OUR NEXT CHAPTER MEETING
Thursday August 10th @ 6:30PM
Tour of the New Headquarters of the
Big Muddy National Fish & Wildlife Refuge

NOTE MEETING LOCATION:
18500 Brady Lane, Boonville MO 65233

This month’s chapter meeting will be a tour of the new headquarters of the Big Muddy Fish & Wildlife Refuge with Tim Haller, Visitor Services Manager. The refuge was created in September of 1994 for the development, advancement, management, conservation and protection of fish and wildlife resources. The HQ is about 20 miles from Columbia, I-70 West to exit 111, right on 179, left on 98, right on Brady Lane, see map below. This program is approved for 1 hour of Advanced Training. Members count 1 hour of Advanced Training in addition to 1 hour of service plus travel time. Advanced Training does not require a timesheet code, and does not include travel time. The timesheet code for service/travel time is ADM. All meeting attendees are eligible for the FREE RAFFLE – this month’s item is an Herb Garden Starter Kit & Cool Plant Stick Thing!

Sweets: Phil Knocke  Savories: Chris Egbert  Drinks: Bring Your Own Drinks!
Hello Boone’s Lick Chapter Members!

In case you have not heard, THE GREAT AMERICAN SOLAR ECLIPSE is finally upon us! So this month I am again taking a break from my “Great Naturalist” series because I must tell you some fascinating things about the eclipse that will take place on Monday August 21st – the City of Columbia will be in the path of totality beginning around 1:13pm and lasting for two minutes and 38 seconds. Here are some tips to help you understand and enjoy the thrill of the eclipse, I gathered them from an article in The Week (8/11/17).

Total solar eclipses happen when the moon’s elliptical orbit carries it directly between the sun and the Earth, placing all three celestial objects in perfect alignment. The moon’s shadow then falls across the Earth’s surface, appearing to block out the sun entirely. This total solar eclipse will be the first one to be seen only on American soil since 1776! The path of totality will be 67 miles wide, and will cross through 14 states and will be viewed by 12 million people. Wow!

Weird things will happen during the eclipse! The sun’s brightness in the totality will fall by a factor of 1 million. Temperatures plummet by as much as 20 degrees. Winds fall still. Many animals will think it is dusk -- cows may start walking toward the barn, crickets stop chirping, and birds fly home to their nests.

Scientists learn new things each time there is an eclipse. One study is called “EclipseMob” and involves astronomers across the country using special radio receivers to study the ionosphere (an atmospheric region between 46 and 621 miles above Earth ionized by solar and cosmic radiation). “Citizen CATE” (Continental –America Telescope Eclipse) astronomers from coast to coast plan to splice film footage into the longest-ever movie of a total solar eclipse – about 90 minutes running time.

There are many Conservation Areas in the path that are open to visitors, you can see a map of them here. CA’s near to Columbia include Eagle Bluffs, Three Creeks, Little Dixie Lake, and Prairie Home. Here in Columbia, you might go to the Bradford Research Center or South Farm Research Center.

Last thing: MIND YOUR EYEBALLS during the eclipse – you can seriously jack up your eyes if you look directly at the eclipse without wearing protective glasses. The ONLY time you can look without glasses is during totality (around 1:13pm to 1:15pm) – if you look during this time, you might be able to see Regulus (an extremely bright start next to the sun), and possibly the planets of Mars and Mercury (ahead of and behind the sun, respectively). Enjoy the eclipse responsibly please!

Jill
Jill Edwards
Boone’s Lick Chapter President (2017)
Missouri Master Naturalist Class of 2013
Please email me with questions, feedback, and ideas for future chapter meeting presentations!
Jefferson Farm and Garden and the Heart of Missouri Master Gardeners are teaming up to offer a series of gardening workshops. Participants will learn techniques and tips to create a successful garden this summer and beyond. These fun-filled classes will feature knowledgeable instructors that will engage participants in hands-on learning activities and demonstrations in a relaxed and creative environment. Garden workshops will take place the second Tuesday of each month from April to September.

**Tuesday September 12 from 5 to 7pm - Putting the Garden to Bed** - Give your garden a head-start for next year’s growing season. Learn some techniques to prepare your garden for winter through composting, planting cover crops, and applying mulch covers to planting beds.

Visit [www.jefferson.cafnr.org](http://www.jefferson.cafnr.org) to find the link to register. Cost is $10 per household. For more information call Amy at 573-239-6134 or email dooleyam@missouri.edu. Jefferson Farm & Garden is located at 4800 New Haven Road, Columbia MO 65201.

To request that this opportunity be approved for advanced training, please complete the [Advanced Training Approval Form](#) on the chapter website and email it to MMNATrain@gmail.com.
For updated information on volunteer opportunities, please see the online calendar on the chapter website. Please contact the person indicated for more detailed information on any of the projects. To submit a project for consideration for service hours, fill out a Volunteer Opportunity Approval Form, and email it to MMNVolOpps@gmail.com for consideration.

**Help Needed for “Missouri River Days”**

“Missouri River Days” will take place on **Monday August 28th, Wednesday August 30th and Friday September 1st, 2017** at Eagle Bluffs Conservation Area in Columbia, Missouri **from 8:30 am to 3:00 pm**, with different volunteer options available (including half days). The overall goal is to take the entire 4th grade on the Missouri River over the course of the school year. During this program over 250 students each day will leave their lab coats and pocket protectors behind; to do science, Missouri River Relief style. They will investigate the mysteries behind the longest river in North America and learn what makes it tick. The cottonwood forests and river will be their laboratory. They will get the chance to meet fisheries biologist, ride on a motor boat, investigate the plants that live along the river, and create a watercolor of the Missouri River. They are mostly looking for help with (1) fitting students with life jackets, (2) assisting some of the agency presenters and (3) if volunteers have experience on motorboats/the Missouri River working as deck hands. Volunteers may sign up to help by filling out a crew sign up form or via email to Kristen Schulte, Education Coordinator for Missouri River Relief. **Opportunity Code for Timesheets: MRR**

**ASSIST WITH NATIVE PRAIRIE SEED COLLECTION**

There are many opportunities to assist with native seed collection throughout this summer and fall. It’s an excellent way to learn new species of plants while assisting with prairie restoration in Missouri. See below for a tentative schedule -- locations and times are TBD. Volunteers will travel to different locations within about 45 minutes of Columbia to gather seed for prairie restoration at Prairie Fork Conservation Area. MDC will provide limited transportation; carpooling is encouraged. Chris Newbold, Natural History Biologist for MDC, will send an email a week or so before each trip. Please email Chris Newbold or call 573-815-7901 ext. 3392 to be added to Prairie Seed Collection email list. **Opportunity Code for Timesheets: PRFORK**
2017 SEED COLLECTION SCHEDULE

- Thursday August 17th: Prairie Fork
- Thursday August 31st: Tucker Prairie
- Saturday September 16th: Auxvasse Glade
- Saturday September 30th: Prairie Fork
- Saturday October 14th: Rocky Fork
- Saturday Oct 28th: Prairie Fork or Auxvasse Glade
- Saturday November 4th: Tucker Prairie

YOU CAN FIND EXCELLENT PICTURES AND DESCRIPTIONS OF WILDFLOWERS HERE.

Photo above: Brown-Eyed Susan (Rudbeckia triloba, Aster Family)

Prairie Photo Credit: Suzanne Wright (Class of 2005) – Seed Collecting at Tucker Prairie

Help Remove Invasive Bush Honeysuckle at EcoBlitz 2017
Friday September 8th from 9am to 1:30pm

The City of Columbia will host approximately 200 Columbia Public School students from 4th to 12th grade. The EcoBlitz is a series of workshops run by various professionals in ecology from local institutions (University of Missouri, Department of Conservation, U.S. Fish and Wildlife Service, etc.). Students will rotate through the different workshops to learn about different aspects of the ecosystem. One workshop will be an invasive bush honeysuckle removal effort on site at Indian Hills Park.

Columbia. The invasive species removal workshop requires several adults that are knowledgeable in ecology and invasive species removal to help the students identify plants and learn about the impacts of exotic species. Special Skills Needed: Plant identification skills, experience using hand saw, loppers, and be able to withstand various weather conditions. Excellent communication skills and patience.

Equipment / Clothing Needs: Long pants, boots, t-shirt, hat, insect repellant, water bottle, sunglasses, lunch

Please contact Danielle Fox to sign up to help: Danielle.Fox@como.gov or 573-441-5526

Opportunity Code for Timesheets: COC
UPCOMING VOLUNTEER OPPORTUNITIES

- **Every Wednesday from 7:30am to 4:40pm: 8/9, 8/16, 8/23, 8/30, 9/6 and 9/13:** Birding Trip with Bill Clark (Columbia Audubon Society, in State Park or Conservation Area, fledgling birders welcome – the best way to learn birds is by birding with an expert! Meet at SW Corner of Parkade Center parking lot, call Bill at 573-474-4510 to RSVP. (Timesheet Code CAS)

- **Thursday August 10th from 8am to 10am:** Outdoor Classroom Work Party at Location TBA, see chapter calendar for details, if you have questions email Lea Langdon or call 573-864-7647. (Timesheet Code SOC)

- **Friday August 11th from 6pm to 8pm:** Fun Family Fishing Nights at Jefferson Farms, need volunteers to help run the event and to help teach people how to fish, contact Amy Dooley, 573-239-6134 (Timesheet Code MUJF)

- **Saturday August 12th from 8am to 11am:** Columbia Crawdads Stream Team Cleanup, email volunteer@gocolumbiamo.com or call 573-874-7499 for location. (Timesheet Code COC)

- **Thursday August 17th:** Prairie Seed Collection in Evening, more info above, email Chris Newbold to be added to the email list or call 573-815-7901 ext. 2870 for more information. (Timesheet Code PRFORK)

- **Thursday August 31st:** Prairie Seed Collection in Evening, more info above, email Chris Newbold to be added to the email list or call 573-815-7901 ext. 2870 for more information. (Timesheet Code PRFORK)

- **Friday September 8th from 9am to 1:30pm:** EcoBlitz Invasive Removal Workshop, more info above, email Danielle Fox to sign up or call 573-441-5526. (Timesheet Code COC)

- **Saturday September 9th from 8am to 11am:** Columbia Crawdads Stream Team Cleanup, email volunteer@gocolumbiamo.com or call 573-874-7499 for location. (Timesheet Code COC)

ADVANCED TRAINING OPPORTUNITIES

For updated information on advanced training opportunities, please see the online Chapter calendar. To submit an opportunity for advanced training consideration, use the form on the chapter website and email it to MMNATrain@gmail.com.
Register to Attend the Missouri Bird Conservation Initiative’s Annual Conference (Friday Evening August 18th and Saturday August 19th in Columbia MO)

The Missouri Bird Conservation Initiative (MoBCI), a partnership group of 72 organizations, will hold their annual conference August 18th and 19th at Peachtree Banquet and Catering Center in Columbia. This year’s theme is “Celebrating 40 Years of Missouri Natural Areas: The Importance of Natural Areas to Bird Conservation in Missouri”. The Keynote Speakers will be Rick Thom and Ken McCarty. The sessions will feature present and retired Missouri Natural Areas Committee members who will shed light on how the past 40 years of protection of our state’s best remaining landscapes benefit bird populations. At the conference, you’ll learn about the history of the program and hear updates from MoBCI grant-funded projects taking place in designated natural areas. Registration fee is $45 for regular attendees and $32.50 for guests. Further details can be found here: [https://mobci.net/](https://mobci.net/)

Advanced training does not require a timesheet code – only volunteer hours require you to enter a timesheet code.

**RE-POST: Missouri Natural Areas: 40th Anniversary Tour**
*For Missouri Master Naturalists ONLY*

Led by Mike Leahy, MDC
Designed as advanced training exclusively for Missouri Master Naturalists, this series of Saturday hikes features some of the state’s most unique natural areas. Join Mike Leahy, Natural Areas Coordinator for the Missouri Department of Conservation, and discover Missouri’s natural features. **Reservations are required for each hike. Please RSVP at least seven days prior to the hike to Mike Leahy at mike.leahy@mdc.mo.gov or 573-522-4115, ext 3192.** There is a maximum of 30 participants per hike. Registered participants will be contacted prior to each hike with final details and logistics. Hikes will be held rain or shine. Please dress accordingly. In the event of severe weather, hikes will be cancelled and participants will be notified. Wear appropriate shoes, and please bring water, food, sunscreen, insect repellant, and anything else you may need. An optional “bring your own picnic lunch” will follow the morning hikes.

**TOUR SCHEDULE:**

**August 26 – Stegall Mountain Natural Area at Peck Ranch Conservation Area**, Carter County, 180 miles from Columbia. Explore one of the most scenic and rugged Ozark natural areas from the geologic wonder of Rocky Falls to the wide-open views atop Stegall Mountain’s glades. **Meet:** 9 a.m. at the parking lot on the fire tower access road. From the junction of Hwy 19 and Hwy H in Winona, travel east 5 miles on Hwy H to the entrance sign. Turn right (east) on County Rd. 311 (gravel). Travel approximately 3.25 miles. Turn left (north) on the gravel road. This will take you to the tower site. Information and directions: [http://short.mdc.mo.gov/Z3D](http://short.mdc.mo.gov/Z3D) and [https://goo.gl/maps/oxsEznW2zDs](https://goo.gl/maps/oxsEznW2zDs)

**October 14 – Paintbrush Prairie Natural Area**, Pettis County, 80 miles from Columbia. Explore the golden hues of the native prairie grasses and look for the deep purple blooms of downy gentian. We may see northern harriers soaring above. If time allows, a visit to nearby Friendly Prairie Conservation Area may be included. **Meet:** 10 a.m. at the second parking lot to the east of Highway 65 along Manila Road. Information and directions: [http://short.mdc.mo.gov/Z3z](http://short.mdc.mo.gov/Z3z)
Advanced training does not require a timesheet code – only volunteer hours require you to enter a timesheet code.

**RE-POST: Hike to Hidden Treasures**  
Rock Bridge Memorial State Park  
First Saturday of Each Month  
1:30pm to 3:30pm  
Free!  
Call 573-449-7400 to RSVP

Get to know Rock Bridge Memorial State Park better by participating in hikes that will guide you to hidden treasures of the park, share information about history and nature and provide a service project opportunity (optional) of about 20 min. Included will be special natural features and photos and information from the park's historical research about what life was like back then and about how the park was founded. A small amount of the route will involve walking off-trail. Hikes are free but reservations are required because space is limited. When you call (573-449-7400), you will be given driving directions. Reservations can be made starting one month in advance. Recommended for ages 8 years and up. Children must be accompanied by a responsible adult. Prefer no dogs.

**First Saturday of each month. Come to one or all. Time: 1:30 to 3:30 p.m.**
- **September:** Karst Barn, Shed, Farm, Neat Sinkholes, Prairie
- **October:** Gans Creek, Saunders Cabin Ruins, Fall Color, Bluff-top View
- **November:** Devil's Icebox, Rockbridge Mills, Glacial Relic “Red Rocks”
- **December:** Special Use Area, Coyote Bluff, Bluff-top views

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**NOTEWORTHY**

*See an interesting video or article online? Please share your link via email to mmndragonflyer@gmail.com*

Having a Bad Day? Not After Watching These Baby Bear Cubs Hitching a Ride on their Mama's Back

Interactive Map Shows Where You’d Pop Up If You Dug Straight Through the Earth

Weird Things Happen During a Total Solar Eclipse

National Geographic 2017 Nature Photographs of the Year Contest

Video: Deer Crashes through Front Door of Walnut Cove, NC Taxidermy Shop
London's Natural History Museum Changes Dinosaur Display after 10-Year-Old Spots Error

Video: Skunk with a Cup Stuck on its Head Helped by Kind (and Brave!) Man

These Photos Prove That Hens are the Best Moms in the Animal Kingdom

Video: Orphan Bear Cub Moves to Adopted Home in Russia

New Rift Found in Antarctic Ice Shelf Just Weeks after 1-Trillion-Ton Iceberg Broke Free

National Geographic: 22 Spectacular Pictures of Snakes

Video: These New White Roads Can Cool Down Entire Cities

What to Know When Your Car is Melted by 7,500 Pounds of Slime Eels

Video: Single Wolf Dad Cares For Pups Alone After Mother Shot in Zoo Escape in England

Melting Glaciers Reveal Missing People and a Whole Lot More

Video: Why is this Cardinal Feeding Goldfish?

Study Says Weather Disasters to Impact 2 out of 3 Europeans by 2100

Keep Having a Good Day: Enjoy 15 Pictures of Adorable Baby Animals

OUR NEXT CHAPTER MEETING
Thursday September 14th @ 6:30PM
MU Extension Office
How Climate Change Affects Forest Ecosystems
Presented by Dr. Johann Bruhn, Professor Emeritus, MU Plant Sciences
**Missouri Master Naturalists**

*Boone’s Lick Chapter*

**2017 Officers**

*Please Join Us on Facebook: Missouri Master Naturalist, Boone’s Lick Chapter*

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<td>Jill Edwards</td>
<td>Class of 2013</td>
<td><a href="mailto:MMNblpresident@gmail.com">MMNblpresident@gmail.com</a></td>
</tr>
<tr>
<td>Vice President</td>
<td>Robbie Scholes</td>
<td>Class of 2013</td>
<td><a href="mailto:MMNVicePres@gmail.com">MMNVicePres@gmail.com</a></td>
</tr>
<tr>
<td>Secretary</td>
<td>Sonja Berry</td>
<td>Class of 2015</td>
<td><a href="mailto:MMNSecretary@gmail.com">MMNSecretary@gmail.com</a></td>
</tr>
<tr>
<td>Treasurer</td>
<td>Linda Karns</td>
<td>Class of 2011</td>
<td><a href="mailto:MMNTreasurer@gmail.com">MMNTreasurer@gmail.com</a></td>
</tr>
<tr>
<td>Chapter Historian</td>
<td>Becky Bohlmeyer</td>
<td>Class of 2010</td>
<td><a href="mailto:BohlmeyerR@umsystem.edu">BohlmeyerR@umsystem.edu</a></td>
</tr>
<tr>
<td>Training</td>
<td>Suzanne Wright</td>
<td>Class of 2005</td>
<td><a href="mailto:suzwright7002@gmail.com">suzwright7002@gmail.com</a></td>
</tr>
<tr>
<td>Public Relations</td>
<td>Chris Egbert</td>
<td>Class of 2009</td>
<td><a href="mailto:MMNpublicrelations@gmail.com">MMNpublicrelations@gmail.com</a></td>
</tr>
<tr>
<td>Hospitality</td>
<td>Sally Swanson</td>
<td>Class of 2006</td>
<td><a href="mailto:embroiderit@socket.net">embroiderit@socket.net</a></td>
</tr>
<tr>
<td>Volunteer Opportunities &amp; Project Approval</td>
<td>Phil Knocke</td>
<td>Class of 2006</td>
<td><a href="mailto:MMNVolOpps@gmail.com">MMNVolOpps@gmail.com</a></td>
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**Chapter Co-Advisors**

- Kent Shannon  
  University Extension  
  ShannonD@missouri.edu

- Bob Pierce  
  University Extension  
  PierceR@missouri.edu
To promote awareness and citizen stewardship of natural resources through science-based education and community service.