

Litzsinger Road Ecology Center

COMMUNITY NEWSLETTER

www.litzsinger.org

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Wind, humidity, and air quality are just some of the variables that come into play when scheduling a burn. Learn more on page 4.

December 2010

Sowing Seeds for the Future

by Bob Coulter

I recently came across a fascinating study you might find interesting and relevant for your efforts to engage kids with the community. For some unknown reason years ago, high school students were randomly assigned either to a class that had a service-learning component (where students had to apply what they were learning to make contributions to the community) or that was a traditional academic class. An enterprising researcher dug up students from both classes thirty years later and compared their life trajectories. It turns out that as a group, the class of students with the experience working to make a difference in their community went on to adult lives marked with more overall civic engagement—and more leadership roles—than their classmates who did not have that experience.

While one study is hardly conclusive, it suggests that your efforts now can have a long-lasting impact on where they go after they leave you.

It's not easy to add service learning projects into a crowded curriculum, but your creativity and perseverance can pay big dividends. On behalf of the staff and volunteers at LREC, we salute your efforts and wish you a great holiday season. ✎



Questions Answered

by Leslie Memula

Have you ever wondered if there are more critters under bug boards in the prairie or the woodland? Curious as to which prairie has the tallest cup plants? Interested in the most common color of fungi at LREC? Headed to the creek and hope to see some animals? Then you should check out these PowerPoints by Donna Kehres' fifth grade students at Hudson Elementary. Just click on the link below and then click on "LREC Investigations":

<http://schools.webster.k12.mo.us/education/components/scrapbook/default.php?sectiondetailid=31049>

During two visits with us in October, Donna's students worked

Hudson Elementary School

Location:
69825 Hudson Avenue
Rock Hill, MO 63119

Grade Levels: K-5

Number of Students: about 188

Classrooms Working with LREC: 3

Website:

<http://www.webster.k12.mo.us/education/school/school.php?sectiondetailid=85&&PHPSESSID=5b7dfe9233487a19a40e4e1f92b710b6>

diligently alongside LREC Volunteer Educators to design a scientific investigation. Each group was responsible for developing their study plan, which included a hypothesis, materials list, and procedure. They demonstrated an amazing amount of teamwork as they conducted their experiments out in the field then graphed their data and wrote up their results. Upon returning to school, the kids put the finishing touches on their investigations and developed a presentation to share with the fourth grade classes.

We don't often know what happens after teachers leave LREC with their students. Volunteer Educator Ann Gulick summed it up quite nicely when she said, "These slide shows were wonderful, closing the loop between their time at the Center and the completion of their project. Thank you so much for sharing, and please extend our appreciation to the teacher and kids."

If you're one of our partnering teachers, I encourage you to share what you and your students are doing back at school...just like Donna has done! ✨

KUDOS TO OUR NEW VOLUNTEER EDUCATORS

We are happy to share the news that 14 people have successfully completed the training to become Volunteer Educators with us at LREC!

Please welcome:

Gail Abbott

Sally Breck

Don Evans

Jim Ford

JoAnn Ford

Lynn Goode

Laura Hellebusch

John Lewis

Dorrit O'Hallaron

Deanna Nelson

Paul Nelson

Joe Nydegger

Lynne Sandler

Pat Zerillo

They have been keeping Martha busy as they vie for spots on the calendar working with student groups. Make sure to introduce yourself to them when you get the chance!

Glass House Quiz: Winter Restoration

by Danelle Haake and Deanna Lawlor

A _____'s work is never done. You could fill that space with any number of people: mother, father, teacher, or even ecologist. When you look around the Litzsinger Road Ecology Center during the spring, summer, and fall, you may notice the mowing and pruning of our paths and trails. You might see a recently planted or watered tree or flower. You might even encounter our Horticulture volunteers and staff collecting seeds in the woodlands and prairies. Now that winter is upon us, what is there for an ecologist to do? Plenty, we can tell you. But rather than tell you, we thought we'd quiz you!

1. We collect, clean, and catalog seeds starting in the spring and continuing through November. For the seeds that will be sown out on the site, what is the order that we would complete the following steps?
 - a. Prepare a seed mix for the plot
 - b. Select a plot that needs seeds sown
 - c. Choose seeds for the habitat type
 - d. Examine the habitat in the plot (sun/shade, wet/dry, etc.)
 - e. Sow the seed mix in the plot
2. Invasive species are a constant fight for ecologists. Which of these groups of invasive plants can we work to remove in the winter?
 - a. Lesser celandine and Japanese knotweed
 - b. Bush honeysuckle and wintercreeper
 - c. Japanese hops and curly dock
 - d. Johnsongrass and star of Bethlehem
3. Which of the following management techniques can be used in prairie restoration during the winter?
 - a. Sowing seed
 - b. Monitoring vegetation diversity
 - c. Burning
 - d. Both a and c
4. We spend a lot of time during the winter growing plants in the greenhouse. Seeds of most native plants need to experience a winter before they will sprout. How do we convince these seeds to sprout so early?
 - a. Soak the seeds in chemicals to make them sprout
 - b. Put the seeds in moist sand in a refrigerator for 3 months
 - c. Leave the seeds in the dark for 1 month before we sow them
 - d. Put them on the floor and step on them



Prairie blazing star (*Liatris pycnostachya*) seedlings.

See **Quiz**, page 5

Preparing to Burn

by Danelle Haake

Now that we have finally made it into fall, with winter coming quickly behind, LREC staff is in the final stages of planning for our burn. Every year, we use fire to assist in the restoration process in at least one of our habitat areas. This year, we are hoping to burn in four different habitats: the North Woods, the North Prairie, a patch of the South Woods, and the Pasture Prairie (see aerial image on page 5).

When will we burn, you ask? We can't say. Not because it is a secret, but because we don't know. The date of our burns each year is highly dependent on the weather. The wind must be the right speed and direction. The humidity must be low. The air quality must be good.

The part of the weather equation that is generally most predictable, though not necessarily cooperative, is rainfall. In recent years, the difficulty has been finding a time when the fuel for our burns (leaves, grasses, and other dead vegetation) is dry enough to carry a fire across the prairie. In general, the fuel will catch fire when we have had no rain in the previous five days.

This season, it appears that drought will be more of a concern than rainfall. On November 5th, the

State Fire Marshall and National Weather Service issued a warning that open burns—including controlled burns like we practice here at LREC—should be avoided under the low moisture conditions that we have been experiencing. According to the rainfall record that we keep here on site, we have only had about six tenths of an inch of rain between September 28th and November 17th. This is at least three inches less than normal for St. Louis during this time period.

In addition to the complications of weather, schedules must be worked out. For safety reasons, we have members of the Ladue Fire Department on-site with a pump truck, so we must consider their schedule. In addition, we have the benefit of an experienced burn boss, James Trager from Shaw Nature Reserve, and must work within his schedule as well as that of other key LREC staff members.

Besides all of the other factors for our burns, there is one more key component that is a necessity for us to effectively manage the site using fire. Our burns could not be successful without the help of a large number of our excellent volunteers. We need volunteers to carry backpack-supplied watering



James Trager (right front) and a dedicated crew of staff and volunteers lead a successful burn.

hoses, to carry rakes and fire-smothering equipment, to stand along the edges of the burn unit to watch for escaping flames or cinders, to monitor weather conditions, and any of a number of other tasks.

If you are interested in participating in the burn, please e-mail or call Danelle (danelle@litzsinger.org; 314-961-4410). We will put you on the list of individuals to be notified of our plans for the burns. Due to the difficulty in predicting weather in St. Louis, we cannot promise more than a 24-hour advance notice to volunteers, but we will try to provide periodic updates on dates that we are considering. ♪

See **Burn**, page 5

From **Burn**, page 4



Aerial photograph of Litzsinger Road Ecology Center. The Center's boundaries are outlined in green. The areas we plan to burn this year are outlined in red.

- | | | |
|------------------|--------------------|-------------------|
| 1. North Woods | 3. South Woods | A. Glasshouse |
| 2. North Prairie | 4. Pasture Prairie | B. Barn and Cabin |

From **Quiz**, page 3

Answers:

1. b, d, c, a, e 2. b 3. d 4. b ✎

VOLUNTEER HOLIDAY PARTY

MONDAY, DECEMBER 20, 2010

11 AM TO 2 PM AT THE GLASS HOUSE

Contact Martha at 314-540-4068 to RSVP.

LREC Announcements

December 20

Volunteer Holiday Party

11 am to 2 pm at Glass House. RSVP to Martha at 314-540-4068 or martha@litzsinger.org.

December 30

Stream Sampling

Meet at 9 am at Glass House. Contact Danelle Haake (314-961-4410 or danelle@litzsinger.org) with questions.

Local Events

December 4

3rd Annual Green Living Expo

Noon to 4 pm at Missouri History Museum. Enjoy eco-friendly shopping, performances, and a screening of the documentary *Running With Wolves*. Free. More information at <http://www.mohistory.org/node/4904>.

December 7 **NEW DATE!**

Creepy Crawly Conservation: The Value of Invertebrates

7:30 to 9 pm at the Living World (Saint Louis Zoo). Free. Featuring Jennifer Hopwood of the Xerces Society. For information, call 314-533-8586.

December 11 & 31

Missouri Department of Conservation Hikes at Columbia Bottom

Eagle Hike: December 11, 9 to 11 am.
New Years Eve Hike: December 31, 6:30 to 8 pm. At Columbia Bottom Conservation Area in north St. Louis County. Reservations required. More information at <http://mdc.mo.gov/regions/st-louis/columbia-bottom>.