

Litzsinger Road Ecology Center

COMMUNITY NEWSLETTER

www.litzsinger.org

May 2012

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A hungry eastern tent caterpillar feasts on leaves. Test your knowledge about the species in this month's quiz on page 3. Photo by Danelle Haake.

Rainforest Leaves

by Bob Coulter

When I was at an educational research conference in Vancouver a couple of weeks ago, I was sitting in the hotel lobby between sessions when a girl walked up to the plant next to my chair, excitedly calling to her mother, “These leaves are from the RAINFOREST, Mommy!! The RAINFOREST!!” As they walked away I heard the word rainforest a few more times. In fact the tree wasn’t from the rainforest—it was of the *Hotellius decorum* species found in Sheratons, Marriotts, and the like around the world, most likely made in China. But it certainly grabbed her attention.

That brief interchange did make me wonder whether the girl (or her mother) knew that in fact she was in the temperate rainforest. All too often our vision of the environment misses what’s right outside the window in favor of Discovery Channel specials and news articles about

threatened habitats. This trend makes your work to engage your kids with the creeks, prairies, and woodlands of the St. Louis region that much more important. We look forward to continuing to share the journey with you as we plan together for next year. ✨



2012–13 Teacher Partnerships: Act Now!

by *Eddie Jones*

The purpose of Litzsinger Road Ecology Center Teacher Partnerships is to equip teachers to engage their students in place-based education: using local ecology as a framework for studying a variety of subjects while interacting with the community. This is accomplished by helping teachers set and accomplish short-term goals relevant to effective outdoor learning. Both LREC and the teacher commit to a year-long professional growth partnership.

| LREC COMMITMENT | TEACHER COMMITMENT |
|--|---|
| Provide training in schoolyard teaching and habitat development. | Improve schoolyard teaching and habitat development skills. |
| Assist with outdoor teaching at school. | Engage students in schoolyard learning. |
| Assist with outdoor teaching at LREC. | Submit outdoor lesson plans. |
| Provide transportation to/from LREC. | Visit LREC with your students. |
| Communicate regularly with teacher. | Communicate regularly with LREC staff. |



Deanna English helps students select plants for their schoolyard prairie. Photo by Eddie Jones.

Returning teachers:

The checklist on the right will guide you through the partnership proposal process.

New teachers:

New teachers are required to attend one of our summer workshops during which the partnership proposal process will take place. Workshop descriptions and dates are at <http://www.litzsinger.org/profdev.html>. 🌿

Partnership Checklist for Returning Teachers:

1. Set up a meeting with your LREC staff contact. **Do this now!**
2. After the meeting, you will need to:
 - Complete the 2012–2013 Teacher Partnership Proposal,
 - Review the proposal with your administrator (principal/head of school), and
 - Submit your proposal via email to martha.schermann@mobot.org.

You will be notified by LREC when your partnership proposal has been accepted or if any additional information is needed.

3. Scheduling for your LREC visits will begin **August 1**; Martha will contact you directly.
4. After you are scheduled, you will receive the 2012–2013 Teacher Partnership Agreement via email.
 - Review this agreement and sign it,
 - Have your administrator (principal/head of school) review it and sign off on your participation for the 2012–2013 school year, and
 - Return the form to us.

LREC will hold your slots on our calendar for 7 days. If we do not receive your completed/signed agreement within 7 days, we cannot guarantee your calendar slots.



Glass House Quiz: Eastern Tent Caterpillars

by Danelle Haake and Deanna English

During the month of April, we have been seeing lots of caterpillars. We have also been seeing large numbers of tent-like webs in many of our trees and shrubs. These tents are home to the eastern tent caterpillar (*Malacosoma americanum*). This insect is a native species found as far west as the Rocky Mountains.

While the tents and the defoliation caused by the hungry caterpillars may be somewhat unsightly, healthy trees are generally able to put out a new set of leaves. The caterpillar populations are kept in check by natural predators such as birds.



An eastern tent caterpillar.
Photo by Deanna English.

- 1. What does the eastern tent caterpillar turn into when it becomes an adult?**
 - a) A large white moth
 - b) A small black and yellow butterfly
 - c) A small brown moth
 - d) A green and black fly
- 2. How many caterpillars are found in the average ‘tent’?**
 - a) 1–5
 - b) 20–50
 - c) 100–300
 - d) 600–1000
- 3. Eastern tent caterpillars tend to be found on certain kinds of trees. Which of these are among their favorites?**
 - a) Bald cypress
 - b) Cottonwood
 - c) Plum
 - d) Crabapple
 - e) Both a and b
 - f) Both c and d
- 4. Eastern tent caterpillars choose the above trees for which reason?**
 - a) The trees are cyanogenic: eating the leaves causes the caterpillars to produce a protective cyanide juice.
 - b) These trees leaf out earlier in the season and therefore provide food for these early caterpillars.
 - c) Who knows—maybe the caterpillars just enjoy these leaves the most.
 - d) The spacing on the twigs of the tree are ideal for the support of their web home.
- 5. There is a different caterpillar species that makes similar tents: the fall webworm (*Hyphantria cunea*). What is different about the tents of the two species?**
 - a) One is only found on the south side of the tree while the other is found everywhere.
 - b) One is located at the crotch of the tree’s branches while the other encloses the leaves and the branches in the tent.
 - c) The tent of one is made of silk and the other is made of cotton.
 - d) Both a and b

See **Quiz**, page 4



From **Quiz**, page 3

Answers:

1. **c) A small brown moth.** The moth of the eastern tent caterpillar is about a half inch long, has a reddish-brown wing and body color, and has two white to tan stripes across each wing.
2. **c) 100–300.** Tent caterpillar egg masses, each containing 150–400 eggs, overwinter on twigs of the host trees. When they hatch, the caterpillars from each egg mass form a colony and spin their web together.
3. **f) Both c and d.** Tent caterpillars are most commonly found on fruit trees such as apple, crabapple, wild cherry, peach, pear, and plum. They are also found at times on hawthorn and maple.
4. **a) The trees are cyanogenic.** Ever wonder why the webs of tent caterpillars were not being attacked by many bird species? Well, these little caterpillars are full of cyanide and few birds find them palatable. Studies have shown that the cyanide also protects the caterpillars from predatory ants.
5. **b) One is located at the crotch of the tree's branches while the other encloses both the leaves and the branches in the tent.** Besides the difference in their season, fall webworm tents can be differentiated from eastern tent caterpillars by their position on the tree. Eastern tent caterpillar webs are found at the crotches of branches. Fall webworms spin loose webs that encase the leaves and branches upon which they feed.

References

- Barrett, Bruce. 2001. *Insect Defoliators of Missouri Trees: Web Producers*. University of Missouri Extension. <http://extension.missouri.edu/p/g7271>.
- Bessin, Ric. 2003. *Eastern Tent Caterpillar*. University of Kentucky College of Agriculture. <http://www.ca.uky.edu/entomology/entfacts/ef423.asp>.
- Peterson, S., Johnson, N., & LeGuyader, J. 1987. "Defensive Regurgitation of Allelochemicals Derived From Host Cyanogenesis By Eastern Tent Caterpillars." *Ecology*, 68(5), 1268–1272. ❧



Top: *Malacosoma americanum* as an adult moth. Photo by Mark Dreiling, Retired, Bugwood.org.
Middle: Mass of caterpillars in tent. Photo by Deanna English.
Bottom: Web of eastern tent caterpillars in the crotch of tree. Photo by Danelle Haake.



Inside the Nest Box

by Danelle Haake

As I walk the woodlands and prairies, I am continually amazed by the new life I see along every trail and the joyous songs I hear from our winged residents. I have always had a soft spot for birds, ever since my family and I found a parakeet in our yard hunting in the spider webs for food when I was about eight years old. We set out a plate of seed, and Mickey became a beloved member of our family for many years.

Today, I had the pleasure of tagging along with Colleen Crank—a researcher who has been studying birds at LREC for several years—as



Colleen Crank reacts to seeing the mother chickadee on her nest. Photo by Danelle Haake.



A chickadee mother and nestling in nest box. Photo by Colleen Crank.

she checked on the progress of birds in the nest boxes. While nearly every other box has been claimed by the Eurasian tree sparrows, one is home to a mother chickadee sitting protectively on her nest. She sat quietly as we took a few photos, listened to hear the peeps of her recently-hatched nestlings, and replaced the roof of her cozy home.

While I wish each and every one of you could have this experience, I hope you will be satisfied with my story and the image from our encounter. I must ask you to avoid visiting our nest boxes too closely. For some species of birds, frequent visits by humans may frighten

parents into abandoning their nests. More importantly, studies have shown that every time we walk up to a birdhouse, we leave our scent; this can lead predators like snakes and raccoons straight to the vulnerable baby birds.

Please enjoy watching the numerous adult birds as they tend their young in the nest boxes. Enjoy listening to the peeps of the babies from several yards away. Take a moment with your students to watch birds at the feeders. But mostly, enjoy these fleeting spring days, for summer will be here soon. ✨

Litzsinger Road Ecology Center

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SPRING

by Martha M. Schermann

Searching
Prairies
Riparian corridors
Intently
Noticing
Grasses

Grant Deadline Extension!

The deadline for a Gateway Greening Youth Garden Grant has been extended until **June 1, 2012**.

Information and application are at <http://www.gatewaygreening.org/our-programs/youth-programs/youth-garden-grant/>.

Please contact Steve Eigsti at steve@gatewaygreening.org or 314-588-9600 x24 if you plan to apply.

PLEASE NOTE:

The Litzsinger Road Ecology Center
Community Newsletter
is going on summer hiatus.
Look for our next issue in
September 2012.

LREC Announcements

May 24

Volunteer Thank-you Potluck

11am to 2pm at the Windegger Shelter at Tilles Park. RSVP to Martha at 314-540-4068 and tell her what you'll bring.

May 31, June 28, July 26, August 30

Monthly Water Quality Sampling

9am to noon, meet at the glass house. Questions? Email Danelle Haake at danelle@litzsinger.org or call her at 314-961-4410.

Local Events

May 12

Spring Wildflower Sale

9am to 4pm at Shaw Nature Reserve. Admission is \$5 or free to Garden Members or SNR Passholders. Pre-sale for MBG members on Friday, May 11 from 4 to 7:30pm. Learn more at <http://www.shawnature.org/nativeland/plantsale.aspx>.

May 23

Deer Creek Watershed Friends Spring 2012 Meeting

4:30 to 6:30pm at the Deer Creek Club in Ladue. SWT Design will unveil a habitat restoration landscape plan for water quality improvement in the Deer Creek Watershed. RSVP at <http://tinyurl.com/DeerCreek2012>.

May 26

BioBlitz at Creve Coeur Park

7am to 12:15pm at Creve Coeur Park. Led by biologists and naturalists, search natural areas in the park, listing as many different species as you can find. Learn more at <http://academyofsciencestl.org/events/>.

Accepting entries through June 15

"Take a Shot!" Youth Nature Photography Contest

This photo contest is for ages 14 and under. Photos must be taken at Shaw Nature Reserve between March 1 and June 15, 2012. Complete details and entry forms at <http://www.shawnature.org>.

June 24

Sustainable Backyard Tour

11am to 4pm; self-guided tour around St. Louis area. Register to be a destination on the tour or to volunteer at the event. Learn more at <http://www.sustainablebackyardtour.com>.

July 17-25

Voyage of Learning Teacher's Academy

Weekdays in Forest Park. This teacher workshop transforms Forest Park into an experiential learning lab, builds teachers' skills in investigative, outdoor education, and promotes interdisciplinary approaches to teaching and learning. Contact Forest Park Forever for an application: 314-367-7275 or email voyagers@forestparkforever.org.

July 19

Science Café: "Mapping a Garden: Using GIS Technology to Manage a Living Museum"

7pm at Herbie's Restaurant, 405 N. Euclid Ave. Missouri Botanical Garden's Rebecca Sucher presents. Free. Learn more at <http://www.slsc.org/AdultProgrammings/ScienceCafe.aspx>.

Through October 31

Plastic Pot Recycling

9am to 5pm daily. Recycle your plastic garden pots, polystyrene cell packs, and trays at the Garden and other area locations. Details at <http://www.mobot.org/plasticpotrecycling/>.