



Your key to discovering the *Natural Missouri*



From Our President



It seems a very short time ago that I was writing about getting excited for Spring activities. Now it is Fall and once again getting downtime to celebrate holidays with friends and family and perhaps slow down on our volunteer activities and recharge our spirits.

I encourage you to make sure you enter all your volunteer hours in our database so we can get totals that will prove to everyone the value we volunteers provide, and ensure the continued support and success of the Missouri Master Naturalist program.

We have continuing projects and some new ones starting so I urge you to browse the projects on the calendar and see where you might like to spend some time next year. Once again in the Spring we will have project reviews at each chapter meeting to

familiarize everyone with the things our chapter is doing.

I urge you to give priority to the chapter projects as those are very close to our heart and the foundation of our chapter activities and unity. I invite you to really try to attend our chapter meetings whenever you can. This is where we join as friends dedicated to the same goals, receive pins for our work, and learn new things through our advanced training each month.

Many good wishes for a great holiday season, and I hope to see all of you at our December holiday meeting.

Alberta

Alberta McGilligan
President, Confluence Chapter

*Master Naturalist
2016 Certification Pin*
Eastern Collared Lizard
Crotaphytus collaris collaris



Leslie's 2016 Hummingbird Count is in!



This year marked another milestone in St Charles County's Hummingbird population, well at least at Leslie's home in New Melle :

Summer Bird Count: 53
Late Summer Count (w/migration from north): 74
Number of Feeders: 9
Pounds of Sugar: 233

If you would like to hear more about the aggressive Ruby Throated Hummingbird, like their non-stop 20 hour crossing of the Gulf of Mexico, ask Jim Middleton, Advanced Training chair to schedule a power point presentation next year.



MN Leslie Limberg



Milestones, Certifications, Annual Pins, and Other Recognitions

Paul Robbins announced or presented the following awards:

October 2016:



Pat McCoy, Carmen Santos, Rich Riester, Don Moyer Scott Barnes, Bob Coffing received their 2016 Certification Pin.

MN Certificates: Gary Wester, Mark Williams, Deborah Grupe, Sue Stevens



Bronze pin for 250 hours: Bob Siemer, Nancy Newcomer, Lee Holloway, Steve McCarthy, Pat McCoy, Don Moyer, Martha Hessler, Malcolm Roys;

Pewter Pin for 500 hours: Scott Barnes, Gail Gagnon, Pat McCoy



Gold Pin for 1000 hours: Lee Phillion, Jim Middleton.

Silver Pin for 2500 hours: Leslie Limberg.



Gold/Diamond Pin for 5000 hours: Bob Lee.

New official members Gary Wester and Mark Williams were introduced to the chapter members.



Photos by MN Lee Phillion



BOB LEE RECEIVES HIS 5000-HOURS CERTIFICATION PIN



Bob Lee attended Master Naturalist training classes and became a Confluence Chapter member in 2009. He assumed responsibility as the chapter volunteer coordinator in 2010. For the next few years Bob was instrumental in establishing or strengthening ties with our many partners and initiated several new volunteer projects.

He has been involved in many different projects and has been instrumental in the success of many Master Naturalist endeavors. Those of us who have worked with Bob admire and respect him for his dedication to the conservation of all nature. He possesses an unlimited knowledge and understanding of all things that comprise nature and its conservation, and eagerly shares that knowledge with others.

Bob worked very closely with St. Charles County Parks in promoting Master Naturalist involvement in several projects. He has been personally involved in many county projects such as the Nature Explore Classroom at Towne Park, assisting with prescribed burns at various St. Charles County Parks, the Ecological restoration at Don Robinson, Cuivre River, and Babler State Parks in addition to several St. Charles County parks, the city of Wentzville storm drain system marking, bush honeysuckle removal at several area parks, and the Forest Re-Leaf tree program.

Bob Lee's finest achievement as a Master Naturalist is perhaps his initiation of the Missourians for Monarchs program. What he started solely as a Confluence Chapter program, has now expanded statewide involving numerous local, state, and federal partners. His organization and the energy and time he dedicated to the Missourians for Monarchs, which became a statewide effort, was amazing to watch. He reached out to other chapters and Garden members and organized the regional coordinators to cover most of the state. Truly an amazing piece of organization.

On November 4, 2015, Grow Native! (<http://grownative.org/>) recognized Bob Lee with the 2015 Ambassador Award. The honor recognized Bob "For creating the Missourians for Monarchs initiative, which involved joining forces with Missouri Master Gardeners and Federated Garden Clubs, and becoming a unified, statewide army of people to plant milkweeds, educate on how to grow them, stress the importance of milkweed and native nectar plants, collect seed, and distribute plants statewide."

We salute Bob and acknowledge his great contributions to our chapter, the Missouri Department of Conservation, Department of Natural Resources, the St Charles County Parks, and the Missourians for Monarch Initiative.

Thanks Bob for all your dedicated efforts as a Missouri Master Naturalist!



LAKE SAINT LOUIS MONARCH BUTTERFLY GARDEN

Lake Saint Louis Monarch Butterfly Garden has become a reality!

Mayor Kathy Schweikert signed the Monarch Mayor's Pledge in May, 2016. The Green Environmental Advisory Committee (GEAC) is the leader in the butterfly project. In order for the project to be successful community involvement and partnerships are necessary. GEAC reached out to the Missouri Master Naturalists Confluence Chapter and Jardin du Lac Garden Club requesting help with the project and the actual planting in the fall.

Lake Saint Louis Parks Department and Public Works department met with the GEAC to solidify plans and to prepare the site selected in Hawk Ridge Park for the Butterfly Garden. Through the Missouri for Monarchs organization we were able to obtain approximately 700 native plants representing 15

different species, including the swamp milkweed necessary for monarchs.

The planting date for the native flowers was Monday, September 26. Our wonderful Master Naturalists from the Confluence Chapter and partners came and helped GEAC plant the flowers.





Master Naturalists in Action



Tri-Chapter Event

What a great event!. Salutes to so many people who made things "appear"--instructors, volunteers from ALL chapters, food, laughter, education and fun!

By Patsy Hodge, Miramiguoa Chapter

If you have any questions on specifics of the event, Besa Schweitzer is the one to contact. She is the fearless leader who started this

concept of a trip-chapter event many years ago! Thanks, Besa! and congrats on a huge success! Terri Morton is the chairman of the Tri-Chapter Committee. These pictures communicate what a fantastic event it was!

Confluence Chapter Stream Team



Towne Park Confluence Chapter Recognition

Our Nature Explore Classroom at Towne Park was recently recognized in the October's issue of the Missouri Conservationist Magazine.

If you haven't seen it, here's the link to the article:

<https://mdc.mo.gov/conmag/2016-10/lasting-legacy>



In partnership with the St. Charles County Parks Department our Confluence Chapter built a Nature Explore Classroom in Towne Park to create a place for outreach programs for youth. Gary Schneider, a master naturalist since 2006, and Joe Walker took the lead on building the outdoor classroom.

Alberta McGilligan, Connie Campbell, and Leslie Limberg volunteer to assist the masses of school kids now flocking to the area for field trips.

In the last two years more than 1,800 kids from the St. Charles County area have come to play at the park built by the hands of volunteers hoping to make a lasting impression.

From the Nature Explore Classroom at Towne Park *Melanoplus differentialis*

Our Master Naturalist volunteers borrowed this gal for the day's lesson for a group of preschoolers visiting the NEC.

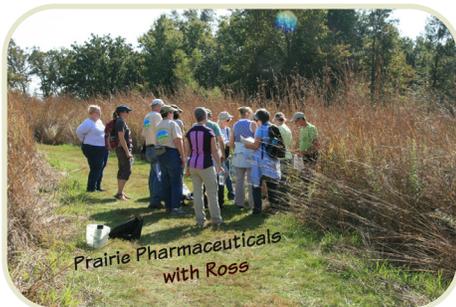


She sat quietly while they talked about her observation skills and her camouflage.

Everyone has heard the methodic chirping from the tall grasses on warm summer nights. The soothing symphony of crickets, frogs, and *Melanoplus differentialis*! Okay, so most people would not say it like that, but *M. differentialis*, or the Differential Grasshopper is one of the most common species of grasshopper in the United States. Large numbers can injure a wide variety of plants.

Grasshoppers make excellent fishing bait! These are medically harmless.

Photo by Confluence Chapter Master naturalist Allison Volk





It Was a Very, Very Good Year ...



It was a great year at our O'Fallon Public Works Project.

We (Master Naturalists Ann Finklang, Joe Veras, Elaine Browning and Carmen Santos) have managed to transform an industrial and pretty much desolated area into an oasis of Missouri native wild flowers.



Left: Rabbit Tobacco /Sweet Everlasting (*Gnaphalium Ibtusifolium*) Above: Common Flebane (*Erigerin Philadelphicus*)

We were so successful that many wild flowers invited themselves to the flower beds and rain garden we maintain in the area.



The project proved to be a haven for butterflies including Monarchs, Ohio Buckeyes, and Gray Hairstreaks

In October our work was recognized by the O'Fallon Volunteer Services Department and included in the City Administrator's Report (B Therrien Weekly Management Report 10-14-2016 Page 5).

We would love for you to join us next year.
E-mail Carmen (escarmeng@charter.net)



The Walnut Caterpillar *Datana integerrima*

The walnut caterpillar (*Datana integerrima*) is a relatively common insect in hardwood forests of eastern North America. It has been recorded from Ontario, through most of the Eastern States west to Minnesota, and south to northern Mexico.

Periodically, it heavily defoliates host trees. The larvae feed only on the foliage of trees in the family Juglandaceae. Hosts include black and English walnut, butternut, pecan, and various species of hickory. Larvae have also been reported on other tree species, weeds, and grasses, but no feeding occurs.

Although some trees may be heavily defoliated, outbreaks occur infrequently, and tree mortality is rare. Chemical control is usually not necessary and may be harmful if parasites and predators are affected. In certain situations, however, localized treatments using pesticides may be necessary. Persons encountering high populations of larvae should consult their county extension agent, State agricultural experiment station, State Forester, or the local Forest Service representative to obtain current information on recommended control procedures and materials.

In Carmen's Black Walnut Young Tree



Forest Insect & Disease Leaflet 41
U.S. Department of Agriculture Forest Service

Asclepias hirtella Quail Ridge Park

Tall Green Milkweed is one of the lesser known species of milkweed that is occasionally found in upland prairies. It is distinguished primarily by its greenish white umbels of flowers, lack of horns in the hoods of the flowers, and narrow alternate leaves. It also produces more umbels of flowers per plant than most milkweeds. Other milkweeds usually have opposite leaves. A somewhat similar species, *Asclepias viridiflora* (Short Green Milkweed), is a shorter plant with pairs of opposite leaves. Another similar species, *Asclepias verticillata* (Whorled Milkweed), is a smaller plant with whorls of grass-like leaves; these leaves are more narrow (filiform-linear) than those of Tall Green Milkweed.

This milkweed ranges from Virginia north to southern Ontario and Michigan, ranging west to southern Minnesota, northern Iowa, Oklahoma, and Arkansas. It is considered threatened in Minnesota and rare in Ontario and Louisiana.

This wildflower spreads by reseeding itself. The flowers of Tall Green Milkweed are cross-pollinated primarily by long-tongued bees and wasps. Bee visitors include honeybees, bumblebees, and leaf-cutting bees. To a lesser extent, the flowers also attract small butterflies and day-flying moths (e.g., *Cisseps fulvicollis*). Milkweeds attract a special group of insects that are oligophagous (feeding on a limited number of

foods, usually within one taxonomic family) on various parts of these plants. These insect feeders include caterpillars of the butterfly *Danaus plexippus* (Monarch) and caterpillars of the moths *Cycnia inopinatus* (Unexpected Cycnia), *Cycnia tenera* (Delicate Cycnia), and *Euchaetes egle* (Milkweed Tiger Moth).

Because the milky latex of the leaves and stems contain cardiac glycosides and have a bitter flavor, they are usually avoided by mammalian herbivores. The White-Footed Mouse eats the seeds of milkweeds to a minor extent, while the Eastern Goldfinch uses the silky hairs of the seeds in the construction of its nests.





Wild Bird Rehabilitation

The mission of the Wild Bird Rehabilitation Facility is to provide care for injured, ill, and orphaned native wild songbirds and to release them back into their natural habitat. They also provide public education regarding the humane treatment of wild songbirds and the conservation of their habitat.

The facility is located at 9624 Midland Blvd. in Overland, MO. Their phone number is (314) 426-6400. Their website is www.wildbirdrehab.org and the hours of operation are:

Winter Hours: September 12 - April 15th;
Open Daily: 9 am - 1 pm & 5 pm - 7 pm
Summer Hours: April 16th - September 11th; Open Daily: 9 am - 7 pm



The facility admits over 2,000 birds each year. Caring for these animals is extremely rewarding. As a volunteer at the center one can expect to learn, have

fun, and - most importantly - make a difference!

There are many ways to help:

- Work directly with the birds - feeding and cleaning cages
- Aviary assistance and bird release
- Medical / ER assistance
- Phone and clerical support
- Clerical & front desk
- PR: fund raising, publicity, social media
- Grant writing
- Education/Outreach: open house, booths, etc.
- Gardening
- Building maintenance



No prior experience or specific bird knowledge is required. The facility has a great training program and will teach you what you need.

To volunteer visit:

<http://wildbirdrehab.org/get-involved/>

Members of our Confluence

Chapter volunteer at the facility. They are Sue Stevens, Mark Williams, Jean Harmon, and Deb Grupe.

When hearing about the legendary flights of migratory birds, do you ever wonder when they get some much-needed shut-eye?

Having the largest wing-area-to-body-weight ratio of any bird, frigatebirds are essentially aerial. This allows them to soar continuously and only rarely flap their wings.

Highly adept, they use their forked tails for steering during flight and make strong deep wing-beats, though not suited to flying by sustained flapping.

A new study found that frigatebirds, which stay aloft for up to two months without touching down, take power naps to a whole other level. By sleeping in short ten-second bursts, they can sleep mid-flight. The impressive sleep habits of frigatebirds don't stop there—in order to not be on complete autopilot, the birds often put only one side of their brain to sleep.

Could humans also benefit from many short naps over long periods of time? Leonardo Da Vinci is alleged to have

slept only 90 minutes a day, in short fifteen-minute bursts every four hours. Maybe he was onto something that frigatebirds already knew.



Learn more about how frigatebirds snooze on the move: <http://www.audubon.org/news/scientists-finally-have-evidence-frigatebirds-sleep-while-flying> <https://en.wikipedia.org/wiki/Frigatebird>

Photo By Benjamint444 - Own work, GFDL 1.2, <https://commons.wikimedia.org/w/index.php?curid=13487246>

Birds of Missouri

About 350 Species of birds are likely to be seen in Missouri, though nearly 400 species have been recorded within our borders. There are about 10,000 species of birds in the world. Most people know a bird when they see one. It has feathers, wings and a bill. Birds are warm-blooded, and most species can fly. Many migrate hundreds or thousands of miles. Birds lay hard-shelled eggs (often in a nest), and the parents care for the young. Many communicate with special songs and calls.

One of our birds is the *Antrastomus vociferus* (*Caprimulgus vociferus*) or the eastern-whip-poor-will.

Adults whip-poor-will have short, rounded wings and are able to turn quickly when pursuing prey. They have cryptically colored plumage with gray, brown, and black mixed in a pattern like dry leaves on a forest floor. The well-known "whip-poor-will" call may be repeated hundreds of times a night.

They are common in forests and woodlands with open understories. Although many people hear their nighttime calls, often at close range, few ever see them because by

day they crouch on the ground amid fallen leaves where they are perfectly camouflaged. They sit absolutely still and only flush when you get quite close — then they fly off and vanish again. Try driving slowly through a forest on dark country roads in summer. Look for their reddish eye shine in the road at the limit of your headlight beams.

A common summer resident, populations are decreasing in many parts of Missouri. These ground nesters cannot breed successfully where forests are grazed by livestock, especially hogs in areas with cats and dogs, and where suburbs and farms have replaced forest. Where their nests are trampled and their young preyed upon, this spe-



cies no longer breeds successfully, or at best occurs only as a transient. Keep livestock and pets out of wooded areas and ground-nesting birds will return to your area.

They are here April to September, overwintering in Mexico and Central America. No nest is built only two well-camouflaged eggs are laid on leaf litter on the ground. The adults incubate the eggs for about twenty days, their weight making a slight depression in the leaves at the nesting site. Hatchlings are well developed but have their eyes closed. They are able to move around at a young age, and they leave the nest within about a week of hatching. There can be one or two broods a season.

Whip-poor-wills' haunting song appears in countless folktales, novels, poems, and songs. An old Ozark belief held that if this bird sat on the roof of a home and sang, a death would occur nearby within 24 hours. The arrival of human livestock and pets commonly spells doom for whip-poor-will young.

<https://nature.mdc.mo.gov/discover-nature/field-guide/eastern-whip-poor-will>





Thirteen Facts About Bats

Called creepy, scary and spooky, bats often get a bad rap. They're an important species that impact our daily lives in ways we might not even realize. From pollinating our favorite fruits to eating pesky insects to inspiring medical marvels, bats are heroes of the night.

Check out some interesting bat facts:

1. There are 1,300 species of bats worldwide. Bats can be found on nearly every part of the planet except in extreme deserts and polar regions. Bats range in size from the Kitti's hog-nosed bat (also called the Bumblebee Bat) that weighs less than a penny—making it the world's smallest mammal—to the flying foxes, which can have a wingspan of up to 6 feet. The U.S. is home to over 40 species of bats.
2. Not all bats hibernate. Even though bears and bats are the two most well-known hibernators, not all bats spend their winter in caves. Some bat species like the spotted bat survive by migrating in search of food to warmer areas when it gets chilly.
3. Bats have few natural predators—disease is one of the biggest threats. Owls, hawks and snakes eat bats,

A tri-colored bat shows symptoms of white-nose syndrome. Photo by National Park Service.



but that's nothing compared to the millions of bats dying from White-Nose Syndrome. The disease—named for a white fungus on the muzzle and wings of bats—affects hibernating bats across eastern North America and was recently discovered in Washington State.

4. Over 300 species of fruit depend on bats for pollination. Bats help spread seeds for nuts, figs and cacao—the main ingredient in chocolate. Without bats, we also wouldn't have plants like agave or the iconic saguaro cactus.
5. Night insects have the most to fear from bats. Each night bats can eat their body weight or more in insects numbering in the thousands! This insect-heavy diet helps farmers protect their crops from pests and lowers the spread of mosquito-borne diseases like malaria.
6. Bats are the only flying mammal. While the flying squirrel can only glide for short distances, bats are true fliers.
7. Bats may be small, but they're fast little creatures. How fast a bat flies depends on the species, but they can reach up to 60 miles per hour.
8. Some bat species are at risk of extinction. At least 13 types of U.S. bats are endangered, and more are threatened. Threats to bats include habitat loss and pesticides that kill insects.
9. The longest-living bat is 41 years old. It's said that the smaller the animal, the shorter its

The Northern long-eared bat spends winter hibernating in caves and mines. Photo by Andrew King, USFWS.



lifespan, but bats break that rule of longevity. Although most bats live less than 20 years in the wild, scientists have documented six species that live more than 30 years. In 2006, a tiny bat from Siberia set the world record at 41 years.

10. Like cats, bats clean themselves. Far from being dirty, bats spend a lot of time grooming themselves.
11. Dogs aren't the only ones with pups. Baby bats are called pups, and a group of bats is a colony. Like other mammals, mother bats feed their pups breastmilk, not insects.
12. Bats are inspiring medical marvels. About 80 medicines come from plants that rely on bats for their survival. While bats are not blind, studying how bats use echolocation has helped scientists develop navigational aids for the blind. Research on bats has also led to advances in vaccines.
13. Innies or Outies? Humans aren't the only ones with belly buttons. With a few exceptions, nearly all mammals have navels because of mom's umbilical cord, and bats are no different. Now the real question is: Innies or outies?

California leaf-nosed bats exit a cave at Joshua Tree National Park. Photo by Kristen Lalumiere, National Park Service



U.S. Department of the Interior
[https://www.doi.gov/blog/13-facts-about-bats\[11/4/2016 11:29:25 AM\]](https://www.doi.gov/blog/13-facts-about-bats[11/4/2016 11:29:25 AM])



Visit to the Donald Danforth Plant Science Center

Members of the Confluence chapter enjoyed an interesting tour of the Donald Danforth Plant Science Center on November 3. Our tour guides were Dr. Terry Woodford-Thomas, Director of Science Education, and Dr. Sandra Arango-Caro, Education Programs Facilitator.

The Danforth Plant Science Center, founded in 1998, is a not-for-profit plant research organization that works to improve the productivity and sustainability of agriculture, energy and the environment. The Center's more than 170 scientists develop unique plat-



forms to discover underlying principles about how plants work. They then attempt to convert that new knowledge into useful crops and products through partnerships with organizations around the world.

Research at the Danforth Center is funded by competitive grants from public and private sources and by philanthropic support.

Photos and Article by:
Master Naturalist
Lee Phillion



I need help with the newsletter!



One way you can help is to research an item that interests you and then write about it or edit the information you find. There are many places you can look. For example, the MO Extension (<http://extension.missouri.edu/>); MDC, USDA, USFWS (US Fish and Wildlife Service); Dept. of the Interior; <http://edis.ifas.ufl.edu/>; <http://entomology.ifas.ufl.edu/creatures/>, and many others.





Parsley, Dill, Groundhogs, and Butterflies

This year I decided to plant parsley and dill in a big pot. The plants were doing great until my groundhog in residence discovered them. The creature ate the plants, and as the plants produced more leaves, he would return and have a "Groundhog Feast."

I had enough, so I placed a chicken wire fence around the plants. This slowed down the groundhog as long as the plants grew on the inside of the wire.



Groundhogs (*Marmota monax*) also known as woodchucks, dig burrows along borders between timbered areas and open land or along fencerows, heavily vegetated gullies, or streams. The main entrance is often by a tree stump or rock and is usually conspicuous because of a pile of freshly excavated earth. Side entrances are smaller and better hidden. Tunnels lead to an enlarged chamber 3-6 feet underground containing the nest.

The woodchuck's importance as a builder of homes for other animals is significant: skunks, foxes, weasels, opossums, and rabbits all use woodchuck burrows for their dens. Also, as they move tremendous quantities of subsoil as they dig, woodchucks contribute much to the aeration and mixing of soil.

Just as I was going to harvest my rejuvenated parsley and dill, a new menace showed up and this time the chicken wire did not make a difference. There—ignoring me—were several very hungry caterpillars. I gave up!

But the final results were most pleasant. This year I had plenty of butterflies in my yard and the parsley and dill helped feed the Black Swallowtails.



Papilio polyxenes, Black Swallowtail, American Swallowtail



Swallowtail caterpillars feasting on my parsley (different instars)

The Eastern Black Swallowtail is one of our most common and most studied swallowtails. Although it is admired for its beauty, it is one of the very few butterflies that may occasionally be considered a pest. It has been known by a variety of other names including black swallowtail, american swallowtail, parsnip swallowtail, parsley swallowtail, celeryworm, and caraway worm.

Black swallowtail caterpillars utilize a variety of herbs in the carrot family (Apiaceae) as host plants, including spotted water hemlock—*Cicuta maculata*, poison hemlock—*Conium maculatum*, Queen Anne's lace—*Daucus carota*, and wild parsnip—*Pastinaca sativa*. They will also eat a variety of cultivated herbs like caraway—*Carum carvi*, celery—*Apium graveolens*, dill—*Anethum graveolens*, parsley—*Petroselinum crispum*, sweet fennel—*Foeniculum vulgare*, and common rue—*Ruta graveolens*.

All plant parts of both spotted water hemlock and poison hemlock and some other wild species are extremely poisonous if eaten and may also cause contact dermatitis. Care should be exercised when handling these plants and they should never be planted as caterpillar hosts. A potion of poison hemlock was used in ancient Greece to execute prisoners and is believed to be the poison taken by Socrates. Black swallowtail caterpillars are able to detoxify the furanocoumarin chemicals (particularly the linear forms) in these and other toxic Apiaceae.

Photos of Caterpillars by Carmen Butterfly:

http://entnemdept.ufl.edu/creatures/bfly/bfly2/eastern_black_swallowtail.htm

Groundhog:

<https://nature.mdc.mo.gov/discover-nature/field-guide/woodchuck-groundhog>

Purpose of Chiggers

To annoy humans?

Chiggers or "red bugs," are the larvae of mites belonging to the family Trombiculidae. In humans, chiggers can cause intense itching and small reddish welts on the skin. An infestation like that is called chigger dermatitis or trombiculosis. The intense irritation and subsequent scratching may result in secondary infection.



Chiggers attach themselves to the skin, hair follicles, or pores by inserting their piercing mouthparts. When chiggers attach to humans, they are not usually noticed for some time. During feeding they inject a fluid into the skin which dissolves tissue. Chiggers feed by sucking up the liquefied tissues. They do not feed on blood. They specifically feed on partially digested skin cells and lymph broken down by their saliva. The human immune reaction to a bite prevents the chigger from obtaining adequate nourishment. They rarely survive long enough to complete a meal.

Itching from chigger bites is usually noticed four to eight hours after chiggers have attached or have been accidentally removed. The fluid injection causes welts to appear which may last for two weeks. People mistakenly believe that chiggers embed themselves in the skin or that the welts contain chiggers.

Chiggers are easily removed from the skin by taking a hot bath or shower and lathering with soap several times. The bath will kill attached chiggers and others that are not attached. Since symptoms of contact may not appear for several hours, it is not always possible to completely prevent welts caused by chigger bites. Antiseptic should be applied to all welts that do appear. Temporary relief of itching may be achieved with nonprescription local anesthetics available at most drug stores. Studies have shown that meat tenderizer rubbed into the welt will alleviate itching. I also found that placing a heating pad on the affected area will eliminate the itching.

<http://edis.ifas.ufl.edu/ig085>

Colias Butterfly

Resting on Butterfly Weed At Our Quail Ridge Project

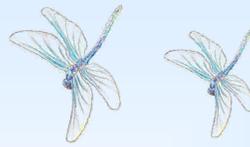
Colias is a genus of butterflies in the family Pieridae. They are usually called clouded yellows; the North American name "sulphurs" is elsewhere used for Coliadae in general. The closest living relative is the genus *Zerene*, which is sometimes included in *Colias*.

Submitted by MN Jim Middleton





Thank You!



We thank all our leaders for a very successful year!

Mindy Batsch, Glenn Bich, Connie Campbell, BOB COFFING, Gail Gagnon, Rick Gray, Martha Hessler, Bob Lee, Leslie Limberg, Alberta McGilligan, Peg Meyer, Jim Middleton, Tom Nagle, Nancy Newcomer, Cliff Parmer, Paul Robbins, Carmen Santos, Allison Volk, and Pam Walsh

♥ Thanks to Elaine Browning (new class) for volunteering to proof-read the newsletter.

♥ AND a warm welcome to new chapter members Elaine Browning, Debora Weaver, Jean Crinean, Jane Fleri, Rick and Dianne Tattich, and Jennifer Holder.

Welcome aboard!



Gray Tree Frog—Just Visiting the Swamp Milkweed ...
MN Carmen Santos

From Our Members



I can't count them all!
MN Leslie Limberg



Quail Ridge is doing its job to help the pollinators
MN Allison Volk

Our Leadership



- President—Alberta McGilligan
- Vice President—Tom Nagle
- Secretary—Martha Hessler
- Treasurer—Peg Meyer
- Advanced Training—Jim Middleton
- Volunteer Coordinator—Glenn Bish
- Membership Services—Allison Volk
- Communications—Leslie Limberg
- Web Site—Rick Gray
- Photography—Don Moyer
- Newsletter—Carmen Santos
- Peg Meyer and Elaine Browning

Advisors

- University of Missouri Extension, Rich Hoormann, hoormannr@missouri.edu
- MDC, Colleen Scott, Colleen.Scott@mdc.mo.gov

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 and Bob Coffing
- Lewis & Clark Boathouse and Nature Center—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
- Missourians for Monarchs—Bob Lee
- Birding Club—Gail Gagnon



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/>

