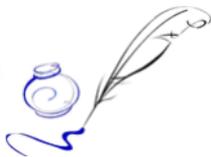




Your Key to Discovering the *Natural Missouri*

March 2022, Volume 16, Issue 01



*From
Our President*

Resolutions, ambitions, goals, changes... these are words that describe what someone can do at the beginning of the year to improve themselves, their surroundings and their relationships. Did you make any?

I always have some in the back of my head, but I don't write them down or say them to anyone because I am afraid of failure. But I did accomplish one goal that I wanted to do since I became president. I made a survey to "take the temperature" of our members and to see what resolutions, goals, ambitions, and changes you thought would help to make us a better chap-

ter. So many of you responded and I thank you for that.

I have put the survey results and some of the comments that were made on the survey in a document so it can be put into this newsletter. At the January meeting, I reviewed the survey and then we had some breakout sessions to discuss some of the questions we asked on the survey. It was a great discussion and we have already seen some results from this.

For instance, most projects now have 2 Co-Leaders so if one has to drop out, there is someone as knowledgeable about the project to keep it going.

Martha Hessler has taken on the role of being our "Fun" leader. A hike at the Hays-Matson park is planned for February 11, and I am sure there will be some other gatherings that don't necessarily involve us doing a project.

If you have some ideas, please let Martha know. Most of you were satisfied with the number of projects that we have, but offered up some good suggestions for Advanced Training ideas. These have been passed along to Deborah

Moulton and her committee.

The lack of a permanent home is still an issue. Most everyone agrees that we are tired of Zoom meetings. It's so much better to have face to face meetings especially to have our Social half hour to reconnect with individuals in our chapter. So I will continue to try to find some place that is convenient for most of our members.

We have a great chapter-and hopefully, no one will be afraid of it failing if we all contribute and share our knowledge.

I am so glad I found this group. It makes me a better person and a better keeper of our Good Earth. Thanks for joining us as we grow together.

Alison

Alison Robbins
President, Confluence Chapter



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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Native Plant Sales this Spring

By MN Deborah Moulton

For Master Naturalist planning to expand their native gardens this year, here are a few of the larger plant sales taking place this spring.

Shaw Nature Reserve: Wildflower Market

May 6 - 3-7 p.m. Missouri Botanical Members Preview

May 7 - 9 a.m. - 1 p.m. Public Sale

Partners for Native Landscaping: Plant Fair

April 10 - 9 a.m. - 2 p.m.

Location: To be announced

MDC Native Plant Workshop: Plant Sale

April 9 - 10 a.m. - 2:00 p.m.

Location: Powder Valley Conservation Nature Center



Missouri Master Naturalist

2022 Certification Pin

Grass Pink

Calopogon tuberosus



Orchid Family (*Orchidaceae*)

Grass pink genus name is derived from the Greek word for "beautiful beard," and the species name is Latin for "tuberous". The unbranched stem grows to 27 inches tall. A single grass-like leaf occurs near the base of the central stem. There are usually one to two short sheaths just above the corm. The leaf is usually much shorter than the inflorescence. The structure of the flower for this orchid is highly unusual because its lip is located at the top rather than the bottom, causing the flower to appear upside down (even though it is right side up).

The blooming period occurs from June to early July, lasting about 3-4 weeks. The slender stem ends in a loose spike-like raceme of 3-10 showy flowers that range from 1-2 1/2 inches across. Flowers are rose-pink to orchid

with deeper colored veining in the sepals and petals and gold and white beards on their tips. The sepals and petals spread outward exposing the anther column, which is the same color. The sepals are sharply pointed, the two lateral ones are sickle-shaped and the lower one is lance-shaped. The two lateral petals are also sickle-shaped though not as sharply pointed as the sepals. The flowers bloom sequentially from bottom to top of the floral spike and are sweetly fragrant. They give way to fat, green pods packed with thousands of seeds maturing in late summer.

Habitat and Distribution This delicate orchid occurs in fens (calcareous wet meadows) and occasionally in moist open woods. Its population is scattered in counties of the Lower Ozark and St. Francois Mountain sections of the Ozark Natural Division in the southeastern portion of Missouri. A similar species, *Calopogon oklahomensis* is found in Tallgrass prairie remnants in the Osage Plains and Springfield Plateau regions at Taberville and Diamond Grove Prairies

Status. Both the grass pink, also commonly called swamp pink, and *C. oklahomensis*, are listed as species of conservation concern.

Faunal Associations Bumblebees and other large, long-tongued bees are the primary pollinators of the flowers. Halictid bees, flies, butterflies, skippers, and beetles also visit the flowers occasionally, but they are unlikely to be effective at cross-pollination. Neither nectar nor accessible pollen are available to such flower-visiting insects. Instead, they are lured by deception to land on the showy flowers. They are often attracted to the colorful pseudo-stamens on the lips of the flower. If the visiting insect

has sufficient weight, the hinged lip of the flower collapses onto its exposed reproductive column, attaching pollinia to the back of the insect. When the same insect visits the next flower, the same process can deposit the pollinia, enabling cross-pollination to occur

[2022GrassPink.pdf \(missouri.edu\)](#)



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Do you know the meaning of this word?

Psithurism?

Pronounced Si-THurism

Turn to last page for Definition





WILD PIGS



By MN Jerry Lindhorst

Following my retirement, I would accept assignments to promote issues of interest to me. A friend came to me saying he represented a prominent gun manufacturer and that company wanted to get more publicity in Missouri. After checking the manufacturer's reputation, I agreed to accept the challenge.

Following research, I came up with what I thought was an exciting campaign to promote the gun manufacture, hunting safety and help eliminate a serious problem for Missouri.

The promotion was quickly approved. The hunter who shot and killed the largest wild pig using a rifle made by the manufacture would win \$25,000.

Unfortunately, a short time later, MDC announced, *"Instead of hunting hogs to help reduce their numbers, individuals and hunters should report feral hog sightings to their local Missouri Department of Conservation agent. They can best determine how to capture and kill entire groups of feral hogs that are in the area."*

Hunting often results in scattering individual animals and prevents other control measures, such as trapping, from being effective. Needless to say, my promotion was called off.

However, I remain fascinated with these wild creatures and wonder if they can really be stopped from the devastation they cause. Explorers from Europe introduced hogs into the

Americas during the 15th and 16th centuries.

Feral or wild hogs are free-ranging animals in 20 of Missouri's southern counties. They are generally a mix of transported Eurasian (also called Russian) wild boars and abandoned or escaped domestic pigs.

Within 6 months a domesticated pig in the wild can develop darker skin, sprout bristles and grows dangerous tusks of up to 7 inches long. They can weigh 100 to 400 pounds or more and reach 3-foot high and 5-feet long.

The Russian Boar differs in appearance from other types of hogs with longer legs, a larger head and a longer snout. They also have four continuously growing tusks, longer hair with multiple splits at the ends of the hair shafts and a mane from the neck to the base of their straight tail.

When fully grown, they consume 3% of their body weight each day devastating farmers' field crops. Feral hogs can root around and literally plow up soil to depths of 2 to 8 inches searching for favorite food items. A group of hogs can damage several acres in a short period of time. They will eat acorns, frogs, reptiles, birds, roots, bulbs, grubs and small mammals like lambs and calves. Their eating endangers the populations of deer and wild turkeys.

Getting rid of these wild pigs is difficult in that sows are sexually active at only 6 months and can breed twice a year birthing 4 to 12 piglets.

These



pigs travel in family groups called sounders, comprising sows and their young. Boars are generally solitary, only joining the group to breed.

Populations began to increase and spread throughout a wider range during the 1990s, when recreational hog hunting began to gain popularity, MDC said. Some individuals started raising European wild boars as a form of alternative agriculture and for hunting on licensed shooting areas. It was not long before some of these hogs escaped or were intentionally released on public and private lands.

Wild pigs can also carry 20 diseases transferrable to humans, including tuberculosis, hepatitis and influenza. They contaminate streams, drinking water and threaten their domestic cousins with the incurable, deadly and highly contagious African swine fever.

On the average, these wild pigs live 4-5 years with some living up to 8 years.





Subnivean

As if under a layer of snow,
hibernation for four days.

Today anticipation
of leaving this den.
As if under a layer of blanket,
a covering of night
mixed with sleep,
The sun beckons
with its brightness
on the glistening snow.
Apricity all around.

A metamorphosis
had been going on
through the nights and days.
No one saw, no one aware,
no one heard the changes
deep in those cellular levels.
It is only
when leaving that home,
that foundation, the cocoon,
the tunnels beneath the snow
that there is an awakening,
a shift.

But the home,
warm with its own
cellular activity,
its own routine and comfort
the space of so much time,
feeling empty, wasted,
no sense of real time.

Just sitting with nothingness,
and its emptiness for creation
Its emptiness for murkiness,
toxins

Me, I choose the former,
creation.
But the reality
it is both.

The miracle is all its mixing.
The product is a work,
never present till now.
Its texture is a taste of Aha,
Vision of what lies ahead,
smells of adventures past
and to come
and the feel of strength
in new found foundations.

It is time.
Apricity cannot be refused.



Jo Ann Shew
Feb. 5, 2022
MO Master Naturalist
Confluence Chapter

Note:
apricity: the warmth of the
sun in winter
subnivean: occurring under
the snow

From MN Paul Crombie Confluence Chapter



Its that time of year to run sap buckets.



Rudbeckia maxima
Giant Coneflower, Great Coneflower, Giant Brown-eyed
Susan, Cabbage Coneflower
Asteraceae (Aster Family)





Survey

MMN-Confluence Chapter Survey Results (Jan 2022)

- Does the meeting time (6 pm-Social Time, 6:30 pm-Adv Training, 7:40-Meeting) work for you? Yes-95%, No-5%
- Do you think the Advanced Training/Field Trips are assisting you in your development as a Master Naturalist? Yes-87%, No-13%
- Do you think we have an adequate amount or variety of Volunteer Service Opportunities available? Yes-87%, No-13%
- Would you be willing to lead a project? Yes-26%, No-74%
- Do you feel your Chapter Officers listen to your suggestions? Yes-97%, No-3%
- Do you feel that the communication to our members is adequate? Yes-93%, No-7%
- Do you have any suggestions about how we can improve our Chapter? Please enter your suggestions in the comment box below.

Comments:

—More social opportunities maybe in conjunction with training field trips to get to know other members better
 —I would like to see what others are working on. I know in the past we have tried different ways to tell the members about various projects some worked better than others. I'm afraid I don't have any good suggestions.
 —Break out sessions so members could get to know each other better, and learn what projects they are doing!
 —oh my, again, I don't have any good ideas. When we feel that we can meet safely, in person, maybe we could liven things up a bit.
 —I believe that the Chapter is excellent. However, I feel that we should develop more of our own projects. As an example, we could develop a pattern of projects to install more specific insect host plants throughout the County. Also, given the Climate change, we should install more drought tolerant native plants wherever we can.
 —We should find a way for more interaction between members
 —more interesting projects that don't require physical labor! More birding activities available — we could use a calendar of upcoming walks for instance.
 —It appears most of our functions are work related projects. It would be good to have some fun get togethers of outdoor activities that we could enjoy as a group hiking, biking, kayaking etc. were we can

get to know people better and share our interest and knowledge in an informal activity. From other chapter newsletters these kind of activities are occurring and highlighted.
 —Use Zoom meetings more.
 —The new system to enter hours made me feel technically inadequate. Maybe come up with an app they could enter on our phones as we complete the service.
 —More participation by members especially in leadership positions.
 —let's start having 2 member lead assignments for our projects
 —This poll is an excellent way to find out what members think on how to improve our Chapter. We should do another one in July
 —Press MDC for an interested and reliable advisor. I'll be pressing MU Extension for another Justin.
 —We need a home, and we need to update our website with current photos that will tell the story of our projects.
 —More outreach into the community for projects, more participation and communication from Alberta about projects.

End of Comments.

- Would you be willing to share your expertise or interests with other members? This could be entered onto our website so that other members could contact you if they have questions or are looking for basic information. Yes-76%, No-24%
- Would you be interested in attending Chapter sponsoring social activities? (i.e. book group, hiking together, meeting for lunch, etc.) Yes-84%, No-16%
- Do you have any other comments or suggestions you wish to make about our Chapter? Please enter your comments or suggestions in the comment box below.

Suggestions:

—I think some of the issues have just been the epidemic and the loss of our meeting place/zoom meetings. People are feeling a disconnect with the group.
 —I think Covid has made the past two years extremely difficult for the chapter. I think the officers and group leaders have done an outstanding job, considering the circumstances.
 —I think all of our officers are doing a tremendous job!!!
 —Boring
 —Continue with virtual meeting during the pandemic, unless an outdoor location is available (starting in the spring).
 —We might like to consider forming SIGs (Special Interest Groups) with members organizing around specific interests: i.e. Native Gardens, Trees, Birds, Eco-Restoration, etc.
 —Leadership officers are doing great with the situation of Co-vid. I think we all look forward to a permanent meeting location in the future, hopefully in 2022.
 —Use Zoom meetings more often.

—the 3 years of Covid has taken a toll on everyone but the leadership has done a great job of problem solving in order to keep the meetings and projects moving. Be glad to find a final meeting place. thanks for the persistence to overcome obstacles.
 —Thanks to everyone for all they do!
 —A change to the FRM method of tracking volunteer hours. I finally gave up on the present method which I will eventually master. Those with a greater computer knowledge get it faster. Each time I thought I was close another block occurred.
 —I think project leads should submit updates/reports to the newsletter more often.
 —Spend some of our dues on appreciation to our members. Other chapters have holiday luncheons, dinners at restaurants where the chapter buys ALL of the meal.



Western Monarch
Thanksgiving Count
Tallies Nearly 250,000 Butterflies

For decades, the Western Monarch Thanksgiving Count has been cataloging the rapid decline of one of North America's most enigmatic butterflies. In a surprising and remarkable outcome, this winter brought a final tally of 247,237 monarch butterflies observed across the West, an over 100-fold increase from the previous year's total of less than 2,000 monarchs and the highest total since 2016.

Read More: [Western Monarch Thanksgiving Count tallies nearly 250,000 butterflies | Xerces Society](#)





What do ten Daisy Girl Scouts and
Two Master Gardeners/
Master Naturalists
Have in Common?

MN Connie Campbell

They, along with another
Master Naturalist, love soil and
plants!

The females joined up at the
Daisy troop 3567 regular meeting at
St. Charles Borromeo on Tuesday,
February 15, 2022. The girls were
working on “The Journey between
Earth and Sky” badge. They greatly
enjoyed viewing, smelling, and feel-
ing the 3 main soil types: loam, clay,
and sandy. These girls did not mind
getting their hands dirty!! They
were able to tell some of the differ-
ences between the 3 types of soil by
assessing the malleability of each
type.

As Deborah Moulton led the
group, the children watched water
run through each kind of soil and
talked about why it was important
for the water to drain through at a
moderate rate. The Daisies observed
the color of the water after it went
through the soil and what the color
told about the ingredients of each
particular kind of soil.

Connie Campbell helped the
girls find out what plants need in
order to survive by using the acro-
nym of LAWNS. The girls learned
about pollinators and why local pol-
linators need native wildflowers,
such as the blooming witch hazel
that Martha Hessler brought to
show. The local birds, bees, and in-
sects need the amount of nectar or
pollen that the native plants have.
Also, non-native plants may be in-
edible to butterfly or moth caterpil-
lars.

Finally, the girls “planted”
milkweed seeds in a peat pot and
learned that the pot should be place
in a like-size hole in their garden.
Mother Nature takes over from
there, giving the plants the proper
moisture, temperature, and light to
grow.



**From
the National Weather Service:
Become a storm spotter for free,
and help your community!**

Do you have an interest in
weather and helping your communi-
ty? We have a great opportunity for
you!

The National Weather Ser-
vice Forecast Office in St. Louis, in
coordination with county emergency
managers, are offering storm spotter
classes at several locations to pre-
pare for severe weather season. If
you would like to assist your local
community by becoming a volunteer
storm spotter and reporting severe
weather to the National Weather
Service, or if you simply want to
learn more about severe weather,
consider attending one of our clas-
ses! Classes are normally held in the
evening and last approximately 2
hours.

Attendees are taught the
basics of thunderstorm development,
storm structure, the features to look
for, and where to find them. What,
when and how to report information
as well as basic severe weather safe-
ty are also covered.

3/14/2022 - St. Charles County EOC:
1400 TR Hughes Blvd., O'Fallon,
MO 63376
6:30-8:30 pm - Limit of 50 people.
Please pre-register by emailing
EOCTraining@sccmo.org or call 636-
949-3023.

A virtual option is available also on
March 21 and April 7. See their
website to register:

[NWS St. Louis 2022 Storm Spotter
Classes \(arcgis.com\)](https://www.arcgis.com)





Master Naturalists in Action



A large group of people from Confluence, Great Rivers, Open Space Council and Friends of Bellevue removed honeysuckle Saturday Dec 11, 2021. Thanks to all who came out for the event. The day started out pretty chilly but we warmed up quickly. You will see some familiar faces from Great Rivers too. MN Alberta McGilligan, Confluence Chapter

O'Fallon City Gardens

MN Frank Dvorak



This project team has been working for several years to establish a rain garden and employ native plants by the

entrance sign at the Streets Department maintenance yard in the City of O'Fallon. These gardens perform ecological functions and add color to an otherwise drab industrial site. Pollinators do find our garden patches despite much of the site being paved.



The rain garden is allowed to 'go wild' and plants spread and mingle. Stormwater runs from the parking lot into this garden thus any-

thing on the pavement ends up here. The rain garden does its part to slow down and filter the stormwater. Several varieties of aster bloom in the fall with a rainbow-like range of hues. We have 'harvested' some exceptionally tall ragweed from the rain garden. (Frank is really tall- 6' 3")



Frank and the Giant Rag-Weed. Photo by MN Elaine Browning

We are a small group that hopes to expand our team. The site is near the T.R. Hughes exit of I-70 in O'Fallon. Work sessions are Tuesday mornings March through October as weather permits. We take rest breaks as



"Secret" Garden

needed and enjoy each other's company. The City of O'Fallon is our partner for this project and they supply most materials, T-shirts, and safety/visibility vests.

Please consider joining our group. Contact Carmen Santos or Frank Dvorak for further information.

The Rain Garden





From Our Members



Swan counting at the Audubon Center at Riverlands. You have to be in place before the sun rises to catch the swans before they wake up & decide to take off to the fields to eat. They sleep in the pools at Riverlands for protection against Coyotes.

MN Joanne Keay



Stream monitoring led by Gary Wester on the Femme Osage Stream. Another cold morning. Parts of the creek too icy for a full monitoring session.



MN Joanne Keay

... one hawk, two hawks and hawks with the moon



MN Frank Dvorak, Confluence Chapter

The Partners for Native Landscaping

(PNL) come together each year to present a program with the goal of inspiring and helping individuals to create gardens that are not only beautiful but are also habitats for native wildlife

PNL is joining with St. Louis County Library's Adult Programming to present a spring webinar series.

All programs are free, but registration is required.

- March 10 at 3 pm-

Doug Tallamy Key-

note- Let It Be An Oak

- March 15 at 2 pm- A 3-Year Suburban Landscape Makeover
- March 16 at 7 pm- Life in the Soil
- March 22 at 2 pm- Native Plant Gardens Brings Pollinators
- March 23 at 7 pm- Investing in Native Trees and Shrubs
- March 29 at 2 pm- Garden Maintenance for Wildlife
- March 30 at 7 pm- Rainscaping with Native Plants

- April 5 at 2 pm- Home-grown National Park www.partnersfor nativelandscaping.org



Submitted by MN Frank Dvorak, Confluence Chapter





The Beauty of Winter

MN Frank Dvorak



A neighbor has a vintage John Deere tractor, so he went for a drive through the subdivision during the last snowstorm.

MN Frank Dvorak



Mini-Winter in the Woods Program Rockwoods Reservation

MN Joanne Key
Confluence Chapter

Here is a picture of Alison & Jack Barnett from Great Rivers chapter, working the pancake booth, on a very cold morning.

There was also Maple tree tapping, and boiling down the sap to make Maple syrup.



Karin Foster worked the Bird table, and Joanne Key worked a table where kids used model magic to make animal tracks, which was a lot of fun.



New members Bonnie and Lloyd Allinder and Karen Sue Stevens are enjoying their time monitoring a couple of Eagle nests in the vicinity of Marais Temp Claire C.A.

They have watched as one great bird left the nest and his or her mate returned to take over egg raising.

It probably will always remain a thrill to see this huge majestic bird in action.

MN Karen Sue Stevens
Confluence Chapter





A Vernal Pond At Matson Hill Park

Photos courtesy of MN Martha Hessler
Byline by MN (intern) Judie Heinz
February 11, 2022

A cold February morning dawned dreary and drizzly, but our intrepid troop braved the mist, mud and muck to hike through Matson Hill Park after the elusive vernal pond.

A merry group we were as we set off, like a flock of bright tropical birds against the backdrop of browns and greys of a late winter Missouri morning.

Under the watchful eyes of a woodpecker and a couple of turkey vultures, the first pond to greet us was still wrapped in its protective winter ice, so on we tromped through the brambles to a second site, with high hopes that this one would have begun the age-old march toward spring's bounty. We were rewarded for our efforts by a vernal mecca of open water.

While Steve set about scooping muck, he and Leslie regaled us with past discoveries of gelatinous egg masses, and sleek, smooth or slimy denizens of the, albeit shallow, deep.



Eureka! Steve's first scoop of the mucky pond yielded gold, in the form of a sleepy adult Central Newt, with its golden orange belly.



However subsequent full nets yielded little but drippy mud and decaying leaves.

With our intrusion announced by some watchdog jays, onward our colorful troop trudged to visit the third pond.

Since our presence had been noted, three whitetail deer fled the scene, leaving behind a glimpse of bounding white flags. However, there were other less fleeting interests to grab our attention as we studied much scat, along our trail, and rediscovered the joy of identifying what had been.

Alas, the third pond was as the first pond, still covered by winter's white blanket, so the next decision was "Lunch?"

Well, the ayes had it, and so we began our journey back. After lightly tripping over the stones and riffles of a small creek, we made it to the vehicles. We removed the evidence of our trek from our feet, and made our way to Chandler Hill Winery for a wonderful lunch, and perhaps a favorite libation.

As all of our brave explorers would attest, a most delightful and delicious way to spend a Friday.



*Study nature,
and you will find
out where all the
truth comes
from.*

*~ Josh Billings
(Henry Wheeler
Shaw, 1818-1885)*





D.I.Y. FunGuide: Grow Your Own Oyster Mushrooms at Home

Oyster mushrooms are relatively easy to cultivate on a variety of lignocellulose substrates, such as wheat straw and even paper. The cultivation can be performed at home, in small-scale mushroom houses, and at large commercial-scale mushroom farms. Mushroom cultivation is entertaining and can be carried out in small spaces without great effort, and it produces delicious products.

There can be so much joy in growing fungi. Oyster mushrooms (*Pleurotus* spp.) are one of the most common mushrooms found on hardwoods throughout the north temperate zone; they also occur on conifers. Many species of *Pleurotus* are commonly cultivated. The oyster mushroom is a saprotroph, meaning it feeds on dead organic matter, mainly hardwood. They can grow on the dead wood inside living trees. Oyster mushrooms fruit throughout the year whenever conditions are favorable. The mature oyster mushroom caps are relatively large, ranging from 2 to 10 inches in diameter and shaped like oyster shells with branching lateral stalks.

The cap is convex at the pinhead stage (a young mushroom when the cap is the size of a pin), but expands and becomes flatter at

maturity. The color of the fruiting bodies may be white, yellow, brown, gray, blue, tan, or even pink, depending on the species and the ambient environment (e.g., the amount of light). Most oyster mushrooms produce copious amounts of white to lilac spores.

Oyster mushrooms are edible, with a taste that varies from mild to strong, sometimes sweet with a scent described as anise or licorice. They have a subtle flavor that blends very well in sauces, soups, and stews, and can be a main ingredient in delicious stir-fry dishes as well. In addition to being delicious, oyster mushrooms are nutritious. They are a low-caloric food packed with nutrients such as protein, B vitamins, and minerals, and they are a good source of fiber. Some oyster mushrooms also contain statin molecules, such as lovastatin, which have cholesterol-lowering effects.

The UF EDIS publication [SL448/SS662: D.I.Y. FunGuide: Grow Your Own Oyster Mushrooms at Home \(ufl.edu\)](https://edis.ifas.ufl.edu/ss663) provides a step-by-step guide for oyster mushroom cultivation at home.

The small-farm cultivators are recommended to read a related UF EDIS publication, "Isolation of Mother Cultures and Preparation of Spawn for Oyster Mushroom Cultivation" (<https://edis.ifas.ufl.edu/ss663>).



A good reference for further information on cultivating mushrooms is the book *Growing Gourmet and Medicinal Mushrooms* (Stamets 2000).

The love of dirt is among the earliest of passions, as it is the latest.

Mud-pies gratify one of our first and best instincts. So long as we are dirty, we are pure. Fondness for the ground comes back to a man after he has run the round of pleasure and business, eaten dirt, and sown wild-oats ...

To own a bit of ground, to scratch it with a hoe, to plant seeds and watch their renewal of life—this is the commonest delight of the race, the most satisfactory thing a man can do ...

Let us celebrate the soil. Most men toil that they may own a piece of it; they measure their success in life by their ability to buy it ...

Broad acres are a patent of nobility; and no man but feels more of a man in the world if he have a bit of ground that he can call his own. However small it is on the surface, it is four thousand miles deep; and that is a very handsome property.

~Charles Dudley Warner, "Preliminary," My Summer in a Garden, 1870





Pleasant-Smelling Wood Oil Not So Pleasant for Biting Ticks, Other Pests

Cedarwood oil can be found in many consumer products—perfumes, soaps and deodorants among them. In addition to its pleasing scent, cedarwood oil also is prized for its insect-repelling and anti-fungal properties.

Ticks aren't insects, but they too are repelled by cedarwood oil, according to recently published findings by Agricultural Research Service (ARS) scientists at the National Center for Agricultural Utilization Research in Peoria, Illinois.

In laboratory studies, the scientists exposed the nymph stages of five, hard-bodied tick species to various doses of cedarwood oil and compared the results to DEET, a commonly used synthetic insecticide.

Found in the heartwood of Eastern redcedar and other juniper tree species, cedarwood oil is among a variety of natural products that the researchers are testing as potentially safer or more sustainable alternatives to traditional pesticides derived from petroleum.

Ticks' hunger for a blood meal is creepy enough much less finding one latched on after a

walk in tall grass or through brush where these flat-bodied arachnids lay in wait for a passing host. Far more concerning, though, is their ability to transmit disease-causing pathogens as they feed. One notable culprit is the black-legged tick, *Ixodes scapularis*, whose bite infects nearly half a million people annually with the bacterium that causes Lyme disease. To make matters worse, some ticks, such as the lone star tick (*Amblyomma americanum*) can induce Alpha-Gal Syndrome, a condition in which the person bitten by the tick develops a severe allergy to meat from livestock and other mammals.

Interestingly, the researchers found different species of ticks exhibit different degrees of susceptibility to cedarwood oil. For instance, the black-legged tick was the most susceptible of the four tick species exposed to cedarwood oil in the experiments. The others, in order of decreasing susceptibility were: brown dog tick (*Rhipicephalus sanguineus*), American dog tick (*Dermacentor variabilis*) and lone star tick (*A. americanum*).

To test for repellency or toxicity to the ticks' nymph stages, scientists treated small pieces of filter paper with microgram amounts of cedarwood oil and placed the papers on short vertical rods. They then released the nymphs and recorded what happened to them upon crawling up the rods and contacting the treated paper. Contact with the oil-treated papers repelled 80 to 94 percent of black-legged tick nymphs, meaning they retreated, moved more slowly or dropped off the rods.

However, the oil's repel-

lency faded with time. More of the nymphs (94 percent) were repelled 30 minutes after the oil had been applied to the paper than after 60 minutes (80 percent). Results such as these are important considerations in formulating the oil as a repellent product that can be applied to bare skin or clothing, for example.

In the experiments, DEET was more repellent than the cedarwood oil for all tick species except the black-legged tick nymphs. Against them, the oil worked just as well.

Full details of the work were published in the journal *Experimental and Applied Acarology*.

Read the article at [Repellency and toxicity of a CO2-derived cedarwood oil on hard tick species \(Ixodidae\) | SpringerLink](#)

We hope that, when the insects take over the world, they will remember with gratitude how we took them along on all our picnics.

~Bill Vaughan in *Kansas City Star*, as quoted in *The Reader's Digest*, 1968





The United States Department of Agriculture’s (USDA) Animal and Plant Health Inspection Service (APHIS) is announcing the expansion of wild bird surveillance for avian influenza to include the **Mississippi and Central Flyways**. This expansion also enlarged the existing surveillance program in the Atlantic and Pacific Flyways, which is in place to conduct surveillance of birds that may interact with wild birds from Europe and Asia.

Wild bird surveillance provides an early warning system for the introduction and distribution of avian influenza viruses of concern in the United States. This surveillance also ensures APHIS and the poultry industry are able to enhance biosecurity measures and rapidly respond to reduce the risk of disease spread.

The United States Department of Agriculture’s (USDA) Animal and Plant Health Inspection Service (APHIS) has confirmed two additional findings of highly pathogenic avian influenza (HPAI) in wild birds – one in Colleton County, South Carolina and one in Hyde County, North Carolina. These finds

follow confirmation on January 14, 2022 of HPAI in a wild bird in Colleton County, South Carolina. All three findings are H5N1 HPAI.

These findings are not unexpected, as wild birds can be infected with HPAI and show no signs of illness. They can carry the disease to new areas when migrating. APHIS anticipates additional wild bird findings as our robust wild bird sampling program continues into the spring.

Since wild birds can be infected with these viruses without appearing sick, people should minimize direct contact with wild birds by using gloves. If contact occurs, wash your hands with soap and water, and change clothing before having any contact with healthy domestic poultry and birds.

Hunters should dress game birds in the field whenever possible and practice good biosecurity to prevent any potential disease spread. Biosecurity information is available at:

[Hunters-Protect Your Poultry and Pet Birds from Avian Influenza \(usda.gov\)](https://www.usda.gov/hunters-protect-your-poultry-and-pet-birds-from-avian-influenza)

After Coming in Contact With Wild Birds on Your Property

- Do not handle wild birds that are obviously sick or found dead.
- Wear disposable gloves while cleaning bird feeders and wash hands with soap and water immediately afterward. If soap and water are not available, use an alcohol-based hand sanitizer. Protecting Yourself Although avian influenza viruses rarely infect people, you should still protect yourself.

To reduce your risk:

- Do not eat, drink, or put anything in your mouth while cleaning or handling game.
- Avoid cross-contamination. Keep uncooked game in a separate container, away from cooked or ready to eat foods.
- Cook game meat thoroughly. Poultry should reach an internal temperature of 165 °F to kill disease organisms and parasites



Highly Pathogenic Avian Influenza (HPAI)





Thank You!

- ☞ Thank you to all who contributed to this Newsletter.
- ☞ Thank you to those who stepped up to be project co-leaders. We are stronger when we share responsibility.
- ☞ Thanks to those who are expanding nature programs for children, our planet's future naturalists.
- ☞ Thanks to Tom Nagle for arranging space at The Extension Center in St. Peters for our next Chapter

meeting, and potentially future meetings.

☞ Thanks to all those in leadership positions and those who are working behind the scenes to ensure our Chapter continues to grow and develop its training programs, and strengthen our partnership with UM Extension and the MDC.

☞ Connie Campbell for her commitment to teaching children, her love of all things nature and her dedication to MMN.

☞ Alison Robbins for her innate ability to organize, coordinate, communicate,

& be gracious while leading a chapter of 80 diverse people.

☞ Elaine Browning for her love of Bluebirds and housing them in her yard.

☞ Martha Hessler for her civic garden prowess, helping kids learn, & hiking w/ naturalists.

☞ Deborah Moulton for her many years coordinating speakers for the Confluence Chapter all the while working & caring for her precious mother.



The Progress South Elementary is having a Native Habitat Garden Clean-Out —Saturday, March 26, 9-12, in O'Fallon, close to Mexico & Hwy K.

Contact Leslie 636-398-8809 llimberg@aol.com for details.



Psithurism?

The sound of wind through the leaves & trees rustling in the wind.

Whispering; a whispering noise, as of leaves moved by the wind.

But, if you ask me:

Trees talking to you. Stop next to a tree and listen. You will hear wonderful thoughts. It will change the way you look at trees.



Our Leadership

- President—Alison Robbins
- Vice President—Stephen Baldwin
- Secretary—Beth Zona
- Treasurer—Jean Crinean
- Advanced Training—Deborah Moulton
- Volunteer Coordinator—Alberta McGilligan
- Membership Services—Tom Holt
- Facebook Page—Gail Gagnon
- Newsletter—Carmen Santos, Peg Meyer, Leslie Limberg and Elaine Browning

Advisors

- UM Extension,



Project Leaders:

- Confluence Chapter Stream Team #3612—Gary Wester
- Babler State Park—Alberta McGilligan
- 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
- Daniel Boone Hays Seeding—Phil Rahn —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 and Leslie Limberg
- Native Flower Potting & Distribution—Alberta McGilligan
- Rockwoods Reservation Native Garden—Karin Foster and Nancy Newcomer
- Belleview Farms—Alberta McGilligan
- Progress South Middle School Garden Clean Up - Leslie Limberg

Past Presidents

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

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/>