BiodiverseCity STL

While many forms of life migrate to avoid St. Louis cold winters, others stay put with brilliant adaptations and strategies for survival. Many insects, for instance, overwinter as adults, pupae, or eggs, sometimes inside buildings, under tree bark, or beneath fallen leaves or other plant matter on the ground.

Some insects are freeze-avoidant, accumulating antifreeze in their cells prior to winter. The antifreeze is composed of cryoprotectants (specialized carbohydrates) that lower the freezing point of the body fluid, preventing the formation of ice crystals. These cryoprotectants are effective as long as the insect body cools gradually. Burrowing under plant debris is one such strategy. As air temperature changes, the temperature under the cover rises and falls slowly (especially when insulated by snow cover), giving insects a far more stable environment.

To do: Or rather, what not to do. You're actually doing more for biodiversity by leaving your leaf litter piles, your rotting logs, your stick and brush piles remaining as is. How's that for genius?

Learn more at: [www.BiodiverseCitySTL.org](http://www.BiodiverseCitySTL.org)
BiodiverseCitySTL@mobot.org © 2014 BiodiverseCity STL

**Thur, Mar. 12, 1-4 p.m.**
**Greenhouse Propagation**
Growing native perennials, grasses, trees and shrubs from seed isn’t a mystery. This class will introduce the basic propagation methods that involve stratification, scarification, timing, soils, containers, fertilization and basic insect management.

**Thur, April 9, 1-4 p.m.**
**Woodland Gardening**

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

The adults of Question mark and Morning cloak butterflies hibernate and are sometimes seen on warm sunny days in winter.

Photo of mourning cloak by Andy Reago & Chrissy McClarren

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**Please register at shawnature.org/NPS**
The Gift of Native Landscaping:

Looking for that perfect gift? We came up with some items we love and keep us dreaming of spring during the dreary days of winter. Here are some of our favorite gift ideas for the native plant enthusiasts you love:

For those relatives and friends who still need some convincing that native plants are amazing try;

- Bringing Nature Home: How You Can Sustain Wildlife with Native Plants
  by Douglas W. Tallamy

Give your friends a class at Native Plant School. Sharing the experience together will benefit both your gardens and your friendship.

For a simple how to guide with lots of pictures, charts, and lists;

- Native landscaping for wildlife and people: How to use native midwestern plants to beautify your property and benefit wildlife
  by Dave Tylka

Give them a Wild Ones membership at http://stlwildones.org/
Maybe your special someone would like a yard consultation from Bring Conservation Home, you can apply for one at stlouisaudubon.org/BCH/

- Membership to Shaw Nature Reserve.
  The beautiful wildflower garden is an inspiration every day of the year. Give the gift of membership and you will be remembered all year round. Support Shaw Nature Reserve and introduce someone new to the place you love. Members receive a 10 percent discount on books and other merchandise at the visitor center as well as free admission every day and other great benefits.

- If they already are a member they will appreciate this book about the history of SNR,
  The Missouri Botanical Garden’s Shaw Nature Reserve: 85 Years of Natural Wonders
  by authors Cindy Gilberg and Barbara Perry Lawton

This commemorative book celebrates the Reserve’s 85th anniversary through a detailed, illustrated exploration of the land, its history and natural beauty from before the Reserve’s founding to present day.

- If they already love and cherish Denison’s book they are probably really want to own this book,
  Steyermark's Flora of Missouri
  by George Yatskievych

These gifts are available at the SNR visitor center bookstore plus many more. So just pick them up next time you are here and enjoy the warm feeling of knowing that you found the perfect gift.

Gardening Tips:

- Review the year’s schedule and make plans for next year’s improvements.

- Continue pruning trees and shrubs. Prune any tree branches in parking lots and sidewalks that interfere with public safety.

- Provide cover for wildlife where appropriate. Leave plant stalks and seed heads standing. Create brush piles. Leave deadwood for insects to overwinter.

- Keep highly visible areas of your landscape looking tidy.


Tropical Milkweeds:

At Shaw Nature Reserve we have a growing concern about the use of tropical or annual milkweeds to provide habitat for Monarch caterpillars. We have read numerous articles about the pros and cons of using these easy to grow plants to feed a threatened species. We have concerns about planting a non native plant to feed a native insect. We know that our native milkweeds will do the job with no unknown side effects so we recommend that native milkweeds are the plant of choice for saving the Monarch. Also, native annuals like rocky mountain bee plant, Helen’s flower, western wallflower and partridge pea are great nectar sources for butterflies.

Our readers blog:

Shady Oaks likes to photo document all the creatures that are attracted to their native landscape. I think you will enjoy all the photos and maybe get some ideas for your own backyard landscape.

http://hummerhavenunltd.com/blog
**Book of Gilberg’s writing to be published:**

The Missouri Botanical Garden asks for your support of a unique, one-time project of importance to the landscape of the St. Louis region - literally.

St. Louis native Cindy Gilberg, who passed away earlier this year, was a passionate horticulturist who taught untold numbers of Missourians how to create beautiful landscapes that also benefit the environment by using our region’s native plants. In addition to founding the successful Gilberg Perennial Farms garden center, which was a must-see for serious gardeners, Cindy taught horticulture classes for the region’s gardening community - both residential and commercial - for 30 years.

The Missouri Botanical Garden plans to publish a volume of Gilberg’s writings, published early in 2015, which will be in high demand by the growing number of Missouri gardeners who are using native plants to conserve land, attract birds and butterflies, and recreate ecosystems. This project will ensure her broad knowledge and deep passion for ecologically-based native plant landscaping reaches new audiences.

Contributions should go to:
Cindy Gilberg Native Plant Book  
% Institutional Advancement  
Missouri Botanical Garden  
P.O. Box 209  
St. Louis, MO 63166

“Nature has undoubtedly mastered the art of winter gardening and even the most experienced gardener can learn from the unrestrained beauty around them.”  
- Vincent A. Simeone

**Seen in the Garden:**

Above you see Matt Broderick and David Middleton burning tree branches in the west savanna restoration near the Whitmire Wildflower Garden. Tree thinning (by 40-60%) is the ONLY way to beat bush honeysuckle in large woodlands. Tree thinning addresses three critical things:

- Greater air flow/wind to encourage hotter fires
- More sunlight to develop a ground layer of grasses to fuel hotter fires
- Open woodlands also allow equipment to drive in for mowing or spraying where you can’t use fire

In 2015 we will continue eradicating resprouting bush honeysuckle and wintercreeper. Seeding of the savanna will take place in December, 2015.

**Garden Connection:**

Marsh blazing star and slender mountain mint provide seeds for winter birds at Boys Hope Girls Hope in Bridgeton MO.

**Coming Soon:**

Sat, Feb 28, 9am-4pm,  
Partners for Native Landscaping Workshop  
at Powder Valley Nature Center  
register online at  
[www.stlouisaudubon.org/PLNL](http://www.stlouisaudubon.org/PLNL)

**Support Wild Ones:**

When shopping on line use [http://www.goodsearch.com/](http://www.goodsearch.com/) and [http://smile.amazon.com/ch/39-1695443](http://smile.amazon.com/ch/39-1695443) and be sure to list Wild Ones Natural Landscapers as your donation preference. The rebates they get from your using these portals to shop on-line help Wild Ones to spread the message of native plants and natural landscapes across the country.
10 Selfish reasons to protect biodiversity:
By Janet Pesaturo

These 10 reasons are what healthy, functioning ecosystems provide for us. I include only the most vital products and processes in my list. Some people include “supporting services” such as pollination and photosynthesis, but that’s redundant, because those are simply the underlying processes which make possible the products and processes enumerated below. Some people also include “cultural services”, such as recreation, spirituality, and intellectual stimulation. I omit them here, because not everyone values them. Again, I’m looking for common ground – the stuff we ALL need. Here they are:

http://ouroneacrefarm.com/10-selfish-reasons-protect-biodiversity/

"The shortest day has passed, and whatever nastiness of weather we may look forward to in January and February, at least we notice that the days are getting longer. Minute by minute they lengthen out. It takes some weeks before we become aware of the change. It is imperceptible even as the growth of a child, as you watch it day by day, until the moment comes when with a start of delighted surprise we realize that we can stay out of doors in a twilight lasting for another quarter of a precious hour." - Vita Sackville-West

Editors Note:
We are seeking feedback for this newsletter in 2015. What do you want us to write about? How can we improve? Send you feedback to Besa at besa.schweitzer@mobot.org

An archive of this newsletter is available at:

Challenges of Winter Road Salt:
By MSD, submitted by Cori Westcott

Winter road salt can damage our streams and road side planting beds. Here are a few tips to decrease the impact. Share this information with your neighbors and community.

Commercial Parking Lots Winter Maintenance

IMPACTS OF SALT ON OUR STREAMS
• Sodium Chloride (salt) is routinely applied to parking lots to reduce build up of ice during winter. When salt comes into contact with rainfall and melting snow, it dissolves and the chloride is carried by stormwater runoff into our streams and rivers
• Chloride is toxic to aquatic life in streams

BEST MANAGEMENT PRACTICES
• Plow, shovel, snow blow, and/or sweep before applying deicing material
• Find out if the entire parking lot needs to be cleaned or just areas with higher traffic
• Effective salt application rates will be different at different pavement temperatures.
• Calibrate spreading equipment following manufacturer’s guidelines
• Pervious asphalt, concrete, and pavers will need little to no deicing
• Sweep after each storm event to prevent slippery situations that are caused by salt accumulation.
• If you have an area that tends to ice up, consider making it a priority to remedy next summer so you won’t need to deice in the future

SALT STORAGE
• Store and cover salt on an impervious surface
• Store salt away from stormwater drains, ditches, ponds, and streams
• Store salt in a location that is not susceptible to rain, snow, or snow melt conditions
• Make sure loading areas are swept back into the pile

SAVE MONEY
• Save money by using only the amount of salt that is needed

Additional information: www.pca.state.mn.us/programs/roadsalt.html
Minnesota’s manual on Winter Maintenance of Parking Lots and Sidewalks. It includes the latest BMPs for salt storage and applications.

These best management practices are not intended to be policy for winter deicing, but a source of information about deicing best management practices.