

Litzsinger Road Ecology Center

COMMUNITY NEWSLETTER

www.litzsinger.org

February 2013

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Witch hazel blooms just outside the greenhouse at LREC. See page 5 to learn about horticulture and restoration opportunities this February. Photo by Danelle Haake.

Fledge No Idiots

by Bob Coulter

Despite all the controversies raging today in the world of education, I think we'd all agree that we don't want schools to graduate idiots. Let's extend that idea a bit... As David Shields pointed out in a recent article in the *Phi Delta Kappan* magazine, an earlier meaning of the word idiot was "a person who was uninvolved in the community."

That's the challenge before us: How can we help kids grow up with a deep commitment to using their skills on behalf of the community? Your native planting areas, bird gardens, and stream restoration projects provide just the right setting to foster this meaningful engagement. Your own dedication to community projects models the kind of adult commitment we all hope to develop in our kids. Together, the experiences and modeling help to nurture dimensions of education that all too often get lost in the shuffle of Next Generation Science and Common Core standards and all the testing that fills your days.

On behalf of the kids and the planet, thanks for keeping this part of our work alive. 🌱



Gateway Children's Nature Connection

by Leo Ebel

Since May 2009, LREC has been a member of a coalition of organizations devoted to reconnecting children with nature. This coalition, called the **Gateway Children's Nature Connection** (or **Gateway CNC**), was begun by representatives from local organizations/institutions (see listing at right) that were already very involved in the challenge of reconnecting children in the Greater St. Louis area with nature.

This "children in nature" coalition was established with the following short and long-term goals:

- to become *the clearinghouse* for ideas, activities, events, and information related to childrens' nature education in the Greater St. Louis area,
- to perform **outreach** to schools, childrens' advocacy groups, organizations, and parents regarding the value of nature education in the Greater St. Louis area,
- to serve as a **communications** conduit between the numerous entities which have a stake in promoting childrens' nature education in the Greater St. Louis area,
- to provide a consistent **resource** for the media, governmental officials, and the general public regarding childrens' nature education in the Greater St. Louis area, and
- to conduct periodic activities, events, and discussion forums that **share** approaches for moving childrens' nature education forward in the Greater St. Louis area.

These goals were designed to support Gateway CNC's mission to bring together environmental conservationists, early childhood and elementary school educators, outdoor (nature) educators, health professionals, horticulturalists, professional architects and engineers, business leaders, government agencies, politicians, the media, and parents to promote and/or create meaningful and consistent opportunities to reconnect an entire generation of children with nature and the environment.

To date, Gateway CNC has participated in Earth Day celebrations in 2010,

Gateway Children's Nature Connection Charter Member Organizations/Institutions

- Shaw Nature Reserve
- The Saint Louis Zoo
- Doris I. Schnuck Children's Garden at Missouri Botanical Garden
- University of Missouri at St. Louis – Education Department
- Litzsinger Road Ecology Center
- Missouri Department of Conservation – Outreach Division
- Missouri Division of State Parks – Babler Memorial State Park
- Raintree Learning Community
- Southern Illinois University Edwardsville – School of Education

Go to <http://gatewaycnc.org/gatewaycnc.org/Members.html> to see a complete list of current member organizations.



See **Gateway CNC**, page 6

Glass House Quiz: February Folklore—Animals

by Danelle Haake and Deanna English

We are eager, up here in the Glass House, to find out how much longer winter will be with us. Will the groundhog see his shadow when he pops his head out? If he does, he will return to his burrow and we will have six more weeks of winter. If there is no shadow, he will stay out and spring is upon us! Our entire restoration calendar hinges on this momentous event, so you can bet our eyes will be glued to our TVs and computer monitors!! Wait, what's that you say? We cannot rely on the groundhog to predict the arrival of spring? Punxsutawney Phil has only been right 39 percent of the time? Hmmm...



Groundhog, also known as a woodchuck (Marmota monax). Photo by Kenn W. Kiser.

This quiz is the beginning of our annual tribute to Groundhog Day and other bits of folklore that our ancestors have used for centuries. Which of the following sayings are true, at least for the most part? (*Here's a hint: there are three that are at least partly true.*)

1. "If a cow wants to lie on the ground expect rain to come around." If you see cows lying down in a field does that mean it will rain soon?
2. The woolly bear caterpillar can predict the severity of the winter based on the width of its bands; the longer the black bands, the more severe the winter will be.
3. If cats lick themselves, expect fair weather.
4. "Antlers off before the New Year, expect a spring of sun and cheer."
5. "When frogs croak loud and long, rain will soon accompany their song."
6. "See how high the hornet's nest, 'twill tell how high the snow will rest."
7. You can tell the temperature from a cricket's chirp.
8. "If a rooster goes crowing to bed, he'll certainly rise with a watery head."

In the Calendar This Month...

According to the Natural Events Calendar distributed by the Missouri Department of Conservation, many mammals begin breeding this month, including woodchucks, mink, opossums, rabbits, coyote, skunks, and flying squirrels. In our Litzsinger Road Ecology Center calendar, you will find:

February

1. Flowering of witch hazel (*Hammamelis vernalis*)
2. Frost on seed heads of wild bergamot (*Monarda fistulosa*)
3. Deer (*Odocoileus virginianus*) congregating in the north prairie after the burn
4. Mary teaching students in the greenhouse

See full-size images on our blog: <http://www.litzsinger.org/weblog/>.



See **Quiz**, page 4

From **Quiz**, page 3

Answers:

1. **False.** According to the *Farmers' Almanac*, this isn't a very accurate way to forecast rain. While the folks who use this as a rain forecast claim that the cows will know when rain is coming and lie down to keep a space of the ground dry, there seems to be no real evidence of this. It is more likely that they are just relaxing and chewing their cud.
2. **False.** The wooly bear is the larval stage of the Isabella tiger moth. In the fall it is possible to observe many wooly bear caterpillars traveling as they leave their host plants and search for a dark, sheltered spot to overwinter.

The coloring is based on how long a caterpillar has been feeding, its age, and species. The better the growing season the bigger it will grow, which results in a narrower red-orange band in the middle. So really the bands might be a better indicator



Wooly Bear (*Pyrrharctia isabella*).
Photo by Whitney Cranshaw, Colorado State University, Bugwood.org.

of the past growing season. Also, the coloring indicates the age of the wooly bear as they can molt up to six times as they age and each time they become less black and more reddish.

3. **Partly true.** When the humidity (and therefore the chance of rain) is low, cat fur rapidly builds up static electricity. This can lead to some 'shocking' situations when the electricity discharges. (Danelle can attest to this personally from experiences with one of her cats during the past couple of weeks!) By licking itself, the cat is able to reduce the buildup of static electricity. That said, we're pretty sure kitty will lick himself under other conditions, but think static next time you see the family pet taking a bath.
4. **False.** We totally just made this up. According to the Missouri Department of Conservation Natural Events Calendar, bucks begin to lose their antlers on January 4.
5. **Partly true.** There are many reasons why frogs sing. They may be trying to attract a mate or mark their territory. They might squeak when they are frightened or hurt. However, there is some evidence that frogs may sing louder and longer when rain is coming. This might be because, since they need water to stay alive, they



Top: Gray treefrog. Photo by Danelle Haake.
Bottom: Hornet nest. Photo by Deanna English.

are highly sensitive to humidity. Before a rainstorm, frogs sense the higher humidity and become more active and begin to sing more. Apparently there are even some species that have a croak that seems to be directly related to coming rain events.

6. **False.** Hornet nest height has also been used to predict the opposite: "If hornets build low, winter storms and snow; if hornets build high, winter mild and dry." There is no evidence that either is true. And this makes ecological sense: since hornets do not overwinter in their nests, there would be no reason for the position of their nest to matter.

See **Quiz**, page 5

From **Quiz**, page 4

7. **True!** This method of predicting temperature has been used since the 1800s, and there have been studies showing that it is fairly accurate. There are several formulae out there, including this one: count the number of chirps in 14 seconds and add 40. The math only works reliably at temperatures above 55 degrees Fahrenheit; at lower temperatures, you probably won't hear any crickets, anyway!
8. **False.** As a rule, roosters are daytime animals and therefore mostly crow during the day (but not just in the morning). If a rooster crows at night (or 'bedtime'), they have been disturbed in some way. The disturbance could be a predator, illness, noise, or weather-related. So there may be an element of truth, but I wouldn't say that rain is 'certain' as the saying suggests.

Sources:

<http://www.stormfax.com/ghogday.htm> (Groundhog Day)

<http://www.montrealgazette.com/life/Schwarcz+Licking+static+cling+Your+rig ht+idea/7636662/story.html> (cats)

<http://www.farmersalmanac.com/weather/2009/11/09/outrageous-weather-myths-debunked/> (rooster)

<http://www.snopes.com/science/cricket.asp> (cricket)

<http://www.farmersalmanac.com/weather/2006/01/01/is-it-true-that-cows-lie-down-when-its-about-to-rain/> (cow)

<http://www.kellscraft.com/Wasps/Wasps17.html> (hornets)

<http://www.insectslimited.com/docs/Issue%2077.pdf> (wooly bear)

<http://www.silkmoths.bizland.com/spisabel.htm> (wooly bear)

<http://castle.eiu.edu/~reading/frogcommunication.pdf> (frog) 🐸

SIGN UP FOR ONE OF OUR SUMMER WORKSHOPS:

- *Sustainable Schoolyards*
- *Effective Outdoor Learning*
- *What's It Like Where You Live?*

Details: <http://www.litzsinger.org/profdev.html>.

Horticulture & Restoration Offerings for School Groups

by *Deanna English*

It's February, and that means the greenhouse is up and running. It is wonderful to go inside the warmth and inhale the smell of warm damp earth and the fresh green growth of seedlings beginning to emerge. As the days get longer, being in the greenhouse is a much needed reminder that spring is just around the corner.

There are other reminders on site. Just outside the greenhouse the witch hazel is blooming and filling the air with its sweet fragrance. If you are visiting make sure to stop by to smell the witch hazel!

Below is a list of activities you and your group can do this month if you're visiting us at Litzsinger Road Ecology Center.

Stream cleanup—Available when the stream is at a safe level.

Stream monitoring—Use a kit to test dissolved oxygen, conductivity, pH, temperature (air and water), nitrates, turbidity, and chloride.

Invasive plant removal—Learn about invasive species and help us remove invasive plants from the site.

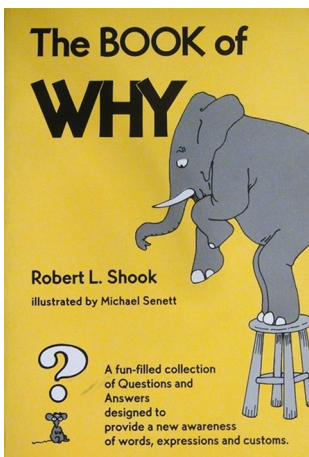
Roots and plant structure demonstration—Students are introduced to the purpose and function of roots and plant structures.

Seed sowing outside—Help us spread seed and "stomp" it into the ground. 🐸

LREC READING CORNER

by Danelle Haake

Have you ever had one of those days when it seems like every other word out of your children's mouths is "Why?" While it may be a bit tiring to hear the same word over and over, it is a great question for them to be asking. Inquisitiveness and curiosity are really the first step in scientific learning and discovery; we can make observations without trying to answer a question, but having a question to answer often brings clarity and purpose to these observations.



The Book of Why by Robert L. Shook

This book does an excellent job of answering a wide range of questions with simple, paragraph-long answers. There are many that answer questions about the history of obscure words and phrases. Although many of the 400+ questions are not science or nature related, there are several gems, including:

- Why is north at the top of maps?
- Why is it called a "dandelion"?
- Why is the fox believed to be cunning?
- Why do we abbreviate "ounce" as "oz."?

Spoiler alert! This may not be a book to hand to younger students; it includes history-based answers to questions about Santa and the Easter Bunny... 🐣

From **Gateway CNC**, page 2

2011, and 2012, hosted a conference on early childhood nature education in April 2012, established a children in nature informational website, and attained IRS approval as a non-profit organization. Gateway CNC plans to host a conference on Citizen Science in April 2013, establish a social media presence, and begin facilitating Family Nature Clubs in the near future, but more active member participation in the group is desperately needed.

For additional information on the Gateway Children's Nature Connection, go to the group's website at <http://gatewaycnc.org> or—better yet—join the group and get involved! Contact LREC volunteer (and Gateway CNC Treasurer) Leo Ebel for more information (leo.ebel@att.net). 🐣

LREC Announcements

Mid or late February TBD

Volunteer Enrichment: The History of LREC

At the Glass House. Bill Davit, James Trager, and Ray Potter share the ecological and social history of the place we all know as the Litzsinger Road Ecology Center. Volunteers will receive an e-mail in early February to confirm date/time. RSVP to Martha at martha@litzsinger.org or 314-540-4068.

February 27

Monthly Water Quality Sampling

1 to 4 pm, meet at the Glass House. Questions? Contact Danelle Haake at danelle@litzsinger.org or 314-961-4410.

Local Events

February 5

Conservation Conversation: Science Behind Climate Change

7:30 to 9 pm at the Saint Louis Zoo. Learn about the 2013 National Climate Assessment draft. Topics include climate science, agriculture, and social ecology. Free. Details at <http://www.stlzoo.org/education/saint-louis-zoo-lectures/conservationconversations/>.

February 23

Partners for Native Landscaping Workshop for Homeowners

8 am to 4 pm at Powder Valley in Kirkwood, Missouri. Learn how to landscape for wildlife, ID and remove invasives, plan a rain garden, and much more. \$20 (includes lunch and guide). Call 314-301-1500 or go to stlouisaudubon.org/PNL/ for more information and to register.