

## Your Key to Discovering the Natural Missouri

February 2020, Volume 14, Issue 01



From  
Our President

While the occasional balmy day in January made me think ahead to Spring, it remained obvious that it was still Winter in Missouri.

I will admit that I am one of those who enjoys the seasons that our state provides, and just when I get really tired of the season—it changes. I think we are lucky to have such diversity in our weather.

I enjoy a good snowstorm in Winter as well as a good thunderstorm in Spring. I cannot say that I look forward to the major flooding that we have experienced in recent years. Unfortunately, that seems to be something that we will have to get used to.

In the coming months, we will hear from leads from our various chapter projects. Confluence

chapter continues to offer a variety of interesting projects, with more on the horizon. I encourage everyone to step out of their comfort zone, and take on something new.

I do not think you would be disappointed.

*We are all stewards  
of our environment.*

*Martha*

Martha Hessler  
President, Confluence Chapter



### Northern Long-eared Bat

A medium-sized bat, the Northern Long-eared Bat is between 3-4 inches long with a wingspan of 9-10 inches. It has medium to dark brown fur on its back while its underside is tan or light brown. This species also has a relatively long tail which is approximately one-third its total length. It is a member of the *Myotis* bat family. The term "Myotis" means "mouse ears." The Northern-long eared bat is easily distinguished by its long ears. They weigh between 6-9 grams—about the weight of 3 pennies. Females are usually slightly larger than males.

The population status of North-

ern Long-eared Bats is bleak. In 2006, White-nose Syndrome was first detected in hibernacula in New York. Since then, the disease has been transferred from hibernacula to hibernacula and rapidly spreads from New York across much of the eastern United States.

Other causes of population decline are due to extensive logging and tree thinning of their forested habitat, human disturbance while hibernating and mortality from wind farms. Human activities have caused changes in cave climate which effect the bat's hibernating.

Northern Long-eared Bats are listed as a federally threatened species and are endangered in Missouri

Picture by Jomegat—  
<https://commons.wikimedia.org/w/index.php?curid=6709641>

Missouri Master Naturalist  
2020 Certification Pin



Northern Long-eared Bat  
*Myotis septentrionalis*



A partnership of the [Missouri Department of Conservation](#) and [University of Missouri Extension](#)  
To engage Missourians in the stewardship of our state's natural resources through science-based education  
and volunteer community service.

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## GBBC Bird Count

By MN Leslie Limberg

Again, for the 12th year in a row Confluence Chapter birders gathered to count birds and identify species this February.

Ten of us stood indoors at windows with binoculars and scopes in the warmth of a wood stove at Leslie's house in New Melle.

Birders collaborated for three hours finally identifying 18 species and 122 birds; on & off gorging on Sue's luscious baked goods and sipping on hot chocolate



and coffee. Such an exquisite Winter day volunteering and learning about our hard-wood forest habitat!

Our data was added to 187,000 other counts worldwide with a species count of over 6,400 and a bird count of over 28 million, all collected by the Cornell Lab of Ornithology.



The Confluence Chapter of the MO Master Naturalists contributed approximately 870 hours to St Charles County during 2019.

### PARKS:

Towne Park, Spring Bend, Quail Ridge, Brommelsiek, Veterans Tribute,

Hays Matson Hill & Daniel Boone Home

### PROJECTS:

- Native Plant Gardening
- Bluebird Monitoring
- Amphibian Monitoring
- Stream Team Monitoring
- Ecological Restoration:



Seed Collection & Distribution  
Glade Restoration  
Outdoor Education



We thank the St Charles Parks Organization for the collaboration and partnership!

## For the Birds

Submitted by MN Sue Stevens

Last year the Wild Bird Rehabilitation center treated a record number of birds and experienced some extraordinary situations, both man-made and environmental.

Area floods caused the Mississippi River to back up into the Des Peres which flooded out the Cliff Swallows nesting under the overpasses. A brave rescuer saved 35 nesting Cliff Swallows as they floated down the river. This presented a challenge for volunteers and staff feeding baby birds every twenty minutes from dawn to dusk. The Cliff Swallows were eventually re-

leased after flood waters receded.

Tree removal in the roockery near St. Louis University left four Heron nestlings homeless. Various methods were attempted to lure the mother to care for these nestlings but they were unsuccessful and the Herons were brought to the center. After five weeks of care they were released in a marshy area. In total, the center treated twenty Herons this year.



There were a record number of Chimney Swift patients. As a bonus the center had Swifts nesting in the chimney towers in the center's property.

For more information on the center and on volunteering contact Master Naturalist Sue Stevens.

Blue Heron Photo by Terry Foote  
Photo of Chimney Swift—Public Domain





The United States will join the **One Trillion Trees Initiative**, an ambitious effort to bring together government and the private sector to plant new trees in America and around the world.

Planting and restoring trees, along with sustainable forestation practices, are some of the most beneficial means to protecting our environment, sustaining land and resources, reducing carbon in our atmosphere, and ensuring a natural environment for various species and wildlife.

In joining the initiative, the United States will continue to show strong leadership in restoring, growing and managing our forests.

Healthy forests capture carbon dioxide in the atmosphere. In fact, trees are among the most efficient carbon offsets. In 2017 alone, American forests and lands absorbed enough carbon dioxide to offset more than 11% of our nation's emissions that year.

Tree Photo by Brian Green under the Creative Commons Attribution-Share Alike 2.0 Generic license.



### New Test Identifies Poisonous Mushrooms

Edible and toxic mushrooms gathered from the wild can be hard to tell apart.

A simple, portable test that can detect the deadliest of the mushroom poisons in minutes has been developed by Agricultural Research Service (ARS) scientists and their colleagues.

Eating toxic mushrooms causes more than 100 deaths a year, globally, and leaves thousands of people in need of urgent medical assistance. Amanitin is the class of mushroom toxins that cause the most serious issues.

The new test can identify the presence of as little as 10 parts per billion (equivalent to 10 cents out of \$10 million) of amanitin in about 10 minutes from a rice grain size sample of a mushroom or in the urine of someone who has eaten a poisonous amanitin-containing mushroom. The test also works with dog urine, as dogs are known to indiscriminately eat mushrooms.

No definitive point-of-care clinical diagnostic test currently exists for amatoxin poisoning. Early detection of amanitin in a patient's urine would help doctors trying to make a diagnosis.

The test also could be a practical and definitive way for mushroom foragers to identify and avoid eating mushrooms with amanitin toxin if a commercial partner can be found to produce and market a test kit. This test is the most sensitive and reliable field method available to chemically identify amanitin-containing mushrooms. Although mushroom experts can identify deadly mushrooms just by looking at their appearance, experts cannot see the toxin chemicals that lurk inside.

Still this test only identifies the presence or absence of this specific class of toxin; it does not detect other compounds such as hallucinogens or toxins that cause other gastrointestinal or neurological symptoms. So, it cannot determine if a mushroom is edible.

Mushroom hunting has gained in popularity in the last several decades. A single mushroom identification group on Facebook, among many, has more than 166,000 members. Foraging for mushrooms is popular throughout most of Europe, Australia, Japan, Korea, parts of the Middle East, and the Indian subcontinent, as well as in Canada and the United States. Distinguishing toxic from nontoxic mushroom species is based on first correctly identifying the mushroom and then referencing a mushroom field guide to determine if it is known to contain toxins or not. But mushrooms of the same species can vary in appearance, especially at different life stages and habitats, making them very difficult to identify.

Many poisonous mushrooms closely resemble edible wild mushrooms. For instance, the Springtime Amanita (*Amanita velosa*) is a highly desirable edible wild mushroom in the Pacific coastal United States. But to the untrained eye, it can appear similar to the Death cap mushroom *A. phalloides*. The Death Cap accounts for more than 90 percent of fungus-related poisoning deaths in Europe.

The new test is an immunoassay and depends on a very specifically reactive monoclonal antibody—a lab-produced protein that detects and binds only with a specific target.

Scientists from the University of California-Davis, Pet Emergency and Specialty Center of Marin and Centers for Disease Control and Prevention also contributed to this project.

Read the entire article at  
<https://www.ars.usda.gov/news-events/news/research-news/2020/new-test-identifies-poisonous-mushrooms/>

<https://www.ars.usda.gov/>



## Master Naturalists in Action

"Thank You" letter for sharing mulch and some assistance with garden club last year at Frontier Middle School.

The mulch worked great for our native pollinator planting at the school and the extra was appreciated by the garden club.

MN Jerry and Jeanice Kaiser



Tracy Bono and Elaine Browning at The Winter in the Woods festival at Rockwoods CA



Liberty

## Eagles Day at Chain of Rocks



MN Tracy Bono during Eagles Days



MN and other Volunteers



MN Jean Harmen and volunteer with Liberty the eagle



Missouri Master Naturalists:

I can't thank you enough for all your support with the garden! The mulch tremendously helped reduce weeds. Watering was also crucial to care for the garden. We were able to feed 18-20 families this summer with the produce from the garden! Your service at FMS is so valuable!

Yours truly,

LORI

Browning

Elaine

Jackson

Erica

Ashley D

Elijah

Jackson

Jackson W.

London

Peyton

Philippe B.

London

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# More Naturalists in Action

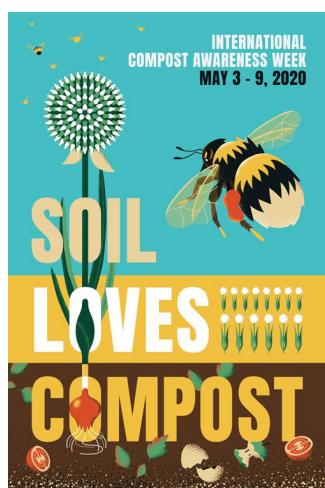
Gary Wester, Jane Porter, Elaine Brown-ing, and Gail Gagnon at-tended the training at The Audubon Cen-ter at River-lands on nest box protocols and Kestrel boxes. The program has eight Bluebird houses and ten Kestrel boxes. They need vol-unteers to monitor the boxes from ear-ly March until September.



An endoscopic camera is in-serted in the



opening of the nest box to check the status of the nest.



## Al Foster Honeysuckle Hackers

The Al Foster Trail is along the Meramec River just south of Rockwoods CA.

Take a look at what we did with 40 high school kids... the last pho-to really says it all



Thanks to Bob Virag of Great Rivers Chapter ( an excellent project leader ). A handful of the Confluence Chapter members hopped on board



May 3 to 9  
is Compost Week!





**POLLINATOR HABITAT  
RESTORATION PROJECT  
CONFLUENCE CHAPTER  
MISSOURI MASTER NATURALIST  
HAYS-MATSON HILL "UPPER FIELD"  
SUBMITTED BY: MN PHILLIP R. RAHN  
JANUARY 2020**



MN Phil Rahn

A Pollinator habitat restoration project was initiated on a 4.4 acre fallow field at the new Hays-Matson Hill park in St. Charles County. The field is located southeast of the old stone home located at the end of Stub Road, off Highway F, approximately 3 miles west of Highway 94. The field is situated on a slight slope with a northwest exposure, surrounded by oak-hickory woods and is open fallow with mixed grass and broadleaf vegetation that is dormant for the winter.

St. Charles County Parks Department personnel and Master Naturalist volunteers hand seeded the site on January 2020. The seed used in this planting was collected during the 2019 year by volunteer Master Naturalist members from locations in St. Charles and St. Louis Counties. An approximate list of species planted is as follows:

- Coreopsis; Lanceleaf and Plains

- Purple Coneflower (some other species as well)
- Tickseed, False, and Oxeye Sunflower
- Black-eyed Susan, and Rudbeckia Sullivant
- Wild Bergamot
- Common Milkweed
- Rattlesnake Master
- Foxglove Beardtongue
- Golden Alexander
- Grayhead Coneflower
- Prairie Blazing Star
- Goldenrod
- Joe Pye Weed
- Heath Aster
- New England Aster
- Downy Skullcap
- Cardinal Flower
- Eastern Blue Star
- Blue Lobelia
- White Crownbeard
- Mountain Mint
- Ohio Spiderwort
- Purple Headed Sneeze Weed
- Little Bluestem (small area)
- Side Oats Gramma (small area)

Site follow up and maintenance will be done by Parks Dept. personnel and volunteer Master Naturalists, and will include, but not limited to, mowing, re-seeding, spot treatments for invasive species, and installing signage.

This site will also be used as a seed source area for further pollinator habitat restoration projects

**So What Is Ecological Restoration?  
By MN Leslie Limberg**

So exactly what did we do last month at the Daniel Boone Hays property with Phil as our leader?

What is seeding a prairie?

OK, imagine this...  
Eight of us... lined up in a row  
eight feet apart across the bottom

edge of the field.

Slowly we walked up the length of the field, each with a half bucket of seeds. As we walked, we grabbed some seeds and tossed them out to the left and then to the right. We did this all the way to the end of the field.

Here we filled up the buckets again, turned around & walked back doing the same 'grab & toss—loose fist routine.

That's it! (put this on your bucket list )

Soo awwwwesome ... so sweet ... a caressing the earth ... no cell phone, no i-pad, no TV ... no screens allowed.

This simple act becomes a morning meditation, an ode to the earth and a dance for plants, for birds, for insects & habitat. It's a special way of connecting to the natural world, an act of caring ... like our ancestral tribes and our very own neighbor Daniel Boone with his grandchildren not so long ago. How precious is that?



Master Naturalist and St Charles County Park Personnel

What other types of Ecological Restoration do we master naturalists do?

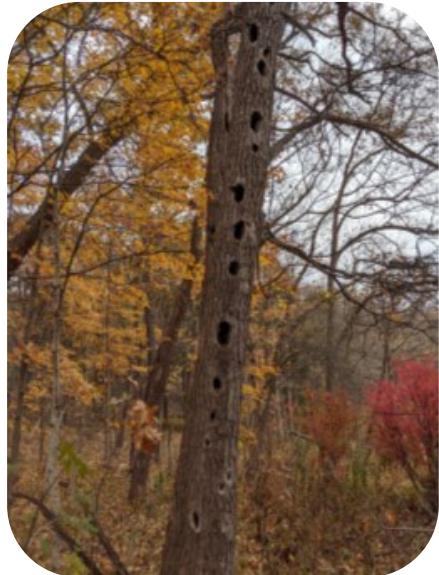
Glade restoration, savannah restoration, native plant propagation and gardening, amphibian habitat restoration & monitoring, native bird restoration, home habitat restoration, honeysuckle removal, and prescribed burning. Perhaps even water quality monitoring could be a form of restoration, rather ecological protection.

To participate in these poetic activities made famous by conservationists worldwide and to experience a deep awe and connection that takes your breath away, contact Volunteer Service Chair, Alberta McGilligan. Next adventure is with Steve Teson in Late February/ early March, traipsing through woods, hunting down Spotted Salamanders in vernal pools. Thanks Mr. Boone, you made my day.



## From Our Members

MN Paul Crombie



### Rooms for Rent

The tree is an old Sassafras and still alive. Sassafras are short lived so this one is about as big as they get on this property. They make great sweet smoking wood for BBQ but rot quickly when dead on the ground. They have a nice layered structure that fits well into a Japanese garden design. The seeds are very hard to beat the birds to. I do not

know what has been using these apartments. We have quite a few trees drilled like this including Cedars.

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This a Maple that at one time a had two leaders. Some mechanical force pushed the smaller stem into the larger and they fused. The tree is alive with no wound or dead wood ...it's smoothly fused to create a window.

From MN Jim Middleton  
Nov. 16, 2019

This is a bush honeysuckle cutting at Shaw Nature Reserve.

Mike Saxton, Ecological Restoration Specialist at SNR, is on the far left of the group picture. Mike is a great team leader and authority on Shaw and the many projects that have gone on there over the years.



This area is down the hill from the Freund Farm at SNR. I was fortunate to be out there that day, too.



place. For more information, email: [PPQ.Citrus.Health@usda.gov](mailto:PPQ.Citrus.Health@usda.gov)

USDA's Animal and Plant Health Inspection Service's (APHIS) new Citrus website delivers a comprehensive, single resource for stakeholders and the public. Now users can quickly find information about citrus pests and diseases, explore interactive quarantine maps, view the latest regulations by pest or State, and report signs of citrus pests and disease—all in one



When **honeybees** get stuck in water, they create their own waves and 'surf' to safety, writes Russell McLendon in an article for [Mother Nature Network](#).

Bees need water just like the rest of us. A honeybee might fly several miles to find a good water source, both for drinking and to help regulate the temperature of her hive. Sometimes, though, a thirsty honeybee gets more than she bargained for, and instead of water ending up in the bee, the bee ends up in the water.

That's worse for the bee than it might sound. Honeybees can't swim, and when their wings are wet, they can't fly, either. But as a new study reveals, honeybees do have another, less obvious option to save themselves from drowning: surfing.

While water prevents a bee from flying by clinging to her wings, that same phenomenon apparently provides another way to escape. It lets the bee drag water with her wings, creating waves that can propel her forward. This wave pattern is symmetrical from left to right, researchers found, while the water behind the bee develops a strong, large-amplitude wave with an interference pattern. There is no big wave or interference in front of the bee, and that asymmetry nudges her forward with a tiny amount of force.

The motion of the bee's wings creates a wave that its body is able to ride forward, it hydrofoils, or surfs, toward safety.

Bee photo: Creative Commons (CC) by Lyad Tibi, own work,

See more about this article and Russell at links below:

[Russell McLendon](#)

<https://www.mnn.com/earth-matters/animals/blogs/honeybees-make-waves-surf-avoid-drowning>

## Pollinators Benefit Farmers



In the early 1900s, farming looked much different than it does today. Most farms were small and grew a variety of crops. Rotating crops and introducing legumes such as clover or velvet beans were common practices used to improve soil fertility.

The next big leap in farming was for large, industrial operations to grow only one crop. Small farms merged to become big ones, and smaller farmers began planting crops from fence row to fence row.

The result was monoculture farming and the loss of wildlife-friendly fence rows, leading to a loss of iconic species such as bobwhite quail. What was not as well-known was the effect on native pollinators.

While butterflies, moths, beetles, flies, hummingbirds and bats help pollinate, bees are the workhorse of pollinators. Although most of the food we eat today comes from wind-pollinated plants like wheat and corn, every fruit, nut, or vegetable requires animal pollination to produce a crop.

Most people think of honey bees when it comes to pollinating crops. Their hives are trucked all over the United States to provide pollination services to farmers. But these services are not free, and Ag producers are paying more and more for these little helpers. In 2006, honey bees were struck with colony collapse disorder, or CCD for short. CCD wiped out almost 50 percent of the honey bee colonies. With crops like almonds, that require over a million hives in California alone, competition for pollinator services from honey bees became fierce. Prices for renting colonies began to rise.

CCD, is not the only threat reducing honey bee availability. Honey bees are vulnerable to a wide variety of viruses, bacteria, and other pests such as varroa mites. Combine all this with an industry that isn't recruiting enough new young bee keepers and you have a recipe for disaster.

Are farmers wise to rely on one species alone? Especially one that seems to be declining in numbers and costing more each year to rent from bee keepers? Maybe not, but we don't have to rely on honey bees alone for pollinating our crops. There are 20,000 species of bees worldwide and 4,000 of those are found in North America.

How many can you name? Most people know less than a handful, maybe the only native bee you can name is the bumblebee. But they are also in decline from habitat loss and disease. Native bees are excellent pollinators, but most are ground nesters or nest in the hollow twigs of plants like blackberry. Ground nesting and farming do not go together well when most fields are tilled annually, and modern farming practices have eliminated fence rows with plants and shrubs for nesting. But creating habitat for bees can be as easy as planting a wildflower strip or hedgerow near fields in uncropped portions of the farm.

The question many farmers may ask is whether planting a few strips of wildflowers or hedges can really increase production? For farmers who plant soybeans, peanuts, vegetables, or fruit trees the answer is yes.

Ongoing research in the United States and in Europe confirm that adding pollinator strips near farm fields increase crop yields. Wildflowers and hedgerows near crops increase the diversity and numbers of bees to pollinate the fields. Bees never feed on only one plant all the time and need a varied source of pollen and nectar for a healthy diet. A healthy diet means better survival and population growth. Pollination services provided by a diverse assemblage of wild bees can lead to better pollination in some crops than can be achieved by honey bees alone.

Areas that are not useful for planting, such as pivot corners or idle areas, can be used to grow wildflowers or shrubs that attract bees. It is ideal to have a mix of at least four species of plants and make sure there is at least one plant from the mix blooming during each season.

by Arlo Kane, Private lands biologist, Landowner Assistance Program Florida Fish and Wildlife Conservation Commission

# Skunk Cabbage

Submitted by MN Beth Zona



Mild winter temperatures along a stretch of North Carolina's Blue Ridge Parkway in Watauga County have resulted in the growth of a fetid-smelling pod that, despite its odor, has the uncanny ability to create enough heat to melt snow around it.

*Ymplocarpus foetidus*, commonly known as skunk cabbage or eastern skunk cabbage (also swamp cabbage, clumpfoot cabbage, or meadow cabbage, foetid pothos or polecat weed), is a low growing plant that grows in wetlands and moist hill slopes of eastern North America. Bruised leaves present a fragrance reminiscent of skunk.

The eastern skunk cabbage is native to eastern North America, from Nova Scotia and southern Quebec west to Minnesota, and south to North Carolina and Tennessee. It is protected as endangered in Tennessee.

"Equipped with a chemical process that heats this early bloomer up to over 55 degrees Fahrenheit, these stinky members of the Arum Family can even melt snow in order to bloom. Talk about determination!" National Park Service Facebook page.

Photo by Sue Sweeney. - The Monday Garden. Archived at <http://ontariowildflowers.com/mondaygarden/article.php?id=158>, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=98779>

## Mice and Mushrooms:

### Non-Picky Eaters More Effective at Spreading Spores

Small mammals such as mice and chipmunks who are not picky eaters play a more important role than previously known in dispersing the spores of wild mushrooms and truffles, according to new research from the New Hampshire Agricultural Experiment Station at the University of New Hampshire.



These new findings are important as mycorrhizal fungi are key components to forest sustainability and health. Fungi colonize plant roots and assist with water and nutrition uptake. All tree species in New England form this mutualistic association, and some

tree species cannot survive without mycorrhizal fungi.

Mushrooms and truffles are key components to forests where they colonize the roots of plants and assist with water and nutrient uptake.

They also play a fundamental role in helping reestablish plants following disturbances such as wildfires, volcanic eruptions, and the retreat of melting glaciers.

Scientists spent three years collecting and analyzing more than 1,200 scat samples collected from small mammals at the Bartlett Experimental Station in the White Mountain National Forest to determine the types and amounts of spores they are dispersing.

Read the full UNH article:

[https://colsa.unh.edu/nhaes/article/2020/02/miceandmushrooms?utm\\_content=&utm\\_medium=email&utm\\_name=&utm\\_source=govdelivery&utm\\_term=](https://colsa.unh.edu/nhaes/article/2020/02/miceandmushrooms?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=)

This material is based upon work supported by the NH Agricultural Experiment Station, through joint funding of the USDA's National Institute of Food and Agriculture, and the state of New Hampshire.

## Taking an Ecosystem Approach

We can both prevent plant pests and diseases, and tackle them, in environmentally friendly ways—such as through integrated pest management. This ecosystem approach combines different management strategies and practices to grow healthy plants while minimizing the use of pesticides. Avoiding poisonous substances when dealing with pests not only protects the environment, it also protects pollinators, natural pest enemies, beneficial organisms and the people and animals who depend on plants.





## Thank You!

- ♦ Karin Foster and Sue Stevens for the excellent Valentines display and delicious treats provided for our February meeting.
- ♦ Lee Phillion and Leslie Limberg for their educational presentations. Leslie taught us all about hummingbirds and Lee about Lichens. MN Jane Porter says, "Went on a short hike near Jonesburg, MO yesterday, and saw these lichens. Thanks to Lee Phillion's presentation I knew what they were."



### *In Loving Memory of Bill Finklang*

1932–2020

*Bill Finklang was our forever most generous bird house builder.  
He loved us. We loved him.  
Rest in Peace Friend.*

*Bill was the loved husband of MN Ann Finklang, our gardener and original newsletter editor extraordinaire.*

## Other News

- ♦ Please mark your calendars with the following WQM (**our Stream Team**) activity dates, they are all on Saturday 4/25, 6/27, 8/15 and 10/10.

- ♦ High in the Himalayas, large bees are busy making unusual honey. In fact, these are the largest honeybees on Earth—called Himalayan giant honeybees—and they make some of the world's most cherished honey. It's known as mad honey, a reddish sweet goop with psychotropic effects that in small doses are reportedly pleasant.

<https://www.mnn.com/earth-matters/>

[wilderness-resources/stories/worlds-largest-honey-bee-makes-hallucinogenic-honey-you-have-been-crazy-harvest?  
utm\\_source=Weekly+Newsletter&utm\\_campaign=8405423bf4-RSS\\_EMAIL\\_CAMPAIGN\\_MON0210\\_2020&utm\\_medium=email&utm\\_term=0\\_fcbff2e256-8405423bf4-42598397](http://wilderness-resources/stories/worlds-largest-honey-bee-makes-hallucinogenic-honey-you-have-been-crazy-harvest?utm_source=Weekly+Newsletter&utm_campaign=8405423bf4-RSS_EMAIL_CAMPAIGN_MON0210_2020&utm_medium=email&utm_term=0_fcbff2e256-8405423bf4-42598397)



Giant Honey Bee,  
[http://entnemdept.ufl.edu/creatures/MISC/BEES/APIs\\_dorsata.htm](http://entnemdept.ufl.edu/creatures/MISC/BEES/APIs_dorsata.htm)

- ♦ The U.S. Department of Agriculture (USDA) announced that it has invested \$60.9 million in high-speed broadband infrastructure that will create or improve e-Connectivity for more than 11,000 rural households, 81 farms, 73 businesses, 16 educational facilities, 12 critical community facilities and two health care facilities in rural Missouri. This is one of many funding announcements in the first round of [USDA's ReConnect Pilot Program](#) investments. The Broadband ReConnect Program furnishes loans and grants to provide funds for the costs of construction, improvement, or acquisition of facilities and equipment needed to provide broadband service in eligible rural areas.

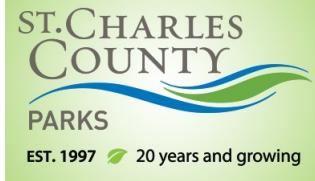




Make your events memorable by booking your events at one of the popular facilities or picturesque areas in the St. Charles County Parks. They take reservations up to two years in advance.

[Quail Ridge Lodge and gazebo at Quail Ridge Park](#)  
[Klondike Meeting Facility at Klondike Park](#)

[Old Peace Chapel and The Grand Pavilion at The Historic Daniel Boone Home](#)  
[Broemmelsiek Visitors Center Meeting Room at Broemmelsiek Park](#)  
[Hilltop Group Area at Broemmelsiek Park](#)  
[Lakeside Pavilion at Indian Camp Creek Park](#)



[Party and Special Event Rentals](#) in the parks

Coming soon! The New Melle Lakes Landhaus at [The Park at New Melle Lakes](#)

To learn more about park[wedding venues](#) and other areas of the parks you can reserve, visit [stccparks.org](#) or call 636-949-7535.

The United Nations General Assembly declared 2020 as the **International Year of Plant Health (IYPH)**. The year is a once in a lifetime opportunity to raise global awareness on how protecting plant health can help end hunger, reduce poverty, pro-

tect the environment, and boost economic development.

They are calling on people, organizations, industries, scientists, and governments to work together to protect plants against the introduction and spread of invasive pests.

The U.S. National Plant Pro-

tection Organization—the U.S. Department of Agriculture's (USDA) Plant Protection and Quarantine—is leading the effort in the United States.



#### Our Leadership

- President—Martha Hessler
- Vice President—Stephen Baldwin
- Secretary—Steve McCarthy
- Treasurer—Alison Robbins
- Advanced Training—Deborah Moulton
- Volunteer Coordinator—Alberta McGilligan
- Membership Services—Tom Holt
- Web Site—Rick Gray and Rob Merriman
- Photography—Dave Lemoine
- Newsletter—Carmen Santos, Peg Meyer, Leslie Limberg and Elaine Browning

#### Advisors

- MDC, Colleen Scott, [Colleen.Scott@mdc.mo.gov](mailto:Colleen.Scott@mdc.mo.gov)
- UMO Extension, Justin Keay, [justin.keay@Missouri.edu](mailto:justin.keay@Missouri.edu)

#### Project Leaders:

- Confluence Chapter Stream Team #3612—Cliff Parmer

- Babler State Park—Alberta McGilligan and Bob Coffing
- Lewis & Clark Boathouse and Nature Center—Tom Nagle
- Quail Ridge Prairie Demo and Rain Garden—Carmen Santos
- Bluebird Monitoring—Connie Campbell and Leslie Limberg
- Nature Explore Classroom Education—Connie Campbell
- O'Fallon Public Works Project—Carmen Santos
- Monarchs & Pollinators Network—Bob Lee and Tom Holt
- Birding Club—Gail Gagnon
- Main Street Garden Martha Hessler and Tom Nagle
- Wild Bird Rehabilitation Sue Stevens
- Daniel Boone Hays—Bob Coffing
- Matson Hill Park—Bob Coffing
- Cuivre River and Don Robinson State Park—Bob Coffing
- Outdoor Classroom, Frontier Middle School—Jeanice and Jerry Kaiser
- Amphibian Monitoring—Steve Teson
- Wetlands for Kids—Glenn Bish and Rob Merriman

- Native Seed Collection & Distribution Phil Rahn
- Native Flower Potting & Distribution Alberta McGilligan
- Past Presidents

Scott Barnes,  
Connie McCormack  
Jerry Lindhorst  
Leslie Limberg  
Cliff Parmer  
Alberta McGilligan



The Confluence Chapter was founded in 2005 as the fifth Master Naturalist chapter in Missouri.

The chapter was formed by twenty-four 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/>