Volume 5 Issue 4 Summer 2023

Illinois Forests

Illinois Forestry Association

"The Voice for Illinois Forests"

Inside this Issue...

2022 Illinois Forestry Association Board of Directors

Executive Committee

PRESIDENT
Paul Deizman
Springfield, IL
217/381-9619
pauldeizman1@gmail.com

VICE-PRESIDENT
Tricia Bethke (Region 1)
Naperville, IL
630/234-7325
tbethke@mortonarb.org

SECRETARY
Dave Gillespie (Region 2)
Chatham, IL
217/494-6982
dandgisp@aol.com

TREASURER
Mike McMahan (Region 4)
Vienna, IL
618/977-3415
mcmahan3465@hotmail.com

IMMEDIATE PAST PRESIDENT
Tom Walsh

PROGRAM COORDINATOR
Zach DeVillez
Makanda, IL
618/8410932
zachd@illinois.edu

Regional Directors

Region 1

Brad Petersburg
Galena, IL
641/420-5851
bfp2100@gmail.com

Region 2

Debbie Fluegel
Tremont, IL
309/613-0095
dfluegel@treesforever.org

Region 3

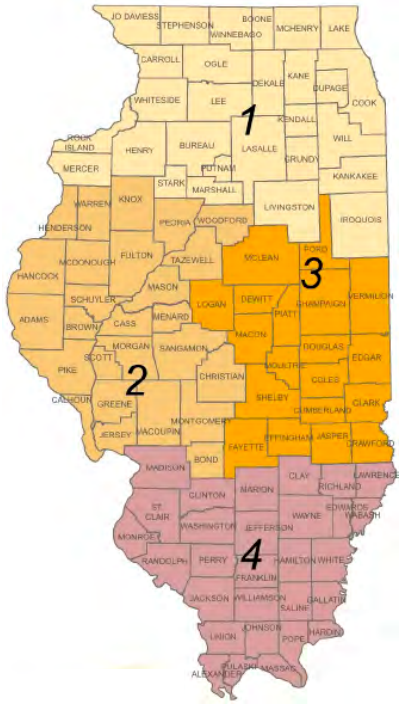
Stan Sipp
Mansfield, IL
217/714-1855
sksipp@illinois.edu

Sarah Vogel
Decatur, IL
217/877-6042
sksipp@illinois.edu

Region 4

Roger Smith
Benton, IL
618/927-2057
smithtreefarmllc@hotmail.com

Bill Buechel
Highland, IL
904/480-0006
wmjbuechel@yahoo.com



Jeff Biethman
Red Bud, IL
618/282-3651
jcbiethman@gmail.com

Gary Hake
Nashville, IL
618/231-3081
teresaandgary85@gmail.com

Landon Satterfield
Benton, IL
270/704-2687
lsatter@siu.edu

IFA Technical Advisors

Chris Evans (Chair)
University of Illinois
Extension Forester
618/695-3383 (office)
cwevans@illinois.edu

Wade Conn
State Forester, USDA-NRCS
217/353-6647 (office)
wade.conn@il.usda.gov

John Edgington
University of Illinois (retired)
217/840-5162
johnedg@illinois.edu

Stan Sipp
Forester
217/489-9003
sksipp@illinois.edu

Gary Stratton
Forester - Retired IDNR
618/736-2854
stratton@hamiltoncom.net

Chris Whittom
IDNR Forest Resources
217/785-8264 (office)
217/280-3659 (cell)
chris.whittom@illinois.gov

Our Mission...

"to act on issues that impact rural and community forests and to promote forestry in Illinois."

Our Goals...

- Promote forest management and help landowners manage their forests
- Educate members and the general public about rural and community forestry
- Advocate for favorable legislation and policies to benefit/protect landowners managing their forests
- Understand and engage our members, and increase IFA membership
- Govern the IFA efficiently and effectively to better serve our charitable mission

https://ilforestry.org

Message From the IFA President

by Paul Deizman

The state fair, summer picnics, tall corn, and sitting in the shade of a cool tree are some of the connections I have with summer. Dig a little deeper and you'll find my true connection is quite simply fishing. No matter one's passions in life, if you ask any person the right questions; truth be told - they deeply adore trees. The following quote came to mind just last week as I pondered under a 200-year-old oak: "The true meaning of life is to plant trees, under whose shade you do not expect to sit." — Nelson Henderson.

As we enjoy summer so many of us are already planning for the next season. As the Fall approaches we have a different set of activities and icons connecting us to the land and forests. One of those things for foresters, and all of you who grow and nurture trees and forests, is the bounty of the seed the trees and forests produce each year. In a healthy upland oak stand hundreds of pounds of acorns, hickory nuts and associated mast are produced each season. The bountiful mast often exceeds 500 pounds per acre and feeds so many critters and creatures there is hardly much leftover for us. Interestingly enough, that 5000 lbs. of seed a healthy 10-acre oak-hickory woods can yield seems never to go to waste.

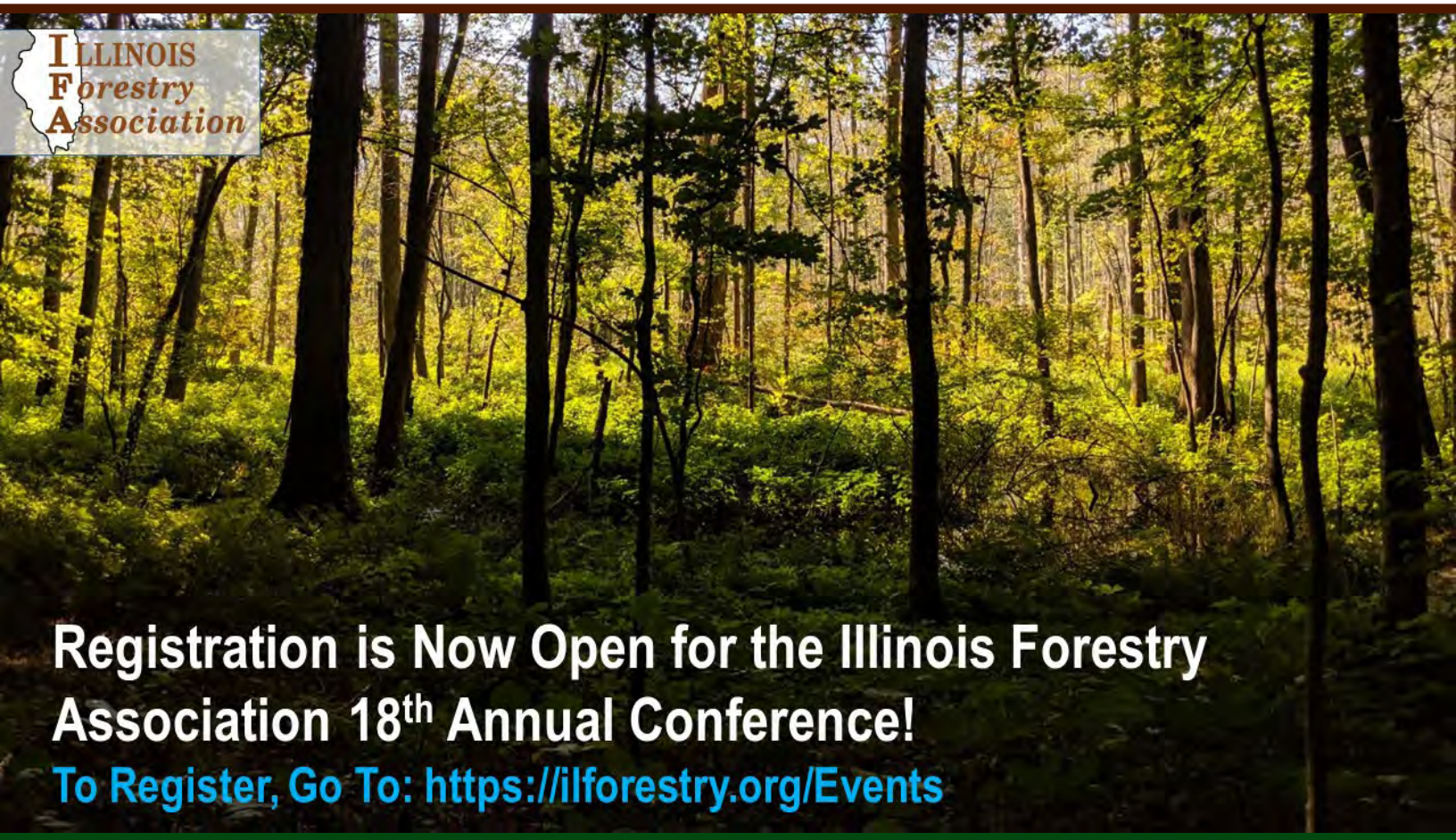
One reason forestry folks connect to the Fall bounty of acorns, hickories, and walnuts is that the seed of quality, freshly fallen walnuts and acorns are what nursery managers seek for their annual crop of seedlings. How they get this seed is a question few people ever ask. As a forester myself, even while laboring behind a tractor, planting 1000 seedlings on a given March day; I fail to picture the collector of the seed. Behind the scenes and before the glory of the spring is a fall nursery worker sowing a field of acorns into sand, sawdust, and soil.

In Illinois the Mason State Tree Nursery currently produces about 1 million seedlings annually and has a capacity to produce 5 million seedlings annually if the needed seed and funding were available. In Missouri the state nursery has 50 acres of actual seedbed and each year the nursery processes more than 10,000 orders and ships about 2 million seedlings. To grow all these species, the nursery collects or buys tens of thousands of pounds of seeds each summer and fall. For example, about 2,000 bushels of walnuts, 6,000 pounds of white oak acorns, 500 pounds of hazelnuts and 500 pounds of plum seed are all needed just to establish seedlings for these four species.

If you dig deep enough into the nurseries that grow tree seedlings, you'll find an acorn. The problem is you will not find next year's acorn. There is a nationwide shortage of seed that nursery managers need each year to produce more seedlings! Midwest nurseries alone count on seed collectors hand collecting or mechanized collecting tens of thousands of pounds of fresh usable seed annually. There are seed brokers too, yet behind every seed broker are collectors who rake, crawl, stoop or use other tools or machines to collect and bag nuts each Fall.

This Fall season IFA is putting together a volunteer seed collection program to help the IDNR nursery secure native seed to produce native tree seedlings. If our efforts go smoothly and we can deliver bagged, quality seed to the state forestry nursery, which will be planted there to yield additional seedlings for reforestation across Illinois. IFA will be donating the time and expenses to collect the seed until we know what we are capable of as an organization and if the native seed we collect has future potential and value. Please look for an IFA email alert and information on how you can help IFA make a difference collecting acorns and walnuts this Fall.

Hope to see you all at the IFA 2023 Annual Meeting this September 21-23 at the Allerton Park and Illinois 4-H Camp forests and grounds located in central Illinois.



Register Today!

This September, join the Illinois Forestry Association for our 18th Annual Conference! This year, we will be holding this event at the Memorial 4-H Camp in Monticello, Illinois. This site is conveniently located next to Allerton Park. This event will include lectures on various forest-related topics, and guided activities and tours. Whether you own forestland, manage forest, or simply want to learn more about forests, this is the right event for you!

Presentations/Activities:

- timber harvests
- forestry and birds
- invasive plant ID and control
- agroforestry tour
- galls
- tree ID
- Alaska chainsaw mill
- edible and poisonous mushrooms of Illinois.

Official Schedule Release:

While you can expect the previously mentioned presentations and activities, the official schedule will not be released until Friday, September 1st. This will be emailed to all current registrants and listed on the event page of the IFA website.

September 21st: Early sign in will be available this evening at 5:30 pm. The structured program will not begin until the next morning. However, those attending early will be able to socialize with other members by campfires for some fireside forestry chats. The silent auction will also open at this time.

September 22nd: Sign in will open again at 8:00 am on this day. At 9:00 am presentations and activities will begin and continue throughout much of the rest of the day. At 5:00 pm, we will have our Annual Business Meeting, which will conclude the day.

September 23rd: On this day, we will meet at 8:30 am and take a group field tour. This tour will be focused on management operations in Allerton Park. When we finish the tour at 11:30 am, that will conclude the event.

Silent Auction Items:

As we do every conference, we will hold a silent auction at this event. We are now soliciting items for the traditional auction so if you have something you wish to contribute, just email Mike McMahan at mcmahan3465@hotmail.com or give him a call at (618) 977-3415.

ILLINOIS Forestry Association

More on the IFA Annual Conference and Other News

By Zach Devillez

Popular Items for the Annual Conference Silent Auction

- Wooden Crafts
- Forest Products
- Containerized Tree Seedlings
- Forestry Collectables
- Forest Management Tools
- Forest Photography
- Maps
- Art
- Maple/Walnut Syrup
- Posters
- Books

Lodging Options

Rustic Cabins at the Camp -
Attendees can stay at cabins located within the camp for $20 per night. The cabins have bunk beds, but attendees can request a cabin to themselves or for your friends/family. Other than beds, these cabins don't have other ammenities, so it would be a similar stay to a camping trip. Those that stay will have access to a shared men's bathhouse or a shared women's bathhouse. To find out more about this option, email Zach DeVillez at zachd@illinois.edu

Best Western Monticello

Multiple Hotels in Champaign

IFA Holds Successful Urban Tree Health Trainings

This year the Illinois Forestry Association continued to bring its Urban Tree Health Training to new communities in Central and Southern Illinois. Thus far, these programs have been a success! Programs were conducted in Decatur and Centralia, Illinois.

We simply could not do these trainings without the expertise and dedication of the following tree experts:

Tricia Bethke
Forest Pest Outreach Coordinator

Fredric Miller
Forest Health Specialist

Chris Evans
U of I Extension Forester

Sarah Vogel
U of I Extension Horticulture Educator

A "thank you" goes out to the Illinois Arborist Association who has made the programs possible by funding the project.

Photo 1: Fredric Miller discussing emerald ash borer at the Centalia program.

Photo 2: Sarah Vogel teaching attendees about tree defects in Decatur.

IFA Strategic Planning

In July, the Illinois Forestry Association Board of Directors organized a strategic planning session to refocus and self evaluate our mission and how we are reaching our goals as an organization. Overall, we found the experience to be an extremely valuable experience.

To undergo this strategic planning process, the board of directors decided that we should hire an outside facilitator to help conduct the planning process. This led us to hire Alan Wenzel, an experienced facilitator that has worked with other organizations in the past. We could not be happier with that decision. Alan designed and implemented a series of exercises specifically catered to our group. These exercises were geared towards helping us identify the board's successes, our shortcomings, and what we truly appreciate most about the Illinois Forestry Association.

Photo 1: Facilitator, Alan Wenzel leading the strategic planning team through some constructive exercises.

Through these exercises, we were able to identify strengths, weakneses, and priorities. The organizations that thrive have to be able to adapt. You might say that the Illinois Forestry Association is going through a process to adapt to the times and the current situation around us. While some changes will certainly result from this experience, just know that our first priority remains the forests of illinois and the great people that manage them. For more information on all this, stay tuned!

This strategic planning session was held at Starhill Arboretum in Petersburg, Illinois. The IFA Board of Directors would like to express our gratitude to Guy and Edie Sternberg, the creators and stewards of Starhill Arboretum, for hosting our group. The work and dedication they have poured into that land is nothing short of amazing. If you haven't visited, we cannot recommend a visit enough. Guy took our group on a tour of the many oak specimens they have on site. Guy is both passionate and incredibly knowledgeable about trees. If trees are your thing, it's certainly worth a trip.

Photo 2: Taking an oak tree tour at Starhill Arboretum.

Photo 3: Guy Sternberg showing off one of the beautiful oaks at Starhill Arboretum.

A thank you also goes out to the IFA regional directors. This dedicated bunch pour their time and energy into steering the work and management of the Illinois Forestry Association. What we do and what we aspire to be would not be possible without their efforts and passion for forests.

IFA Land Management Committee Update - William Gerrish Woodland

If you read the last issue of the IFA Newsletter, you will remember that the IFA received a major land donation from John Gerrish. This marked the beginning of a new era for our organization and it is all thanks to an extraordinarily generous donation from the Gerrish family.

Our first order of business was to form a committee that would help initiate the management of the property. This committee (the IFA Land Management Committee) has met to get familiar with the 80 acres of forest and to discuss prioritization of objectives. We would like to thank the following IFA members for joining the Land Management Committee:

Paul Deizman - IFA Pres. & Committee Chair

Brad Petersburg - Region 1 Director

Gary Hake - Region 4 Director

Rob Austin - Region 4 Member

Carolyn Myers - Region 4 Member

Chris Evans - IFA Technical Advisor

If you would like to get involved with the Land Management Committee, please reach out to Zach DeVillez at zachd@illinois.edu. We are always looking for dedicated, passionate members to help us accomplish our mission!

More About William Gerrish Woodland

This forest already has a forest management plan. This plan was prepared in the fall of 2021, thus, the renewal date for the plan will be 2031.

The following goals were highlighted for this woodland:

1. Enhance Wildlife Habitat
2. Regenerate Oak and Hickory tree species where appropriate and economically feasible.
3. Provide opportunities for recreational benefit via bird watching, hunting, wildlife photography etc.
4. Timber harvesting and utilization of forest products.

Photo 1: Map of William Gerrish Woodland

Stand 1: Stand 1 is 92% stocked, consisting of some mature white oak, black oak and hickory. The midstory and understory is dominated by sassafras, ash, elm, oak and hickory. This stand will need the most invasive plant control efforts, having significant presence of Japanese honeysuckle, bush honeysuckle, and multiflora rose. It was recommended that this stand undergo a selective harvest, forest stand improvement (FSI), and invasive species control with follow up monitoring.

Photo 2: The land management committee walking through stand 1.

Stand 2: Stand 2 is 98% stocked, consisting of some white oak and black oak. The midstory and understory consists of elm, sassafras and lower quality hickory. It was recommended that this stand undergo a selective harvest, forest stand improvement to improve species composition and invasive species control with follow up monitoring. It should be mentioned that the invasives in this stand are not as dense as stand 1. However, efforts should be made early to control the invasives.

Continued on the next page -

Photo 3: The land management committee walking through stand 2.

Stand 3: Stand 3 is 92% stocked. This is the highest quality stand in terms of species composition and less presence of invasive species. The stand is dominated by white oak with some mature trees. This stand also contains hickory, ash, and elm. Since invasives are less of an issue in this stand, the understory consists of more native herbaceous plants with seedlings, including oak seedlings. It was recommended that this stand undergo a selective harvest, forest stand improvement, and invasive species control and follow up monitoring.

Photo 4: The land management committee touring stand 3.

Stand 4: Stand 4 is 110% stocked. The stand is dominated by white oak, pin oak and black oak. The mid and understory consists of hickory, ash, sassafras, cherry and elm. It was recommended that this stand undergro selective harvest, forest stand improvement, and invasive removal with follow up monitoring.

Photo 4: Stand 4, in a pin oak flat.

Did you recognize a trend in those stand management recommendations? A selective harvest, thinning and invasive species management was identified for all of the stands.

Schedule of Management Operations:

First - Mark all boundaries of property
Year 1 - Selective harvest (all stands)
Years 1 - 3 - Invasive plant control
Year 2 - Forest stand improvement
Years 1 - 10 - Monitor invasive plants

Selective Harvests and Thinning:

In the FMP, selective harvests are utilized as a way to capture timber value for the stands. The justification for forest health is that the harvest would open up the overstory allowing younger trees to grow into the canopy. It also mentions that damaged, overmature, or unhealthy trees should be prioritized for harvest first. The timber marking would need to be conducted by either a consulting forester or an IDNR forester. It also states Best Management Practices should be prioritized throughout the entire process.

The FMP also requires forest stand improvement (strategic thinning operations). This would would be used to remove less desirable species and poorly formed individual trees where appropriate. This would be utilized to release supressed oaks currently in the midstory and understory.

Speaking as a forester, this is what we do. We utilize techniques to influence succession and species composition so that we can ensure that this forest remains healthy, has ideal species composition for wildlife habitat, while ensuring minimal impact from invasive species. It should be mentioned that we are in the process of reviewing this plan. All management operations will ultimately have to be voted on through the board of directors. What we aim for is what we stand for. Managing a woodland for multiple uses such as wildlife, recreational opportunities, forest health and timber value.

Other Opportunities

We also discussed the possibility of of enrolling the property into the IRAP Program. On our last site visit, we were joined by IRAP Southern Illinois Representative, Shane Sinclair. He ran us through the program and was able to "put eyes on the forest" to see if this would be a good property to get more people into the woods for hunting opportunities, including youth and veterans, which we strongly support. This would also develop a revenue stream as well as some cost share opportunities to help fund management operations.

There is plenty of work to be done. However, we could not be more excited for the opportunities ahead.

Reforest Illinois

by Paul Deizman

Suppose planting millions of trees, reforesting large acreages and the stewardship of existing forests are the answers to buffer our warming climate. Regardless of the challenge that state, federal and global forestry nurseries face to provide that planting stock, the success of any scale reforestation begins (and arguably ends) at planting! Successful planting begins with site preparation.

I recommend most field sites use traditional tillage and establish a planted conservation cover crop sown prior to the spring tree planting season. On bare dirt or stubble fields, a cover may be sown between the rows after planting trees. The only rule is that the planting site should not be grass. Planting sites should not contain any sod forming grass, or an established sod or a pasture. I sow a customized cover crop developed to address soil erosion while not competing with the tree establishment and providing good pollinator habitat.

Whether your project is one shade tree, hundreds of seedlings (or nuts and seed) on dozens of acres, or tens of thousands of seedlings, "planting" means proper seedling handling from the nursery/shipper to the planting site then properly planting each live, cold-dormant tree to final spacing or standards. Field reforestation tree seedlings need water before and during planting – and mother nature waters them after that.

Photo 1: Recently planted 1-0 seedlings done by machine in rows

Packaged seedlings from the nursery can simply not heat up past 40 or so degrees, nor may they dry. Seedlings must be kept cold and moist until they are in the ground. Stored cold-dormant seedlings or seed must stay cold and moist, as should a balled or containerized tree. Seedling storage and transport for a 10 acre or larger project usually requires specific protection or a refrigerated truck. A March planted tree outperforms a May planted tree every time, especially in a dry year!

Photo 2: Spring tree machine 10x10 foot planting, showing weed control bands

What else ensures success besides site preparation and planting live, healthy and moist stock early in the spring? Tree species to be planted and the planting density usually are determined by the owner and forester prior to planting. That said, I recommend 650 seedlings from 6-12 different native tree species plus 100 shrubs per acre to equal 750 seedling trees/shrubs per acre. These tips will help your success:

- Success can be enhanced by choosing good quality nursery stock from the state, federal or established corporate nurseries to ensure trees are handled properly through pickup and delivery. 1-year old seedlings having good caliper root stock work best for most forests.

- Successful growth, development and aesthetics of a hardwood forest establishment pivots on random placement of many different tree species well suited to the site to total 400-900 trees per acre. The diverse habits, forms and rate of different species mix well to look natural.

- Success long-term includes native timber species like northern red, black, white and bur oak, black walnut, white pine, persimmon, hickory (seed), sycamore, maple, redbud, dogwood and plum.

- Success can be increased by assuring a wet planting process from seedling nursery bag and bucket to firmly in-the-ground. Have plenty of shade and water for the seedling bins.

Continued on the next page -

- Success requires all seedlings to be planted 1-2 inches deeper than the depth originally grown in the nursery, where a distinctive soil line mark should be evident for each seedling on or near the larger root collar diameter just above the roots.

- Once placed and planted, assure seedlings are straight and packed or "stomped- in" to eliminate all air pockets by tamping down the soil to the seedling to be tightly help by the soil near the original root collar.

In Illinois, weed and grass competition is fierce. A young forest at age 10 from a successful 1-year seedling planting is often achievable only if successful control of grass and aggressive weeds are accomplished during the 1st, 2nd and 3rd growing seasons after tree planting. Establish and keep a 4 foot wide band down each planted row, or 2 foot radius circle around each tree. Weeds and grasses should be deadened for the for the first few growing seasons. Alternatives to chemical weed control are shallow cultivation or a thick layer of mulch. Mulch is most commonly woodchips or wood shavings but may include geo-textile fabric or other permeable fabric, or similar vegetation barriers.

Photo 3: Spring tree machine 11x7 foot bottomland planting showing weed control bands.

Photo 4: Vegetation control will be reestablished to release this reforestation field from broom sedge and grass.

Photo 5: Wide spaced tree seedlings using tubes showing early browning process of 4-foot-wide herbicide bands

Best of success planting trees and forests in the yards, parks, streets, and fields of towns, and the valleys, pastures, hillsides and fields across rural Illinois this Fall and again in the Spring 2024!

Invasive Species Around the World

by Kevin Rohling
University of Illinois Extension Forestry Research Technician

Most of us are aware of invasive species and their negative impact on a suite of natural phenomena or human endeavors, whether that's the impact of bush honeysuckle hampering forest regeneration and herbaceous diversity or non-native carp (aka "Copi") altering habitats and natural communities in our rivers, lakes, and streams. Invasive species are, unfortunately, ubiquitous. In a nutshell, a species becomes invasive typically when people bring a species into an area where it did not naturally occur, either intentionally or unintentionally, often from one continent to another. Once that species is established and begins to reproduce on its own, there may be no natural checks and balances working to stabilize populations, such as predators, diseases, or herbivores, and they may run rampant, leading to negative consequences for nature and people. They may outcompete and displace native flora and fauna. They could also take out significant components of ecosystems, as is occurring with the emerald ash borer eliminating ash trees from our forests and landscapes. However, not every introduced species becomes invasive. Why not? Which traits lead to invasiveness? Out of curiosity and considering these traits, which species native to North America have become invasive in other parts of the world?

What makes a species likely to become a "successful" invader? For one, it will typically be from a similar climactic region, so it will be adapted to survive in areas with similar climatic patterns. Look at a map of the world, and you can see that many of the invasive species we find in North America originated in the same latitudinal region in other parts of the world. The same is true for invasive species on other continents. Another characteristic is often prolific numbers of offspring, which is pretty self-explanatory. Effective distribution mechanisms are another common invasive trait. Several other characteristics may also play a role in a species becoming invasive, but parsing out all of those characteristics is beyond the scope of this article. Considering some of those invasive characteristics, have you ever wondered what species have become invasive in other parts of the world that are considered native in our neck of the woods?

Black cherry (Prunus serotina) is a prime example of a native North American species that has become an invasive plant elsewhere. In Europe, black cherry was initially introduced in the late 1700s as both an ornamental and timber species. European efforts to use black cherry as a timber species largely failed, partly due to their attempts on poorer soils than we have here in Illinois. Instead, one article suggested that the foresters who introduced the black cherry to Europe for timber purposes should have looked closer at the soils in the region they were planting. They would have found their soils to be sandier and less productive, and the results of their efforts turned out to look more like black cherry you would find in parts of Wisconsin, where black cherry are much scrubbier and less marketable as timber. Later, Europeans again planted large quantities of black cherry to improve soils in pine plantations, but that effect is also in question (Starfinger et al. 2003).

Unfortunately, all those introductions (literally millions of individuals were planted) resulted in a significant source population, and control of this species in Europe has proved challenging, if not impossible.

Photo 1: Black cherry (*Prunus serotina*) in bloom. An often desirable native species in North America has become an invasive plant in parts of Europe.

Elderberry (Sambucus canadensis) is a species we promote in its native range for its pollinator and wildlife value. Numerous wildlife species consume its ripe berries, native bees often use its hollow stems as homes, and it is a host plant for almost 30 different Lepidoptera species in our area. However, it is considered invasive in South Africa and Cuba, where it has been introduced for ornamental purposes and its edible ripe fruits (although, note that unripe fruits and all other parts of the plant are toxic to mammals if ingested). It is a fast-growing shrub that spreads by seed as well as through underground rhizomes that can displace native vegetation. Even within its native range, it can rapidly spread through rhizomes and is inappropriate for

Continued on the next page -

some areas. In our region, elderberry competes with invasive shrubs on forest edges, which makes it an excellent alternative to compete with invaders in its native range. However, it should not be surprising that it could become a problematic invader elsewhere.

Photo 2: Elderberry (*Sambucus canadensis*)

Our common milkweed (Asclepias syriaca) is another plant that is sometimes promoted for wildlife benefits in its native range (it is especially beneficial to monarch butterflies as a host plant) but is considered invasive in parts of Europe. It is one of the first trans-Atlantic introductions, with one of the first written records from the late 1500s to early 1600s with reports of collections and study of the plant for medicinal properties. Later it was cultivated in Europe for its fibers. Like many other invasive plants, common milkweed spreads rhizomatously and aggressively. It also has an effective distribution strategy with seeds that float in the air and can float downstream if they land on a waterbody. Again, this species has several traits characteristic of invasive species.

Photo 3: Common milkweed (*Asclepias syriaca*) is an important pollinator plant in North America, serving as a host plant for monarch butterflies and providing nectar and pollen for countless insect species.

Those are only a few examples, but rest assured, there are many more. Regarding eastern Asia, one article I found stated, "Of the 403 invasive plant species in China, most are from North America (237 species)" (Hao & Ma 2023), highlighting the extent of the issue on that continent. Considering that the United States and China are significant trade partners, it is likely that the intentional and unintentional exchange of potentially invasive species is ongoing and will continue.

The efforts to introduce black cherry to Europe reminded me of natural resource practitioners in earlier decades in North America introducing and heavily promoting plantings of autumn olive or multiflora rose, among others, in a misguided effort to provide food and cover for wildlife. It is both sad and somewhat heartening to consider that land managers in other parts of the world struggle with similar circumstances and come to similar conclusions. Authors outlining the effort in Europe to fight back against the black cherry note that certain areas, particularly "valuable habitats," but "…fighting black cherry within forests is hopeless." (Starfinger et al. 2003). Not every situation is hopeless, and there are often alternatives when complete eradication is not possible to help minimize the impact of some invasive species. Regardless, invasive species are a problem the world will need to continue addressing, and the main takeaway is that we should use indigenous species wherever we are around the world. We will have far fewer invasive species if we do.

References:

Hao, Q., & Ma, J. S. (2023). Invasive alien plants in China: An update. Plant Diversity, 45(1), 117.

Rejmánek, M. (2014). Invasive trees and shrubs: where do they come from and what we should expect in the future?. Biological Invasions, 16, 483-498.

Starfinger, U., Kowarik, I., Rode, M., & Schepker, H. (2003). From desirable ornamental plant to pest to accepted addition to the flora?–the perception of an alien tree species through the centuries. Biological invasions, 5, 323-335.

Szilassi, P., Szatmári, G., Pásztor, L., Árvai, M., Szatmári, J., Szitár, K., & Papp, L. (2019). Understanding the environmental background of an invasive plant species (Asclepias syriaca) for the future: an application of LUCAS field photographs and machine learning algorithm methods. Plants, 8(12), 593.

Forest Health Threat to Illinois' Sassafras Trees - Laurel Wilt

by Zach DeVillez
Photos by Extension Forester, Chris Evans

There is a relatively new forest health threat that Illinois forest landowners and managers need to be on the lookout for; A disease called laurel wilt. This is a disease that has been discovered and well-documented in Kentucky, thus it is something that we want people to be aware of so that we can monitor for its spread.

What is Laurel Wilt?

"Laurel wilt is a disease complex caused by the interaction of an exotic fungus (*Raffaelea lauricola*) and the exotic red-bay ambrosia beetle (*Xyleborus glabratus*)" (Chris Evans 2019). This disease has had a major impact to redbay and the avocado industry in the Southeastern United States. Closer to home, in our neighboring state Kentucky, this disease has led to rapid mortality of sassafras trees (*Sassafras albidium*) and spice bush (*Lindera benzoin*). All of these species are in the Lauraceae family.

Why Does It Result in Mortality?

As previously mentioned, this disease is caused by the exotic fungus (*Raffaela lauricola*). Redbay ambrosia beetles are the primary spreader of the fungus, while some other ambrosia beetles have also been found contaminated. These beetles borer into the sapwood of healthy hosts in the Lauraceae family. Once this fungus infects the host, it travels rapidly through the host's vasculature system (the xylem that conducts water and nutrients). When spread throughout the xylem, this limits the host plant's ability to uptake water, resulting in wilting of foliage. This often leads to mortality of the host plant.

More About the Native Species Under Threat

To help us monitor Illinois sassafras and spice bush. You should become familiar with the following species.

Sassafras Trees

Sassafras trees can be found throughout much of the state. They are a medium-sized tree that can reach up to 70 feet tall. They tend to grow in well-drained upland forest. They can commonly be found in the understory of forests, especially along forest edges. The leaves are peculiar in that they can have three distinct shapes: unlobed, 3-lobed and 2-lobed. When leaves are crushed, some compare the smell to the cereal Froot Loops, having a fruity aroma.

Photo 1 & 2: Sassafras characteristics

Spice Bush

Spicebush is a deciduous shrub that can grow from 6 - 15 feet tall. It often occurs in moist and well-drained soils in the understory of our forests. The leaves are about 6 inches long and 2 1/2 inches wide. This is a great native shrub that attracts birds and butterflies.

Photo 3: Spicebush leaves

Symptoms of Laurel Wilt

- Rapid Wilting of Leaves
- Reddish-brown leaves still attached to dead or dying trees
- Dark, streaky staining in wood just under the bark.

ILLINOIS Forestry Association

Continued on the next page -

Photo 4: Dark, streaky staining on the wood under the bark

Photo 5: Red - brown, wilted leaves

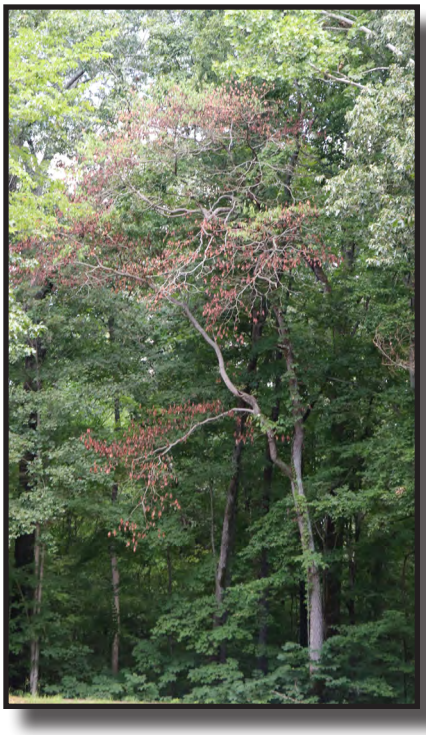


Photo 6: Red - brown, wilted leaves

Photo 7: Multiple trees impacted

Confirmed Impacted Areas:

All members can help monitor for the disease. However, those in Southern Illinois are located closer geographically to the known impacted counties in Kentucky (see map).

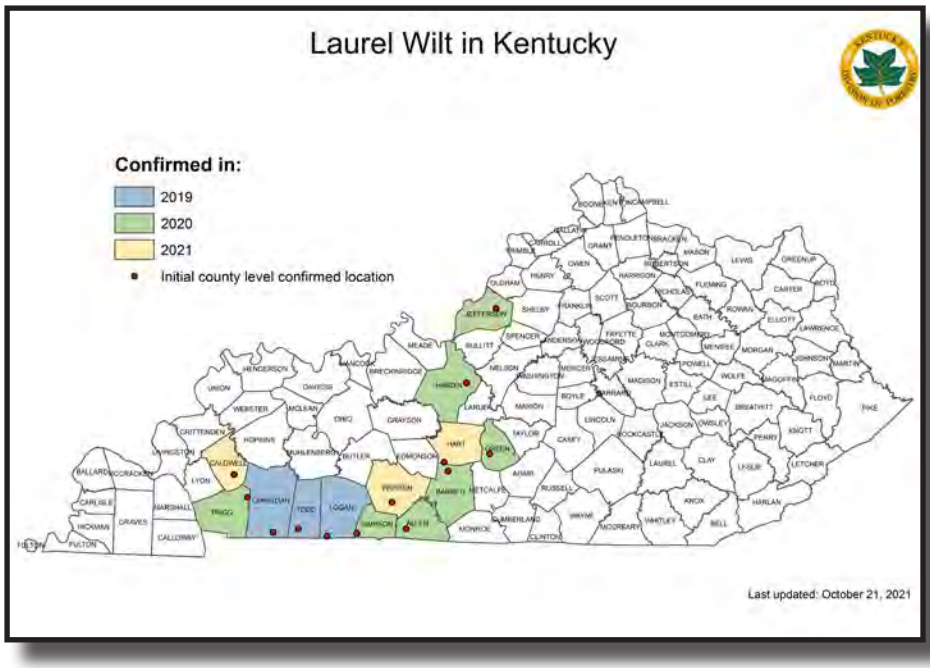


Photo 8: Laurel Wilt Distribution in Kentucky

To Help Us Monitor:

Please contact Extension Forester, Chris Evans at the following email address: cwevans@illinois.edu

Lessons Learned - Emerald Ash Borer & Planting Diversity

by Gary Hake
IFA Region 4 Director and Tree Farmer

In the 1970s, after my father, a high school teacher - coach; a part-time hobby farmer, got tired of losing money in cattle, he decided to plant hardwood trees on approximately twenty acres. The pasture was planted in a mixture of oaks, white pines, walnuts, pecans, and a few green ash. One area that had been planted in corn became a plantation of white pine, walnut, oak, and a few scattered green ash. In another field, approximately five acres was planted in bald cypress and the majority of the field was planted in green ash. All these fields were planted in nice, neat rows with the same kind of trees grouped together. Over the years, these trees were babied, pruned and mowed. They grew well for a long time. Some thinning was done, but overall the trees grew well.

Approximately ten to fifteen years ago, I attended an urban forestry seminar discussing a new invasive species - the Emerald Ash Borer. At the meeting, I met with Chris Evans and Frederick Miller regarding my fields of green ash. Over the years, Frederick Miller has observed my fields and approximately five years ago, they began to show classic signs of Emerald Ash Borer. Every year thereafter you could see the rapid decline of the green ash trees, starting at the crown, then the blonding of the trees, then the classic "D" shaped hole in the bark, and finally the standing dead tree. A local forester thought I might do a harvest of some of the ash trees, but I held up hope that they might make it through. Then, it was too late to have any salvageable lumber.

Last year, I cut some of the bigger trees myself and had a bandsaw mill come out to cut some lumber out of the biggest trees. This past year, I have begun planting oaks, pecans, hickory, as well as some bald cypress in the field that was mainly green ash. The new section shows my lesson learned. Don't plan row after row of the same kind of tree, unless you want to invite disease or invasion.

Photo 1: Blonding bark on a green ash.

Photo 2: Felling of green ash impacted by EAB.

Photo 3: Salvaging green ash lumber.

Photo 4: Mortality in a monoculture of green ash.

Looking for Study Sites for Identifying Factor(s) Responsible for Oak Decline and Death

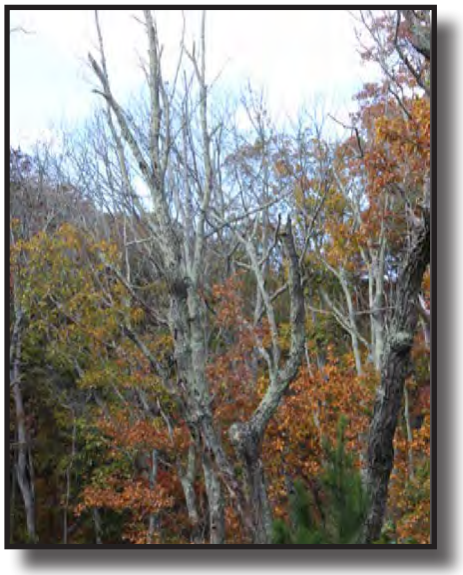
Recently, we were fortunate to receive some extra federal funding (IRA Grant) to begin research on the possible factors responsible for oak decline in Illinois as part of our overall USFS-Illinois Cooperative Forest Health (FH) program. This multi-year study will be conducted in cooperation with Dr. Stephanie Adams, Plant Pathologist, The Morton Arboretum (TMA).

Therefore, we are soliciting your help in identifying possible statewide study sites where you are observing white, bur, black, shingle, chestnut, and northern red oak tree decline (looking for any and/or all oak species) at each study site where we could establish long-term study plots for sampling for the presence of Phytophthora in order to determine the prevalence of the pathogen and to determine species identification. We will need to take root samples from each of 3 to 5 trees of each species at each study site.

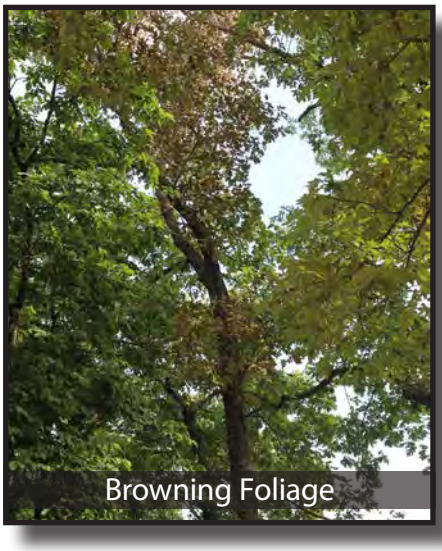
Additionally, at each study site we will gathering information on the site, soil characteristics, topography, land use, etc.

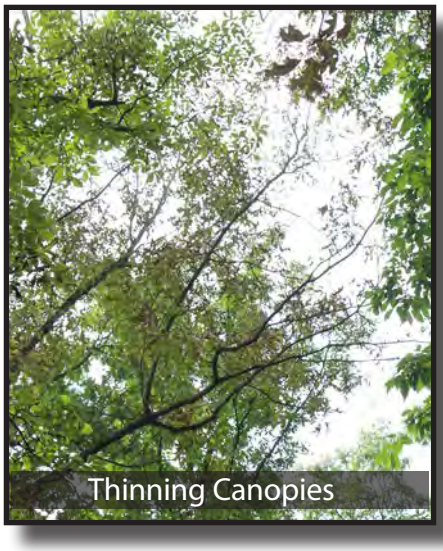
We know that Phytophthora is very wide spread and common, but we do not have good data on what species may be pathogenic and which species are just part of the soil microbial community. By taking samples, we hope to ID which species may be responsible and/or contributing to oak decline and death.

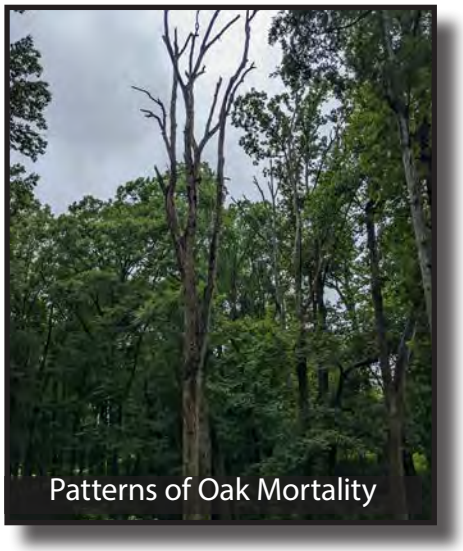
If you have a site and/or sites on your property and are interested in participating in this project, please contact:
Fredric Miller
Forest Health Specialist
fmento84@gmail.com



Symptoms to Monitor


Browning Foliage


Thinning Canopies


Patterns of Oak Mortality

History of Conservation in Illinois

Installment #44

by Dave Gillespie, IFA Secretary

This account of the history of conservation in Illinois was written by Joseph P. Schavilje in 1941. This installment begins where installment # 43 ended.

A new forest fire protection program was begun in 1937, and the Sate once again received aid from the U. S. Forest Service under the Clarke-NcNary Act. Fire towers were constructed, fire fighting equipment, trucks and tools purchased, and a headquarters built in southern Illinois.

One of the objectives of the Division of Forestry is to establish a number of State forests to provide demonstration areas in proper forest management. Illinois at the present time has three State forests, totaling more than 10,000 acres. The oldest State forest, located in the southern part of the State, comprises 3,500 acres and has been developed as an excellent recreational tract through the efforts of the Civilian Conservation Corps and the Works Progress Administration under supervision of the State.

(To be continued in the next issue of "The IFA Newsletter".)

ILLINOIS Forestry Association

WOULD YOU LIKE TO JOIN THE IFA OR RENEW YOUR MEMBERSHIP? SCAN THE QR CODE BELOW!

TO DONATE TO THE IFA AND ITS MISSION, SCAN THE QR CODE BELOW!

Purple Paint Sign Order Form

Name _____

Street Address _____

City/State/Zip Code _____

E-Mail Address _____

# of Signs ____ x $12 (Member Price) _____

# of Signs ____ x $18 (Non-Members) _____

Shipping & Handling _____

TOTAL _____

Shipping: 1 sign - $8.00 | 2 signs - $9.00 | 3 signs - $9.00 | 4 signs - $10.00 | 5 signs - $11.00

Orders in excess of 5 signs must be shipped in two mailers

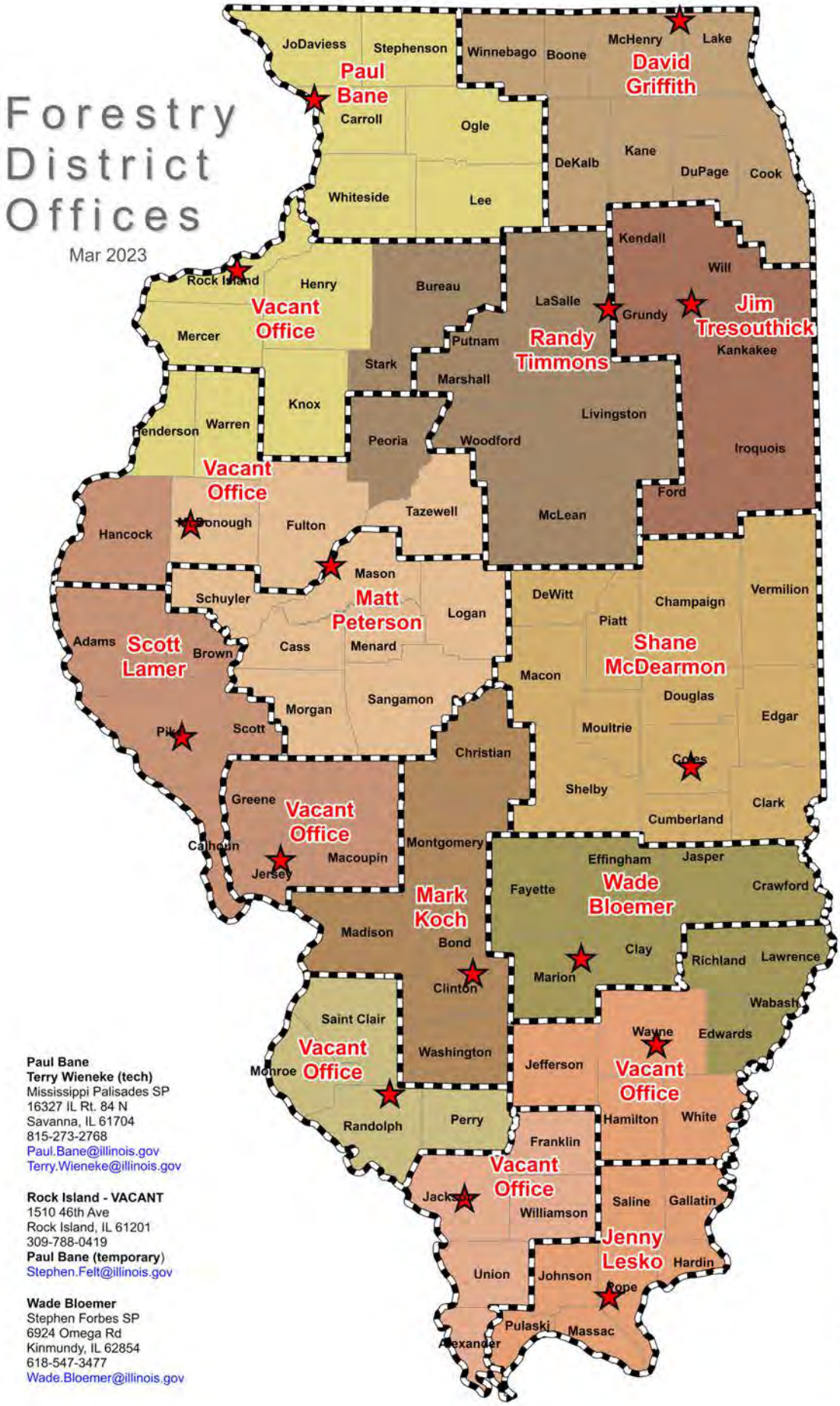
Mail Order Form to: (Check or Money Order made payable to Illinois Forestry Association)

Stan Sipp
Director, Region 3
P.O. Box 111
Mansfield, IL 61854

Signs are shipped via U.S. Postal Service

Invoice will be included with signs

Questions?
Contact Stan by email at:
stanley.sipp@usda.gov



Paul Bane
Terry Wieneke (tech)
Mississippi Palisades SP
16327 IL Rt. 84 N
Savanna, IL 61704
815-273-2768
Paul.Bane@illinois.gov
Terry.Wieneke@illinois.gov

Rock Island - VACANT
1510 46th Ave
Rock Island, IL 61201
309-788-0419
Paul Bane (temporary)
Stephen.Felt@illinois.gov

Wade Bloemer
Stephen Forbes SP
6924 Omega Rd
Kinmundy, IL 62854
618-547-3477
Wade.Bloemer@illinois.gov

Sparta - VACANT
World Shooting Recreation Compl
One Main Event Dr. Suite 140
Sparta, IL 62286
618-295-2877
Mark.Koch@illinois.gov

David Griffith
Chain O Lakes Sp
8916 Wilmont Rd
Spring Grove, IL 60081
815-675-2386
Dave.Griffith@illinois.gov

Mark Koch
Eldon Hazlet SP
20100 Hazlet Park Rd
Carlyle, IL 62231
618-594-4475
Mark.Koch@illinois.gov

Scott Lamer
1252 W. Washington
Pittsfield, IL 62363
217-285-2221
Scott.Larmer@illinois.gov

Jerseyville - VACANT
604 E. Franklin
Jerseyville, IL 62052
618-498-1627
Scott Lamer (temporary)
Scott.Larmer@illinois.gov

Jenny Lesko
Dixon Springs SP
945 State Hwy 146W
Golconda, IL 62938
618-949-3729
Jennifer.Lesko@illinois.gov

Fairfield - VACANT
106 Andrews Rd.
Fairfield, IL 62837
618-847-3781
Jenny Lesko (Temporary)
Jennifer.Lesko@illinois.gov

Shane McDearmon
1660 West Polk Ave
Charleston, IL 61920
217-348-0174
Shane.McDearmon@illinois.gov

Argyle Lake - VACANT
Argyle Lake SP
640 Argyle Park Rd
Colchester, IL 62326

Matt Peterson
Office
700 South 10th
Havana, IL 62644
309-543-3401
Matt.Peterson@illinois.gov

Murphysboro - VACANT
Lake Murphysboro SP
52 Cinder Hill Dr
Murphysboro, IL 62966
618-656-2828
Ben Snyder (temporary)
Benjamin.Snyder@illinois.gov

Randy Timmons
124 W. William St.
Seneca, IL 61360
815-357-8846
Randy.Timmons@illinois.gov

Jim Tresouthick
30550 Boathouse Rd
Wilmington, IL 60481
815-476-0256
Jim.Tresouthick@illinois.gov