Litzsinger Road Ecology Center

COMMUNITY NEWSLETTER

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February 2015

in this issue

A group of fifth graders from Central Christian School use plant material they collected at LREC to create a deer. Learn more about this project and other ideas for winter projects on page 2. Photo by Leslie Memula.

Buying or Shopping?

by Bob Coulter

In one of my other lives I teach a course every spring in the Economics department at UMSL. As I was preparing for this semester I came across an interesting distinction between buying and shopping that resonates with our work building kids' identities as learners and citizens. In *The Price of Fish*, Michael Manelli and Ian Harris draw a distinction between a buyer—whose work is a preconditioned, decided-in-advance process—with a shopper who is undertaking an iterative, exploratory venture, seeing possibilities, comparing features, and teasing things out.

Translating this work to kids, how much are they asked to "buy" knowledge—following the preconditioned curriculum script that has been decided for them in advance—and how much are they supported in the more iterative process of "shopping" as they are guided to see possibilities and given time to tease out their best understandings? The sustained projects you do in partnership with us provide great opportunities for this iterative learning process, which in the long run will nurture in the kids a lifelong identity as a thinker and a doer. It's not easy to push back against the relentless curriculum scripts many of you have to navigate. Your efforts are not unappreciated by us, your kids, and their parents.

Winter To-dos

by Leslie Memula

> *"Winter winter…oh what to do…when the outdoors is calling you?"*

One of the displays volunteer Ray Potter put together showing winter plant material. Photo by Leslie Memula.

Just last week we held our first volunteer enrichment session of the new year. As we walked the site in small groups—looking, listening, touching, smelling—we were all reminded (if not a little surprised) at just how much there was to observe during the seemingly long winter months.

To aid us in our exploration, Eddie Jones (Education Program Manager at LREC), put together a list of 'things to look for this winter' (check it out at right). With the trees bare of leaves, some of these treasures were relatively easy to spot. I know that we were truly amazed at the number of praying mantis egg cases we saw up in the musclewood (or American Hornbeam) tree near the bus parking slot.

The walk also encouraged our very dedicated volunteer, Ray Potter, to collect samples of plants that are common to our prairies. Since most of our field guides have pictures of these plants when their leaves are green and they are in bloom, it can be an added challenge to identify them when they appear brittle and brown or gray. Ray was able to repurpose some styrofoam packing material to make a display of winter plant life from the LREC prairies.

Winter also inspired Deb Barham, science teacher at Central Christian School, to think outside the box. During their recent visit to LREC, Deb's fifth grade students worked on an art project. First the students explored the site to collect clippings of plants that they found most interesting. They then worked with their group to create a piece of artwork. Before they headed back to school, each group named their creation and reflected on why they chose to arrange it as they did. (Learn more about Deb and her students' activities here at LREC on page 4.)

> *"Each moment of the year has its own beauty, a picture which was never before and shall never be seen again."*
>
> —Ralph Waldo Emerson

THINGS TO LOOK FOR THIS WINTER

- Lichen
- Feathers
- Scat
- Bones
- Mushrooms
- Fungi
- Birds
- Insects
- Galls
- Nests
- Cocoons
- Egg cases
- Seeds
- Moss
- Fossils
- Crystals
- Tracks

ON WOODY PLANTS:

- Buds
- Leaf scars
- Thorns
- Bark texture

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The winter season presents so many wonderful opportunities for outdoor studies—please share with us what unique things you and your students have been up to.

Top: A completed art project made by a group of Central Christian School fifth graders. Photo by Leslie Memula. The students' rationale for plant choice and artwork design:

"We chose the plants in our artwork because they were unique, and they match the colors of the lion. We used the seedpods for the nose, eyes and part of the mane. We used the leaves for the skin of the lion. We also used delicate grasses for the wiskers [sic], and for the letters and the mouth we used bark. We chose the lion because It's our school mascot, and because in the parie [sic] there were lots of lion colors."

In Memoriam

by Mary Voges

Carole Dean, one of our wonderful Volunteer Educators, passed away on January 16.

Carole Dean works with Southview students and teachers on the grounds of LREC. Photo by Eddie Jones.

A native of Texas, Carole taught high school there and became a master gardener. After moving to St. Louis nine years ago, she began volunteering with the Missouri Botanical Garden. She enjoyed assisting at Garden Events, especially face painting the younger guests. As a Volunteer Educator at Litzsinger Road Ecology Center, Carole worked, as all the volunteers do, to introduce students to nature.

About five years ago, Southview School, a member of the Special School District, began a partnership with LREC. Southview teaches students ages 5–21 with a range of disabilities and challenges, "assisting the students to become independent, responsible, productive citizens and to reach each student's personal potential."

Carole and her teammate, Cindy Leuder, made it their job to be at LREC every Tuesday to welcome the Southview students and assist them with projects to develop their personal skills. Carole and Cindy took it upon themselves to meet with the teachers, do research to learn more about young adults with autism, and even learn simple sign language to better communicate with the students.

Carol and Cindy were awarded the Missouri Botanical Garden's Special Achievement Award in 2014 for their dedication and the impact they have on not only the Southview students and teachers, but also all of us at Litzsinger Road Ecology Center.

We will all miss Carole. She was a wonderful example of generosity and dedication and a true Southern Belle.

Students show off their newly planted seed containers. Photo by Deanna English

Student Project Highlights: Central Christian School

by Deanna English

Deb Barham from Central Christian school in Clayton has been partnering with us for several years and attended our *Sustainable Schoolyards* workshop. She has also been a regular participant and host school in our teacher enrichment events. She has invited our staff to visit the school to observe and support her and her students as they design and work in their schoolyard.

Deb and her fifth and sixth grade students visit Litzsinger Road Ecology Center several times each year, and, according to Eddie, there isn't much he needs to do to prepare for their visit. It's obvious that LREC has become an extension of Deb's classroom as she makes all the plans and just lets us know what she needs us to do for support.

This year Deb and her students made a visit in January, and as usual the visit tied back to the work they are doing in their schoolyard and classroom. One unique piece to this visit was Deb's different spin on a common LREC activity.

Many of our visiting teachers want to give their students the experience of working with plants and seeds when they are at LREC. We welcome these opportunities and make sure we have seeds to sow in the winter and plants to transplant in the spring.

Sustainable Schoolyard graduates also have opportunities to take seed and materials from LREC to grow plants in the classroom in the winter or to plant in their schoolyard in the fall.

Deb's students also wanted to start seeds in the classroom, but they just needed a little support and some materials. We would usually supply everything for such a visit, but Deb and her students came to LREC with their *own* seed, which they had collected from their garden, cleaned and stratified (placed the seeds in damp sand and in ziplocks), and stored in the refrigerator at school for several months. Now they just needed a little help learning about what a seed needs to germinate. As part of the visit the students took seeds they had collected and planted them in containers of growing medium each labeled with his or her name and the date, all ready to take back to school.

These students and their teacher have truly taken ownership of their school space. As the years have gone by each fifth and sixth grade student has worked to plant and care for native plants. Now they have an established space to collect seed and propagate their own plants. These students have all had the experience of observing a garden as it grows and changes, identifying native plant species at different stages of growth, collecting seeds, identifying what

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HORTICULTURE & RESTORATION OFFERINGS FOR SCHOOL GROUPS

by Deanna English

February means the greenhouse is up and running and seeds are coming out of the refrigerator where they have been spending the late fall and early winter months and into warm soil in the greenhouse pots. We are already seeing the wee green sprouts of our newest native plant additions. When you visit the greenhouse it feels like spring is just around the corner. Even the witch hazel is cooperating by blooming just outside the greenhouse windows. We have also been designing and mixing seed mixes for different areas of the property that we will be spreading in early February. Please make sure you drop by the greenhouse for a visit when you are on site. If seed sowing in the greenhouse or seed stomping in the prairie or woodlands fits into your LREC visit plans, just let us know. We love having helpers.

Here's a list of February activities that we offer if you are bringing a group out and would like to be involved in some of our winter activities:

FEBRUARY RESTORATION OPPORTUNITIES:

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

Stream monitoring—Stream monitoring kits are available and include dissolved oxygen, conductivity, pH, temperature (air and water), nitrates, turbidity, and chloride.

Invasive plant removal—We welcome opportunities to educate as students help us remove invasive plant species from the site.

Roots and plant structure demonstration—This activity introduces students to the purpose and function of roots and plant structures.

Seed sowing in the greenhouse—Learn about seed sowing and sow some plants in the greenhouse

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

Greenhouse transplanting—Little fingers are always welcome for transplanting. This activity will be available towards the end of February.

SPECIAL OPPORTUNITY: Mary is germinating avocado seeds—an excellent way to learn about plant germination, seed structure, and plant parts. You can probably think of other ways to use these seeds in your teaching!

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is a seed and what is not, and then having the experience of seeing the new plants grow.

I think this is a big deal and a skill that most people no longer have. We are lucky here at LREC to have the opportunity every day to support outdoor place-based education with teachers and students like Deb Barham and her fifth and sixth grade students.

Update on Volunteer Holiday Donations

by Mary Voges

Thanks to all of you for your generous donations to the two families we sponsored this year. We collected over one thousand dollars, along with boxes of clothing and other items.

The money will be used to support one of the families in finding a place to live. I cannot imagine not having a home for my family, nor the necessities to live day to day. All of you came through, probably because, like me, we recognize that we are so lucky and can always spare something for those who need a hand.

I hope to keep in touch with the family and let all of you know how they are doing.

Again, thank you so much. You are the best!

FEBRUARY

by Martha M. Schermann

Finding
Ecological
Balance
Reveals
Useful
Activities
Required
Year-round

Glass House Quiz: February Folklore

by Danelle Haake and Deanna English

A few years ago we started the February folklore quiz tradition. We've covered animals and weather and this year we are focusing on plants. It's been great fun to explore what people believe now and in the past based on their observations and connections to the natural world. These days, most of us don't stay as connected to the natural world as our ancestors once did, but many of us still use the folklore that has been passed down through each generation. Some of the folklore has actually been proven to be true, at least partially.

We hope you enjoy exploring these bits of folklore and enjoy reading what we found out about each one. So let's get started…true or false:

1. **Many people believe that you can predict the severity of winter by looking inside a persimmon seed. Inside each seed you can find the shape of a fork, knife or spoon. According to lore, a spoon shape means you will be shoveling a lot of snow and it will be a snowy, cold winter. A knife means you will have an icy winter and will have to cut through the ice. A fork means you will have light snow. Does this work?**

Different possible shapes within a persimmon seed.
Photo by University of Missouri Extension – Southwest Region.

2. **Along with persimmon seeds, when trying to predict the weather some people look to tree leaves. There are people who believe that when tree leaves show their back it will rain. What do you think?**

3. **If you're lost in the woods you can figure out your cardinal directions by looking at where the moss is growing on trees because moss only grows on the north side of trees. Is this true?**

4. **Plants of the genus *Coreopsis* have been called "bedbug plants" because the flowers were used in beds to get rid of bedbugs. True or false?**

5. **"When the elm leaves are as big as a penny it is time to plant your beans." Is this sound advice?**

6. **Our native stinging nettle (*Urtica dioica*) has been used for generations as a pain reliever, especially for arthritis. Does it really work?**

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From **Quiz**, page 6

Answers:

1. **False.** We couldn't find any scientific evidence to support this, but it sure is fun to check out the seeds and see if your prediction holds up!

2. **True.** When trees grow, their leaves often fall in a pattern according to the prevailing wind. Therefore, when a storm wind blows, the leaves will be ruffled backwards and show their light undersides. (Source: http://www.atmosphere.mpg.de/enid/3__Folklore_Weather_Forecasting/-_Plants_and_animals_1qx.html.)

3. **False.** Moss prefers cool, damp, and shade. In the northern hemisphere, the north side of the tree often has these conditions; however, there are many other places moss will also grow, such as entire wooded stream valleys.

4. **False.** The word *coreopsis* comes from the Greek words *koris* meaning "bug" and *opsis* meaning "appearance" because the seeds were thought to look like little bedbugs.

5. **Maybe.** There are lots of these types of rules that many gardeners follow. Historically, people made observations of the natural world to help direct them in planting and harvesting. (Source: http://missourifolkloresociety.truman.edu/weather.html.)

6. **True.** At least for some people. According to the University of Maryland Medical Center, "Stinging nettle has fine hairs on the leaves and stems that contain irritating chemicals, which are released when the plant comes in contact with the skin. The hairs, or spines, of the stinging nettle are normally very painful to the touch. When they come into contact with a painful area of the body, however, they can actually decrease the original pain. Scientists think nettle does this by reducing levels of inflammatory chemicals in the body, and by interfering with the way the body transmits pain signals." (Source: http://umm.edu/health/medical/altmed/herb/stinging-nettle#ixzz3Q2gvuuSH.)

Additional Source:

Henderickson, Robert. *Ladybugs, Tiger Lilies & Wallflowers: A Gardeners Book of Words*. New York: Prentice Hall General Reference, 1993.

Top: Seeds of the lanceleaf coreopsis (Coreopsis lanceolata). *Photo by Eddie Jones.*

Bottom: Small hairs on the stem of the stinging nettle (Urtica dioica). *Photo by Jerry Kirkhart.*

LOOK WHO DROPPED BY…

Here are some recent photos of LREC visitors picked up by our motion detector cameras.

LREC Announcements

February 26
Volunteer Enrichment: Watersheds
1 to 3pm, meet at the Cabin. Review the Stream Table Activity, the Enviroscape model, and take a watershed walk. If you'd like, come early with your lunch at 12:30pm. RSVP to Martha at 314-540-4068 or martha@lrec.net.

Local Events

February 12
Native Plant School: Naturescaping Beyond Beauty: The Art and Function of Native Landscaping
1 to 4pm at Shaw Nature Reserve. $12 for MBG members; $15 for nonmembers. Advanced registration required. Learn more and register at https://www.mobot.org/classes.

February 21
Backyard Bird Festival
8:30am to 2pm at Forest Park. Guided bird walks leave the visitor center at 8:30am and 11am. Workshop topics include birding 101, landscaping for birds, and hazards for urban birds. Enjoy educational exhibits and interactive activities. Free. Details at http://www.forestparkforever.org/calendar/.

Various Dates
St. Louis Community College Continuing Education
One-session classes; locations/fees vary. Upcoming: *Birds of Missouri: Egg & Nest Identification* (2/10), *Owls of Missouri* (2/24), and *Climate Change 101* (2/28). See http://www.stlcc.edu/Continuing-Education/classes/.