



February 2015, Volume 9, Issue 01

Your key to discovering the **Natural Missouri**



From Our President

Welcome to the year 2015 first quarter issue of our newsletter.

I hope that you are following the example of nature and resting up for the spurt of activities that happen in the spring. Many of our projects are quiet right now but soon will be buzzing. We have had a fairly good stretch of fine weather and there are many things to do while waiting for spring. Riverlands has a really good show of swans, geese and eagles visiting us from the north. Other migrants will soon begin their trip through the area. One flock to watch for is the white pelican. They are magnificent birds and come through by the thousands. We have many good hiking trails that can provide interest and exercise during the winter months. One thing I really enjoy while hiking in the winter is that because of the lack of foliage I get a chance to see the rolling of the hills and the sculpture of the tree limbs against the sky. White sycamore trunks against a clear blue sky... beautiful.

We have many interesting projects and I encourage you to look through the activity part of our web site and follow the projects on our calendar. There should be something to interest everyone and if there is something missing that you think the chapter would enjoy doing and provide value to the community in the area of nature, let me or any of the officers or committee heads know and we'll look into it. If you are having trouble find-

ing things that can fulfill your 40 hour volunteer requirement, talk to one of the leaders and we'll see if we can help. As a volunteer organization we provide much man/woman power to our parks and the MO Conservation Department. I hope you took time to express your thoughts to our legislature on the items involving the Conservation Department that I forwarded to you from the state Master Naturalist Office.

I look forward to getting to know each of you more personally and hope to see many of you at our events. Be sure to mark your calendar for the State Master Naturalist Conference which is the first weekend of May in Springfield, MO. It is a wonderful opportunity to knock out your advanced training hours, meet members of other chapters and generally have a very good time. You will be receiving details in the mail during March so for now, just mark your calendar so other events don't overtake it.

Thanks for being a member and let's have a great productive year.

Alberta

Alberta McGilligan
President, Confluence Chapter

It is not so much for its beauty that the forest makes a claim upon men's hearts, as for that subtle something, that quality of air, that emanation from old trees, that so wonderfully changes and renews a weary spirit.

Robert Louis Stevenson, 1850-1894



Winter Blooms
Hamamelis vernalis

Trees Enjoy Respect

In Morocco trees are never uprooted without good reason lest they revenge themselves and cause death in the gardener's family: *misfortune readily afflicts the house of a tree destroyer.*

And should the tree's owner be struck accidentally by a branch he must **never** swear or complain, let alone break the branch in retaliation. On the contrary the gardener must apologize to the tree saying: 'Ya benti chedjera, Semahi lia'— 'O Tree, daughter Tree, forgive me.'

From *Gardener's Magic and Folklore*, by Margaret Baker





Meet the MO Master Naturalists

By MN Lee Phillion

The Master Naturalists I've met since joining the Confluence Chapter almost a decade ago are some of the most fascinating people I know. And that's saying a lot, given my affiliation with Women's Roller Derby.

In 2005, when this region's first MMN class graduated, monthly meetings typically drew fewer than 15 attendees. One Hershey Bar sufficed for snacks. The small numbers, however, provided an opportunity to get to know one another well, and some lasting friendships emerged as a result. Today, our meetings and lectures attract 45 or more naturalists every month. That can make it harder for people with similar interests to connect.

The aim of this new column is to profile active members to help put faces with names and to help everyone get to know who we are.



First up: Steve and Barbara Thomas MO MMN Class of 2009

Steve Thomas grew up on a 145-acre family farm in Northern Illinois on the Wisconsin border, where he milked cows before school, cultivated crops along with a work ethic, and learned about nature from his dad. The economic realities of small farms prompted him to earn a degree in meteorology from Northern Illinois University (1972), and move to Charleston, West Virginia for a job with the National Weather

Service.

Within a few years, the Service selected Steve to attend the University of Wisconsin at Madison for a master's degree in meteorology, and then promoted him in 1985 to Deputy Manager of the New York City Forecast Office—located at 30 Rockefeller Plaza in downtown Manhattan.

The following year, while attending a flash flood training meeting in Kansas City, a female meteorologist caught his eye. Barbara, a National Weather Service forecaster from Louisville, Kentucky, rocked his radar like a class 5 hurricane. She was a southern breeze that set his anemometer spinning like a top. He hoped for a warm front.

Okay... enough weather puns. That's so juvenile.

Turns out, their extended outlook (couldn't help it) called for marriage, a transfer to the Newark, New Jersey National Weather Service Office for Barbara, and a family. In 1990, Steve left the Big Apple for a promotion to Meteorologist in Charge of the St. Louis National Weather Service Office.

In 2007, Steve retired after 35 years with the Weather Service. Barbara, who left the Weather Service when the family moved to St. Louis, learned of the Missouri Master Naturalists from a fellow employee at Starbucks, where she had been enjoying working part-time as a barista. (Barbara can explain the finer points of machiattoes as well as microbursts.)

Since joining the Confluence Chapter in 2009, both have been active volunteers. From 2011 to 2014, Steve also did an awesome job

chairing the Advanced Training committee. He has worked with the Hays project since its inception, and likes volunteering for woodland restoration. Barbara is a regular volunteer at the Forest ReLeaf nursery, and both have done their share of invasive removal.



Steve and Barbara
On the Cliff Walk
Narragansett Bay, Newport, RI

When not volunteering, Barbara and Steve typically enjoy one "big trip" every year (think New Zealand, Hawaii, Europe) and several smaller trips. Steve likes home improvement projects and refinishing antiques; Barbara likes knitting and sewing. Together they create wonderful art glass pieces, including some fine dragonflies.



Milestones, Certifications, Annual Pins, and Other Recognitions



November 2014—Annual pins/certification materials were earned by Steve McCarthy, Leslie Limberg, Barbara Moore, Rick Gray, Jerry Lindhorst, Kay Labanca, Bill Brighoff, Jennifer Moore, Sarah Berglud, Barbara Thomas, Martha Schermann, Kathy Murray, Scott Barnes, Valerie Geile and Jayme Gribble.





Winter Blooms

Contributed by
MN Scott Barnes



This year my **Witch Hazel** bloomed in January. Last year it did not bloom until the end of February. It is always nice to walk in the yard and see it blooming in the winter to remind us of what is to come in the spring and summer.

Hamamelis vernalis, flowers in axillary clusters appear in mid to late winter (January-March in St. Louis) prior to the emergence of the foliage in a



variety of colors ranging from pale yellow to dark reddish purple. Fruit is a non-showy dehiscent capsule which splits open in September-October to release its seeds.



Little Bluestem Grass is my favorite grass although I like all the others.

This one is at the top of my list since it can be enjoyed all summer long with its blue green shades of color and as the winter starts, when it turns red for the winter.



Native Orchid

Putty Root—The single leaf pictured is a native orchid with common names of Putty Root and Adam & Eve (*Aplectrum Hyemale*). This plant occurs in low rich woodland areas along streams ravine bottoms.

A single evergreen leaf appears in late autumn or



early winter and is elliptical in shape and usually between 6 to 8 inches in length and 2 to 3 inches in width. It has a blue green color or very dark green with white veins and is strongly pleated or ribbed.

Once you have seen this leaf in its natural state you will never mistake it for anything else because of its unusual characteristics. The single leaf will wither away about the beginning of May and usually in the next 3 to 4 weeks a single flowering stem appears which is 6" to 8" in height and has up to 20 flowers.

This is the bloom of the putty root. I do not see it often because as you can see the ginger and other numerous plants are already up and growing. I forget to sometimes keep checking for it and usually I'm working in other parts of my yard in the early spring.



This plant fascinating because it is the reverse of how most plant species grow, sending its leaf up in the beginning of winter.

There's a good chance you've noticed this orchid on your winter hikes and wondered about its strange appearance: a green-and-white-striped, pleated leaf lying flat upon the dead leaves on the forest floor.

Check back in May to see its flowers!

Missouri Tarantula

Contributed by
Jean Harmon,
Dianne Baniak
And Fay Roberts



In late September 2014 Jean, Dianne, and Fay went on a hike, from the office at the front of Shaw, to explore the wetland area. Upon their return back towards the office, the tarantula came from the left out of the woods towards them—it was like it walked right out to greet them on the main gravel road. So surprised, they watched it, making all kinds of comments. It seemed to be watching them in its slow pace across the gravel. Since it was not moving in a hurry they helped it along to the grass on the other side so not to get hit by any vehicles that may come down the road. It was very exciting to see one of these great creatures here in Missouri.



Aphonopelma hentzi, the Texas Brown tarantula, (also known as Oklahoma Brown tarantula or **Missouri tarantula**), is one of the most common species of tarantula thriving in the southern-most United States today. It can grow in excess of a four inch leg span, and weigh more than 3 ounces as adults. The body is dark brown in color. Shades may vary between individual tarantulas and is more distinct after molt.

The female can lay up to 1,000 eggs. The eggs are positioned securely in a web, which remains in the tarantula burrow, and guarded by the female. Eggs hatch in 45 to 60 days. Once spider lings leave the egg sac, it's not unusual to stay with the females for up to a week or possibly longer before dispersing to make their own burrows.

Females have been known to live up to 30 years. But considering no studies have lasted so long, the lifespan is presumed to be longer. Males rarely live over 1 year after they have matured.





Anyone can tap a tree and make their own Maple Syrup. You must tap the tree in a different place each year. Keep the tap about waist high so it's closer to the roots where the sap is stored and it's also easier to detach the hanging buckets. This is a great activity to connect you to nature. And if it's snowing you can pour the Maple sugar on the snow (after cooking) and it makes a great sugar-on-snow taffy.

Volunteers helping out at this event are invited back each year following the event for a special breakfast of pancakes and Maple Syrup. Nothing like eating outdoors and enjoying what nature provides us. Yum ...



Maple Sugar Day 2015 was outstanding due to the soul warming sun and blue sky to a 60+ temperature in February to the thousands of spectators who flowed into Rockwood Reservation to learn how a Maple Tree growing in the woods can help provide a delicious treat or meal.

Holding back from outright bragging, Confluence was the largest volunteer group assisting interested families and individuals learn how to collect and make Maple Syrup. Confluence members participated at almost

every visitor station from the information tent/desk to the trees where the Maple sap was collected to the fires that separated the water from the delicious Maple sugar to the tables where the pancakes and Maple Syrup were served.

A total of 33 Sugar Maple Trees (they provide the most syrup of any Maple Tree) were tapped and 7-gallon buckets attached to each tree to collect the sap. The experts say it takes 400 gallons of sap boiled down to produce 40 gallons of delicious syrup. It takes about 80 hours of cooking.

WE ARE OUTNUMBERED

We're outnumbered. Plain as day. And they're not going away.

The estimated ratio of insects to humans is 200 million to one, say Iowa State University entomologists Larry Pedigo and Marlin Rice in their newly published (sixth edition) textbook, *Entomology and Pest Management*. Rice is the 2009 president of the Entomological Society of America.

There's an average of 400 million insects per acre of land, they say.

400 million!
Per acre.

"The fact is, today's human population is adrift in a sea of insects," they write in their introduction.

Well, what about biomass? Surely we outweigh these critters?

No, we don't. The United States "is home to some 400 pounds of insect biomass per acre, compared with our 14 pounds of flesh and bone," they write. "Another amazing statistic is that in the Brazilian Amazon, ants alone outweigh the total biomass of all vertebrates by four to one. Based solely on numbers and biomass, insects are the most suc-

cessful animals on earth!"

There you go. The insects are the land owners; we are the tenants. "They are the chief consumers of plants; they are the major predators of plant eaters; they play a major role in decay of organic matter; and they serve as food for other kinds of animals," Pedigo and Rice write.

Insects represent the good, the bad and the ugly.

The good: they give us honey and pollinate our crops. They spin our silk. They serve as natural enemies of pests. They provide food for wildlife (not to mention food for some of us humans). They are scavengers. They provide us with ideas for our art work. They are fodder for our horror movies.

And what scientist hasn't benefitted from the inheritance studies of the fruit fly, *Drosophila melanogaster*? What ecologist hasn't studied water pollution by examining the mayfly population? Mayflies are the counterpart of canaries in the coal mine.

The bad: they eat our food crops, forests and ornamental plants. They devour or spoil our stored grain. They chew holes in our clothing. They pester us. They annoy our animals, too.

The ugly: They can—and do—kill us. Think mosquitoes. Think malaria, West Nile virus, yellow fever, dengue, encephalitis

and other vector-borne diseases.

But wait, there's more! Many more. Scientists have described more than 900,000 species of insects but there could be seven times as many out there, the authors point out.

Ironically, despite the huge numbers of insects, many people don't know the meaning of the word, entomology, the science of insects. They should. Insects outnumber us and always will. They've lived on the earth longer than us (400 million years) and adapt to changes better than we do. Most are tiny. Most can fly. And most reproduce like there's no tomorrow.

"Based solely on numbers and biomass, insects are the most successful animals on earth," the authors claim.

You can't argue with that.



From <http://entomology.ucdavis.edu/>





Bluebird Monitoring

By: MN Mindy Batsch,
Project Lead
January 2015

Monitors

- Mindy Batsch: Spring Bend and Quail Ridge
- Connie Campbell: Spring Bend
- Jayme Gribble: Spring Bend
- Donna Johnson: Quail Ridge
- Joe Veras: Quail Ridge

2010 marked the first year the Confluence Chapter set up bluebird nest boxes at Spring Bend in St. Charles.

Quail Ridge Bluebirds

As most of you know, Quail Ridge went under some major construction last year. With the installation of the new road some of our bluebird boxes were removed and will need to be relocated.

We will be relocating these boxes late February or early March.



Eastern Bluebird

Spring is around the corner and soon the breeding season will begin with our native bluebirds! 2015 will mark the 6th year the Confluence chapter has installed and monitored bluebirds at Spring Bend and Quail Ridge.

The bluebird project has been an amazing learning experience for me. Mentoring under Claire Meyners and following the guidelines from Cornell Lab of Ornithology has been very rewarding. During this time we have discovered what does and what doesn't work. From bird house designs to various installation methods, it has been astonishing!

Come join the team!

It is very important that bluebird nest boxes be actively monitored at least once a week, and preferably bi-weekly during the height of the breeding season. Bluebirds are tolerant of humans, and will not abandon a nest box that is properly monitored.

Monitoring nest boxes will also alert us to problems birds may be having with predators and competitors.

If you are interested in box construction, monitoring, installing, or just learning about our magnificent bluebirds, please contact: Mindy Batsch at mofalconer@gmail.com or msbatsch@hotmail.com.



You will learn:

- How to monitor and what to monitor
- How to identify nests and eggs by species
- How to construct and install boxes

Recap of 2014 Bluebird Project

- Spring Bend: 32 Eastern Bluebirds fledge
- Quail Ridge: 81 Eastern Bluebirds fledge and 12 Tree Swallows



2014 Chapter Accomplishments

The Confluence Chapter began work on a multi-year project for the City of Wentzville in Rotary Park. To date the chapter has done wildlife and plant surveys and held a couple of days of invasive plant removal. More work will be done on this project in the next year.

Phase Two of the work on the Matson Hill future St Charles County Park was completed. It consisted of hacking/squirting Sugar Maple on 80 acres, installing two more vernal ponds, planting 20 Oak trees, and clearing cedar from 5 acres. Also, for that project we held an outreach/education event and performed an amphibian survey on the 3 vernal pools we installed. The Confluence Chapter is the lead organization on this project and secured a MDC Community Stewardship Grant for the project.

Towne Park, which was built by the Confluence Chapter a few years ago, continues to be a very popular spot for school outreach programs. In 2014, the Master Naturalists of the Confluence Chapter helped present programs for 1035 children from St Charles County.

The chapter continues to provide assistance and maintenance on many ongoing projects in St Charles County and a couple in St. Louis County. A new one this year is native plant landscaping at an O'Fallon Municipal building.

2014 Statistics

- The 2014 Training class held in conjunction with Great Rivers and the Miramigoua chapters graduated 33 people.
- 9 new trainees joined Confluence Chapter from the 2013 class.
- 66 members
- 29—average meeting attendance
- 7 members achieved first time certification in 2014.
- 44 members re-certified.
- Milestone pins awarded:
 - Bronze - 10 (250 hours)
 - Pewter - 3 (500 hours)
 - Gold - 2 (1000 hours)
 - Silver - 1 (2500 hours)
- Dedicated hours—7805 hours - Total hours of volunteer service in 2014 and 1005 hours of advanced training





Controlled Prairie Burn

Fire is an extremely beneficial tool in the sustainability and management of a prairie. Having evolved under the influence of fire for thousands of years, prairies respond favorably to controlled fires. It has been well documented that Native Americans used fire extensively to improve game habitat, increase nut and berry production, and create easier traveling.

taught us all so well, fire is bad. Not all fire is bad; in fact some fire is essential. Come back to that black spot in a week or two and see how beautifully green it becomes. Come back through out the growing season and see the wildlife, insects, and prairie bloom.

<https://linncountyconservation.wordpress.com/2013/03/28/why-do-we-burn-prairie/>

Pictures of Controlled Burn at Quail Ridge, February 2015



MN Larry Markley



Fire rejuvenates a prairie in many ways. Burning removes the excess leaf litter and duff allowing more plants to flower, produce seed, and grow taller. It also increases available nutrients through indirect stimulation of microbial activity in the soil and releasing nutrients from the ash. Burning exposes the darkened soil and allows sunlight to warm the soil quicker and extend the growing season for warm season native plants. In contrast the fire suppresses many weeds and non native invasive cool season grass like brome and reeds canary grass. Fire also damages or kills many woody invasive plants such as bush honey suckle and autumn olive, which, if left unchecked can quickly over take a prairie. Controlled burning is one of several management tools used to preserve prairie. Mowing, hand cutting, and chemical treatments are some others. However, burning allows large areas to be managed more efficiently and effectively. Generally, controlled burns are conducted on a 2 to 4 year rotation, with a portion of the prairie remaining unburned to allow for an escape area for wildlife and insects.

So the next time you see that black patch in the park, try to forget the old add campaign featuring Smokey the Bear. That

The Bug Highway

Robert Krulwich's Blog, NPR



Step outside on a clear day this summer and look up. What do you see? Blue. And maybe a plane or a bird up there, but otherwise—nothing. Or so you think. It turns out that right above you, totally invisible, is an enormous herd of animal life. There are many creatures up there—busy, athletic, tiny.

British scientist Jason Chapman told us there are 3 billion insects passing over your head in a summer month. He was talking about his survey in Great Britain. Closer to the equator, he says, the numbers should rise. He wouldn't be surprised, that in the sky over Houston or New Orleans there could be 6 billion critters passing overhead in a month.

Sometimes insects and spiders need to leave where they are and go someplace else. You can see them launching themselves, says entomologist Matt Greenstone, "They just stand straight up on their little back legs and just by doing that, they can get part of their body up into this layer of air where it's more turbulent and then, if you can get a ride on a parcel that's going up, you can get off the ground, and then if you're lucky you can get carried aloft."

Writing in *American Entomologist*, May Berenbaum says pilots have long known insects can fly very high. "Beginning in 1926, Tanglefoot-coated slides were affixed to airplanes to collect insects, with famed aviator Charles Lindbergh contributing to the data-collection effort by carrying sticky glass slides on his 1933 flight crossing the Atlantic and over Greenland."

The all-time champ is, of all things, a termite! In Berenbaum's article, she mentions a 1961 study by J. L. Gressitt in which an insect trap was placed on a Super-Constellation airplane. That plane flew 116,684 miles sampling the air, catching whatever was up there, and, Berenbaum says, "The trap managed to capture a single termite at 19,000 feet."

"Wind dispersal at great heights can be rough on insects," Berenbaum writes. And yet they are very tough. Of 1,610 insects captured by another team of scientists, 97% were alive and undamaged, 2% were alive and damaged, and 1%. The flying corpse was, it turns out, a rarity.

If all this interests you, check out the book *Insectopedia* by Hugh Raffles. A stunningly original exploration of the ties that bind us to the beautiful, ancient, astoundingly accomplished, largely unknown, and unfathomably different species with whom we share the world.





ELK EXPERIENCE

MN Lee Walters

Having just completed the Missouri Master Naturalist certification program, I was thrilled to move on to the Confluence Chapter to really get the ball rolling on my new career. I have always been thrilled to be outdoors and appreciating nature, particularly in regards to wildlife. My wife, Karen, and I have been trying to get in better shape by hiking some of the wonderful trails available in state parks, MDC conservation areas, county parks, and local parks in the area.

On November 9, we were pumped up for our first trip to Lone Elk Park. During our drive through we saw a total of seven elk, four deer, and two bison. One elk, a cow walking not far from the roadway, was heading behind an occupied picnic table. Karen asked me to stop so she could take a photo from the car. Every time I would stop, the elk would move ahead behind a tree. After we had done this a few times, the elk disappeared into a shallow ravine. I pulled ahead and got out to see if I could tell where it was heading to give Karen a clue where to go to get a good shot. I walked to about 15

yards from the ravine and stood still for quite some time. I finally noticed what looked like a big brown rock to the side. I moved up to get a better look and found out it was the top of the elk's rump. At this point it stepped out of the ravine in front of me. I stood motionless and quiet for probably about ten minutes. It would look at me and then look down to graze, not a care in the world.



I figured by this time Karen had ample time to get a good shot with her camera. I started to calmly back away from the elk, whereupon it decided to follow me. I took a few steps and moved behind a large tree. As I looked around one side, the elk was looking around the other. I'm not sure either one of us was sure what to think. I started backing out

again, and the elk broke into a trot. At this time I wasn't sure if it was just inquisitive, hungry, or what. I was hoping no romantic intentions were involved. It got within six to ten feet. I just stopped and shoed it away with my hand. It stopped, looking surprised, and I just went back to the car.

When I got there Karen wanted to show me the great pictures she had taken. Several were good, but the last six or eight were of the ground as she kept filming while running back to the car.

This is not something I wanted to do or should be done, but it was a neat experience that I was thrilled to experience and won't forget.



Army Corps Helps Tern Return



The interior least tern is a geographic subspecies of *Sternula antillarum*, fish eating birds that nest in open sandy areas and other bare ground along rivers and coasts.

At one time, nature enthusiasts feared they might never again catch a glimpse of the little bird with its distinctive black crown and yellow bill, hovering above the water before it plunged in to catch a fish. The survival of the interior least tern, the smallest of North America's tern species, was in doubt.

A geographic subspecies of least tern, the bird was listed in 1985 as in danger of extinction under the Endangered Species Act. Like the bald eagle and American alligator, it has recovered with the help of research and conservation efforts, many in this case carried out by the U.S. Army Corps of Engineers. The U.S. Fish and Wildlife Service has recommended delisting the interior least tern pending completion of plans to ensure its continued survival in a range along large

rivers in the central United States.

The interior least tern population along the Mississippi River only, was estimated at 10,150 in the 2012 census, while the target recommended in 1990 was 2,500. The population throughout the bird's nesting range of large rivers in the central United States has been above its recommended target of 7,000 since the 1995-96 census—up to 13,855 in 2012.

That comeback was influenced at least in part, experts say, by the restoration of the tern's favored habitat. Barren beaches of sand are the preferred nesting locations for the terns, and many had disappeared from large rivers in past decades with the construction of dams, reservoirs, and protected banks. On the lower Mississippi, where there are no locks and dams, fluctuating river stages persist where large sandbars remain exposed. But there, and where alterations for flood control and navigation were made, the Army Corps worked with federal and state partners to provide critical habitat, such as dikes redesigned to maintain some flow through side channels or chutes during periods of lower flow. Flow through a notch may create a water barrier from predators for least terns nesting on the sandbars.

Other tactics

have been employed by Corps biologists elsewhere on the river, in sometimes wildly creative ways. At the **Audubon Center at Riverlands, located in West Alton, MO**, for example, the Corps outfitted an old barge with tern decoys. Solar-powered speakers play the bird's call and attract other terns to a barge used as a sandbar substitute for nesting.

While the highest concentration of nesting sites remains on the lower Mississippi, the stretch from Cape Girardeau to the Gulf of Mexico, the Riverlands project shows that if the welcome mat is out, the birds will find it, biologists say. The barge has hatched as many as 30 fledglings in a summer and is a popular attraction for school groups and other visitors.

From *Our Mississippi*, Dec 2014, a quarterly NL of the U.S. Army Corps of Engineers about its work in the Mississippi River Basin. It is published in cooperation with other state and federal agencies and other river interests with whom the Corps collaborates and partners toward long-term sustainability of the economic uses and ecological integrity of the river system.

Read the full article at: <http://www.ourmississippi.org/>





Confluence Chapter Stream Team



Cliff Parmer
Stream Team Leader
clfhanc@aol.com

Here are the dates for our 2015 Stream Team activities:

April 25, June 20, August 15 and October 10.

For those of you who may be new to Stream Team, or just curious after a long hiatus, you do not need special training to participate. Typically we meet at 9:00 am at the Lost Valley Trail parking lot in the Weldon Spring CA. We have two sites that we monitor and, if we have enough participants, we do both chemical and macro invertebrate monitoring.

I will send out an email a couple of weeks prior to each activity as a reminder, but if you are interested in participating I suggest that you put these dates on your calendar now to minimize conflicts with other activities.

Thanks, I look forward to seeing you all this summer on the stream.



✦ Kevin—Our ultimate CIG, years of patience, excellent presentations, coordination, canoe trips, snake management, and laughter. We love you Kevin!

✦ Jim Middleton—For an excellent January's science presentation

✦ Lee Phillion—February slide show for Ben Grossman & her homemade certificates of appreciation.

✦ Martha Hessler & Alison Robbins for jumping into the Holiday Party preparation.

✦ Tom Nagle —For expanding our Bluebird Stewardship into Creve Coeur Park



Our Leadership

- President—Alberta McGilligan
- Vice President—Tom Nagle
- Secretary—Carol Morgan
- Treasurer—Peg Meyer
- Advanced Training—Martha Schermann
- Volunteer Coordinator—Glen Bish
- Membership Services—Pat Burrell-Standley
- Communications—Jerry Lindhorst
- Web Site—Rick Gray
- Photography—Joe Adamo
- Newsletter—Carmen Santos
- Advisors—Scott Killpack, University of Missouri Extension, and Samantha Stolle, MDC

Project Leaders:

- Daniel Boone Hays—Bob Coffing
- Matson Hill Park—Bob Coffing
- Cuivre River and Don Robinson State Park—Bob Coffing
- Confluence Chapter Stream Team #3612—Cliff Parmer
- Babler State Park—Alberta McGilligan
- Lewis & Clark Boathouse and Nature Center—Leslie Limberg
- Weldon Spring Prairie Demo Garden—Leslie Limberg
- Quail Ridge Prairie Demo and Rain Garden—Carmen Santos
- Bluebird monitoring - Mindy Batsch
- Nature Explore Classroom Education—Connie Campbell
- O'Fallon Public Works Project—Carmen Santos
- 2014 Capstone Project at Rotary Park—Bob Lee and Gail Gagnon.
- Rabbit Habitat—Nancy Newcomer



"The world, we are told, was made especially for man— a presumption not supported by all the facts."

—John Muir, *A Thousand-Mile Walk to the Gulf*



The Confluence Chapter was founded in 2005 as the fifth Master Naturalist chapter in Missouri. The chapter was formed by 24 individuals from St. Charles County, St. Louis County, and St. Louis City after completing the Missouri Master Naturalist™ training program. We share a common interest in nature and in volunteering to help protect, preserve and restore Missouri's natural heritage. Most of our members live in the region West of the Missouri-Mississippi Confluence and from both north and south of the Missouri River.

We operate according to the bylaws and operating handbook of the Missouri Master Naturalist Program developed by the Missouri Department of Conservation and University of Missouri Extension.

Visit us at <http://www.mmnconfluence.org/>

