



Your key to discovering the *Natural Missouri*

From
Our President



I hope everyone has a wonderful summer full of fun with friends and family.

Cliff Parmer
President, Confluence Chapter

Summer has arrived and with it the doldrums. However, the Chapter still has a number of activities on the calendar. The training class has begun and it's nice for the new trainees to have member's faces to associate with the Chapter so please help out there if you can.

It's also a great time to begin planning your fall activities with the Chapter. Once the weather cools, most projects will start up again and there will be plenty of opportunities available. About that time, the trainees will become interns and will undoubtedly appreciate some assistance as they integrate into the Chapter. I'm sure we all remember Lee's video on mentoring.

Announcement

Our Chapter is looking for a new president and Treasurer for November's elections.



Which committed and brave member would step forward to lead our meetings?



Please relay ideas to the Nominating Committee: Tom Nagle, former President
Jerry Lindhorst, or former president
Leslie Limberg.



CHECK THIS PLACE!:




<http://pest.ifas.ufl.edu/>

The site — **Landscape Pests** — is intended to support the diagnosis and information content for common insect and mite pests found in and around areas east of the Rockies.



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What's In A Name?

Obedience Plant

Physostegia virginiana

(obedient plant, obedience, or false dragonhead) is a species of flowering plant in the mint family. *P. virginiana* are known commonly as obedient plants because a flower pushed to one side will often stay in that position. The name false dragonhead refers to the dragonheads of the related *Dracocephalum*, a genus to which the plant once belonged.

Obedient Plant at the Quail Ridge Prairie Demo Area



Compass Plant

Other Names: Gum Weed or Turpentine Plant



The common name compass plant was inspired by the "compass orientation" of its leaves. The large leaves are held vertically with the tips pointing north or south and the upper and lower surfaces of the blades facing east or west. A newly emerging leaf grows in a random direction, but within two or three weeks it twists on its petiole clockwise or counterclockwise into a vertical position. Studies indicate that the sun's position in the early morning hours influences the twisting orientation. This orientation reduces the amount of solar radiation hitting the leaf surface. Vertical leaves facing east-west have higher water use efficiency than horizontal or north-south-facing blades.

Early settlers on the Great Plains could make their way in the dark by feeling of the leaves. The plant had a variety of uses among Native American groups. The bitter, resinous sap could be made into a chewing gum. The Pawnee made a herbal tea with it. Many groups burned the dried root as a charm during lightning.

Many birds and mammals feed on the fruits of the plant. The eastern kingbird perches on the tall plant to watch for insect prey. Livestock find it palatable.



Compass Plant at The Quail Ridge Prairie Demo Area



Red Winged Black Bird Perching on a Compass Plant—Quail Ridge

http://en.wikipedia.org/wiki/Physostegia_virginiana
http://en.wikipedia.org/wiki/Silphium_laciniatum
<http://mdc.mo.gov/discover-nature/field-guide/compass-plant>
<http://mdc.mo.gov/discover-nature/field-guide/false-dragonhead-obedient-plant>

UNDERGROUND MINE MAPS

Do you have a map of an underground mine?

MO DNR is interested in borrowing maps individuals may have of underground coal mines in MO for entry into the Missouri Mine Map repository for the purposes of public safety and protection of property. Loaned maps are scanned, entered into the archive, and returned to their owners.

Learn more at

<http://dnr.mo.gov/geology/geosrv/geores/minemaps.htm>.



Blue Jays and other birds sometimes smear ants under their wings and among their feathers, which may help to repel fleas and other pests.





Whisper Song

Songs are typically the most complex vocalization of a bird's repertoire. In most cases, songs are the featured vocal presentations of males and are used to establish and defend a territory, and attract a mate.

Among the most beautiful bird songs is a very private performance known as the **whisper song**. Singing from a perch hidden in shrubbery or vines, the bird softly twitters its usual proud song so quietly that you'll miss it unless you happen to be standing close by.

It's hard to imagine that the boisterous Steller's Jay could possibly have a softer aspect to its blustery behavior—the "whisper song." Male jays use this whisper song during courtship, and it also emanates from solitary birds for no apparent reason. Quietly, the bird extends its head slightly forward, slowly turns it from side to side, and begins very softly to sing.



Steller's Jay

Mockingbirds, catbirds, brown thrashers, blue jays, gray jays, scrub jays, evening grosbeaks, and a few other birds sing a whisper song. Nobody knows exactly why. It appears to be a song sung purely for the pleasure of the singer.

Other Songs

Flight songs: Some males sing their songs while airborne, sometimes as part of a stylized flight pattern. This is often the case for open-country species that have few perches available.

Subsongs: Nestling songbirds can hear within a few days of birth. They begin their practice songs, called subsongs, after fledging at about three weeks of age. The first attempts are so soft as to be almost indiscernible. The patterns and notes of the subsongs start out in what must be the equivalent of bird gibberish. With practice, the songs gradually become stronger, more structured and adult-like.

Learn more at Cornell's: All About Birds.

<http://www.allaboutbirds.org/Page.aspx?pid=1189>

Birding Class with Sarah Pitzer

MO Master Naturalist Lee Phillion

Let me get this out of the way up front: I don't like birds. They scare the bejesus out of me. I think my fear stems from a childhood nightmare, during which a small bird flew through the palm of my hand as I reached out a car window to catch the wind. The bird became stuck in my hand (and in my mind).

So, 50 years later—okay, 60 years later—I signed up for the birding class of-

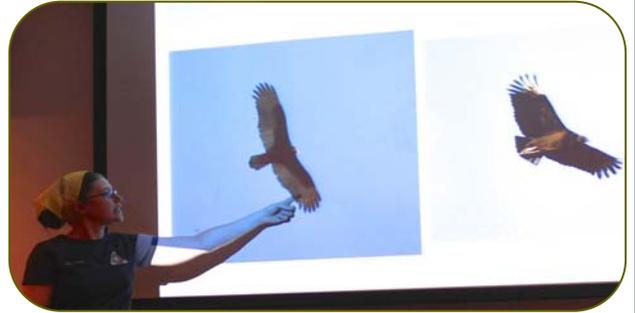


ferred by the Confluence Chapter and taught by Sarah Pitzer, a naturalist at Rockwoods. Larry Berglund, a fellow Confluence Chapter member, arranged the class.

This is what I love about the MO Master Naturalists (MMNs) I meet. They make stuff happen. Larry found Sarah Pitzer, an engaging and enthusiastic bird expert, who is willing to take time from her busy job to teach about birds. Sarah loves

birds, and her enthusiasm is not only apparent, it is catching.

During my effort to "know my enemy (birds)" I learned a lot. There is apparently no end to Sarah's knowledge of birds (her master's degree laid the foundation, but it's clear that she expands her



expertise through reading and field work). You suggest a topic, and "bam," she covers it in a lecture! Warblers, raptors, songbirds, bird habitats, intelligence, sex and evolution—Sarah develops awesome lectures based upon class interest. She also leads birding hikes to reinforce classroom learning.

They say that information is power, and I feel pretty darned powerful over my bird phobia thanks to these classes. Whether you are a bird-phobic or bird-lover, consider attending the MMN birding classes this fall.

Larry Berglund will announce the fall birding class schedule soon. Classes are scheduled for select Monday evenings at Busch, and are open to MMNs and their guests. Field trips are scheduled as appropriate for the topic.



"The more we know of other forms of life, the more we enjoy and respect ourselves. . .

Humanity is exalted not because we are so far above other living creatures, but because knowing them well elevates the very concept of life."



Edward Osborne "E. O." Wilson
American biologist, born in 1929

Researcher, theorist, naturalist (conservationist) and author





New Pond at Babler Elementary

"Just wanted to take a moment to thank all of you for giving up your Saturday morning to come and play in the mud with me. The garden has never looked better! The kids at school are not aware that a pond was being put in this summer, so they will be very surprised when they come back in August."

"I could not have done this job without your help, so please accept my most heartfelt thanks."

Master Naturalist Jennifer Moore



Debra Maurer, Denise Dundon, Daniel Dundon, Russ Walker (Carmen's Husband), Carmen Santos, Bill Brighoff, Barbara Moore, Phil Rhan, Nancy Newcomer, and Jennifer Moore (sitting on the pond's edge). Leslie Limberg was the photographer



2014 June Picnic a success

by MN Leslie Limberg

With all the hype and threats of tornado, hail, and straight line wind, the Confluence Chapter courageously prevailed in the true master naturalist spirit, making this year's picnic an all-time memorable event.

Adorned with hats, raincoats (Cliff's red rain suit!), boots, umbrellas and monster tarps, we were prepared for a climactic holocaust at Quail Ridge Park.

What we got, however, was a poetic pitter-patter of drops across Henry's Pond with a Mallard courtship on the side. Before we knew it, the sky broke open blue, the air was fresh and we were getting fat on

Bandana's best barbeque and Alberta's homemade brownies.

Thirty seven members attended with another ten from the new training class, along with a well-mannered Golden Retriever—our first pooch at a picnic.

Special thanks go to Ann Finklang for manning the Rain Garden, Joe Veras for taking care of the Blue Bird Station, and Alberta McGilligan for answering questions about the wildflowers in the Prairie Demo Project.



Tire Disposal



The Stream Team Program announced a partnership with Dobbs Tire and Auto Center. Each store will accept up to 40 tires per event at no cost. There are 37 locations in the St. Louis Region and one in Cape Girardeau.

If the event nets more than 40 tires, Dobbs has an agreement with tire shredders in High Ridge, MO. Tire shredders will accept the tires and invoice Dobbs for the cost of disposal. Teams will be required to show their Stream Team ID Cards and proof of Stream Team membership.

Mud and gravel must be removed before the tires are brought in.

Contact Mark Van Patten if you have any questions about this program.

Mark.vanpatten@mdc.mo.gov

Polyester Bees

The Colletidae family of bees line their underground tunnels and cells with a clear, durable material not unlike cellophane. This ensures that the level of humidity in the nursery will be just right for the eggs and developing larvae. Bees are master chemists, and colletids are no exception. Some of them produce chemical compounds known as macrocyclic lactones. You might know these substances by their other name, polyester.

The plastic produced by these 'plasterer bees' is biodegradable and some scientists are studying

its characteristics with the hope of creating biodegradable plastics for commercial use.

If you are lucky enough to find these bees nesting in your yard, don't try to kill them; they won't sting, and they are probably good for soil aeration. They are also fun to watch!" (New York State Biodiversity Research Institute)



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The Lone Star Tick

Amblyomma americanum

The lone star tick, was first described by Linnaeus in 1758. Lone star ticks feed on the blood of various animals (domesticated and wild) as well as humans. The tick was first considered a nuisance as it does not transmit the etiological agent of Lyme disease, but more recent studies have shown that this species can transmit various other pathogens to humans and other animals, such as those that cause ehrlichiosis, rickettsiosis, tularemia, and theileriosis.

The ticks may further expand their range through transportation while feeding on white-tailed deer, a key host. Wild turkey populations also are a common host and may contribute to tick expansion by providing additional hosts for immature stages. In some Midwestern states the lone star tick is colloquially known as the "turkey tick" due to its association with wild turkeys.



Life stages of lone star ticks, *Amblyomma americanum*, from top left clockwise: larva, nymph, adult male, adult female. Photograph by Chris Holderman.

Seasonality in Missouri, peak activity of adults is between May and July, nymphs in May to August, and larvae in July through September.

Although ticks are mobile, hosts are the primary means of tick dispersal for all active life stages.

The lone star tick is very aggressive and non-specific when seeking hosts, although some specificity does occur within each life stage. The lone star tick can be found on humans, domesticated animals (e.g. cattle, dogs, horses, goats), ground-dwelling birds (e.g., quail and wild turkeys), and small (e.g. squirrels, opossums, hares) and large (primarily white-tailed deer and coyotes) wild mammals. Larvae primarily are collected from birds and mammals, but not on small rodents, while nymphs feed on all of these animals. Adults typically feed on large- or medium-sized mammals, but can be found

on small rodents and wild turkeys. With the exception of wild turkeys, adult lone star ticks infrequently feed on birds.

The use of a repellent or pesticide, correctly applied to clothing and on gear following specific product label instructions, is considered the best tick bite prevention as recommended by the CDC. Wearing light colored clothing, inspecting clothing, gear, and pets, conducting a full body tick check, and showering after being outdoors are all recommended steps toward preventing tick bites. For protection of cats and dogs against tick bites, please consult with your veterinarian.

Lone star tick—Females are easily identified by the white dot in the center of the back. Males often have dots or white streaks on the edge of their bodies.

http://entomology.ifas.ufl.edu/creatures/urban/medical/lone_star_tick.htm

<http://mdc.mo.gov/discover-nature/field-guide/ticks>



Look What We Found!

12 June 2014, found in a potted plant by a maple tree by Carmen Santos

***Hyalophora cecropia*:** Cecropia moths are beautiful silk moths with reddish bodies and black to brown wings surrounded by bands of white, red, and tan. With a wingspan of 5 to 7 inches, the Cecropia moth is the largest moth found in North America.

It is mostly nocturnal and is rarely seen in the day. Cecropia moths emerge mid-morning from their cocoons during mid to late-May. Once the moth has emerged, it appears to be all head and abdomen. The wings hang limp and are wet and small. A resting place is soon found and the moth begins a pumping motion—forcing blood into its wings. Once the wings have expanded and hardened, they will be 5 to 6 inches across, colored a dark, red-brown with silver-gray highlights. The moth will then remain motionless for the rest of the day.

The female moth lays large, oval cream-colored eggs in groups of three to six. The first eggs are laid near where the female originally pupated. After laying this first group, she flies away (the first time she has tried out her wings) and



lays the remaining eggs on proper food plants (far apart from each



other to minimize competition for food among her

caterpillars). Food plants include apple, white birch, white oak, black cherry, and several other tree species.

For more on this moth:

<http://www.inhs.illinois.edu/resources/inhsreports/jul-aug96/moth>

Found by MN Scott Barnes
In his garden

The Luna Moths (*Actias luna*) is a member of the giant silkworm family and is one of the largest

moths in North America with a wingspan of up to 4.5 inches. This species can only be found in North

America. Luna moths prefer deciduous woods; the caterpillars feed on the leaves of deciduous species such as hickory, sumacs, birch, alder, and walnut. Adult Luna moths neither eat, nor have mouths. Their adult lifespan is only approximately one week, and their sole purpose during this time is to mate.

Adults eclose, or emerge from their cocoons in the morning. Their wings



are very small when they first emerge and they must enlarge them by pumping bodily fluids through them. During this time, their wings will be soft and they must climb somewhere safe to wait for their wings to harden

before they can fly away. This process takes about 2 hours to complete. For more information visit: <http://mdc.mo.gov/discover-nature/field-guide/luna-moth>





Nesting Microhabitat

Providing Nesting Opportunities
For Hymenoptera Pollinators and Hunters

I just put up this structure in my back yard. It is placed under a vine arbor that will also have Hymenoptera (ants, wasps, bees) friendly plants.

James Trager
Shaw Nature Reserve



In the Beginning ...



God made Heaven, and then, after measuring the space beneath Heaven, began to form the earth. When Mole asked if he could help, God told him he could

hold the ball thread from which He was weaving the patterns of the earth. Unfortunately, Mole let out too much thread and the earth grew too large for the space under Heaven. Mole was so upset by his blunder that he ran away and hid. Anxious to resolve the problem of the oversized Earth, God sent his trusted messenger, Bee, to find mole, for he wanted Mole's advice on how to rectify the mistake.

When Bee found Mole and explained his mission, Mole just laughed at the idea of a creature as lowly and error-prone as he advising the Great Creator. The clever Bee, however, hid in a nearby flower and overhead Mole mumbling to himself about what he would do if he were God.

"I would squeeze the earth," Mole said, "to create mountains and valleys that would make its surface smaller."

When Bee overhead this, he went directly to God, who followed Mole's inadvertent advice. As a result the earth, with all its high mountains and deep valleys, now fits perfectly in its place under Heaven.

From the book, **Letters From the Hive** by Stephen Buchmann. Mr. Buchmann is an amateur beekeeper, Adjunct Scientist at the Univ. of Arizona in Tucson, coauthor of **The forgotten Pollinators**, and the founder of The Bee Works an environmental company. Visit him at: <http://ag.arizona.edu/ento/faculty/buchmann.htm>



GARDEN MAINTENANCE A LONG TERM RESPONSIBILITY

By Besa Schweitzer, Miramigoua Chapter

I dream of the day when every vacant space is filled with native flowers and hordes of butterflies, tended by loving gardeners.

Many of us are getting requests from the organizations with which we associate with, to create a wildflower or butterfly garden or to fix a neglected one. It would be wonderful if every church, school yard, and corner park had a native plant garden.

Gardens take work, not only for the installation but even more so for upkeep. Who is going to maintain that garden for the rest of time?

If an organization wants a garden it is important to first educate the organization's person or persons who are going to be your point of contact. One should present a plan that includes information on the plants recommended and their needs.

Preparing a map of the garden with photos of the plants also

makes a great tool for volunteers.

Many people have no idea how much care a wildflower garden needs. You can't install it and walk away. Weeds have to be managed, and managed intensively the first few years during establishment. There is no point in spending your time and their money on a garden that is going to look like a weed patch and be ripped out next year. We are not doing our organization or theirs, and the native gardening community, any favors by planting future weed patches in public spaces.

We should train the person or persons

who will be managing the garden by having them assist in planning and planting the garden, and then work side by side with them until you are confident they clearly understand their maintenance duties.

The volunteer you train will gain knowledge of native plants and can add more diversity every year as their confidence grows. They may even start designing their own native gardens to be carefully tended by other volunteers just beginning their own lifelong education in native plants.

When designing a garden to be managed by native plant novices it is important to select species most adaptable to the site conditions and to plant like species in groups. It is easier to weed when you can pull everything except for the one plant you know. Mulch is another positive addition to the garden as it preserves soil moisture which reduces watering and smothers weed seeds which reduces weeding.

When asked to build someone a garden, it is important that the organization takes over the responsibility for the site, this way we will go on creating more native wildflower gardens.





WISH YOU WERE THERE

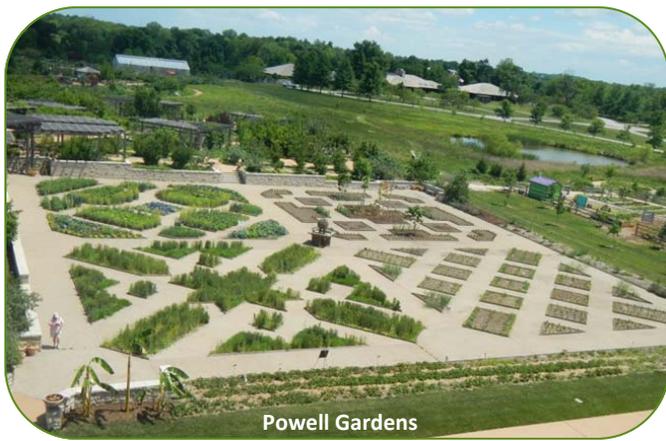
by Carol Morgan, Carmen Santos, and Bill Brighoff

Carol Morgan's take on the Conference was:

The Master Naturalist Conference in Kansas City was very well-organized - outstanding presenters, good food and a beautiful setting. "Dave and I went on the Nelson-Atkins Museum of Art tour which was led by two very knowledgeable docents. That is an amazing museum and well worth making a trip to see. We attended Ecology of Bird Migration, Listening in the Dark for Missouri Bats and Earthquakes and Fracking sessions. Each of these was led by excellent speakers with impressive backgrounds. The entire conference was totally enjoyable and informative.

Carmen Santos attended difference sessions and her experience was:

Russ and I joined the "Gardening and Cooking With Nature" event at the Powell Gardens, Kansas City's Botanical Garden, Kingsville, MO (powellgardens.org).



Powell Gardens

As one of the Midwest's largest botanical gardens, the Powell Gardens site contains an impressive display of native trees, gardens, and prairie remnants. The Insectary Garden and Heartland Harvest Garden demonstrate the benefits of native plants to pollinators and beneficial insects. We toured the Garden's different areas and enjoyed a cooking demonstration utilizing native plants from the site.

The Point-and-Shoot Photography session was presented by Pat Whalen, Education Specialist, MDC. This course taught the rules of good composition and lighting for great shots with your digital cameras and cell phones.

Giving the Gifts of Interpretation reviewed the basic principles of interpretation, gave tips on becoming better interpreters, and discussed the many gifts we all give to audiences and communities through interpretation.

And then there was the Basic Shotgun Session. We learned that, when shooting, a person favors one eye. If you are right handed, but favor your left eye, most likely you will not hit your target if you are shooting right handed. How do you know which eye you favor? Make a (small) triangle using your right and left thumb and index fingers. Find and object in the distance and place the triangle on the object. Move the triangle towards your face, keeping sight of the object, and notice which eye you are favoring (moving the triangle to). This really works! Carmen, who is right handed, did not hit one target when shooting right handed. Shooting left handed? Watch out world!

Bill Brighoff had different activities and talks and his remembrances include:

When my wife, Carol, and I looked for our pre-conference activity, we discovered it were in a huge, man-made cave. Earthworks is located in SubTropolis, a cavern created through the mining of limestone deposit.

With five million square feet of leased warehouse, light-industry, and office space, and a network of more than two miles of rail lines and six miles of roads, SubTropolis is the world's largest underground business complex—and one of eight or so in the area. (The Atlantic, <http://www.theatlantic.com/magazine/archive/2010/05/subtropolis-usa/308033/>)

Earthworks was also a surprise; an education facility without desks or other expected classroom paraphernalia. Instead, it consisted of five habitats with exhibits ranging from a life-size cross section of the prairie soil showing the deep roots to a magnified drop of water. It is designed for students from second to fourth grade to do hands on studies on the difficulties, such as finding food and shelter, which animals must overcome to survive. We had the opportunity to see if we were smarter than a second grader.

My other sessions were on the "History of Missouri's Deer", "Rattlesnakes" and "Oaks and Ash". As most of us know, the deer herd was decimated when the Amerindians got guns and market hunters shot huge numbers. Through ups and downs after regulation, the deer herd increased until 1990 when it stabilized. By varying regulations

each season and in various parts of the State by the Conservation Department, this stability is maintained. We also learned about the diseases affecting deer, particularly Chronic Wasting Disease and Hemorrhagic Disease, also known as Blue Tongue.

All 32 species of rattlesnakes are native to the New World. It is believed the rattle developed to prevent the snake from being stepped on by bison and other large animals. Most of the 6,000 to 8,000 bites per year are from captive snakes and only about a dozen of these bites result in death. It is estimated that 30 - 40% are dry bites. Surprisingly most bites occur among 18 - 20 year old males and involve alcohol.

Oak trees have the most species (20), the most individual trees and the widest distribution of hardwood trees in North America. They are also the number one plant used by animals. In addition to having the most species, they hybridize easily. Oaks are only found in the Northern hemisphere and, surprisingly, the most species are found in Mexico. Ash trees also support many animals, unfortunately including the Emerald Ash Borer, an invasive species that kills the trees.

In total, we attended three of the preconference session and nine of the 24 sessions. All of us attended all four meals which were excellent.

Wine Many Times Enjoyed

MO MN Alberta McGilligan

This was my last winter's recycle project. Friends and I saved all our wine bottles (160) of them. I took off their labels and dug them in for a border on my flower bed. I enjoy their beauty as well as feel good about recycling them.





Other News

** The Quail Ridge Prairie Demo Project (QR) is sad to say goodbye to

Judy Brandenberg. She is going to beautiful Colorado to be close to her family. We will miss her positive attitude, bright smile, and hard work. Judy said she really appreciated the QR Team's friendship and will cherish her memories with the team.



HAPPY TRAILS in Colorado, Judy!

** Congratulations **Larry and Sarah** on wrapping up another wonderful series of bird classes. Eager for fall's offerings.



** Congratulations to **Joan Twillman & Jayme Gribble** who are participating in the MR340 river race this August —paddling down the Missouri River in August - KC to StC.

Follow their trip: <http://share.findmespot.com/shared/faces/viewspots.jsp?glId=0YfIWRFaJpqAttAQKPrq3YszJblaE3xRM>

** The **Quail Ridge project** hosted Mike Trial from the MO Prairie Foundation at Columbia. He was interested in our project at Quail Ridge as the foundation plan to start a similar project in Columbia. We at the Quail Ridge Project are famous!



Thank You!

✦ **Leslie Limberg**, for organizing a wonderful picnic in June. Great food and perfect ending weather. And to **Joe Veras** for manning the Blue Bird Station, **Ann Finklang** for manning the Rain Garden Station, and **Alberta McGilligan** for helping with the Prairie Demo Area.

✦ **Jennifer Moore** for all the plants she gave to us workers and thanks to the workers for coming to the rescue of Babler Elementary

✦ **Rick Gray** for his 6-7 years of website mastery and putting up with all the website changes lately.

✦ **Joe Veras, Ann Finklang, and Scott Barnes** for helping establish the O'Fallon Public Works Native Garden. The place has never looked so good!



Our Leadership



- President—Cliff Parmer
- Vice President—Alberta McGilligan
- Secretary—Carol Morgan
- Treasurer—Ann Finklang
- Advanced Training—Martha Schermann
- Volunteer Coordinator—Rob Merriman
- Membership Services—Pat Burrell-Standley
- Communications—Jerry Lindhorst
- Web Site—Rick Gray
- Photography—Joe Adamo
- Newsletter—Carmen Santos and Bill Brighoff
- Advisors—Scott Killpack, University of Missouri Extension, and Kevin McCarthy, MDC

Project Leaders:

- Daniel Boone Hays—Bob Coffing
- Matson Hill Park—Bob Coffing
- Cuivre River 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.



Adult bumble bee, *Bombus* sp.
Photograph by Clemson University;
www.insectimages.org.

Bumble Bee Watch Has Launched!

The Xerces Society, in collaboration with the University of Ottawa, Wildlife Preservation Canada, the Montreal Insectarium, the Natural History Museum of London, and BeeSpotter, has launched a citizen science initiative to track all species of North American bumble bees. This project will help follow the status of these essential pollinators and inform effective conservation actions. With their new website you will be able to upload photos, use an interactive identification tool, and submit geo-referenced records of all North American bumble bees. BumbleBeeWatch.org or <http://bumblebeewatch.org/>



Photo by Bernie Kohl
Used by permission.

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/>

