

# Litzsinger Road Ecology Center

## COMMUNITY NEWSLETTER

www.litzsinger.org

April 2012

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*Deanna English prepares Sustainable Schoolyard teachers to sow seeds in the LREC Pasture Prairie. Learn more about the Sustainable Schoolyards program on page 3. Photo by Leslie Memula.*

## Looking Ahead to Next Year

*by Bob Coulter*

We hope everyone has enjoyed their spring break. As this school year winds down, it's time to start looking ahead to next year. Very soon, you'll be receiving an e-mail inviting you to renew your partnership with us.

The first step in that process will be to set up a meeting with your primary staff contact (Eddie, Leslie, or me). In that meeting we'll jointly develop goals for the coming year based on how far along your project is in terms of student engagement and environmental stewardship, and where you'd like for it to grow in the coming year. Your continuing reflection in these areas helps us to share our partnership experiences with the larger environmental education and place-based learning communities so that others can benefit.

As a quick summary, here's what to expect:

### **April-May:**

A planning meeting with your primary staff contact.

### **April-July:**

You develop your proposal for the coming school year in partnership with us and your building administrator as needed.

### **Early August:**

Scheduling begins for the new school year. 🌱





# Oh No! Not Another New Teacher Partnership Application!?

by Eddie Jones

Yes...and no. Let me explain. Here is an excerpt from a letter sent out to teachers regarding the 2007–08 school year application:

*In particular, we are looking to support projects that engage students in using what they learn at LREC in projects that make a difference in their community. Consistent with the Center’s commitment to place-based education, we want to partner with you to help students be involved in the community.*

And from the 2012–13 application:

*The goal of the LREC Teacher Partnership is to equip teachers to engage their students in place-based education (PBE): using local ecology as a framework for studying a variety of subjects while interacting with the community.*

In summary, the mission of the Litzsinger Road Ecology Center Teacher Partnership Program has not changed over the last five years. And, in that sense, the application has not changed. We do, however, continue to tinker with the best way to set you up to succeed. Based on our experience and other research, we know that the best projects:

- are linked to learning goals across the curriculum (science, math, language, and beyond),
- involve the creation, use, and maintenance of a habitat that is native to Missouri, and
- are sustained by the mutual support and enjoyment of the students, school staff, families, neighbors, local business, and civic leaders.

To be sure that planning for next year gets off to a good start, the 2012–13 application process

will require a meeting with each participating teacher to identify short-term goals related to these three spheres of effective outdoor education. Look for an e-mail soon to set up your meeting.

If you have colleagues who would like to start partnering with us, they will need to participate in one of our summer workshops. They will get to know the site and have the opportunity to work with us on developing their project plans. See <http://www.litzsinger.org/profdev.html> for more information. ✎

## Effective Outdoor Place-based Education

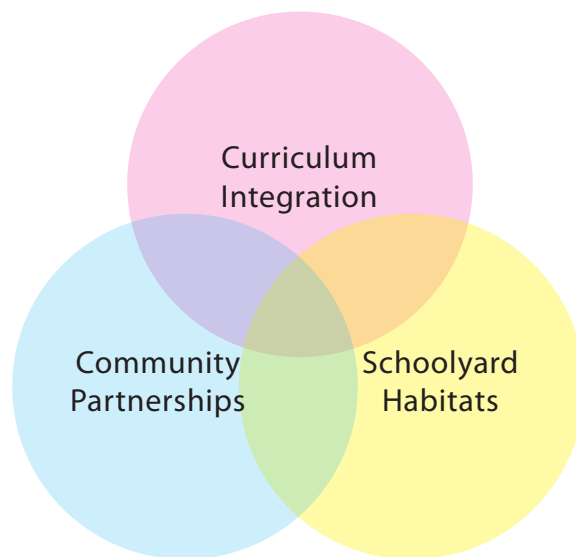


Diagram is adapted from Maryland Association for Environmental and Effective Outdoor Education (<http://www.maeoe.org/habitat/qualities/>).



# Revisiting *Sustainable Schoolyards*

By Leslie Memula

Late in February (after the March newsletter deadline passed), LREC hosted the *Sustainable Schoolyards* winter follow-up meeting.

*Sustainable Schoolyards* is a program involving St. Louis area teachers who seek to improve the educational use of their schoolyards. This is accomplished by working with their students to plan and create a schoolyard wildlife habitat and by using their outdoor spaces to achieve formal curriculum objectives.

Teams of teachers commit to a five-day summer workshop (graduate credit is available) during which they are introduced to methods for surveying and analyzing their school grounds. At the end of the



Jeanne Schober, Kyle Henderson, Karen Owen, and Tanya Cross transplant seedlings. Photo by Leslie Memula.

week, the teachers leave with beginning plans (and aspirations) for developing a schoolyard habitat.

Each winter, participants from the past summer workshops (since 2008) are invited to meet to discuss the triumphs and challenges they face in implementing their plans at their schools. This meeting is a wonderful place to reconnect with others and to capitalize on the knowledge of the group as a whole.

This year's winter meeting was well attended. Teachers from Covenant Christian School (independent), Wyland Elementary School (Ritneour SD), Shaare Zedek Early Childhood Center (independent),

Edgar Road Elementary School (Webster Groves SD), Brentwood Early Childhood Center (Brentwood SD), Keysor Elementary School (Kirkwood SD), and Glenridge Elementary School (Clayton SD) all attended. In addition, we had representatives from two of our partner organizations: the Missouri Department of Conservation (MDC) and the MySci program.

At the meeting the teachers got experience transplanting seedlings with the help of LREC staff Mary Voges and Deanna English. And, after that, we went out to the Pasture Prairie (which had been

See **Schoolyards**, page 7



Betsy Guthrey, Brendan Kearney, and others transplant seedlings. Photo by Leslie Memula.

# Glass House Quiz: Reptiles

by Danelle Haake and Deanna English

In looking through our archives of past quizzes, we noticed that we have neglected to cover one of the most ancient classes of organisms on the planet: Reptilia.

This group of animals includes turtles, snakes, lizards, and crocodylians. While each of these biological orders or suborders merit a quiz of their own in future issues, this month we will look at reptiles in general.



A black rat snake on a sycamore at LREC.  
Photo by Anne Wamser.

- 1. Which of these traits does NOT apply to all reptiles?**
  - a) All have scales.
  - b) All lay leathery eggs.
  - c) All are ectothermic (cold-blooded).
  - d) All young are independent at birth.
- 2. Which of the following is the study of reptiles?**
  - a) Reptitology
  - b) Hematology
  - c) Herpetology
  - d) Hispetology
- 3. Which of these represent the oldest living reptiles on Earth?**
  - a) Crocodiles and alligators
  - b) Turtles and tortoises
  - c) Lizards
  - d) Snakes
- 4. Missouri is home to 46 species and subspecies of snake. Of these 46, how many are poisonous?**
  - a) 0
  - b) 3
  - c) 5
  - d) 17
  - e) 46
- 5. As far as we know, there is only one species of lizard found at LREC: the five-lined skink (*Eumeces fasciatus*). What about their coloration makes them stand out in their woodland home?**
  - a) Five bright stripes on their backs
  - b) A blue tail
  - c) An orange or red head
  - d) Both a and b
  - e) All of the above
- 6. Which turtle is named for the odor it gives off when captured?**
  - a) Skunk slider
  - b) Stinkpot
  - c) Carrion carapace
  - d) Mudmusk



Three-toed box turtle.  
Photo by Anne Wamser.

See **Quiz**, page 5



From **Quiz**, page 4

Answers:

1. **b) All lay leathery eggs.** While many do lay leathery eggs, some snakes bear live young and some turtles lay hard-shelled eggs.
2. **c) Herpetology.** Herpetology is the study of amphibians and reptiles. The word comes from the Greek for “creeping animal.”
3. **b) Turtles and Tortoises.** Turtle fossils have been discovered dating to the Triassic Period—over 200 million years ago.
4. **a) 0.** None of the snakes found in Missouri are POISONOUS; however, there are five species of VENOMOUS snake in the state (give yourself half credit if you picked ‘c’). The venomous species are the Osage copper-head, western cottonmouth, timber rattlesnake, eastern massasauga rattlesnake, and western pygmy rattlesnake. While poisons are brought into the body by ingestion (like a poisonous mushroom) or by absorption through the skin (like poison ivy), venoms are *injected* into the body. For a snake to be considered poisonous, it would have to cause a rash when you touch it or make you ill when you eat it...



The five-lined skink exhibits a variety of physical attributes. Photo by Danelle Haake.

5. **e) All of the above.** In different stages, the five-lined skink can display any or all of these attributes! The five yellow or white stripes are often difficult to see in older skinks. Young skinks have bright blue tails, which is why the species is sometimes called the blue-tailed skink. Males will develop orange or red areas around the head during the breeding season in March and April.
6. **b) Stinkpot.** The stinkpot, or common musk turtle (*Sternotherus odoratus*), is one of the world’s smallest turtle species (it is Missouri’s smallest). Adults are between 2 and 4.5 inches long.

Learn more about Missouri reptiles at <http://mdc.mo.gov/discover-nature/outdoor-recreation/nature-viewing/amphibians-and-reptiles>.

Sources:

Thomas Tynning. *A Guide to Amphibians and Reptiles*. Little, Brown and Company, 1990.

Jeff Briggler and Tom Johnson. “Snakes of Missouri.” Missouri Department of Conservation, 2006.

Jeff Briggler and Tom Johnson. “Missouri’s Turtles.” Missouri Department of Conservation, 2008. ♪

## EASTER & PASSOVER

by Martha M. Schermann

Ecological  
Awareness  
Sends  
Thoughts  
Eagerly  
Recited

Plants  
Add  
Something  
Special  
Outdoors  
Vindicating  
Ecological  
Restoration



# Warm Winter, Early Spring

by Danelle Haake

This winter has been very mild. It has been nice to see the turtles and fish return to the creek earlier than usual, to see the red-buds and cherry trees blooming already, and to watch the green returning to the burnt habitats.

There are many wonderful things associated with our recent weather. The record high temperatures that have been set on many dates and in many places over the past three months and our three light snow-falls this winter (December 26, January 11, and February 13) have opened a number of doors in the world of ecology and interaction.

But how does this affect plants and wildlife? Here at LREC, we have already noticed that our spring species—both native and non-native—are in ‘hurry-up-and-



Warm weather led to the early blooming of this garlic mustard. Photo by Danelle Haake.

bloom’ mode: they are flowering before the vegetative growth has a chance to reach its normal level.

This is problematic when dealing with invasive species, such as lesser celandine and garlic mustard, since we have not had the opportunity to practice our usual control measures. But our native spring ephemerals are also off to a great start.

Ecologists in other states have noted other interesting phenomena, including one involving the sandhill crane. This year, some of these cranes, who usually overwinter in Texas, spent the whole winter as far north as Nebraska.

It is difficult to know whether this unusual weather will create lasting effects that will be apparent later in the year. One of the anticipated effects of the mild winter is a boom in the populations of many insect species. Insects and other invertebrates that normally die-off during the cold periods of winter may have been able to successfully overwinter this year. We may notice ants, ticks, and mosquitos—I’ve already had more than one mosquito visit my arms for a snack. Make note of anything else you find that seems out of the ordinary.

Another concern an early spring remains: what will happen if we get a late cold snap? This happened as recently as 2007. With the recent warmth encouraging the plants to enter advanced stages of spring growth, an overnight freeze could do a great deal of damage.

Learn more about these topics:

“Effects of a Mild Winter.” This conversation aired March 22, 2012 on NPR’s *The Diane Rehm Show*. Listen or view a transcript at <http://thedianerehmshow.org/shows/2012-03-22/effects-mild-winter>.

“Wild Cranes—Part 3.” This post about overwintering sandhill cranes is from the blog *Prairie Ecologist* written by Chris Helzer of The Nature Conservancy. <http://prairieecologist.com/2012/01/31/winter-cranes-part-three/>.

“Spring 2007 warmth and frost: phenology, damage and refoliation in a temperate deciduous forest.” This reader-friendly scientific article by Carol Augspurger first appeared in the December 2009 issue of *Functional Ecology*. <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2435.2009.01587.x/full>. 🌿



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burned in early January) to sow a seed mix directly onto the ground. Seed related activities like these are especially relevant, since most of the teachers are developing native habitats at their schools.

I look forward to this meeting each year. It comes at a time when things seem to have slowed down a bit, and it re-energizes me for the year ahead. No doubt the teachers feel the same.

If *Sustainable Schoolyards* sounds like something you'd like to be a part of, consider joining us at the upcoming summer workshop.

LREC is proud to offer three different workshops this summer so there is something for everyone. Workshop descriptions are at <http://www.litzsinger.org/profdev.html>. We look forward to seeing you! 🌱

## LREC Announcements

April 9

### **Volunteer Enrichment: Amphibian Exploration**

9am–noon at Jay Henges Shooting Range and Outdoor Education Center, 1100 Antire Road, High Ridge, MO 63049. Depart LREC at 8:45am or meet at Henges at 9:15am. RSVP to Martha at 314-540-4068 and let her know whether you will meet us at LREC or go directly to Henges.

April 26

### **Monthly Water Quality Sampling**

9am–noon, meet at the glass house. Questions? Email Danelle Haake at [danelle@litzsinger.org](mailto:danelle@litzsinger.org) or call her at 314-961-4410.

## Local Events

April 6

### **Arbor Day Tree Giveaway**

9am–5pm at the Missouri Botanical Garden. Celebrate Arbor Day a little early this year by picking up a free seedling (shumard oak, flowering dogwood, black gum, witch hazel, or redbud). Master gardeners will be on hand to answer questions and give planting advice. First-come, first served, while supplies last. Included in Garden admission.

April 17

### **Video Presentation and Discussion: Mother Nature's Child**

6–8pm at the Dennis & Judith Jones Visitor and Education Center in Forest Park. Learn why today's youth are inflicted with "nature deficit disorder" and the repercussions for all of us. Free but reservations required: 314-877-1309. Details at <http://mdc.mo.gov/events/detail/451347>.

## Celebrate Earth Day! Sunday, April 22

### **St. Louis Earth Day Festival**

11am–6pm at Forest Park, Muny Grounds. Enjoy music, performances, educational exhibits, hands-on activities, and much more. Free and open to the public. Details at <http://www.stlouisearthday.org/events/earth-day-festival/>.

### **Recycling Extravaganza**

9am–3pm at St. Louis Community College, Forest Park. Recycle/donate a wide range of items including:

- fabric, yarn, sewing notions
- jewelry, buttons, art supplies
- musical instruments
- bicycles and parts
- computers, cell phones
- cfl bulbs, rechargeable batteries
- holiday lights, extension cords
- plastic bags, packaging, styrofoam
- carpet, tile
- scrap wood, yard waste
- household fixtures, appliances
- shades, blinds, drapery rods
- vhs tapes, audio cassettes
- medications: prescription or otc

Complete list of accepted items and details at <http://www.stlouisearthday.org/events/earth-day-festival/getting-to-the-festival/recycling-extravaganza/>.

ABSOLUTELY NO chemicals, household hazardous waste, paints, or liquids.