



## Confluence 2008 Accomplishment Report *by President Jerry Lindhorst*

While we are already off and running on our 2009 volunteer service projects and advanced training opportunities, I would like to thank each member of the Confluence Chapter for all we accomplished together in 2008.

As we have many accomplishments of which to be proud of last year, I have taken the bullet approach so that I don't fill up our great newsletter:

- A number of Confluence members receive award pins for many hours of volunteer service over the 40 hours required in 2008.
- A new member-guest friendly web site, [mmnconfluence.org](http://mmnconfluence.org) was developed allowing members to record both volunteer service and advance training hours and information for visitors about Confluence and the MMN program.
- The first Confluence Membership Manual was published informing members about the Chapter and Q & A about MMN program.
- Twelve new graduates were recruited into Confluence raising the membership total to 46.
- Confluence and Great Rivers Chapter members assisted Greenway Network in its annual Kayak trip down the Missouri River.
- Confluence members also became involved in helping develop St. Charles County 125-acre Spring Bend Park.
- 2008 Capstone Project was approved to get our new graduate members involved in the great outdoors.
- Indian Camp Creek Rain Garden in St. Charles County was nearly completed, but put on hold for planting due to many rains last year.
- Confluence's Stream Team was formed and started chemical monitoring a stream in St. Charles County, La Femme Osage.
- Members were also involved in a snail survey for the LaBarque Creek area in Jefferson County. A number of new species were found.
- The Echo Park project for the City of St. Charles project of monitoring and identifying trees planted by the city in a park by the Missouri River began, but was put on hold due to flooding.
- Confluence's Holiday Party raised more than \$400 to be used for projects in 2009, not to mention all the fun we had socializing with one another.
- The Chapter presented 11 advance training speakers at its meetings for members and visitors.
- A Purple Martin Survey was conducted.
- Environmental Education was held at 15 public schools, grades 1-12.
- Invasive species removal, habitat restoration, litter and river clean ups with St Charles County, City of

St. Charles, Wentzville Parks, Washington County, and Franklin County.

Other member contributions included:

- Wetland mitigation St. Charles County
- Flood water management Lincoln County
- Warren County and Lincoln County prairie restoration
- Rare species research w/MDC Jefferson County
- Trail building St Charles County Parks
- Bird banding and monitoring in St. Louis County
- Participation in national butterfly counts!

OUTSTANDING contributions. Thanks to everyone for making all of the above wonderful contributions to Mother Nature!

## Monsanto Science Teacher Award *By Lee Phillion*

Joan Twillman received the Monsanto Science Teacher award at a banquet Friday evening March 13<sup>th</sup> for the Junior Science Engineering and Humanities Symposium.



Joan, a member of the Confluence Chapter of the Missouri Master Naturalists, retired last year after more than 20 years of teaching science (that was preceded by chemical technician in industry).

She has taught pre-AP chemistry, environmental science, forensic science and helped many students with individual science research at St. Charles West High School, where she was the Envirothon Team sponsor for nine years. She also sponsored the Science Olympiad teams and students who attended the Junior Academy of Science. For the last eight years, Joan has served on the board for the Missouri Consortium for Science Research. She has also published an article in "The Science Teacher" a national magazine.

This most recent honor is just one of many accolades she has received that include: The Academy of Science of St. Louis Outstanding Teacher Award, the Emerson Electric



Excellence in Teaching Award, and the Teacher of the Year Award in the St. Charles School District.

One of her students said, "I can think of no other individual who has made a larger impact on my scientific education by connecting in-class and out-of-class experiences with broader scientific concepts and critical-thinking skills. Though she has coached many winning teams, a dusty shoe box of accolades was never as important to her as her students learning time management, scientific critical thinking, and how to work in teams."



## Rockwood Conservation Area Capstone Project

By Holly Currier



Saturday March 14, 2009 marked the beginning of site work at Rockwood Conservation Area for the 2008/9 Capstone project. The day started out cool but became pleasantly warm as the sun rose higher. Twelve Master Naturalists from both Confluence and the Great Rivers chapters met Kevin in the parking lot of the Rockwood's visitor center and carpoled up to the educational pond.

The amount of clearing work seemed overwhelming at first but as everyone pitched in with clippers, loppers, axes and herbicide, the trees and shrubs began to fall. We were able to clear all of the areas initially laid out in the project plan. We were also able to add some logs to the pond to provide additional cover and habitat for the aquatic critters.

When Kevin returned to the site in mid-April he declared the work day a success. Not many invasive plants survived the groups' removal efforts. However, Kevin and I did visit the site on Friday April 24 to cut back and spray more herbicide over some honeysuckle and winter creeper that had somehow survived. We also marked larger trees which Forestry was going to chainsaw later that Friday.

Saturday April 25 dawned very warm with a projected high of 90 degrees. The work crew, consisting of seven hardy Confluence souls and Kevin, arrived at the pond to be confronted with the necessity of removing all of the trees that Forestry had cut Friday before we could start our planting efforts. What first seemed a daunting task became more manageable, though not easy, as Kevin fired up the chainsaw and began to chop the trees into pieces that we could drag to the brush pile. After clearing trees for nearly two hours we began planting the 18 trees, 60 herbaceous perennials and approximately 75 seedlings. The day was an exhausting but satisfying experience. We were able to step back at the end of the workday and be very proud of what we'd accomplished.

The transformation is nearly complete, with the trees and underbrush gone and all of the new plantings in place the educational pond is renewed and beautiful. Another workday will be needed this spring to wrap up the work at the site for the season. So stay tuned for another workday announcement.

## Name Changes for Amphibian and Reptile Species in Missouri

In October, 2008 the Eastern Tiger Salamander status changed to a full species status? This is just one of many classification changes for the amphibian and reptile species in Missouri.

You are invited to view the complete list of changes on our web site  
<http://www.mmnconfluence.org/documents/moherpnamechanges.pdf>

## Inspired by the Missouri Mushroom Presentation

by Joe Walker

After Maxine Stone's entertaining and informative presentation on Missouri mushrooms at the April chapter meeting, I was motivated to go out early one morning the follow week and see if I could find some of those tasty treasures by myself. I decided to check out some of the woodlands in the Weldon Springs Conservation area, hiking in the cool morning air I trekked off-trail among the Flowering Dogwoods, the May Apples, and the blossoming Sweet Williams and other forest forbs, in search of the Morels that were not to be found. However as I was preparing to head back to the trail-head I did find what later proved to be Chicken-of-the-Woods. Remembering Maxine's advice, I brought back only enough for what I would consume.

To be safe, I contacted Maxine and she was able to confirm that what I found was indeed the Chicken-of-the-Woods, and it would be excellent eating. True to Maxine's promise, they were delicious. Before her presentation, I was not familiar with this edible, so many thanks to Maxine for her presentation and enthusiasm.

## Stream Team

By Cliff Parmer



Saturday, April 11, marked the first outing of our Stream Team on the Femme Osage Creek for this year and we were blessed with a wonderful day. Participants were Leslie Limberg, Sarah and Larry Berglund, Kay LaBanca, Ann Finklang, Holly Currier and Cliff Parmer. Although we received about 1.5-inches of rain on Thursday, the stream was down enough that we could safely wade into it – providing one's boots were high enough.

Our Stream Team performed both chemical and macroinvertebrate monitoring on this outing. There were a couple of interesting surprises in the form of mayflies hatching from the critters we had placed in our counting trays. While those of us with some familiarity with stream

ecology know intellectually of these events, it is quite something else to have it occur before your eyes. As Master Naturalist we were all very excited to be able to witness this miracle of transformation from an aquatic crawling insect to a beautiful and delicate flyer.

## Quail Ridge Purple Martin Houses

by Tom Schultz

I am writing about the Purple Martin Project, but first I would like to say there are some very talented and impressive people in the Confluence Chapter Master Naturalist. I am very happy to be a part of this group. It would not have happened if my best friend, Mindy Batch had not encouraged me to join and signed me up. I just want to thank her. We have a very diverse group from many walks of life, we are lucky.



Now about the Quail Ridge Purple Martins Houses, Tom Mortellaro, Ann Finklang and Tom Schultz met in the parking lot at Quail Ridge. It was very very cold and windy on Saturday February 28th. This was my first time doing anything like this since I was a kid; I made a Purple Martin house when I was younger, about 35 years ago. I remember that we had to clean the house out every fall and do some repair work on it. I also knew we had to get it up before or around the first of March, which we did at Quail Ridge. The cleaning of the purple martin houses was done last fall which made our jobs a lot easier.

We installed four houses around the park, one down by the wetlands area near a pond; incidentally the poles are all permanently in place which was nice. We drove to another location up on top of the hill also near a pond and put up two houses in that location the last one is down in the prairie area.

Now besides being really really cold.....did I mention that? This was a fun day and all the houses are waiting for the arrival of the Martins.



While I was growing up, we had Purple Martins in my back yard and they are a joy to watch. The early birds are just that, early birds coming back up north from the south. It is nice to know if they show up at Quail Ridge it must be a nice stop over for them to rest for a few hours or days. Purple Martins are the largest of the swallow family. They weigh 1.9 ounces or 55 grams and are about 7 1/2 inches in length.

Did you know over one million North Americans put up housing for Purple Martins. Unfortunately, many of these folks are unable to attract breeding martins. Once martins nest at one location, they will come back every year if you manage the site properly

Purple Martins spend the non-breeding season in Brazil then migrate to North America to nest. East of the Rockies they are totally dependent on human-supplied housing. West of the Rockies and in the deserts they largely nest in their ancestral ways, in abandoned woodpecker nest cavities. In the Pacific northwest, Martins are beginning to use gourds and clusters of single-unit boxes for nesting. The pair-bond of the Purple Martin is monogamous. The male and female cooperate equally in building the nest out of mud, grass and twigs. The female lays two to seven pure-white eggs at a rate of one egg per day. The female incubates the clutch for approximately fifteen days, then the young hatch. The parents both feed the young continuously for a period of 26-32 days until the young fledge. The young continue to be dependent on their parents for food and training for an additional one to two weeks after fledging. It's not uncommon for the fledglings to return to their human-supplied housing at night to sleep during this period.

I hope the Martin Houses do well at Quail Ridge, I think they will, perhaps the third year is the charm. I hope everyone stops by to visit the birds and enjoy watching the Martins.

### Indian Camp Creek Rain Garden

*By Connie McCormack*

Thanks to Gary Schneider, Joe Walker, Alberta McGilligan, Carmen Santos, and Scott Barnes for coming out and planting approximately 280 cord grass plugs in the rain garden at Indian Camp Creek.

Gary Schneider made three bat houses for the area and with the help of Ben Grossman and Jerry Lindhorst the houses were installed and they look wonderful.



Joe Walker, Gary Schneider and Connie McCormack moved dirt in order to prevent excess water in the rain garden. This enabled the planting of the grass cord plugs.

With the warmer weather plants became available for planting and the ground was in pretty good shape to let the planting begin.

Confluence members were ready to help with the planting of a wide variety of forbs that were delivered to the site from Forest Keeling Nursery mid April.

Wednesday, April 29th, is our last scheduled planting date which means we have met all of the grants specifics and the garden will be finished (if gardens are ever finished – watering and weeding).

Thank you for hanging in there with me through the past rainy year. I truly believe it will be worth it.

### Cave Cleaning *By Joan Twillman*

Cleaning the cave at Rockwood Reservation should have been classified as Advanced Training! The restoration crew included a group of people who know what they were doing underground including Fearless Leader, Kevin McCarthy and Master Naturalist extraordinaire, Kay LaBanca. There were a number of additional spelunkers in one-piece blue coveralls with bright white LED headlamps. Cave restoration expert, Dr. Bill Elliott of Missouri Department of Conservation and cave technician Jon Beard, who has been doing cutting-edge research for Springfield Plateau Grotto, provided tutorials on how to clean the cave. Then there were a couple of novices, Mary Mierkowski and I, clutching our yellow-beamed flashlights in one hand and trying to get something accomplished with the other. It is probably reasonable to say that the experience was somewhat outside the normal Saturday for the two of us.



## Confluence Chapters Newsletter

Volume No. 03

Issue No. 02

Date: May, 2009

I kept thinking that all of my hours crawling through Bob Cassilly's vision of the caves at the City Museum should have prepared me for this, but we had real bats! And we had puddles of water that punctuated a segment of time spent crawling on our bellies before we turned over to push through on our backs. The brim of my hardhat blocked vision only in the direction that I was headed. Still, I spent at least 80 percent of the trip silently thanking Kevin for providing me with my newly-scarred orange headgear.

The tiny Rockwood's cave has flow stone, cave coral, and tiny stalactites. It also has scratched-in initials and Day-Glo spray paint attesting to the presence of adolescents and others who have yet to learn enough. Perhaps there will be a time when they can understand about magical and rare places so that they can claim the essence without defiling. Until then, we clean.

First we use nylon brushes, catching every bit of dislodged material. When that works, there is no need to escalate. Depending on the surface and the scar, it may be necessary to try a small wire brush or a plastic headed scrubber on a cordless drill. Sometimes, particularly for unusual surfaces, the best that can be done is to mask the problem by covering the stain with the natural dust or wetted material from the cave itself. Every effort is made to make sure that new explorers can see and experience the same cave that was there centuries ago.

I think I'll go back to the cave. There is a lot left that needs doing. It's hard work and it is painfully slow; but if we do it right, new visitors will never know that we have been there. In this case, "progress" may not mean "to move ahead."

### Proposal for 2010 MMN Conference Completed

The 2010 Missouri Master Naturalist Conference is scheduled for Friday, October 15<sup>th</sup> through Sunday, October 17<sup>th</sup> at Cuivre River State Park. The hosts for this exciting event will be the Confluence Chapter and Great Rivers Chapter.

The co chairpersons are: Connie McCormack, Holly Currier Confluence Chapter and John Vandover, Great Rivers Chapter. One of the reasons for selecting Cuivre River State Park was their desire to identify a location that possessed a non-commercial rustic character. Also a location that would effortlessly immerse the attendees into a gorgeous natural environment that possessed a wide variety of differing ecosystems simply waiting to be observed explored and studied.

Planning for next years conference has already started with plans to get input from our members in each of the host chapters and to involve the chapter members to make the 2010 conference a success.

More specific details will be presented at the June chapter meetings. We need your ideas and commitment to reach our goal of making 2010 a successful Conference.

We have a lot of work ahead of us but I know we will meet the challenge and make 2010 Conference the best!

### ??? Did You Know ???

*submitted by Leslie Limberg*

Do you know what stridulation means?

Insects stridulate, particularly the males, by rubbing body parts together to make noise.

This communication system is called stridulation. It's used to attract mates, send warning signals, or claim territory.

Grasshoppers, cicadas, locusts, & crickets (orthoptera) are most famous for this behavior, but other animals also stridulate. Several beetles, some millipedes, even some vipers, tarantulas, & wolf spiders stridulate.

Green grasshoppers & katydids stridulate by means of specially adapted organs under their forewings. Other grasshoppers use their hind legs & fore wings.

Crickets stridulate by rubbing together wing "nervures" (like a phonograph needle dragged across a vinyl record.)

**Please note last newsletter our new member Carmen Santos name was misspelled – our apologies**

**Mark your Calendars for these Upcoming Events**

**Fourth Annual Missouri Master Naturalist Conference and Advanced Training May 15-17, 2009**

Members of the Osage Trails Chapter are putting together what promises to be a fun, interesting, and educational week-end. This is a great opportunity to earn advanced training hours and network with Master Naturalists across the state.



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### Confluence Chapter meeting Busch Conservation Area.

Advance Training Opportunity before our meeting on:  
Tuesday 05/12/09 4:45pm to 6:25 pm (Busch  
Conservation Area)



Kevin McCarthy has offered to repeat his fabulously popular amphibian walk. Once again, please dress for the weather and plan to slog through the wet places where the wild things are.

Tuesday 05/12/09 6:30 pm to 9:00 pm  
Speaker: Ed Leutwiler  
Topic: Purple Martins

Tuesday 06/9/09 6:30 pm to 9:00 pm  
Speaker: Jerry Lindhorst  
Topic: Asian carp

Tuesday 07/14/09 6:30 pm to 9:00  
A special fun/learning program is planned with a presenter provided by Advisor Scott Killpack. President Jerry Lindhorst is requesting all Confluence members to attend and participate.

### Confluence Members Volunteer Opportunities and Advanced Training

Please check our web site: <http://mmnconfluence.org>

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