Looking Back at Looking Ahead
By Bob Coulter

Back in 2007 I wrote a newsletter column as if it were 2010, describing how we had changed. Well, now it’s 2010: How are we doing? Here are a few highlights:

Building synergy between education, restoration, and horticulture: This is going very well. Many classes benefit from our horticulture and restoration efforts, contributing to projects at LREC and building gardens back at school. Just this afternoon third graders will be introduced to prairie ecology by helping to sow seeds that will help our site thrive; next week some fifth graders will be learning more about native plants to extend the garden on their playground we helped them create last fall.

Expand college and high school programs: Instead of just hiring college students for extra summer help, they now do focused research on site, developing skills that will help them back at school and in their careers. High school students teach and do restoration work on site, and through our Community Science Investigators program, we now have middle school students out in the community making a difference.

“Manage” the portfolio of schools we work with: Since we are limited in the number of schools we can work with each year, we have to be sure what we offer is a good fit for your goals. We continue to be impressed with the quality of the projects many of you are developing to extend what you learn at LREC back at school. This is why we always think of ourselves as having a partnership with you, not just as a field trip site. Working together we can offer more to your kids.

As we continue to grow, I encourage you to look ahead in your own school. How will it be different in a few years? What can we do to help you get there? ☛

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Upcoming LREC Events:
Volunteer Enrichment
February 22, 10–11:30am. At the barn. Join Deanna and Bob for a hands-on experience with our after-school and summer programs. GPS-based computer simulations, mapping, and service learning projects all help link kids to the local community. See another side of Litzsinger! RSVP at (314) 540-4068 or martha@litzsinger.org.

Deer Creek Stream Sampling
February 25, 9am–12pm. Meet at Glass House. Contact Danelle with any questions: danelle@litzsinger.org.

Upcoming Opportunities:
Backyard Bird Festival
February 6, 7:30am–3pm. At Missouri Botanical Garden. Enjoy guided birding walks, live exhibits, id tips, and informative classes. Fees vary. Registration and more information at http://www.mobot.org/birding.

Native Plant School—Native Landscaping Part 1: Planning & Design
February 11, 1–4pm. At Shaw Nature Reserve. $12 ($8 for Garden Members). Register online at http://www.mobot.org/classes or call (636) 451-3512.

Invasive Plants & Animals Workshop
February 20, 9am–3pm. At Powder Valley Nature Center. This workshop is designed for volunteers and will feature information on plants and animals that refuse to stay put. Fee $10 (includes lunch). Call (573) 522-4115 x3892 for more information.
Calendar Commentary
Does this photo look familiar? It should if you have the 2010 LREC calendar. This is the photo for February 2010.

Ozark witch hazel (*Hamamelis vernalis*)
Height: 6 to 10 feet
Bloom time: January–April
Bloom color: Yellow with dark red center

Ozark witch hazel is a winter blooming, native Missouri shrub with showy, fragrant flowers. The leaves, which are simple and alternate, turn a golden yellow color in the autumn adding to the beautiful fall foliage. The next time you visit LREC, look for this shrub on the berm outside the greenhouse. It can also be found in the savannah area up near the Glass House.

References:

Sustainable Schoolyards: Creating and Sustaining Habitats for Nature and Neighbors
By Eddie Jones

The Outdoor Experience is a woodland habitat on the campus of Our Lady of Providence School (OLP). Students and teachers manage the area and use it as a rich learning environment. It is part of a model Sustainable Schoolyard. Lynn Holler is on staff at OLP, a school parent, and an outdoor learning advocate. She recently submitted this update to the OLP community and has graciously given us permission to reproduce it here. It is an update that has practical application for all of us.

Please consider submitting updates from your school that may be of interest and benefit to the broader LREC community. And thank you, Lynn! 🌿

Outdoor Experience Update—January 2010
By Lynn Holler

Although you might think there’s not much going on in the Outdoor Experience right now, in fact there is!

The plants and animals that inhabit our native habitat are surviving and are showing us how they survive the winter. Just as we adapt by a) wearing our winter clothes and/or b) flying south for the winter (wishful thinking perhaps!); so too do our flora and fauna in the Outdoor Experience.

Now is a wonderful time to observe this stage of the life cycle of plants and animals. A short walk in the Outdoor Experience

See Schoolyard, page 3
will provide a plethora of viewing and learning opportunities. Plus, a little fresh air and walking about clears the mind! Be sure to grab a paper and pencil so you can capture these observations! This data can be charted, graphed, and shared with real scientific studies (see below).

Along with asking questions, observing and recording data is a fundamental part of the scientific method. Encouraging children’s natural curiosity and helping them develop skills to understand what they observe will truly make them lifetime learners!

I have located some interesting web sites with activities that support using the Outdoor Experience as a teaching tool. Here’s what I’ve found:

1. **Project Budburst**  
   [http://www.windows.ucar.edu/citizen_science/budburst/](http://www.windows.ucar.edu/citizen_science/budburst/)  
   *Project BudBurst* engages the public in making careful observations of the phenophases such as first leafing, first flower, and first fruit ripening of a diversity of trees, shrubs, flowers and grasses in their local area. Download the “Steps to Getting Started” to begin your Project BudBurst investigations!

2. **Great Backyard Bird Count**  
   [http://www.birdsource.org/gbbc/](http://www.birdsource.org/gbbc/)  
   The Great Backyard Bird Count (or GBBC) is an event that takes place over four days in February each year (February 12–16, 2010). It’s very easy! All you have to do is watch birds in your yard, a nearby park, or maybe at your school. Then you tell us what you saw by entering your bird list online. We collect that information from people all over the United States and Canada so scientists can learn what kind of birds are being seen in the winter and whether there are more or fewer of them than before.

3. **Symbolic Migration**  
   [http://www.learner.org/jnorth/tm/symbolic/About.html](http://www.learner.org/jnorth/tm/symbolic/About.html)  
   Students across the United States and Canada send symbolic butterflies to Mexico each fall. At the monarch sanctuaries in Mexico children protect the butterflies all winter and send them north in the spring. United by the monarch butterfly, children across North America learn lessons of conservation and ambassadorship. (FYI—Lindbergh’s Gifted Program uses this site)

4. **Migrating Earthworms**  
   Even though they only travel a few feet, earthworms undergo a "vertical" migration each spring after the ground thaws. The appearance of the first earthworms is a welcome sign of spring, and is often closely tied to the arrival of the first robins.

Robin eating a worm in spring.  
Photo © Ryan Bushby.
Glass House Quiz: Animal Tracks  
By Deanna Lawlor and Anne Wamsler

I t seems that everywhere we go these days at LREC we are seeing tracks. St. Louis winter weather allows many opportunities to observe the tracks of our local animals whether in snow or mud. In the quiz this month we thought we would give you some pictures of commonly found animal tracks at LREC and other urban St. Louis areas so you can test your identification skills. Have fun with the quiz and hunting for tracks in your own neighborhood and school grounds. 

References:


See Quiz Answers, page 5
1. **Raccoon** (*Procyon lotor*)
   Raccoon tracks are distinctive and easily identified because the prints resemble tiny human handprints and footprints. Raccoons have five toes with short, curved claws on both the front and hind feet. The prints are usually paired with the left hind foot placed beside the right forefoot. During cold winter months, raccoons sleep for several days but do not hibernate. This makes winter a great time to search for their tracks in a freshly fallen snow or on a muddy creek bank.

2. **Coyote** (*Canis latrans*)
   Coyote tracks are difficult to distinguish between our other common canines, fox and domestic dog. However, there are a few ways to help us distinguish between these tracks. Fox and coyote will often travel in straighter lines than the more playful dog—if you see a length of tracks that weave across the landscape you are most likely looking at dog tracks. Track size is not very useful in distinguishing between dog and coyote, but the coyote straddle (the width) can help determine between the coyote and fox. The coyote straddle is between 4–6 inches and the fox is between 3–4 inches.

3. **Eastern Cottontail Rabbit** (*Sylvilagus floridanus*)
   Rabbit tracks are usually found in a zigzag pattern. Rabbits have 5 toes on the front feet and 4 on the hind feet. Because of the way the rabbit hops its hind tracks will most often show in front of the front tracks. The hind tracks are approximately 3 ½ × 1 ¾ inches. The front tracks are round and approximately 1 inch in diameter. The straddle (width) is usually about 6 inches and leaps between sets of tracks are few feet apart.

4. **White-Tailed Deer** (*Odocoileus virginianus*)
   Deer tracks resemble a narrow, heart-shaped print with the pointed end facing forward. Deer have a “rocking-horse” galloping gait where the hind feet swing ahead of the front feet. Deer travel on well-established trails to feeding areas leaving noticeable trails in the snowfall. In deep snow deer drag their feet leaving drag marks ahead of the prints. This is believed to conserve energy in winter months. A good place to search for deer tracks at LREC is in the firebreak between the woodland and prairies.

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The track diagrams for the raccoon, coyote, rabbit, and deer on this page are from the web page Animal Autographs by the Missouri Department of Conservation ([http://mdc.mo.gov/nathis/mammals/autogrph/](http://mdc.mo.gov/nathis/mammals/autogrph/)).

The solid lines represent those parts of a track which usually are evident. Dotted lines indicate parts which don’t show under normal conditions.

See Quiz Answers, page 6
Just What Is a Master Naturalist, Anyway?
By Leslie Memula

W e’ve been fielding a lot of questions lately at LREC regarding Master Naturalist opportunities. So, we thought we would share some information about two different programs in the St. Louis area.

Please note: While some of our horticulture and education volunteers have achieved certification in one of the programs listed below, it is not an expectation for you as a volunteer or teacher at LREC.

**Master Naturalist Certificate**
The Master Naturalist Certificate program is offered by the St. Louis Community College at Meramec in cooperation with several well-known organizations. This program is designed for people who are interested in learning about nature with the hope that they will share their knowledge with others through volunteer and professional opportunities. To successfully complete the program, one must complete a combination of both credit and non-credit college courses. Even if you aren’t interested in the formal certificate program, many of the non-credit classes provide enrichment opportunities. For more information, please visit [http://www.stlcc.edu/Libraries/Research/Recommended/nature.html](http://www.stlcc.edu/Libraries/Research/Recommended/nature.html) or call (314) 984-7777.

Feel free to ask Martha about this program—he is currently pursuing her Master Naturalist Certificate. Contact Martha at martha@litzsinger.org or (314) 540-4068.

**Missouri Master Naturalist**
The Missouri Master Naturalist program is a statewide program sponsored jointly through the Missouri Department of Conservation and the University of Missouri Extension. It is geared towards training volunteers to provide education outreach and service to help manage the natural resources within their community. The initial training consists of 40 hours of combined classroom and field experience. This generally begins in the late summer and runs over a course of twelve weeks. Each year thereafter, one must perform at least 40 hours of volunteer service in approved projects and attend at least eight hours of advanced training to remain certified. To learn more, please visit [http://extension.missouri.edu/masternaturalist/](http://extension.missouri.edu/masternaturalist/).

Don’t hesitate to ask me about the Missouri Master Naturalist program—I was a member of the 2008 training class. Contact me at leslie@litzsinger.org or (314) 255-2231.

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**Quiz Answers**, from page 5

5. **Mouse**
The Deer Mouse (*Peromyscus maniculatus*) and the White-Footed Mouse (*Peromyscus leucopus*) are the two native mice in our area. They are very similar in appearance but differ in habitat. The deer mouse is most often found in open habitat such as pastures, meadows, fields, and fencerows. The white-footed mouse prefers wooded areas, brushy and weedy borders, and fencerows. Like most rodents, mice have four toes on their fore feet and five toes on their hind feet. Mouse prints usually show up as a four print pattern although sometimes, especially in snow, you may see evidence of the tail dragging.

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