

# Litzsinger Road Ecology Center

## COMMUNITY NEWSLETTER

www.litzsinger.org

### in this issue

- 2 LREC Teacher Conference
- 3 Stories from the Schoolyard
- 4 Glass House Quiz: The Quercus Quiz
- 6 New Volunteer Educator Training
- 6 LREC Announcements & Local Events

Flynn Park Elementary first graders sketch fall trees. Learn what other students are up to on page 3. Photo by Leslie Memula.



December 2016

## Teaching in the Post-Truth Era

by Bob Coulter

You may have seen that the Oxford Dictionaries named “post-truth” its [word of the year](#) for 2016. Also, the New Yorker just ran a [cartoon](#) depicting a Jeopardy-like Facts Don’t Matter game show. Whether you gravitate to the serious or the satirical, it’s clear that we’re living in an era where finding the truth is a complex adventure. Within the sciences, this shows up in corporate-sponsored “junk science” and in proposals from the incoming administration to cut NASA funding for “politically correct environmental monitoring.”

How can we best equip our kids to function in this world? I will argue that we need to move past fact memorization, but we also need to avoid settling for overly loose “anything goes” projects. It is more important than ever that we provide kids with experiences that also develop skills in careful observation, respectful sharing of evidence-based opinions. Throughout, we need a willingness to change our minds when needed. The specifics of how to do this will be different if you are working with preschoolers, tween-agers, or young adults, but the process is the same. I’ll be talking more about this at our conference on January 25. Hope you can join us! ✎

### Volunteer Holiday Party

MONDAY, DECEMBER 12, 2016

11 AM TO 2 PM

AT ELIOT UNITARIAN CHAPEL

100 S. Taylor, Kirkwood 63122

Mingle and jingle with other Horticulture and Education Volunteers and LREC staff and enjoy some holiday cheer.

RSVP to Martha and let her know how many people will be coming: 314-540-4068 or [martha@lrec.net](mailto:martha@lrec.net).

# LREC Teacher Conference

by *Eddie Jones and Deanna English*

This summer we (Deanna and Eddie) made a trip to North Georgia, located in the beautiful Appalachians, to attend the Foxfire Education Conference. Amazing place-based educators from around North America shared wonderful stories of successfully integrating place-based learning not only into science, but also into history, visual arts, literature, music, and writing. The energy of strong connection to place of each participant and presenter was evident. Personal stories of Native peoples, traditional knowledge, ancient mountains, rivers, and landscapes created webs of connections, understanding, and stories.

Energized and excited, we left the conference reminded of how important it is to connect with communities of like-minded educators and learners while continuing our work in our own place. We are happy to weave our own local web on January 25 as we convene at Missouri Botanical Garden for our first annual conference.

Dr. Bob Coulter, Litzinger Road Ecology Center Director, will be speaking about building kids' citizenship through community engagement.

Dr. Jan Buley, a professor in the School of Education at Laurentian

## OUR KEYNOTE SPEAKER: JAN BULEY

Jan Buley is addicted to storytelling, noticing the world, and eating red licorice. She completed her Ph.D. at NYU, gathering stories and examining the assumptions, beliefs, and contradictions about family engagement in schools. As a child, Jan spent almost every Sunday afternoon hiking in the woods with her four siblings and her father, examining woodpecker holes, tracing leaves with a wax crayon, and perfecting owl calls. Now as an adult, she spends Sunday afternoons hiking in the woods with her dog, Daphne (a borderless collie) and with her partner, David, examining woodpecker holes, tracing leaves with a wax crayon, and perfecting owl calls. She is convinced that she is the luckiest person on the planet, offering courses in literacies and drama education to student teachers at Laurentian University in Sudbury, Northern Ontario, Canada. She also believes that some of the best teachers are eight years old.

Jan's email is [jbuley@laurentian.ca](mailto:jbuley@laurentian.ca) and she's delighted to share, learn, connect, and play with all of you at this wonderful conference opportunity.



## AT A GLANCE:

### WHAT:

LREC Teacher Conference

### WHO:

For teachers who currently have a partnership with LREC

### WHEN:

Wednesday, January 25, 2017  
9am-3pm

### WHERE:

Missouri Botanical Garden

### COST:

While there is no charge for the conference, lunch is not provided. Please bring a lunch from home or come prepared to purchase lunch at [Sassafras Café](#), just upstairs from our meeting space.

[REGISTER ONLINE](#)

University, will share her international expertise in place-based education. We met Jan at the Foxfire Education Conference and made an immediate connection. We are grateful that she has agreed to spend the conference day with us.

We are also planning a variety of breakout sessions lead by a teacher partner or two, Mary Voges (LREC), and David Bruns (Missouri Department of Conservation).

We look forward to sharing the day with as many of our partner teachers as possible. If you have not signed up and would like to attend, please do so as soon as possible. 🌿



# Stories from the Schoolyard:

## EFFECTIVE OUTDOOR LEARNING AT ST. LOUIS AREA SCHOOLS

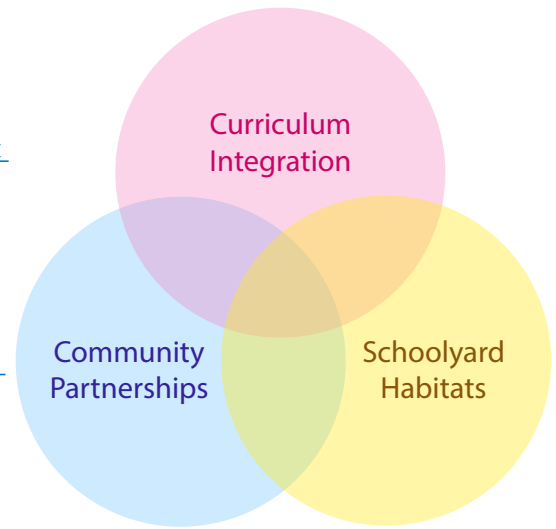
by Leslie Memula

Here at Litzinger Road Ecology Center we are all about getting teachers and students outside engaging with and learning from the natural world. While the majority of my time is spent on site in this endeavor, I also have the privilege of going to visit schools from time to time. I love this opportunity to work with teachers as they use their own schoolyard spaces as an extension of their classroom.

In the last month, I spent time with first grade students at Flynn Park Elementary (University City School District) as they [sketched fall tree portraits](#), fifth grade students at Visitation Academy as they [searched for birds](#) along their woodland nature trail, first

and second grade PC (Project Challenge) students at Buder Elementary (Ritenour School District) as they [learned about producers and consumers and constructed food chains](#), preschool students at Sacred Heart Villa as they explored their schoolyard and [collected seeds](#) from their native plant gardens, and preschool students at KUM (Kirkwood United Methodist) Preschool as they [noticed changes that the fall season brought](#) to their nature play area. (Links above go to lesson plans for each activity.)

It is such a joy to visit schools—I love it when students share their special outdoor places with me! 🌿



Sacred Heart Villa preschoolers examine and draw their seeds. Photo by Leslie Memula.



Buder Elementary students explore food webs. Photo by Leslie Memula.



# Glass House Quiz: The *Quercus* Quiz

by Deanna English and Jamela Thompson

It seems that most people who live in Missouri and are interested in the natural world learn quite early to notice the abundance of beautiful oak trees. Whether you are hiking in the woods, visiting a farm, or walking through one of our many urban parks, you are bound to meet some oaks.

Winter is a special time to be with the oaks as they can add a certain interest and charm on a cold winter walk. As you wander you may begin to observe the rustling chatter of the oak's persistent leaves, notice the variety of different acorns easily found on the ground, and admire the beautiful branching patterns especially on open grown trees. At LREC we all enjoy the oaks and hope that this month's quiz will give you something to think about on your next walk or hike.

- 1. What are the two main oak groups?**
  - a) deciduous and coniferous
  - b) smooth barked and deeply ridged
  - c) white and red
  - d) hairy lobed and smooth lobed
- 2. How many oak species are found in Missouri?**
  - a) 21
  - b) 34
  - c) 29
  - d) 47
- 3. How many oak species are found at LREC?**
  - a) 4
  - b) 7
  - c) 8
  - d) 14
- 4. What is the term for the chemical compound found in acorns that make them taste bitter?**
  - a) carbon dioxide
  - b) acetic acid
  - c) tannin
  - d) benzoic acid
- 5. Oak decline is a current phenomenon where a significant amount of oaks are dying from what?**
  - a) pesticides, lack of pollinators, and damage to bark
  - b) flooding, woodpeckers, and disease
  - c) Sudden Oak Death Syndrome
  - d) old age, drought years, and boring insects
- 6. \_\_\_\_\_ is the accumulation of fallen leaves on the forest floor.**
  - a) leaf decomposition
  - b) leaf litter
  - c) leaf mulch
  - d) cambium
- 7. Oak-hickory is the main forest habitat type occurring in Missouri because \_\_\_\_\_.**
  - a) white-tailed deer favor other tree species, allowing oaks and hickories to have more successful establishment
  - b) European settlers in the Ozark region clear-cut shortleaf pine stands for railroad ties and lumber, which allowed oaks and hickories to flourish
  - c) contractors and development agencies must adhere to a strict agreement with the state to carbon-offset projects with oak and hickory plantings
  - d) Native Americans removed competing tree species because hickory nuts and acorns were their main food source

See **Quiz**, page 5



From **Quiz**, page 4

Answers:

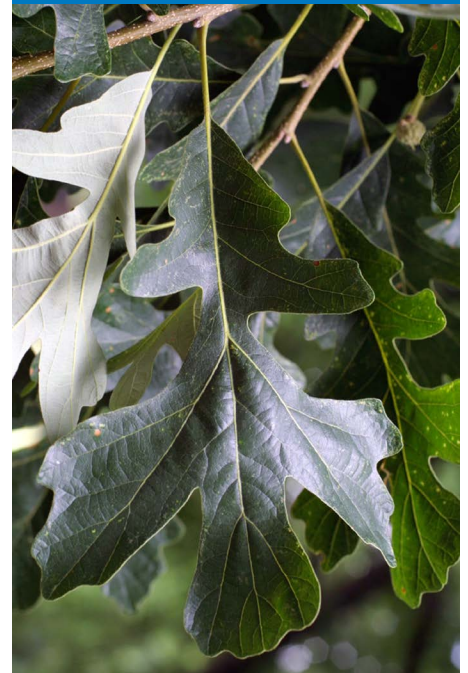
1. **c) white and red.** (Note: black oaks are included in the red oak group.)  
Here are some features that differentiate between white and red oaks:

White Oaks	Red Oaks
Acorn cups have no hair inside	Acorn cups have fine, silky hairs on inside
Leaves are without bristles	Leaves have bristle-tips or teeth
Acorns contain less tannins	Acorns contain more tannins
Acorns mature on the tree in one season	Acorns mature on the tree in two seasons

2. **a) 21.** There are an estimated 600 species of oaks worldwide. Missouri is home to **21 species**.
3. **b) 7.** As of 2014, seven oak species have been recorded at LREC. These include from the white oak group: the swamp white oak (*Quercus bicolor*), bur oak (*Quercus macrocarpa*), swamp chestnut oak (*Quercus michauxii*), and chinkapin oak (*Quercus muehlenbergii*), and from the red oak group: shingle oak (*Quercus imbricaria*), pin oak (*Quercus palustris*), and northern red oak (*Quercus rubra*).
4. **c) tannin.** Tannins and their bitter flavor can be removed from acorns by boiling them for extended periods of time or by using a cold-leaching method of soaking making them edible for humans.
5. **d) old age, drought years, and boring insects.** Stress from drought and the aging of a tree can make it more susceptible to boring insects, such as the red oak borer. These factors, along with other insect activity and severe weather damage, have caused a weakening of the red oaks in particular.
6. **b) leaf litter.** Leaf litter is extremely important in the process of nutrient cycling in woodlands. Weathering and detritivores help break down leaf litter on the forest floor and reintroduce it back into the soil.
7. **b) European settlers in the Ozark region clear-cut shortleaf pine stands for railroad ties and lumber, which allowed oaks and**



The northern red oak, pictured above, has bristle-tipped leaves, whereas the bur oak, pictured below does not. Photos by Steven J. Baskauf, <http://bioimages.vanderbilt.edu/>.



For more information about oaks, pick up the Missouri Department of Conservation's reprint of *Missouri's Oaks and Hickories*. Or [download it as a pdf](#).

See **Quiz**, page 6

Litzsinger Road Ecology Center  
Site address: 9711 Litzsinger Road, Ladue, MO 63124  
Mailing address: 101 W. Argonne Drive #177, Kirkwood, MO 63122

314-540-4068 • [www.litzsinger.org](http://www.litzsinger.org)  
Find us on Facebook:  
[LREC Teachers](#) • [LREC Volunteers](#)

## NEW VOLUNTEER EDUCATOR TRAINING

We will be holding another volunteer educator training series in February 2017. The training will consist of a series of four sessions learning about Litzsinger Road Ecology Center, strategies for working with children, and the natural world. If you know anybody who might like to become a volunteer educator, please have them contact Susan Baron at 314-691-2628 or [susan.baron@mobot.org](mailto:susan.baron@mobot.org).

From **Quiz**, page 5

**hickories to flourish.** The Ozark region used to consist of 6.6 million acres of shortleaf pine stands. These stands were valuable to the lumber and railroad industries, and were clear cut in the early 1900s. The clearing of these forests left opportunity for the oaks and hickories (hardwoods) to prosper in the available space.

Sources:

Denison, Edgar and Palmer, Bruce. *Missouri's Oaks and Hickories*. Conservationist Commission of the State of Missouri, 1993. Missouri.

Lawrence, Robert, Moltzan, Bruce, and Moser, Keith. *Oak Decline and the Future of Missouri's Forests*. Conservationist Commission of the State of Missouri, 1993. Missouri. ❧

## DECEMBER

by Martha M. Schermann

Directed

Efforts

Correct

Even

Mediocre

Beliefs

Enabling

Reform



## LREC Announcements

December 12

### Volunteer Holiday Party

11 am–2 pm, at Elliot Unitarian Chapel. Details on page 1.

January 17

### Volunteer Enrichment: All About Burns

1–3 pm, meet at the cabin/deck. Bring your brown bag lunch at 12:30 pm or meet us for the program at 1 pm. RSVP to Martha at 314-540-4068 or [martha@lrec.net](mailto:martha@lrec.net).

## Local Events

December 3

### Beginner Bird Walk

8:15–10:30 am, at Forest Park. Co-sponsored by Forest Park Forever and St. Louis Audubon Society, these monthly guided walks highlight some of the best urban birding in St. Louis. Free. Learn more at <https://www.forestparkforever.org/bird-watching/>.

December 7

### To Bee or Not to Bee in the City:

### Wild Bee Diversity in St. Louis

7:30–9 pm, at the Saint Louis Zoo. Food web ecologist, Dr. Gerardo Camilo, discusses his urban ecological research to uncover St. Louis' wild bee diversity. Free. Learn more at <https://www.academyofsciencestl.org/events/>.

December 31

### New Year's Eve Stroll at the Confluence

5:30–7 pm, at Columbia Bottom Conservation Area. Ring in the New Year and new moon with a winter stroll. Ages 10 and up. More information at <https://mdc.mo.gov/events/view/1065747>.