



Litzsinger Road Ecology Center

COMMUNITY NEWSLETTER

www.litzsinger.org

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The new Cabin creek access is just one of two new trails created this summer at LREC. Read more on page 7. Photo by Leslie Memula.

September 2011

Hope Made Visible

by Bob Coulter

Part of my summer reading was focused on design thinking, or the process we use in developing novel solutions to problems. It was in that reading that I came across the idea that our plans can be thought of as “hope made visible.” The plans you have developed for your students are just that: The hope you have for kids to take an active role in stewardship, made visible in your plans for the year.

Collectively, you are giving kids from across the St. Louis region a role in building up the ecological quality of our community. Creating native plant gardens, building bird-friendly habitats, and contributing to creek restoration projects are just a few examples of how you are shifting the dynamics in education. Instead of bankrolling facts and skills the kids might use some day, you’re giving them a chance to learn and make a difference now.

There’s no telling where this expanded role will take them, but I’m confident that it will pay dividends well into the future.

As always, we are honored to be your partners in this important work. Throughout the year, please let us know how we can best support you in making these plans a reality. ✎



Place-Based Education Goes Downtown

by Eddie Jones

What do the following have in common: Litzsinger Road Ecology Center (LREC), Washington University School of Architecture students, a summer camp teaching the basics of nutrition, another summer camp teaching children about design concepts, and a student-developed environmental education curriculum?

Answer: Patrick Henry Downtown Academy.

Housed in an amazing hundred-year-old building just north of the Edward Jones Dome, this St. Louis Public School has captured the attention of the broader community.

In 2009, the school received the distinction of being the first urban Green Model pilot school in the country. (Pilot schools, while being part of a school district, are given more local control over budget,

Patrick Henry Downtown Academy

District: St. Louis Public Schools

Location:
1220 N. 10th Street
St. Louis, MO 63106

Grade Levels: PK–6

Number of Students: about 250

Classes Partnering with LREC: 5

staffing, curriculum, design, and instruction.) The Green School model emphasizes environmental sciences, energy alternatives and conservation, recycling, and gardening.

Patrick Henry has implemented these models to bring sustainable learning into the classroom, incorporating gardening activities, lessons about nutrition, and environmental stewardship.

LREC became involved at the invitation of preschool teacher Mihline Manning who arranged for all classes to visit LREC during the 2010–11 school year. About halfway through the school year, Manning introduced us to a group of architecture students who were designing an outdoor learning space at Patrick Henry as a part of their “Design-Build Studio.” After some discussions regarding curriculum and schoolyard habitats, the students adjusted their plans to include a greater presence of native plants.

Early 2011 ushered in the “build” portion of their studio, and by the end of the school year, a portion of the schoolyard had been transformed into an outdoor classroom that includes a raised-bed garden,



Patrick Henry preschoolers explore the raised-bed garden. Photo by Eddie Jones.

native plant habitat, and a naturalized play area.

In addition to continuing partnerships with LREC, the teachers at Patrick Henry are receiving curriculum development assistance from another Washington University student who will be present regularly in a couple of the classrooms for much of this first semester.

But this summer was not a time of idleness. Five of the Patrick Henry teachers attended a training workshop at LREC. In addition, some of the Patrick Henry students, along

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From **Patrick Henry**, page 2

with students from other area public schools, participated in a summer program, under the leadership of Washington University professor Gay Lorberbaum, that introduced them to architecture, sustainable design, and the environment. After a visit to LREC, the students were assigned the task of designing and modeling their ideal learning environment, focusing on natural communities.

Lorberbaum also introduced us to the Burning Kumquat community: an organic garden managed by a group of Washington University students who practice sustainable urban agriculture. Two of these students led a summer nutrition camp, Camp Kumquat, where city kids gardened, prepared delicious meals, created recycled artwork, visited LREC, and learned from each other and special guests.

Patrick Henry Downtown Academy is engaged in place-based education. We here at Litzsinger Road Ecology Center are thrilled to play a role in that! 🌱



Patrick Henry teacher Mihline Manning leads her preschoolers through their schoolyard habitat. Photo by Eddie Jones.

Stream Team Award

Litzsinger Road Ecology Center’s Restoration Ecologist Danelle Haake received a Stream Team Ambassador Award at the 15th Annual Meramec Watershed Celebration on July 23, 2011. The award acknowledges Danelle’s efforts with Missouri Stream Team #3745. Congratulations, Danelle!

Are you interested in participating in stream monitoring? See the upcoming water quality sampling opportunity listed on page 7 or contact Danelle at 314-961-4410 or danelle@litzsinger.org. 🌱

REMINDER: Volunteer Educator Training Begins Soon!

A new class of Volunteer Educators will begin training at Litzsinger Road Ecology Center on September 12, 2011. They will meet on Mondays from 9 am–3 pm through the middle of November.

A core component of the training is to provide our trainees with many opportunities to shadow our veteran volunteers.

It’s not too late to recruit friends for this class. Please have them contact Eddie at 314-409-4947 or eddie@litzsinger.org if interested!



Summer Workshops Recap

by Leslie Memula

In June we held our week-long *Sustainable Schoolyards* workshop which drew eleven teachers from five different area schools.

This workshop, now in its fourth year at LREC, assists teachers in establishing habitat restoration projects on their school grounds and provides tools for building a curriculum that incorporates restoration into almost any subject area.

A number of past *Sustainable Schoolyards* participants helped plan and facilitate the workshop, and we were fortunate to visit a variety of schoolyards during the week. This year we had additional support from some of our area partners including David Bruns of the Missouri Department of Conservation and Tanya Cross and Hurlie Cozart from the MySci program.

We look forward to supporting our new *Sustainable Schoolyards* teachers as they grow their spaces.

In July we offered a new workshop, *Introduction to Litzsinger Road Ecology Center*, to teachers who wished to partner with us during the upcoming school year. It was a great success with twenty-three teachers from twelve different schools participating in the workshop.

In addition to being introduced to the Litzsinger Road Ecology Center site and its resources, the teachers were also provided models of effective outdoor learning activities and were assisted in identifying activities that support

their grade-level objectives and curriculum goals.

It was a busy summer at LREC, but the education staff is excited and energized by these new partnerships! ✨

PARTICIPATING TEACHERS:

Sustainable Schoolyards

- Kyle Henderson: Brentwood ECC
- Mitzy Cruzen and Elizabeth Hlavaty: Chesterfield Elementary School
- Erica Farris and Brendan Kearney: Glenridge Elementary School
- Molly Duffy, Robin Ehrlich, Terry Handley, Kelly Lauberth, and Robin Wellman: Keysor Elementary School
- Sue Lapp: Reform Jewish Academy

Introduction to Litzsinger Road Ecology Center

- Amber Peroutka: Carondelet Leadership Academy
- Laura Solotorovsky: City Academy
- Bridget Ewing and Melissa Venverloh: Hudson Elementary School
- Joyce Clyne, Jenny Goff, and Pam Hotze: Kirkwood United Methodist Preschool
- Ta’Keshia Parker: Keysor Elementary School
- Catalina Hayes: MICDS
- Bonny Saraceno and Jessica Kossina: Mullanphy Investigative Learning Center
- Karen Evans, Mihline Manning, Lindsey Munnely, Lindsey Smith, and Kelly Valentine: Patrick Henry Downtown Academy
- Cheryl Thomas: St. Ann Catholic School
- Bill Thoele: St. Raphael the Archangel
- Melissa Ridings: The College School
- Janice Nelson, Carrie Wind, Tiffany Bain, and Pam Daniel: University Child Development Center



Glass House Quiz: the Majestic Monarch

by Danelle Haake and Deanna Lawlor

This past month, we in the glass house have gone a bit “monarch crazy.” One of our Horticulture Volunteers is a former teacher who, with her students, has raised monarch butterflies (*Danaus plexippus*) from hatching the eggs to feeding the caterpillars to releasing the adults. She helped us find eggs and caterpillars on three types of milkweed in our prairies. We brought a few inside and have been watching them grow steadily; now we have four chrysalises and a fifth caterpillar.



Monarch chrysalis and caterpillar. Photo by Danelle Haake.

In honor of our guests, we decided to learn all about them and share our knowledge with you for this month’s Glasshouse Quiz!

- 1. What is the host plant for monarch larva?**
 - a) Clover
 - b) Golden rod
 - c) Milkweed
 - d) Aster
- 2. What other butterfly mimics the appearance of monarchs?**
 - a) Skipper
 - b) Swallowtail
 - c) Viceroy
 - d) Fritillary
- 3. Monarchs are the only known butterflies that migrate each year. How long do the generation of migrating monarchs live?**
 - a) 2–3 months
 - b) 5–6 months
 - c) 7–8 months
 - d) 11–12 months
- 4. The monarch hangs upside down when it is ready to pupate. What letter of the alphabet does it look like?**
 - a) S
 - b) J
 - c) U
 - d) C
- 5. The lifecycle of the monarch includes a change of form called _____?**
 - a) transformation
 - b) cryptosporidium
 - c) metamorphosis
 - d) quafflism
- 6. About how many weeks does the caterpillar stage last?**
 - a) 1
 - b) 2
 - c) 3
 - d) 4

See **Quiz**, page 6



From **Quiz**, page 5

Answers:

1. While all of the answers are nectar producing plants that the adult monarchs visit, the host plant for the larva is **c) milkweed**.
2. **c) viceroy**. The viceroy was originally believed to be a harmless species that evolved to mimic a more harmful species, the monarch. However, it has been discovered that the viceroy is actually more unpalatable than the monarch. This form of mimicry (where both species are in some way undesirable) is called Müllerian mimicry.
3. **d) 7–8 months**. Monarchs produce several broods during the summer and fall. Only the fifth generation will fly south to overwinter. The previous generations live approximately 4–5 weeks.
4. **b) J**.
5. **c) metamorphosis**.
6. **b) two weeks**. After the egg is laid it takes about three to five days to hatch. The caterpillar then feeds on milkweed and grows at a rapid pace until it is about two inches long. (In the bottom two photos at right, taken only three days apart, the same caterpillar is shown.) During that time the caterpillar sheds five times. The last shedding also forms the chrysalis. The caterpillar stays in the chrysalis for about two weeks, during that time the caterpillar transforms into a butterfly. This process includes development of wings, transforming chewing mouthparts to a proboscis (straw-like tongue), and developing different tissues, limbs, and organs.

Sources:

Paothong, Noppadol. "Majestic Monarchs." *Missouri Conservationist*. September 2009. Pages 15–21.

You can download this issue to read more and see stunning photographs of monarchs at:

<http://mdc.mo.gov/conmag/2009/09/majestic-monarch>. 🌿



Top: monarchs hang upside down in the shape of the letter J.
Middle and Bottom: both photos show the same monarch caterpillar, but the bottom photo was taken three days after the middle photo was taken. Photos by Danelle Haake.

New Trails

by Leslie Memula

Many thanks to our volunteers and staff on the upland side for constructing a couple of new trails going down to the creek!

The Horse Trail creek access has been relocated entirely. You will find a new trail going down to the creek just north of the deer bones. It even has a sitting circle to provide a place for groups to sit and reflect.

The Cabin creek access has been shifted a bit due to the continued erosion of Deer Creek.

Both improvements should make these areas more accessible to the students, teachers, volunteers, and staff. We'd be more than happy to show you these changes the next time you're out at LREC! 🍂



Teacher Tom Havrilka and Hudson Elementary fourth-graders are joined by LREC Volunteer Educator Lynn Goode at the new Horse Trail creek access sitting circle. Photo by Leslie Memula.

LREC Announcements

Beginning September 12

Volunteer Educator Training

Beginning Monday, September 12 and continuing for eight consecutive Mondays. Spread the word. Contact Eddie at 314-409-4947 or eddie@litzsinger.org for more information.

September 29

Monthly Water Quality Sampling

Meet at 9 am at the Glass House. Questions? Contact Danelle Haake at 314-961-4410 or danelle@litzsinger.org.

Local Events

September 9

Fall Wildflower Sale & Open Garden

4–8 pm at Shaw Nature Reserve. \$3 for MBG members and SNR passholders; \$5 for non-members. Learn more at <http://www.shawnature.org/>.

September 15 or 16

Native Plant School: Native Seed Collecting, Cleaning & Storage

1–4 pm at Shaw Nature Reserve. \$10 for MBG members; \$15 for non-members. Advanced registration is required. Learn more and register at <https://www.mobot.org/classes/>.

September 24

Green Homes & Great Health Festival

9 am to 5 pm at the Missouri Botanical Garden. Free with Garden admission. Explore ways to maintain a healthy you and a healthy planet. More information at <http://www.greenhomesstl.org>.

Through October 31

Plastic Pot Recycling

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