



The South Grand Current

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Callery Pear—Another Invader

Sometimes we get tired of hearing about invasive non-native species because they seem to be coming faster than most people can educate themselves about them. *However, it is important that we all strive to keep informed about these species, the threats they pose, and ways to control them.*

Non-native plants are not desirable for a number of reasons. Non-native plants introduce diseases and insects that in turn kill our native species (e.g. chestnut blight, emerald ash borer). Non-native plants do not have the natural controls like bugs and disease that keep natives under control. Also, non-natives are not healthy for the environment because they often out-compete our native plants, thereby reducing plant and animal diversity. Our native insects, birds, and other animals are adapted to the chemistry of our native plants and many will only feed on them..

One of the newer species of trees that is becoming very invasive in the Midwest is the callery pear tree. A callery pear tree is the parent stock of the Bradford pear. Bradford pear trees are grafted onto the rootstock of the callery pear because the rootstock is incredibly hardy and makes it possible for the grafted Bradford tree to grow over a wide range of soils and conditions. The callery pear looks very

similar to the Bradford pear except it often has thorns and the tree does not produce as many limbs as Bradford's so it looks less filled out.

The original Bradford pear was sterile and there were few cultivars available at a nursery. As their popularity for landscaping increased so did the number of cultivars. Over time, it turned out that some cross pollinating of cultivars produced fertile seeds that had the genetics of the root stock—the callery pear. Now there are so many cultivars and so much cross pollinating occurring that almost all Bradford pears produce fertile seeds.



The seeds are transported by birds and mammals that eat the small pears and distribute them throughout the countryside. Pear trees are one of the earliest to leaf out and flower which gives them the opportunity to grow even in dense forested areas and to shade out native plants. Callery pears are invading parts of the Missouri Ozarks which causes problems

because they outcompete a number of native trees like flowering dogwood and redbud. When invasive species start overtaking the native species, it sets the stage for ecological problems that can have many detrimental effects somewhere down the road. If you think red cedar trees are invasive to open fields, the callery pear is even worse. Once the pear trees become established they are faster growing, more invasive than cedars, and more difficult to eradicate.

So what is a landowner to do when callery pear trees invade his/her fields and forests? The South Grand River Watershed Alliance (SGRWA) can answer that in two words, "Kill them!" For more information on controlling callery pear trees go to sgrwa.org.

For those looking for shrubs and small trees to landscape with, native species are highly recommended as an important step to benefit water quality and surrounding ecosystems.

Some species to consider include eastern wahoo, red buckeye, black chokecherry, rusty blackhaw, wild plum, serviceberry, flowering dogwood, redbud, and possum haw.

Learn more at www.sgrwa.org or visit the Grow Native website: www.grownative.org or the MDC website at <http://mdc.mo.gov>

A Buyer's Guide for native plants can be found at www.grownative.org

Reaching Out to the Future

by *Hydie Middaugh, Director, SGRWA
Amarugia Ridge Runners Stream Team*

Got bugs? The toddlers at a few Archie daycares do. So do the sixth grade science students at Archie Elementary.

With the support of childcare providers and educators in the Archie area, the SGRWA has been spreading the word about the importance of micro-invertebrates to the ecosystem and how their presence in streams is an indication of the quality of the water. With our exciting program, “Don’t drink the water if the bugs aren’t in it,” we have found a fun, hands-on approach to introduce young Missourians (and their teachers too!) to water conservation.

The program is easily tailored to any age group. Students have an opportunity to see a variety of aquatic “critters” up close and under a microscope and to learn which ones are indicators of healthy streams. The

SGRWA has been invited to join the sixth graders on a field trip to learn how to collect and identify our “little friends.”



A young pupil is captivated with one of the “good bugs” presented by SGRWA Director Hydie Middaugh

It does the heart good to hear the youngsters tell their mothers, “Don’t drink that—there are no bugs in it,” — to many a mother’s horror—or to hear a three year-old explain the life cycle of a dragon fly.

Watching children get excited about science and water conservation

gives me hope for the future. It is our responsibility to care for the earth and to each our children to care for it. One important step in doing this is to help them understand the connections of everything in the watershed to water quality and about the effects our choices have on the health of our watershed and the quality of the water we rely on.

From many parent comments, such as “I had no idea we could learn so much from a tiny “bug,” it is evident that the children aren’t the only ones learning and, in fact, are teaching their parents.

To all our young conservationists out there, keep up the good work. I am so proud to know the future of the South Grand River Watershed is in such capable and enthusiastic hands!

Until next time my friends, keep learning about the natural world and how you can care for it. You are making a difference in our world from your own back yard.

A book review

Bringing Nature Home by Douglas W. Tallamy

Most of us are familiar with the growing number of invasive alien plant species that are wreaking havoc on the natural environment by outcompeting our native plant species. In *Bringing Nature Home*, Douglas Tallamy explains how invasive alien plants are profoundly impacting habitats and the important and vital role gardeners/landscapers have in addressing this problem.

Tallamy who is professor and chair of the Department of Entomology and Wildlife Ecology at the University of Delaware, has researched the relationship between plants, insects, and birds and has found that most of our native insects are specialists that are dependent on the special chemistry of specific native plants for food, and, in turn, many of our native birds are dependent on these native insects and their larvae for food. While some native insects are generalists and

their larvae will eat non-native plants, the effect of non-native plants in the landscape is to reduce the diversity of both insects and birds. And, of course,



biodiversity sustains us.

Tallamy’s urgent recommendation is that we as suburban gardeners and landscapers act to create balanced communities by choosing native plants instead of alien plants for our plantings. We not only can contribute to biodiversity, but also by not purchasing alien plants we can reduce the alien pests and diseases that are inadvertently introduced with these imported plants.

An impressive number of insect larvae photos in *Bringing Nature*

a diversity of plants is essential to provide habitat and food for a diversity of all wildlife, and, as we are only recently learning,

Home will acquaint you with the diversity of their beauty and of the specific plants they and, therefore, their bird predators rely on for their survival. Unfortunately, as Tallamy points out, the vast suburban landscaping, composed nearly entirely of alien species, provides precious little to contribute to their survival or diversity.

As Tallamy states:

Just as buildings need support structures—girders, I-beams, and headers—to hold the graceful arches and beautiful lines of fine architecture in place, our gardens need native plants to support a diverse and balanced food web essential to all sustainable ecosystems.

The book includes lists of many native plant recommendations for various regions of the U.S. along with host plants for many butterflies and moths.

SGRWA Hosts 1st Annual Know Your Watershed Festival

The SGRWA hosted its first annual Know Your Watershed Festival in 2012. The event, a partnership with the Peculiar Lions Club and the Missouri Department of Conservation, was held July 28 on the grounds of the Peculiar Lions Club.

The focus of the Festival was stormwater runoff, its impact on stream health and water quality and about actions individuals, businesses, and government entities can take to address this issue.

A number of presenters with informative exhibits were on hand to discuss many of the factors that conserve the health of our waters. Participants learned about the importance of keeping rain

where it falls and how treed stream corridors, rain gardens, rain barrels, and landscape plantings of native plants help to do that and to prevent pollutants in stormwater runoff from entering our streams. Drawings were held to give away rain barrels and native plants to assist winners in beginning to implement these features in their landscaping.

Attendees learned about the important function wetlands have for water quality and quantity and also how exotic invasive plants and animals threaten the health of watersheds. Stream Team program information was available along with examples of some aquatic critters that inhabit healthy streams and of aquatic mammals that depend on quality

waters. Boat safety was another topic covered at the event.

Entertainment for the event was provided by Stan Slaughter and the Green Spirit Band with their water-themed songs. Prizes were given to all children attending and everyone who visited each station and completed a Passport received a free sack lunch of locally produced food.

Be sure to visit www.sgrwa.org to learn the location and date of the 2nd Annual Know Your Watershed Festival.

The Know Your Watershed Festival was partially funded by a grant awarded to the South Grand River Watershed Alliance by the Mid-America Regional Council, Water Quality Program.



Recap: SGRWA 2012 Activities to Promote Water Quality and Quantity

Community Events

- Hosted 1st Annual Know Your Watershed Festival
- Cass County Fair tabling —attendees learned about stream dynamics through stream table demonstrations and also received educational pamphlets
- Presented hands-on activities and information at the Family Center’s Farm Days in Harrisonville

- Participated in annual Watershed Walk hosted by the Amarugia Ridge Runners
- Sponsored river cleanup hosted by Soggy Bottoms River Rats Stream Team

Grant Awards

- Mid-America Regional Council awarded grant funding to the SGRWA to host a Know Your Watershed Festival

- Completed map work and assembled data for Flood Plain grant project
- Completed work with website designer for newly designed website www.sgrwa.org

Presentations

- Made presentations to local governments about native plants and their function to benefit water quality



Maintenance of Community Rain Gardens

- SGRWA volunteers did maintenance work on rain gardens installed in previous years by the SGRWA: Cass County Justice Center, Harrisonville Elementary, and the Peculiar Lions Club.

Presentation for Your Group or Organization

Need a program for your group or organization?

The SGRWA is available to present programs on water quality related topics such as Rain Gardens, Nonpoint Source Pollution, Native Plants etc.

Contact us through our website, www.sgrwa.org

Children of a culture born in a water-rich environment, we have never really learned how important water is to us. We understand it, but we do not respect it.

—WILLIAM ASHWORTH
Nor Any Drop to Drink, 1982

SGRWA Meetings

Regularly scheduled Board of Director meetings are usually held the third Wednesday of each month. Check our website for up-to-date meeting and program dates, times and places. Members and others interested in water quality are welcome.

SGRWA Mission

To promote the conservation, protection, and restoration of the South Grand River Watershed through education, advocacy, and demonstration activities.

Yes, I want to join the South Grand River Watershed Alliance and help protect and restore water quality.

Memberships/donations are fully tax deductible and run from January 1 through December 31

Name (please print) _____ Street Address _____

City _____ State _____ Zip _____ Phone _____

Membership type: Individual (\$10); Family (\$15); Business/Organization (\$50)

Government (\$100); Donation(\$____) New Member ___Renewing Member ___

I can help with: ___Planning; ___Outreach/Education; ___Community Events; ___Distributing brochures etc.

Make checks payable to SGRWA and mail to: SGRWA, 10807 E. 205th St., Peculiar, Mo. 64078