

Litzsinger Road Ecology Center

COMMUNITY NEWSLETTER

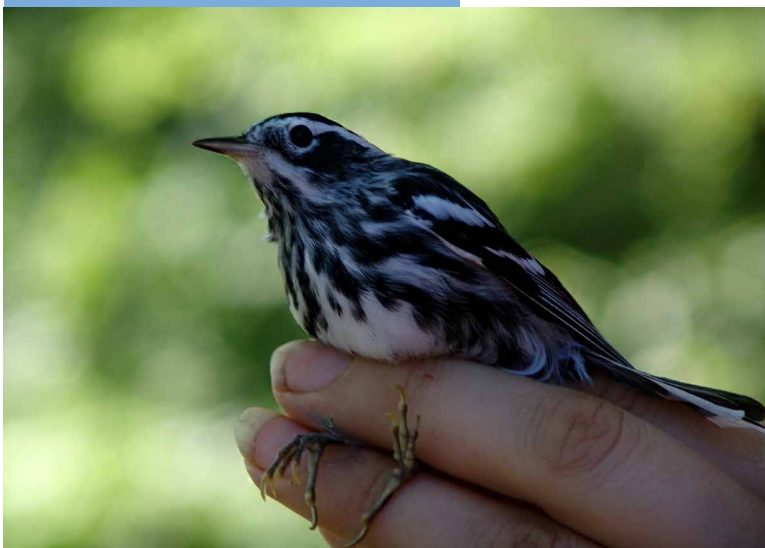
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January 2014

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Researcher Colleen Crank holds a black-and-white warbler (Mniotilta varia). Learn more about Colleen's research at Litzsinger Road Ecology Center on page 9.



Make Good Art

by Bob Coulter

Wandering New York City before Christmas, I made a few serendipitous discoveries. One was coming across Madeleine L'Engle's acceptance speech for the 1963 Newberry Award (for her classic children's book *A Wrinkle in Time*). In her speech, she was 50 years ahead of the curve, decrying how standardization was pushing schools to create kids who come out the same, like a tray of muffins. Her answer was to be sure kids have free access to great imaginative literature. Good plan.

I also picked up a small book with author Neil Gaiman's "Make Good Art" speech to the graduates of the Philadelphia University of the Arts. (You can view the video version of his speech at <http://vimeo.com/42372767>. It is well worth 20 minutes of your time. A link to the video can also be found on our blog: <http://www.litzsinger.org/blog>.) Like L'Engle, Gaiman rails against letting the status quo define what is possible. Among his bits of advice: "If you don't know it's impossible, it's easier to do. And because nobody's done it before, they haven't made up rules to stop anyone from doing it again." Also, "If you're making mistakes, you're out there doing something." He ends his call to make good art with a plea to take risks and "make interesting, amazing, glorious, fantastic mistakes." Heretical thoughts, indeed!

If we are going to avoid baking trays of muffin-like students, we need to find ways to support kids (and ourselves!) in these mistake-filled adventures into the seemingly impossible. What will you be jumping into? How can we help? ✎

Two Teacher Partners Speak Out

by Eddie Jones

Laura Johnson (Kindergarten) and Lizzie Berkowitz (third grade) teach at Saul Mirowitz Jewish Community School. They are two of five teachers at Mirowitz who currently partner with Litzsinger Road Ecology Center. Recently, over a soy chai latte and water, they offered some candid comments about their Teacher Partnership experience with LREC. My post-interview commentary is included in italics.

Q1. What was your initial motivation for partnering with Litzsinger Road Ecology Center?

LJ: Free field trip!

LB: Free flowers!

[My response: In the beginning, LREC is an unknown entity. These are refreshingly honest and, I predict, common initial motivations.]

Q2. What has been the most significant outcome of your LREC teacher partnership?

LB: My students are able to experience a local biome (learning outcome) face to face. And I can annoy my friends with the names and ecology of roadside plants!

LJ: The healing benefits of nature. I recently observed two high-anxiety children relax and engage

in open-ended exploration at the ecology center. Following their visit to Litzsinger, many students created “happy” journal sketches.

[My response: Local ecology supports formal curriculum objectives and, at the same time, provides ongoing opportunities to personally value and benefit from the natural world. This applies to both students and teachers!]

Q3. Mirowitz teachers at three grade levels partner with LREC. Is there a combined impact of multiple classes/grade levels?

LJ: After becoming acquainted with LREC site and staff as Kindergartners, the third graders know the territory and are equipped to make better use of the resources.

LB: The fourth graders know what it's like to learn in a natural setting. They are ready to engage in higher-level learning in that environment.



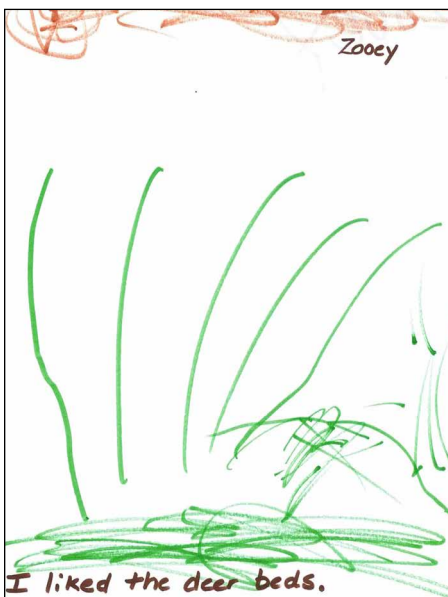
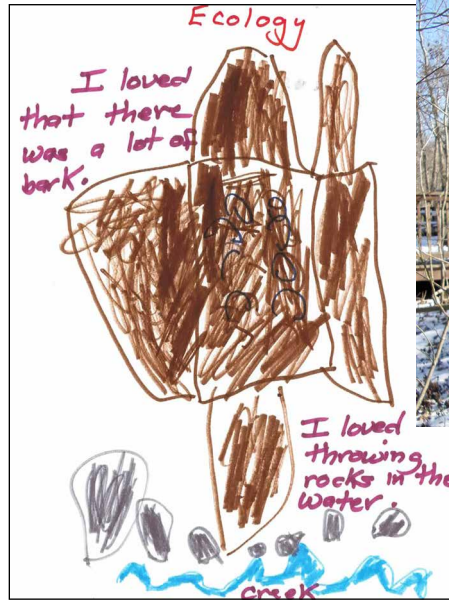
Saul Mirowitz Jewish Community School students work in their school garden. Photo by Eddie Jones.

See **Two Teachers**, page 4

Reflections From Shirlee Green Preschoolers

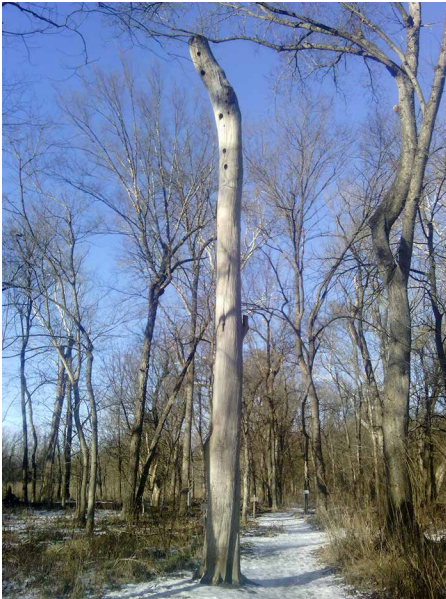
by Leslie Memula

We were so happy to welcome students from Shirlee Green Preschool to Litzsinger Road Ecology Center in late November. After exploring the site with their Volunteer Educators, the students went back to school to process their many different observations. The children journaled about their experiences, and we recently received some beautiful thank-you notes from the class. They certainly did a wonderful job capturing our beloved site! 🌿



See **Preschoolers**, page 4

From **Preschoolers**, page 3



From **Two Teachers**, page 2

[My response: Students and teachers who repeatedly visit the same outdoor space develop a sense of identity with and ownership of the space. It becomes their PLACE! The educational value of PLACES increases with use and familiarity. This is the real value of schoolyard learning.]

Q4. Regarding your LREC partnership: What are your challenges? Your dreams?

LB: The unpredictable weather can require a sudden change of plan! The students can have very different experiences with Volunteer Educators. I want more opportunities to work directly with LREC. I want to write Litzsinger into the curriculum!

LJ: While the *Discover Nature Schools'* unit, *See How the Turkey Grows*, is well written, it doesn't fit our school's curriculum. I want to work with LREC to develop a customized curriculum that will best benefit our students.

[My response: As outdoor learning is experienced and its value recognized, there is added motivation and opportunity to customize lessons and activities to best support and enhance the unique curriculum goals of your school.]

Q5. If a teacher asked you, "Why should I partner with LREC?," what would you say?

LB and LJ: The folks at Litzsinger provide ecology center visits, Volunteer Educators for small groups of students, help with lesson plans and timely email communication—all at no charge! They are knowledgeable and kid-friendly. However, you (the teacher) must have an interest in working with your students in an outdoor setting. LREC will assist you in developing an outdoor curriculum, but you must take the initiative.

[My response: Teachers who partner with LREC commit to using local outdoor learning spaces that are easily accessible to their students, like the schoolyard. This work is complemented by targeted field experiences at LREC to advance the learning goals being pursued in the community. LREC will provide student transportation between the school and the ecology center for these experiences at no cost to the school. The partnership begins with participation in a 3-day summer workshop, Effective Outdoor Learning (see the description on page 5).] ✍



2014 SUMMER WORKSHOPS

Learn more and register online at <http://www.litzsinger.org/education/professional-development/>.

Effective Outdoor Learning

*Session I: June 25–27, 2014; 9am–4pm
or*

*Session II: July 28–30, 2014; 9am–4pm
at Litzsinger Road Ecology Center*

Discover the learning opportunities in your schoolyard and community as you begin a yearlong partnership with Litzsinger Road Ecology Center. During this 3-day introduction to place-based education, you will become acquainted with outdoor learning and the unique opportunities it presents for your students to achieve curricular goals in science and across the curriculum. You will be introduced to *Discover Nature Schools*, an outdoor curriculum published by Missouri Department of Conservation and become eligible to receive funding for outdoor learning equipment. LREC will provide instructional and technical support through the next school year.

Fee: None for class or follow-up student field experiences.

Sustainable Schoolyards

*June 9–13, 2014; 9am–4pm
at Litzsinger Road Ecology Center*

Building on the principles of outdoor, place-based education, workshop participants will be introduced to teaching methods for investigating the history and ecology of your school and for enhancing the schoolyard as a habitat, all with your students and in support of your curriculum. LREC will provide instructional and technical support through the next school year. This workshop is open to teachers who have had a prior partnership with Litzsinger Road Ecology Center. Applications will be accepted from teams of two or more teachers.

Fee: None. Graduate credit is available.

Games, Models, and Simulations: New Tools for Student Engagement

*July 21–25, 2014; 9am–4pm
at Litzsinger Road Ecology Center*

Spend a week with colleagues learning how to leverage the power of MIT's free, kid-friendly StarLogo Nova tools. We'll spend time designing games, models, and simulations, and look at how you can use these tools to help kids meet the modeling emphasis in the Common Core Math and Next Generation Science Standards. We'll also share our experiences supporting kids as designers. Where you go over the course of the week and beyond is up to you: whether you are modeling ecosystem dynamics, disease transmission, or traffic patterns, the underlying tools and approaches are the same. Participants will have ongoing support during the school year as you build modeling into your curriculum.

Fee: None. Graduate credit is available.

WELCOME NEW VOLUNTEER EDUCATORS

Please join us in welcoming Hessie Needle, Ann Eggebrecht, Cindy Luecke, Mary Hall, Laura Schnure, and Scott Barnes to our team of talented Volunteer Educators!

If you haven't yet met them, you will likely do so soon as they have been actively signing up to work with school groups of all ages. We feel so lucky that these six stellar individuals committed to our fall training program, and we look forward to the enthusiasm and expertise they bring. 🌿



Glass House Quiz: Rainscaping

by Danelle Haake and Deanna English

In November, the Deer Creek Watershed Alliance began the third and final application period for their RainScape Rebates cost-share program. (We know you've heard of this—we mentioned it in the Rain Gardens quiz in the November newsletter!) This program allows homeowners in the Deer Creek watershed to install landscape features that solve drainage problems, improve property value, attract birds and butterflies, and increase aesthetic appeal. The program will then reimburse up to 75 percent of the cost up to a maximum of \$2000. For more details or to apply, visit <http://deer-creekalliance.org/rainscaperebates.aspx>. Applications are due February 12, 2014.

But, *anyone* can rainscape—whether you get a rebate or not! Many staff members and volunteers have done so without the financial incentive. Rainscaping includes many different types of landscaping that will help handle the rainwater that falls on your property—there something for everyone! Let's explore the many ways to rainscape with a quiz:

- 1. Which sentence BEST defines rainscaping?**
 - a) Rainscaping incorporates rain gardens into the residential landscape.
 - b) Rainscaping involves the removal of unused pavement in commercial and industrial areas, followed by the creation of wetlands.
 - c) Rainscaping consists of an array of sustainable landscaping practices that a landowner may employ to relieve rainwater-related problems.
 - d) Rainscaping provides a framework for the installation and long-term management of rain gardens.
- 2. Which of the following is NOT a way to rainscape?**
 - a) Install pervious pavers.
 - b) Develop stormwater management laws.
 - c) Add mulch to your garden.
 - d) Convert lawn to prairie garden.
 - e) Both b and c.
- 3. Soil compaction is often a problem in residential areas, especially in areas where construction equipment has been or in places with regular foot traffic. A layer of heavily compacted soil may let through about as much (or as little) water as concrete. The remedy to this problem is to improve soil texture using soil amendments. Which of the following should you NOT add to your soil to improve texture?**
 - a) Sand.
 - b) Leaf mulch.
 - c) Manure.
 - d) Expanded shale (Haydite).

See **Quiz**, page 7



A rain barrel collects rain from the roof of the LREC cabin. Photo by Leslie Memula.

From **Quiz**, page 6

4. Rain barrels are often used in rainscaping as a way to ‘harvest’ rainfall for future use. Which of the following statements about rain barrels is FALSE?
- a) Most rain barrels hold between 50 and 200 gallons of water.
 - b) Raising a rain barrel off the ground will increase the water pressure in the outflow.
 - c) Water from rain barrels is better for your plants than tap water.
 - d) Rain barrels can be used year-round in St. Louis.
 - e) Both c and d.

See **Quiz**, page 8

Horticulture & Restoration Offerings for School Groups

by Deanna English

Winter is here, and as usual we are busy making sure that Litzsinger Road Ecology Center is maintained. Now is a great time to remove invasive species like winter creeper and bush honeysuckle, which are easily seen this time of year. We welcome the opportunity to have students help us while they learn about what it takes to manage an urban natural area.

If you are a teacher planning to visit LREC in January, here’s a list of experiences that might be available at the time of your visit. If any of these fit into your lesson plan, please contact us and we can arrange for you and your students to get involved.

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—Students learn about seed sowing and sow some plants in the greenhouse.

Seed sowing outside—Help us spread seed and “stomp” it into the ground. 🌱

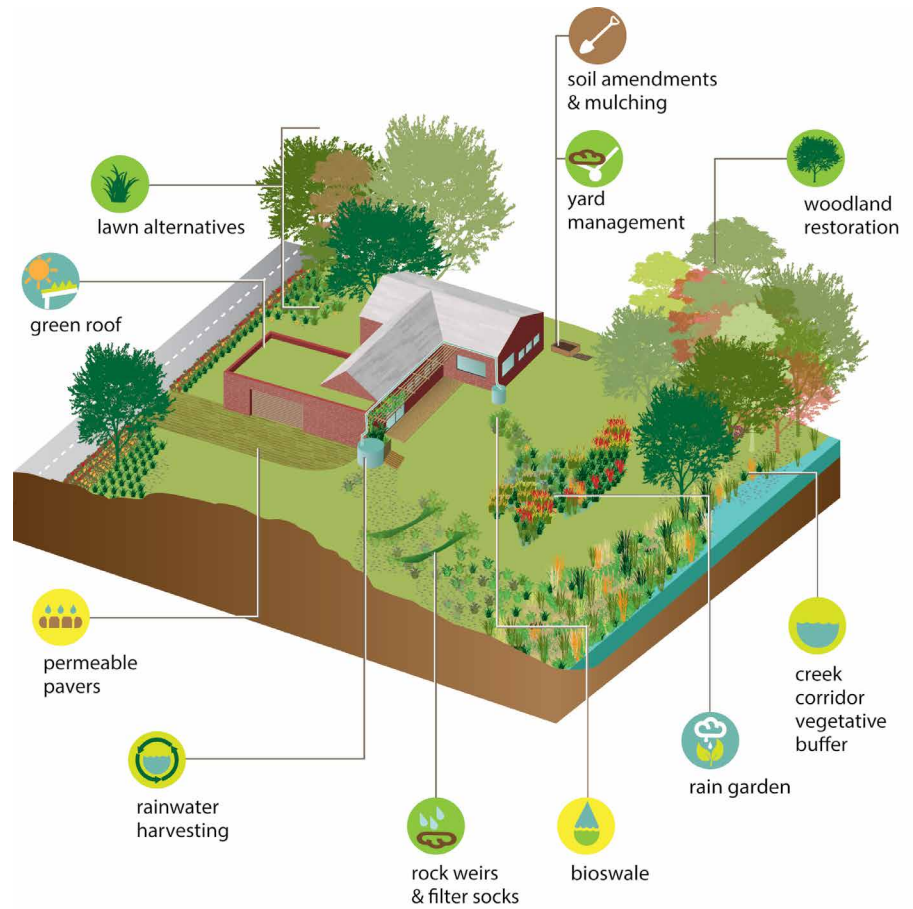


Students sow seeds in the LREC greenhouse. Photo by Eddie Jones.

From **Quiz**, page 7

Answers:

1. **c) Rainscaping consists of an array of sustainable landscaping practices that a landowner may employ to relieve rainwater-related problems.** This sentence is taken directly from the Missouri Botanical Garden's RainScaping Guide homepage: <http://www.mobot.org/rainscaping>. The other three answers are related to aspects of rainscaping, but are not really good definitions overall.
2. **b) Develop stormwater management laws.** Developing stormwater management laws is not a part of rainscaping. On the other hand, pervious pavers allow stormwater to go into the ground rather than running off. Regular addition of mulch to a garden increases the porosity or sponginess of the soil and allows for improved infiltration. Prairie gardens with their deep roots improve the permeability of the soil, particularly compared to the permeability of soil with short-rooted lawn grasses.



This graphic shows a variety of ways to incorporate rainscaping into your yard. Learn more about each approach at <http://www.mobot.org/rainscaping>.

3. **a) Sand. DO NOT ADD SAND!** This might be counter-intuitive, especially since water just flows right through sand at the beach or in the sandbox. But have you ever seen this recipe?
 $Clay + Water + Sand = Concrete$
Adding sand will actually decrease the amount of water your soil can hold and transport. Adding organic materials is the best remedy as it will provide nutrients and will help the soil be more spongy.
4. **d) Rain barrels can be used year-round in St. Louis.** Unfortunately, rain barrels should not be used year-round in St. Louis. Barrels should be emptied and disconnected from the downspout to prevent stored water from freezing and damaging the barrel. ❌

LREC Research: Colleen Crank

by Danelle Haake

As you hopefully have been reading for the past several months, the Litzsinger Road Ecology Center provides many research opportunities. We offer summer internships which include a research component, and we also host student researchers. While these season-long projects often provide us with interesting and useful information, we are particularly proud to be able to support *long-term* projects with individuals who have research interests that align with the goals of LREC. For the past several

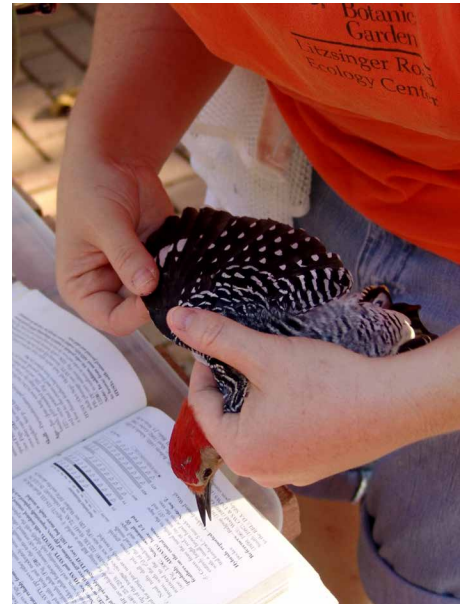
years, Colleen Crank has been doing research on the bird communities living in the LREC prairies.

Colleen spent portions of the spring and summer for five years using mist nets to catch, band, and release songbirds in and around the LREC prairies. Between 2008 and 2012, she caught 567 birds of 42 different species at LREC. The birds most commonly caught included American goldfinch, indigo bunting, song sparrow, Eurasian tree sparrow, and

common yellowthroat.

(For details on her research, including information on re-captured birds and on the ages of the birds, download Colleen's report *Five Years of Mist Netting at Litzsinger Road Ecology Center* at <http://www.litzsinger.org/research/crank2012.pdf>.)

This year, Colleen switched her mist netting to later in the year to see what the fall migration might bring. She was



Colleen examines a red-bellied woodpecker (*Melanerpes carolinus*). Photo by Danelle Haake.

surprised at how late in the season she captured a Nashville warbler and several indigo buntings; she expected them to be out of the area in September, but both were found in October. The even bigger surprise was the number of birds she captured. Instead of catching about 120 birds over the course of four months as she had during the previous five years, she captured over 200 birds in two months! And of these birds, about 150 were American goldfinch!

Another project Colleen has led for several years is the monitoring of the nest boxes. Most of these boxes are occupied by Eurasian tree sparrows (ETS), but we have also had chickadee and bluebird nests. Because of the dominance of



Colleen opens a nest box. Photo by Danelle Haake.

See **Colleen Crank**, page 10



Measuring the tail of a great crested flycatcher (*Myiarchus crinitus*). Photo by Danelle Haake.

From **Colleen Crank**, page 9

the ETS in these boxes, Colleen has been tracking the birds using colored leg bands to try to find out if the birds seem to stay in the same areas, or if they tend to move around the site. The odd-looking contraption on the outside of each box is custom-made by LREC horticulture volunteers to safely capture the adult ETS sitting on the nest; sometimes the parents are birds that Colleen banded when they were young.

I am pleased to be a part of the work that Colleen is doing. It is difficult sometimes to get up before sunrise to help with the nets and the banding, but I can't think of a single day of mist netting that I have regretted. I am very grateful to Colleen and our other volunteers who are willing to share their tremendous knowledge of our feathered friends. 🌿

HOLIDAY CELEBRATION

A good time was had by all at the annual Litzsinger Road Ecology Center VOLUNTEER HOLIDAY PARTY held at the glass house on December 11.



Top: LREC volunteers and staff mingle. Bottom: Lynn Goode (left) and Mary Voges (right) flank volunteer Faye Roth (center) who received a commemorative photo book to celebrate her many years as an LREC volunteer. Photos by Lee Phillion.

JANUARY

by *Martha M. Schermann*



January
Affords
New
Understanding
Allowing
Remembering
Yesteryear



LREC READING CORNER

by Deanna English

When Winter Comes

BY NANCY VAN LAAN; ILLUSTRATED BY SUSAN GABER

This month's selection is a lovely picture book I found at the library. I enjoyed reading it because it is a nice way to think about what's happening outside in the schoolyard or the backyard. The story takes the reader along with a family and their dog as they take a walk to explore the outdoors. The text has a nice rhythm of rhyming questions about what the family is observing followed by rhyming answers.

*Where oh where do the flowers go
when winter comes and the cold winds blow?*

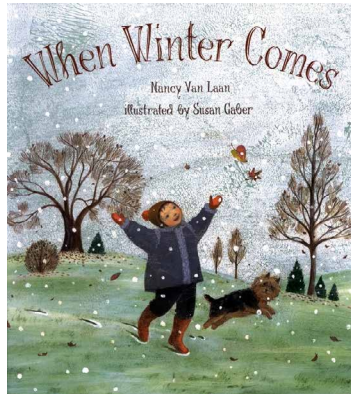
*Their petals wilt,
but their seeds burrow down
to rest underneath
the leaves' golden crown.*

The illustrations are beautiful and explore the natural world using a variety of perspectives. My favorite is the page where the *Field mice tunnel/under the ground/and rest in a nest/thick with thistledown*. The illustration makes me want to climb right into the cozy nest with the mice.

I like that the story includes flora and fauna that can be easily connected to the child's life—whether it be in their own yard, in their schoolyard, or at Litzsinger Road Ecology Center. The characters investigate local animals such as caterpillars, songbirds, field mice, and deer that can be found in the St. Louis urban and suburban areas. (In other words, there are no moose, bear, or reindeer!) I recommend this book for a read-aloud for young children followed by an outdoor exploration to look closely at their own backyard.



I hope you take the opportunity to get out on a wintry day to explore your own space! 🐾



LREC Announcements

January 10

Volunteer Enrichment: Geology
12:30pm, at the barn (or come early at noon with your lunch). Learn about geology from our own Scott George, Volunteer Educator and Horticulture Volunteer. He will teach about bedrock, fossils, and soils and then will lead us on a field walk around the site to get some hands-on experience. RSVP to Martha at martha@lrec.net or 314-540-4068.

January 15

Sustainable Schoolyards Winter Meeting

9am to 3pm, at LREC. Open to all Sustainable Schoolyards teachers. Contact Eddie at eddie@lrec.net to RSVP or for more information.

January 29

Water Quality Monitoring

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

Local Events

January 18–19

Eagle Days

9am to 3pm both days, at Old Chain of Rocks Bridge. See eagles along the Mississippi River! Viewing scopes will be stationed on the bridge. Live eagle presentations every 20 minutes. Bring your own binoculars and dress to stay warm. Free. Call 314-877-1309 for more information.

February 6

Native Plant School: RainScaping Fundamentals

1 to 4pm, at Shaw Nature Reserve. \$12 for MBG members; \$15 for nonmembers. Advanced registration required. Learn more and register at <https://www.robot.org/classes>.