



Missouri Master Naturalist



Spring Issue 2017

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*...Let them be left, O let them be left, wildness and wet;
Long live the weeds and the wilderness yet.*

— from "Inversnaid" by Gerard Manley Hopkins

Purple Milkweed at Don Robinson State Park

— Photo by C. Sean Tracy

Great Rivers Gazette

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Front Cover

Purple Milkweed at Don Robinson State Park – by C.Sean Tracy

Back Cover

Monarch Butterfly Caterpillar on Milkweed – by Sherri Schmidt

The President’s Corner



Dear Chapter Members,

As an ecology graduate student, I am bombarded daily with academic descriptions of the extinction of plant and animal species, increased habitat loss, and the dire predictions of even the best-case scenarios for our planet under climate change. On top of that, the news is filled with word of funding cuts to ecological and environmental research and the shift towards a lack of prioritization for the conservation of our natural world. What prevents me from becoming despondent is knowing that groups of individuals such as yourselves, who are passionate about nature, conservation, and restoration, exist. Now, more than ever, our contributions to education and conservation are needed, and as I look through this issue of The Gazette, I see a promise for the future in your actions. All hope can never truly be lost while dedicated volunteers and citizen scientists such as yourselves still exist. Thank you for everything that you do.

“Of all the questions which can come before this nation, short of the actual preservation of its existence in a great war, there is none which compares in importance with the great central task of leaving this land even a better land for our descendants than it is for us.”

— Theodore Roosevelt

Rachel Becknell – President, Great Rivers Chapter

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Great Rivers *Advanced Training* – Spring 2017

March 26, 2017

Wildflower Walk at Shaw Nature Reserve



On March 26 a small group of Great Riverians visited Shaw Nature Reserve for a wildflower walk. We started at the Whitmire Wildflower Garden and slowly walked around identifying as many things blooming as we could. Luckily, Dr. Trager wandered by and identified a few things we were having trouble with! Next we hiked down to the river bottoms to enjoy the beginning of the bluebells (*Mertensia virginica*) annual show. Always a wonderful day to be in the woods with fellow nature lovers!



Bluebells (*Mertensia virginica*)

Kerri Stevison, Renee Benage, Carolyn Devaney, Mary Mierkowski

April 1, 2017

Members visit George White Nursery

by Vaughn Meister

“Open House at the Nursery”,(MDC’s George O White Tree Nursery in Licking MO) was held on Saturday, April 1. Six Missouri Master Naturalists from the Great River Chapter, Annie Russell, Sharon Baldaseri, Renee Benage, Linda Cook, Maxine Stone and Vaughn Meister, traveled down for the tour and had a great time.



what seeds they want to purchase and how many. We observed them processing persimmon seeds, macerating the ripe fruit, cleaning using multiple mechanical processes, as well as drying the seeds for storage. They float acorns to cull out ones that have been eaten by insects. Janet, who runs the seed processing unit, told us they have very specific processes for each type of seed they



In their planting fields, we observed multiple types of machinery to be pulled behind the tractor to plant different types of seeds as well as to lift the bare root tree seedlings that are their product.

The nursery was founded by the Forest Service in 1934 when they realized it would be critical to retree after the timber industry had cut so many of the original shortleaf pines in that part of Missouri. In 1947 the Missouri Department of Conservation began to operate the

nursery and obtained the facility from the Forest Service in 1976 through a land swap agreement. Today the site is 754 acres with 50 acres of seedbeds and produces 4 million tree seedlings a year. Water is supplied from 3 1,000 foot wells on site using between 3 and 9 million gallons of water.



The nursery has only 12 full time employees but as many as 25 part timers for harvesting season. We observed the building where they cull the seedlings from the field, utilizing different criteria for each species, and bundle them in packages of 10, 25 or 50 seedlings. Each order is processed, packaged and kept in cold storage until shipment or pick up. All the orders are computerized and shipping is done by UPS.

We came away with a tremendous respect for those who work at the State Nursery, an appreciation for each step of the process and awe at the numbers of seedlings they are able to produce: 4 to 4.5 million seedlings a year and filling 10,000 orders a year. It is a tour we recommend to all Missouri Master Naturalists, one that the nursery holds every other year. We hope you can make it in 2019.

Among the purchase of many seeds each year, who knew they buy 15,000 pounds of White Oak acorns? They put out a list each year of



June 17, 2017

Great Rivers *Advanced Training* –Spring 2017 (continued)

Vertical Voyages Tree Climbing Class at Shaw Nature Reserve



June 17th saw a group of intrepid Great Riverians sampling the delights of recreational tree climbing at Shaw Nature Reserve. Under the instruction and supervision of Jon and Jim from Vertical Voyages Michael Meredith, Evelyn Tullos, Bob Virag, Diana Miller, Peggy Morrison, Dawn Griffard, Tess

Using ropes and harnesses (including the aptly named "magic knot") we pulled ourselves up to where we were looking down on the roof of Bascom House. Vertical Voyages provided all the equipment, expert instruction, and an interesting talk about the value of trees and tree climbing safety... safe for both climber and tree.



Wasserman, Cindy Lueder and some additional family members ascended into the canopy of a large white oak in front of the Bascom House.

Vertical Voyages offers public sessions throughout the summer at Shaw. For more information visit <http://verticalvoyages.com/>.

By Michael Meredith



Diana Miller



Cindy Lueder



Bob Virag



Tessa Wasserman



Evelyn Tullos



Peggy Morrison



Michael Meredith



Advanced Training Speaker Series – Spring 2017



January 17, 2017 Ross Braun SOILS

Ross Braun, Missouri Master Naturalist and Certified Professional in Erosion and Sediment Control (SPESC) taught us the difference between dirt and soil? Soil contains microorganisms, decaying organic matter, earthworms and other insects. Soil is a living environment. Dirt is what's under your fingernails (basically dead soil!) Who knew?



February 21, 2017 Tom Meister BLACK BEARS

Earlier this year the chapter was treated to an excellent talk by Tom Meister of MDC about Black Bears in Missouri. I think many were surprised to learn that Missouri has roughly 600 Black Bears in 18 counties in Missouri.



Tom Meister, MDC -photo by Kelly Moffitt | St. Louis Public Radio

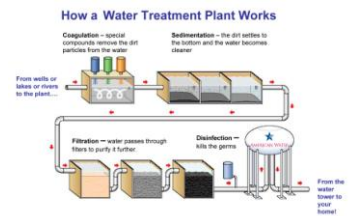
April 18, 2017 Michael Dawson FROGWATCH USA

Back in April, we learned about the St Louis Zoo's Frog Watch program with an interesting talk by Michael Dawson. "You do not have to be a frog or toad expert to be a FrogWatch USA™volunteer. All you need is an interest in frogs and toads and a willingness to participate in a volunteer training session with a commitment to monitor a site for at least three minutes twice a week throughout the breeding season, February through August."



May 16, 2017 Tim Ganz – MISSOURI AMERICAN WATER

In May we learned everything you need to know about the Missouri water system from Tim Ganz of Missouri American Water. They serve 3 million Missouri customers and their motto is "We are all responsible for helping to protect our water supply and to make sure it is available for future generations. There are many ways you can help by using water wisely"



June, 2017 GREAT RIVERS CHAPTER PICNIC, Hidden Creek Savanna Review, and Owl Prowl Forest Park, Hidden Creek Savanna, the Owl Prowl, and a beautiful evening combined with a great group of about 50 MMN's for a wonderful picnic!

Park Steward Josh Wibbenmeyer and Great Rivers member (emeritus) John Powers answered questions and guided us through the savanna and told of its changes. Thank you to all who have contributed time to that beautifully buzzing, pollinating place!!

Our picnic under the pavilion went very green this year! Many brought their own reusable plates, napkins and utensils, and we had some compostable plates, cloth napkins, stainless steel utensils for others. The festive tables cloths and centerpieces were all reusable too!

Refuse was separated into compost, recycle, and landfill that was taken away so nocturnal 4-legged friends wouldn't litter overnight. As always, your side dishes were wonderful!! Sugarfire BBQ was provided for the omnivores among us.

Mark Glenshaw and Brenda Hente lead an awesome Owl Prowl! They quickly spotted a Great Horned Owl high up in a tree! We then saw it fly to a high vantage point near the top of a Catalpa overlooking the lawn of the World's Fair Pavilion and we and it (Charles?) watched some bats helping us by eating mosquitoes for their dinner. Mark and Brenda's Owl Prowl complimented the biodiversity of Forest Park (Thank you Hidden Creek Savanna!) by noting that as apex predators the pair of Great Horned Owls have been able to have and raise 23 owlets over the years.



Our thanks to our partner Forest Park, St Louis City Park District for waiving our pavilion fee (in thanks for our work), Josh, John, Mark, Brenda, the Hospitality Committee, and all of you congenial people who attended with your good cheer and your interest in our magnificent environment!

---by Cindy Lueder



Advanced Training Committee 2017 Speaker Calendar

July 18, 2017	Astronomy -- Steve Boerner, Astronomical Society of Eastern Missouri
August 15, 2017	Prairie Burns -- Eric Pool
September 19, 2017	Soil Microbes: The Role of Fungi on Plant Coexistence Rachel Becknell
October 17, 2017	Thinking like a River Valley" -- Jay Fish, UMSL
November 17, 2017	ORIENTATION
December 21, 2017	HOLIDAY PARTY





Great Rivers *Projects* – Spring 2017

April 21, 2017

Berome Moore Cave Underground Stream Monitoring by Laura Belarbi

On Friday, April 21 I was up before sun-up to calibrate my PH and Conductivity monitors for underground stream monitoring in Berome Moore Cave, an 18 mile cave in Perry County. I am a member of the Middle Mississippi Valley Grotto, a St. Louis-based grotto (caving club) that manages the cave under the Missouri Caves and Karst Conservancy. It is one of five caves the endangered cavefish, the grotto sculpin, is found. That is why I became interested in monitoring the cave stream after I became certified for chemical monitoring for Missouri Stream Team.

This was my second monitoring trip. I was looking forward to two fellow Master Naturalists, Bob Virag and Donna Scott, to accompany me along with a friend of 30 years, Anita Whaley, and her friend, Rex McCoopin.



Laura Belarbi in Berome Moore Cave

Berome Moore is not the typical walk-through tour cave. You must be prepared to climb over rocks, make your way across muddy slopes, crawl through small tunnels while making sure not

to break stalactites with your helmet and gear, be willing to get your feet wet and muddy and, for monitoring trips, carry the equipment on top of it all. I was also excited to see Main Stream rising from the rain that had been falling nonstop since the day before. I had talked it over with guys who had caved in Berome for years before and they reassured me we would be fine as long as we did not venture downstream.

We entered the cave just after 11 as planned and made our way, crawling through the tunnel just beyond the gate, stoop walking up and over piles of breakdown, through enormous theatre-like room with a giant column, and finally found ourselves able to walk upright comfortably to Base Camp.

Berome Moore Cave has three levels of passages, the oldest are the uppermost and never flood. Main Stream is a mid-level passage that

runs into the Lower Stream Passage. It is impossible to see the whole cave in a day, even in a week as some parts require major feats of stoop walking in a stream, and sometimes rolling, when you get tired of worming, through low, wide crawlways. We were making good time with six of us carrying a backpack each.

We made our way down the slippery slope just beyond Formation Room to what Chad referred to as Agent Orange Passage. Here the water flowing in from an upper conduit had turned the surrounding surfaces a bright rust color. Bob Virag took a sample of the water for E. coli testing. We followed the shallow stream, carefully keeping out of the water so as not to stir up sediment, and came to an intersecting stream. At this point one must decide whether to take a giant leap of a step across from the top and on to a rock on the other side or climb down into the stream and up the boulders on the other side. Chad was in the lead and easily stepped over. Donna Scott followed, but lost her footing on the rock and slipped and fell on her left wrist. I had taken the lower route, as I feel more confident staying low. I wished I had brought her that way as well. Her wrist was hurting, so I told her we could go back and the monitoring could be done another time, but she said she wanted to keep going. So we went on. Up and over a series of large boulders until we got to where water from Coon, a smaller stream passage intersects with Main Stream.

Bob and I did chemical monitoring as Donna took notes and the rest of the crew looked for macro invertebrates. Along with snails, worms and leeches we saw amphipods and isopods. In the mud along the stream there were springtails and beetles. The nitrate level was pretty high, but normal for spring planting in an area used for row crops.

I was eager to get to Main Stream to see how high the water level would be in a rain event. We found it surprisingly low, and during the next hour we were there we did not notice it rising any substantial amount. We did all our tests and monitoring while Anita took a nap and Chad ventured through surrounding nooks and crannies, finding more insects for our log.

Unfortunately we did not see any grotto sculpin as I had seen the month before.

We did get some good pictures and everyone was impressed with the stream and cave.

We decided to take another route back for a change of scenery. Chad led us up over the breakdown, through the mud flats and down



Berome Moore Cave (continued)

Great Rivers *Projects* (continued)

through more of the stream and back up through the room with the earthquake test bar. Donna and Bob were getting a full taste of wild caving complete with crawling under low ceilings, on piles of breakdown and worming through slabs of stone and up and down large boulders. It was a good workout as well.

Anita and I helped Donna wrap some medicinal plantain around her wrist. She and Bob thanked me for inviting them on such an adventure and reassured me that they were fine and were glad to have been a part of the event.

When they arrived back in St. Louis Donna went to Urgent Care where she learned her wrist was broken. She was referred to the ER for treatment.

I had to file a cave accident report for the NSS (National Speleological Society). I filled out the information



Bob Virag and Donna Miller in Berome Moore Cave

as completely as possible without her input and submitted it.

A day or so later I emailed her with a copy of the report and she responded everything on it looked fine to her. She said she was doing fine and if anyone ever breaks a bone that is the one to break because it didn't hurt, it was her left wrist-and she is right-handed, and she was glad she was doing something she loved when it happened; not just walking and tripping over the curb.

What I've learned from this experience:

- 1) Hiking boots are the rule, not the exception, to visit Berome Moore Cave
- 2) Trip Leaders always lead the group in the cave
- 3) Agent Orange water is E. coli-free
- 4) Master Naturalists are tough, committed and adventurous and age well
- 5) Put last names on your phone contacts
- 6) Someone up there watches over us and puts all the right people together at the right time in order do this important and good work for the environment-I knew that all along, but feel it even more now.

April 19, 2017

Seibert Park News by Cori Westcott

On April 19th, Pam Fournier, Dennis Honkomp, Pam Wilcox, Al & Cori Westcott planted shrubs in Seibert Park. On the hilltop, over the cave, we planted Arrowwood Viburnums. Along the ridge facing north, we replaced any dead Ninebarks and scattered a few down the slope. Below, in the main level, we replaced some Buttonbushes.

On various dates, Cori and Al have added Smooth Sumac and Silky Dogwood along the streambank, Blackberries along the bluff's edge, Ohio Buckeyes scattered through the main level, Indigo Bushes on a bluff's berm, Roughleaf Dogwood and Pawpaws in a moist, deeply shaded area, Spicebushes along an east facing shaded slope. We apologize to any volunteers unmentioned. We apologize if we left out some shrub species, too.

Diana Miller has tended to controlling invasive plants on the streambank. She filled some yard waste bags provided by the City of Manchester.

The two gardens are coming along well. Cori has thinned out the Bee Balm, Monarda fistulosa, in the upper garden in early spring. She treated a patch of Bermuda grass. She's watching the advancing Common Milkweed (Asclepias syriaca) and Yarrow, Achilles millefolium. She's ready to pull if they get too prominent.

There's been some Beefsteak and Shepard's Purse to remove from the lower garden. Wild Blue Indigo, Foxglove Beardtongue, Yarrow, Purple Poppy Mallow and Butterfly Weed have all been in bloom this season. It is fun to witness Clearwing Hummingbird moths, Tiger Swallowtails and of course, Monarch caterpillars.

After filling a bag full of Garlic Mustard, Barbara Cerutti joined Cori to plant 25 Pickerel Weed, Southern Blue Flag Irises and Lizard's Tail Cori had salvaged from dividing her home pond plants.



Barb Cerutti at Seibert Park with Pickeral Flower

There's all kinds of restoration help you can do at Manchester's Seibert Park. Call or email Cori Westcott at (636) 256-6893 and corikeys@aol.com for tools and suggestions on what to do. She'd love to hear from you.



May 20, 2017

Great Rivers *Projects* (continued)

Claire Gempp “Capstone Project” by Sherri Schmidt



Attached is a photo from the May 20, 2017 Capstone Project at Claire Gempp Davidson Memorial Conservation Area.

Pictured in the photo from left to right:

Diana Miller, Bill Hoss, Deb Maurer and Barb Cerutti.

Not shown in the photo: Sean Tracy and myself.

Six of our Chapter members braved the uncertain weather on Saturday morning, May 20 to participate in the Capstone project at Claire Gempp Davidson Conservation Area. Fortunately the rain stopped long enough for the team to remove numerous unwanted plants from the prairie, including Common Ragweed, Giant Ragweed, Honeysuckle Vine and Curly Dock. The group also planted 50 native wildflowers, including Eastern Blazing Star, Gray-headed Coneflower, Lancelet Coreopsis and Purple Coneflower. Once established, the newly planted wildflowers will provide food for pollinators and birds (and make the Prairie more attractive).



May 13, 2017

Don Robinson State Park by Cori Westcott

Barbara Cerutti, Peggy Parr, Brett Heath, Alan & Cori Westcott, Mike Smith, Kelli & Larry Lazar met with Christine & Gary Schimmelpfenig to plant app. 800 plants in the new native plant garden spaces at the new Don Robinson State Park. Gary has made some dibblers designed to plunge into the soil leaving a hole the size and shape of the small cone-shaped root masses of the seedlings. Kelli & Larry discovered the event I posted on Volunteer Match. I love posting some of our activities there. We get more help and tell people of our program at the same time. We could have used more folks. Some of us had to leave at noon. The rest of us finished planting and watering by about 1:30.

Barbara knows a little history of this garden space. She is related to a man who was directly involved in its construction. He said they used a screen to filter all the soil. The rocks remained at one side of the screen. What soil passed through the screen is the soil we planted in. Bob Coffing likes to say that Robinson dynamited the top fifty feet off this ridge!

We’re going to continue to water the garden all through the growing season. We invite your help. If you’re interested, contact Cori at (636)256-6893 or email her at corikeys@aol.com.

Now, we’re watering every other day out there. The plants are doing very well. I’m especially excited to participate in this project. This new state park has received help by all three local MMN chapters. The Confluence through Bob Coffing is involved in a long standing effort to clear cedars from prairie and glade communities. Sean Tracy is very involved in the cedar clearing. Miramiguoa has been blazing trail. Now, we’re Monardas, Coneflowers, Little Bluestem, Prairie Dropseed, Butterfly Weed, Columbine, American Beakgrain and many more species to the attention of the park visitors.



Don Robinson State Park garden bed south of the stairs facing the patio. May 17, 2017.



May 24, 2017

Great Rivers *Projects* (continued)

Eberwein Park Planting Day By Pam Wilcox

In honor of National Arbor Day, the Citizens Committee for the Environment, the Chesterfield Parks, Recreation & Arts Citizen Advisory Committee, along with the Missouri Master Naturalists and Chesterfield City Staff, planted native flora, and four native trees at Eberwein Park.



Sign at entrance to Eberwein Park in Chesterfield. The park is located at the NW corner of Baxter and Old Baxter.



Pam Wilcox planting a Black Gum tree.



Group shot of local staff and volunteers



All trees planted were supplied by Forest ReLeaf of Mo.

~~~~~  
May 24, 2017

### Montessori Adolescent Program **STREAM TEAM**

by Michael Hill, Chesterfield Montessori School Adolescent Program Teacher

The adolescents united with visitors from Isthmus Montessori Academy (from Madison, WI) and our resident MO Stream Team guru, Bob Virag, sampled our very own stretch of Bonhomme Creek. Our physical, chemical, and biological samples confirmed what we already knew.... the stream is in EXCELLENT condition and scored three points beyond the criteria that designate it as such. Despite last month's severe floods, the invertebrate community remains diverse and strong. We even found two salamanders!

RIGHT: Chesterfield and Isthmus Montessori Adolescent students measuring stream discharge rate on their Bonhomme Creek site under the guidance of Bob Virag.

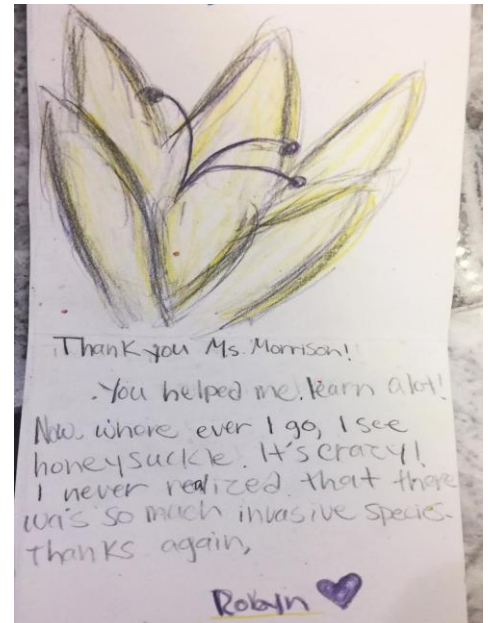




### Steger Middle School Honeysuckle Hack

A thank you note from a previous project:

Peggy Morrison received the following Thank You note from a student who participated in the Steger School invasive species removal



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### Bluebird nest monitoring at Shaw Nature Reserve

Yvonne Van Der Ahe assists with monitoring 87 Bluebird houses at Shaw. There are 6 volunteers who trim the paths, repair the houses and regularly check the houses.

This group received the following thank you from Dr. Peter Jackson of the Mo. Botanical Garden.

Congratulations! The Shaw Nature Reserve Bluebird group has been chosen by the Volunteer Nomination Review Committee to receive the Missouri Botanical Garden Volunteer Group Excellence Award. This award is given every year to honor a group that has demonstrated effective teamwork through the completion of a special project or a superior, sustained effort which has contributed significantly to the mission of the department and the Garden.



Yvonne, (third from left) and the Bluebird monitoring team with Dr. James Trager

We are most fortunate for the work your team continues to do at Shaw Nature Reserve. Their commitment to Shaw Nature Reserve’s mission and to the Garden and its mission is evident. The energy contributed to and passion for the work is clear. We truly appreciate all that they do.

The Volunteer Program Office will soon be sending invitations to Volunteer Appreciation Evening on Wednesday, April 26. I look forward to celebrating with you and the members of your team and presenting this award to the group in person. Thank you for your ongoing and significant support of Shaw Nature Reserve and the Missouri Botanical Garden.

With best wishes,  
Dr. Peter Wyse Jackson  
President



## Big Muddy Fish and Wildlife Refuge

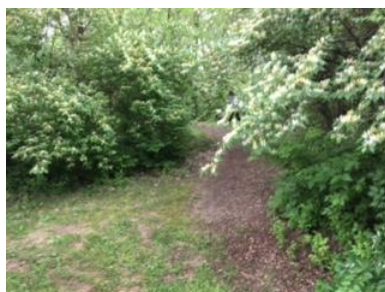
The Refuge thanks volunteer Dennis Honkomp with the Great Rivers Chapter of the Missouri Master Naturalists. Dennis has been supporting the Refuge at Cora Island Unit for several years checking the information kiosk and talking to Refuge visitors. He also helps post signs like this one promoting Cora Island as a great Missouri birding trail opportunity. [greatmissouribirdingtrail.com](http://greatmissouribirdingtrail.com)



Dennis Honkomp posting signs promoting the "Great Missouri Birding Trail" at Cora Island.

## Southwest Middle School Honeysuckle Hack by Barb Cerutti

Southwest Middle school 7th and 8th graders participated in a honeysuckle hack for Earth Day. They cleared a section of the school grounds and created a huge pile of cuttings that amazed the kids and the teachers! Thank you for the tools that helped the kids. I never so saw much energy in one day!





March 6-10, 2017

Great Rivers **Projects** (continued)

# Kirkwood Parks Honeysuckle Hackathon

In mid-March, over one hundred volunteers, including Great Rivers members, participated in the annual Honeysuckle Sweeps Week. The following is a thank you from Kirkwood Parks Volunteer Coordinator, Kylie Christenell.

Dear Volunteer-

What a whirlwind week the Honeysuckle Hackathon created! With a flurry of hacking, whacking, dragging and stacking invasive bush honeysuckle, you made a tremendous difference in Kirkwood Park- just take a look at the attached photo (top of photo is Sugar Creek, bottom of photo is Kirkwood Park). The Hackathon wouldn't have been possible without your help. Thank you so much for your commitment of time and energy to this important effort!! A total of 155 dedicated people volunteered 461 hours clearing over five (5) acres of honeysuckle from Kirkwood Park-ALL by HAND. This well surpassed our original goal of 2.2 acres. Your efforts are continuing to receive a lot of enthusiastic praise from the City of Kirkwood, folks driving along West Adams Avenue and the wildlife who rely on the park for food. The Park's horticulture staff and volunteers have been busy this week planting oak, hickory and other native trees to take back our park's woodlands from invasive bush honeysuckle.

Thank you once again for volunteering and give yourself a big round of applause for completing such a incredible effort!

**Kylie Christanell** | Volunteer Coordinator  
Kirkwood Parks and Recreation



MMN Miramiguoa member Jay Doty inspired and led the Hackathon - Photo by J.B.Forbes-STL Post Dispatch



Over 5 acres of honeysuckle were cleared



Dave Richardson cleaned up



Tessa Wasserman

### MMN-GR volunteers attending the Kirkwood Hackathon:

Barb Cerrutti, Eileen Hall, Dennis Honkomp, Amy Kilpatric, Michael Meridith ,Peggy Morrison David Richardson, Bob Virag, Tessa Wasserman

Photos courtesy of Honeysuckle Hackathon on FACEBOOK at

[www.facebook.com/honeysucklehackathon](http://www.facebook.com/honeysucklehackathon)



Barb Cerrutti



Prehack planning with Jay Doty



March 7 & 18, 2017

Great Rivers *Projects* (continued)

### Paul Schroeder Park Honeysuckle Hack By Cori Westcott

Tuesday, March 7<sup>th</sup> and Saturday, March 18<sup>th</sup>, participated in clearing honeysuckle from the city of Manchester’s Paul A. Schroeder Park. They have a woodland along Old Meramec Station Road that stretches to a black topped trail behind their tennis courts.

Sean Tracy and Dennis Honkomp joined Alan and me as Great Rivers Chapter members on Tuesday’s work day. Many of Manchester Parks and Recreation’s staff joined us on that weekday. Also, two folks made very brief appearances. Two Matthews stuck it out until the end of the day.



Saturday, the 18<sup>th</sup>, Diana Miller joined our work crew along with two women from High Ridge. One brought her thirteen year-old daughter and her friend. We had two staff members and the young Matthew. I’d love to see that guy take the initial training and join us. He’s a quick study and his wit goes far to help the time fly by. The other Matthew to join our efforts on Tuesday was Matthew Broderick, a long time professional horticulturalist and naturalist who just recently left a position at Shaw Nature Reserve. He shared many ecologist-related stories and tips on that Tuesday.

In total, we cleared 20,000 square feet and will be planting bare-root shrubs and understory trees from George O. White Nursery.



### COVER STORY: Information on Purple Milkweed:



*Asclepias purpurascens*, commonly called purple milkweed, is a rough, weedy, Missouri native perennial that commonly occurs in dry to moist open woods, dry ridge tops, thickets, glades, prairie openings, stream banks and wet meadows throughout most of the state (Steyermark). It is similar in appearance to common milkweed (*A. syriaca*), except its flowers are deep rose pink and its leaves are more pointed. It typically grows 2-3’ tall on stout, upright stems with heavy, pointed, short-stalked, ovate to oblong-lanceolate, opposite leaves (to 8” long). Leaves are dark green above and slightly pubescent below. Stems and leaves exude a milky sap when cut or bruised. Tiny, deep rose-pink flowers appear in many-flowered umbels in May-July. Each tiny flower (to 3/4” long) has 5 reflexed petals and 5 purple heads. Flowers give way to smooth seed pods (to 6” long) which split open when ripe releasing their numerous silky-tailed seeds for dispersal by the wind. Seed pods are valued in dried flower arrangements. Flowers are a nectar source for many butterflies and leaves are a food source for monarch butterfly larvae (caterpillars). Genus name honors the Greek god Asclepius the god of medicine. Specific epithet means purple.

Source: <http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=276864>



# Great Rivers Outreach & Education Events – Spring 2017

April 1, 2017

## “Meet Me Outdoors” at Missouri Botanical Gardens by Evelyn Tullos

"Children are born naturalists. They explore the world with all of their senses, experiment in the environment, and communicate their discoveries to those around them."

--- Audubon Nature Preschool

Of course, the parents were interested in what fascinated their children and wanted to know more about Master Naturalists and what we do. We had the very first table to the right, after ascending the stairs to the garden. The family traffic was heavy all day and the interest was enthusiastic. Barb, Jennifer Holder and myself were busy all day talking about how our organization benefits the community, and handing out literature to encourage people to want to get involved.

Children and parents were fascinated by the Great Rivers Chapter display table at the “Meet Me Outdoors in St. Louis” event at Missouri Botanical Garden, April 1st. Barb Cerutti, retired teacher, knew exactly how to draw the attention of the children.



Kari Pratt

She provided all kinds of nature samples (seeds, seed pods, galls, leaves, pinecones, rabbit fur, etc.) for the children to touch and investigate while she explained what they are all about.



Barb Cerutti, Jennifer Holder and Evelyn Tullos

April 5, 2017

## St Louis Community College Green Fair

This is an annual event held at the Florissant Valley campus to allow students to engage with area environmental groups, conservation organizations, and other like-minded organizations. This is the first year for the Mo. Master Naturalists to participate.

Others included were the Green Center, Mo. Stream Team, Mo. Conservation Dept., Plowsharing Crafts The students visit the various tables and learn about environmental and conservation efforts in the area.

Thank you very much to everyone who came out to STLCC-Florissant Valley to participate in our fair. I have received many comments from students and staff about how great all of the vendors were and how much they learned!  
See you all again next year,  
Sincerely  
Brian Bozek



Donna Scott, Bob Virag, and Pam Wilcox at the Green Fair



June 11, 2017

Great Rivers *Outreach and Education* (continued)

### Family Fishing Day at Fort Zumwalt Park in O’Fallon by Evelyn Tullos

A beautiful day at Fort Zumwalt Park in O’Fallon, MO. The event was Family Fishing Day. Bob Virag spearheaded an education and outreach opportunity for Missouri Stream Team. As you can see, Bob holds the attention of the children and interested parents, and provides fascinating facts about the macroinvertebrates.

Everyone should take the time to investigate what is under the rocks of our local streams. There is a whole new surprising life form taking place. These tiny macroinvertebrates have a big job working toward keeping the water quality in our streams and lakes clean.

It was a privilege to be helping with this group. So much experience was shared and the enthusiasm was contagious.

Kudos to Bob and the many others monitoring our water sources around St. Louis and St. Charles Counties.



Evelyn Tullos-Great Rivers; Leslie Limberg-MMN Confluence; Mike Claspille-Greenway Network, and Cliff Parmer-MMN Confluence

Bob Virag describing the macroinvertebrates to visitors



June 17, 2017

### Fenton Farmers Market – Pollinator Day –

Pollinator Day Saturday June 17 Kari Pratt, Jennifer Holder and Brett Heath participated at Olde Towne Fenton Farmers Market. Our Great Rivers Chapter made available brochures and materials about pollinators, Bees and the Monarch Butterfly, along with information encouraging the planting of Missouri native plants that promoted habitat for our pollinator communities



Jennifer Holder, Brett Heath and Kari Pratt





## Great Rivers Member Milestones

With this issue we congratulate four of our members for their outstanding achievements: Bob Virag, Tess Wassermann, Ann Earley, and Kari Pratt. You are all examples of our many tireless, dedicated members



### Bob Virag

**Bob Virag receives his 1,000-hour milestone pin.**



Bob Virag with a Black and Yellow Garden Spider in Tickseed sunflowers

### I am proud to be a Missouri Master Naturalist.

It fulfills a lifelong dream. It seems like an eternity ago that I wanted to be a National Park Service naturalist - but I took a detour after school and decided to raise a family instead. It was a good choice. We have a wonderful life -- but 48-years later, after a long career in medical device research and development, the recent certification by Missouri Department of Conservation and University of Extension made the dream of working with nature a reality. I've never worked harder or had more fun doing it. I only wish now that I would have started earlier. The best part is the privilege to serve with all our incredibly intelligent, dedicated, enthusiastic and like-minded Great Rivers volunteers. I've learned so much working in the shadow of absolutely brilliant naturalists. It's a humbling experience.

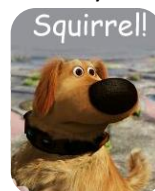
Starting out I was like a kid in a candy shop. I tried volunteering for every event the chapter offered. I slayed so many invasive honeysuckle and callery pear that they quake in their roots when I approach. I've almost learned how to identify native plants and trees (something I thought never possible). I don't know if it's more fun planting natives, or photographing the inevitable herd of deer snacking on them as if it's their private buffet. The chapter even lets me invent, build, and repair equipment for other naturalists, like the Lewis and Clark replica boats and James Trager's venerable microscope. I tagged Monarch butterflies, learned some frog and bird calls, and counted deer at night. Searching for rare Grotto Sculpin in a subterranean cave stream was a Hoot! And it only got better from there.

Outreach and education events are great fun. Nothing is more thrilling than watching the delight of a child catching a first fish, or learning to pick up a crawfish, or suddenly realizing the connection between the water in the stream and the clouds and rain above. Teaching others as a Habitat Advisor for St. Louis Audubon is also very interesting...and challenging. I swear I learn more on every survey than the home owners learn from me.

So far I've volunteered for 25 of the chapter's 75 service organizations. I've spent half my time supporting Missouri Department of Conservation and Missouri Department of Natural Resources, mostly as a citizen scientist monitoring water quality in the Missouri Stream Team and Lakes of Missouri Volunteer Programs. As a kid I spent my summers in Wisconsin on the water and anything now associated with aquatic habitats taps something primal in me.

My work as a citizen scientist is most satisfying -- gathering environmental data that can be used to make a difference. Given the current state of affairs, our efforts as scientists and environmental educators have suddenly become very important for our future and the future of all life on the planet.

Deciding what to work on next is the hardest thing to do.  
So many fun choices; so little time. -And I distract so easily.....





## Kari Pratt

**Kari Pratt receives her 500-hour milestone pin.**

Kari loves interacting with people. That's not surprising since her professional field is in education. She has served a number of community events including Eagle Days, Maple Sugar Days, Garden Glow, Japanese Festival and Earth Day at the Muny. She is a Missouri Stream Team monitor on the Black River where she and her husband Steve spend quality time at their cabin.

Kari finds interacting with other Master Naturalists and learning more about all things nature fulfilling activity. She loves getting exercise in the fresh air outdoors.

"I find strength and peace in nature. I want to connect, to learn more and share this with others."

And thanks to Kari, many of us are now identified as Missouri Master Naturalists belonging to the Great Rivers Chapter when we're out in the field or manning a table because of our shirts and caps that bear our logo and chapter affiliation. On her own initiative, she shopped around, made the arrangements and takes the orders from us.

We're grateful to you for your wonderful service, Kari.



## Tessa Wasserman

**Tessa Wasserman receives her 250-hour milestone pin.**

In June of 2015, I was approached by a MMN member while giving a tour of my yard for the 1st annual Native Plant Tour sponsored by the Bring Conservation Home Program. She asked if I was a member and when I replied in the negative, she said "Why not? You already do what we're all about." I signed up the next day. That experience opened up so many opportunities, connections and friendships.

Because of volunteering on the Green Space Advisory Commission of Webster Groves, I had the opportunity to serve on a planning committee with Forest ReLeaf for a big tree planting project. That connection led me to starting the bulk of my MMN service hours at their tree nursery in Maryland Heights. I have learned so much about native shrub/tree care and have come full circle by now planting those trees and shrubs in Forest Park, the Museum of Transportation, Bellefontaine Cemetery, and along city streets replacing ash trees. I like seeking out different volunteer activities and working in places I've never seen or visited. That allows me to meet amazing people I would never have met if only working in my immediate community. I also spend A LOT of hours hacking bush honeysuckle and trying to make useful things from its wood. Born a Tree Hugger, and not knowing this Champion Bur Oak existed nearby while attending Mizzou, I had to take a road trip just to hug it.



## Ann Earley

**Ann Earley receives her 250-hour milestone pin.**

Ann's service is frequently education oriented. She often give the Wild for Monarchs program to various local groups. Ann staffs display tables the Wild Ones and Grow Native to promote the use of native plants. She conducts frog call surveys for MDC and the St. Louis zoo. Ann finds most fulfilling her work getting people excited about learning more about native plants and their pollinators

"The MMN program is an outstanding opportunity our state offers to serve the public, learn a lot about our natural world, and have fun while doing so."



## Naturalist's Journal

Showcasing the knowledge and creative talents of our Great Rivers Members.  
Thanks to Mark, Tess, Cori, Sherri for their contributions.

The following is a portion of an article from the St Louis Post Dispatch about Mark Glenshaw and the Forest Park Owls.

## Reporter visiting St. Louis from Kenya confronts her superstitions about owls

By Ashley Bahati Lime May 20, 2017

[http://www.stltoday.com/lifestyles/reporter-visiting-st-louis-from-kenya-confronts-her-superstitions-about/article\\_e7a60ec3-3257-55c3-9245-a4c8647026c0.html](http://www.stltoday.com/lifestyles/reporter-visiting-st-louis-from-kenya-confronts-her-superstitions-about/article_e7a60ec3-3257-55c3-9245-a4c8647026c0.html)

When a colleague mentioned he would be going on an “owl prow” at Forest Park, I was horrified. I asked him to repeat what he’d just said.

Why would someone want to do that? Did he know what he was getting into? I was seriously concerned.

And for a moment, I thought of how the owl was feared back in my village in a rural town in Kenya called Kakamega.

I come from the Luhya tribe which is highly superstitious. At home, when an owl perches on a tree or fence in a homestead and hoots, the first person to see the bird announces its arrival with screaming and wailing.

Before long, the entire village understands the message and joins in the mourning. The nocturnal bird of prey is believed to be a harbinger of death. The superstition is that such a sighting precedes the demise of a family member.

People cry because of the fear of not knowing who “death is going to snatch next.” Just mentioning the bird’s name alone is as good as invoking a curse on oneself.

Some sub-tribes even think the owl is a messenger for witches and wizards while others believe it can cause children to fall ill due to its crippling, ominous aura.

I decided to give it a shot — I was going to see owls.

The tour was conducted by Mark H.X. Glenshaw, college library manager by day and owl enthusiast by night. He talked about his passion and handed us binoculars.



*Two Great Horned Owls in Forest Park:  
Charles (left) and Sarah in 2013.  
Photo courtesy Mark H.X. Glenshaw*

He soon pointed to a large tree. Looking through the binoculars, my eyes widened and my heart skipped a beat when I saw a large, broad-faced bird perched on a branch high up. Its black feathers, sharp talons, big eyes and a frightening upright stance reminded me of a belief I had held as true almost all my life.

I held my breath.

All that while I was waiting for something dramatic to happen. Perhaps a wail, a scream or people running around because they didn’t want to die.

I took in some air and heaved a sigh of relief.

Right there, my greatest fear had been broken.

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*Ashley Lime is a 2017 Alfred Friendly fellow at the Post-Dispatch.  
She is a journalist from Kenya.*



## Naturalist's Journal

Next, we see Tess Wasserman's creative talents using invasive honeysuckle to make a lamp. A side business perhaps?

# Honeysuckle Lamp

By Tessa Wasserman



Thanks to Evelyn for challenging me to make a lamp out of this stuff, I finally finished! I kinda like it! The base is a lumbered pine bark beetle holed piece of white pine.

-- Next project?



## Naturalist's Journal

Cori Westcott submitted the following write-up and gorgeous video of a Spring Azure butterfly

### **The Spring Azure, *Celastrina ladon* (form *violacea*)**

I was walking in Seibert Park the end of May when a small blue butterfly caught my eye. I followed the Spring Azure, *Celastrina ladon* (form *violacea*) as it collected minerals from a small piece of rotting timber. They often extract vitamins & minerals from animal dropping, carrion and rotting wood. Lovely. The identification of the Spring Azure is well, either complicated or controversial. Now, North American Butterfly Association is recognizing subspecies, Appalachian and Summer. Most folks distinguish the species by location, flight time and association with host plant. I've read that their flight for all species is weak. Often, they only venture less than one hundred meters from their origin. If that were true, it would be gratifying in this case because it would be another creature sustained by Seibert Park.



It was moving its hind wings to and fro. I've searched far and wide for a word to describe this behavior but to no avail. I recall years ago Bill Hoss pointing it out to me as we observed an Eastern Tailed Blue. They both belong to the *Lycaenidae* family which includes Blues, Hairstreaks, Elfins, Coppers and Harvesters. When the Eastern Tailed Blue moved its hindwings, his tiny tails were mimicking the movement of his antennae. It was intended to confuse its predator to think its tail end was really its head so he/she had a better chance to escape. I've edited a short video of this behavior. You can watch behavior at <https://youtu.be/ZtvfbWhaZ0c>.

According to Butterflies and Dragonflies of Illinois ([www.illinoisbutterflies.com/springazure.htm](http://www.illinoisbutterflies.com/springazure.htm)), Spring Azure caterpillars feed on sumacs, wild cherry, dogwoods and New Jersey tea. Three of those grow in the park. Two of the three are introduced by us. If their flight is so weak that they don't ever fly much distance from their origins, it gives me "hopeful testimony" that we are indeed building habitat for Missouri's fauna at Seibert Park, Manchester, MO.

By Cori Westcott



### Naturalist's Journal

**WARNING!** Spring flooding in the St. Louis area created many hazards as trash floated downstream. Special precautions are required in handling certain types of debris



# STREAMGRAM

*Action Needed to Help Streams*

## Report Orphaned Drums and Tanks

### Recovering from the 2017 Floodwaters

As recent floodwaters recede and cleanups begin on these affected areas, be prepared if you come across potentially hazardous containers moved by flooding. Remember if you run across anything potentially hazardous, please LEAVE IT ALONE, and use the Missouri Department of Natural Resources (DNR) [Reporting Form](#)

The Missouri Department of Natural Resources continues to provide assistance and guidance to flood-stricken communities. Floodwaters can quickly carry away drums and propane tanks and place them in not so easy to remove places. This tank was found hanging in a tree near Van Buren.



**Report drums and propane tanks displaced by flooding.**  
573-634-2436

[Report any potential hazardous substance containers or propane tanks](#) that have been affected by flooding to the Department of Natural of Resources. Containers or tanks can also be reported by calling DNR's 24-hour emergency response line at 573-634-2436.

For fact sheets to assist in recovering from recent flood events, visit the DNR Disaster Resources webpage:

<http://dnr.mo.gov/disaster.htm>



## Naturalist's Journal

Grants from Missouri Department of Conservation

### **MDC OFFERING UP TO \$75,000 IN GRANTS TO HELP LOCAL COMMUNITIES IMPLEMENT CONSERVATION PROJECTS**

News from the region: St. Louis

**Dan Zarlenga**

**Jun 14, 2017**

**ST. LOUIS, Mo.**—The Missouri Department of Conservation (MDC) works with and for communities to sustain healthy fish, forests and wildlife. One of the ways in which it does this is by offering funding for conservation-friendly projects in the St. Louis area through two partnership and funding opportunities: the **Community Conservation Grant Program** and the **Back to Nature StL Grant**.

Application periods for both grants are open now through September 15, 2017.

These conservation grants support urban wildlife habitat improvement, encourage organizational partnerships for land stewardship, and support the training of partner staff to manage natural landscapes.

The Community Conservation Grant is open to government entities including parks departments and public schools, non-profit organizations within the greater metropolitan area, including St. Louis County and City, St. Charles, Jefferson, and incorporated areas of Warren, Lincoln, and Franklin Counties. It offers grants up to \$30,000 with a preference for projects which utilize match or in-kind contributions.

The Back to Nature StL Grant is funding available for habitat restoration and/or reconstruction on a public park property in St. Louis County or City. This grant opportunity will be offered every other year and offers grants up to \$75,000, distributed over a three-year period.

Eligible projects for either grant include native plant establishment such as prairie or native warm-season grass reconstruction, forest management, wetland enhancement, exotic species control, interpretive signage related to the project, and staff training for natural landscape management. All project applications should have a long-term management plan.

Information about how to apply for both grants can be found at <https://mdc.mo.gov/sites/default/files/downloads/STLCCGPFY18.pdf>.

Additional details are available from each grant's respective coordinator:

- Community Conservation Grant Coordinator Erin Shank, 314-301-1506, ext. 4207 or [Erin.Shank@mdc.mo.gov](mailto:Erin.Shank@mdc.mo.gov) (link sends e-mail) .
- Back to Nature StL Grant Coordinator Josh Ward, 314-301-1506, ext. 4213 or [Josh.Ward@mdc.mo.gov](mailto:Josh.Ward@mdc.mo.gov) (link sends e-mail) .

Proposals must be received by 5 p.m. on September 15, 2017.



## Naturalist's Journal

John Muir, Inventor, Clockmaker, Sawyer, Conservationist and Naturalist (1838-1914)



**April 21, is the birthday** of naturalist **John Muir** ([books by this author](#)), born in Dunbar, Scotland (1838). He grew up on a farm in Wisconsin. His father was a strict Christian, and by age 11, Muir could recite three-quarters of the Old Testament and all of the New Testament by heart. One evening, the boy was up late reading, and his

father forbade him from staying up late, but decided that as a compromise, he could get up as early as he wanted in the morning. Muir began getting up at 1 a.m. and going to the cellar to work on inventions by the light of a tallow candle.

He invented a self-setting sawmill, thermometers, barometers, complex door-locks, an automatic horse-feeding machine, clocks, a firelighter, and many more tools. For motivation in the dark winter mornings, he invented an elaborate clock that also told the day of the week and the month, and was connected to a bed that set him on his feet at an appointed hour.

He exhibited some of his inventions at the state fair, and made enough money to enroll at the University of Wisconsin-Madison. One day, he was standing underneath a black locust tree when a fellow student asked Muir if he knew what family the locust tree was in. Muir said that he didn't know anything about plants, so the student asked him, well, what does the flower look like? Muir said it looked like a pea flower. When the student explained that they were in the same family, Muir was amazed, even more so after the other student explained the principles of taxonomy. He wrote: "This fine lesson charmed me and sent me flying to the woods and meadows in wild enthusiasm. [...] I wandered away at every opportunity, making long excursions round the lakes, gathering specimens and keeping them fresh in a bucket in my room to study at night after my regular class tasks were learned; for my eyes

never closed on the plant glory I had seen." Despite his new fascination with plants, he was a mechanical genius, and he remained equally interested in inventions. He improved his clock-bed, which now set him on his feet and simultaneously lighted a lamp. The bed was supplemented by a clockwork desk that kicked into gear as soon as he woke up; it took each book he needed to study in order, pushed it to the top of the desk, and opened it for the correct number of minutes. He invented a wide variety of complex scientific instruments. Professors were so amazed that they regularly brought visitors to Muir's dormitory room on the weekends to show off his inventions. Muir chose not to follow a recommended course of study. Instead, he dabbled in whatever interested him, from botany to Latin, and left Madison without a degree. Before his death, he wrote about his college years: "I wandered away on a glorious botanical and geological excursion, which has lasted nearly 50 years and is not yet completed, always happy and free, poor and rich, without thought of a diploma or of making a name."

Muir found work as a sawyer in a wagon wheel factory. He was quickly promoted, and expected to have a great career. But after a year, he was repairing a belt for a circular saw when a file slipped and struck his eye, and he was temporarily blinded. He spent six weeks in a dark room, not knowing if he would ever see again. When his sight did return, he realized how important the beautiful world was to him. He wrote: "It was from this time that my long continuous wanderings may be said to have fairly commenced. I bade adieu to all my mechanical inventions, determined to devote the rest of my life to the study of the inventions of God." He set out on a 1,000-mile walk from Indiana to the Gulf of Mexico, then walked from San Francisco to the Sierra Nevada.

Muir went on to become one of the most important naturalists and conservationists in American history. He founded the Sierra Club and helped fight to protect wilderness areas, especially the area around Yosemite Valley in the Sierra Nevada mountains. His books include *Picturesque California* (1888), *My First Summer in the Sierra* (1911), and *The Story of My Boyhood and Youth* (1913).





## Naturalist's Journal

This spring Sherri Schmidt captured a Monarch Caterpillar feeding on a Common Milkweed in the Butterfly Garden at Claire Gempp Davidson.

