

Illinois Forests



"The Voice for Illinois Forests"

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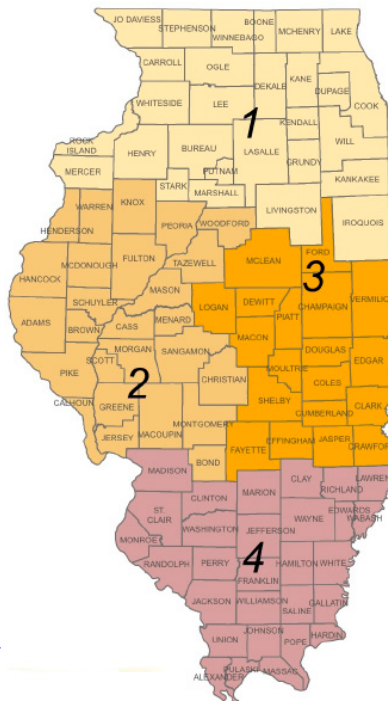
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Our Mission...

"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



Letter to IFA membership and millions of potential members -

Winter greeting to all! The usually cold and always leave-less winters of Illinois beckon to all foresters as they know this is the best time to see the woods. Late winter is an especially great time to be working in the woods. In northern Illinois forests, you can still see on May 1st the form of the stand and individual trees – or perhaps the last Morel of the season from hundreds of feet. On June 1st it's a visual wall of deep green on deep green and seemingly forever away are the winter forest views. On behalf of IFA, I wish you all a safe, productive and pleasant winter season in whatever woods you own, work or play!

Forestry remains the answer to so many of our social and environmental concerns as a society and, to the best of our analysis, as a planet. The leadership and members of IFA are amazing people and their passion to practice forestry and advocate for forestry are second to none. Please consider joining one of the important IFA committees to help identify and affect important forestry issues, needs and concerns statewide. In this article, I hope to remind some of what forestry and this association of forestry is all about.

Forestry is about people. The forest is a huge living complex and dynamic web of biology that was and would go on with or without us. People have needs, people have perceptions, people interpret our world and essentially we as people have decided that we simply love and/or need the forest. I believe both.

Forest outputs (goods, services, benefits, etc.) are natural and multiple. One simple example of multiple outputs is southern pine forests of largely loblolly pine, most of which are planted for profit. These forests directly protect, clean and regulate ground and surface water, house dozens of important wildlife species, clean and buffer the dust, air and noise, and also provide aesthetics, beauty and recreation. The wonderful thing is that forestry practices can significantly magnify numerous outputs simultaneously for the valuable, often sustainable different things we want. A skilled professional measuring the forest and analyzing its natural resources is where to begin.

An oak hardwood forest left alone without human input will sequester a huge amount of carbon – then die and release all the carbon back into the environment. That unmanned forest will grow sawtimber size trees most likely, but it may take 200 years. Enter forestry considerations and

subsequent management actions yielding output way above the default. Forestry and forest management can significantly lock up carbon again and again by keeping the forest regenerating and growing vigorously. It can sustainably produce excellent income from timber, logs, lumber and other products. Forest Management can grow trophy game within pristine wildlife habitat. It can increase or restore cultural and biotic diversity, while also supporting miles of trails and hordes of picnic areas. Old growth and premium logs can indeed both be produced on the same acre! All of these things can.

This association is about the benefits and outputs of managing, conserving and or protecting forests. To really achieve that in our state we look to the 200,000+ private landowners owning and deciding on about 85% of our total 5 million acres of forest to practice forestry. Every member this organization has and is an important voice for forestry - yet our success to expand forestry and forest management on any measurable scale will only be found through our Illinois landowners both public and private.

IFA News and Updates

by Zach DeVillez



IFA to Continue Urban Forestry Programs in 2023

Last year, the IFA, supported by the Illinois Arborist Association, carried out a series of programs that focus on trees in the urban landscape. The IFA went to four communities to discuss urban tree health. To do this, a team of Illinois tree health experts led presentations on how to keep trees healthy and well. Later on in the year, the IFA also held a two-part virtual series on tree identification. Overall, the IFA was able to reach over four hundred Illinois citizens with these programs.

This year, in the summer months, the IFA will bring its Urban Tree Health Training to four new communities. A virtual program that focuses on various tree species and where to plant them will also be held later in the year. Further information on these programs will go out via email blast and the next issue of the newsletter.

Spring Forestry Field Days

During the late Spring, the IFA plans to hold two field tours. If you haven't made it out to an IFA field tour yet, here's your chance! These field tours are a great way for landowners to learn more about forest management. Whether you are a professional forest manager or a private forest landowner, our goal is to structure field tours so that attendees can see different aspects

of management that can be applied towards their own management goals. Field tours will be announced via email blast and social media. More details to come soon!

Volunteers Needed to Serve on IFA Committees

If you read the last issue of the newsletter, you might remember that the IFA has developed some new committees. For a description of these committees, see page 5. With the creation of these committees, the IFA board of directors aims to focus its resources on various organizational tasks as well as provide the opportunity for IFA members to get more involved. If you're a member looking for an opportunity to get more involved, feel free to email the Committee Chair listed under the specific committee that interests you (see page 5).

These committees will meet virtually outside of the board of directors meetings to further their specific mission. These committee meetings will be organized and scheduled by the Committee Chairs. During each quarterly meeting of the board of directors, the Chair of each committee will give an update report on their progress. Each committee will have 2 committee seats open.

IFA Provides Stance on Shawnee National Forest

Recently, a writer with the *Illinois Times* reached out to the IFA to interview our President, Paul Deizman to get a statement and stance for a story regarding the recent proposal that would transform the Shawnee National Forest into a National Park and Climate Preserve.

When Paul was asked about the current management of the Shawnee, he did a wonderful job explaining the IFA's position. If you have not read that story, check it out at the following link: <https://www.illinoistimes.com/springfield/shawnee-national-park/Content?oid=16402139>

If this is your first time hearing about this new proposal, this story is a great place to learn more. The story does a great job framing the viewpoints on both sides of this conversation. While you may agree with one viewpoint or the other, it's important to remember that both sides care about the forests of Illinois.



IFA Committee Opportunities

We are now taking volunteers to serve on IFA Committees. Each committee has two seats available at this time. To join an IFA committee, simply reach out to the Committee Chairs listed below each respective committee. If you're interested in getting more involved with the IFA, please reach out. With your help, we can make a difference!



Sponsorship Committee

This committee will identify sponsors and refine the sponsorship development process as well as the benefits of being an IFA sponsor.

Tasks May Include

- Identify potential sponsors
- Informational outreach to potential sponsors
- Frequent, yet professional communications with existing sponsors
- Improve benefits for sponsors

Committee Seats Available: 2

Contact Committee Chair:

Mike McMahan
mcmahan3465@hotmail.com

Annual Conference Planning Committee

This committee will assist in the planning of the IFA Annual Conference.

Tasks May Include

- Identify locations to hold conference
- Brainstorming speakers/topics
- Logistics
- Volunteering

Committee Seats Available: 2

Contact Committee Chair:

Zach DeVillez
zachd@illinois.edu

Legislative Committee

This committee will represent the interests of private forest owners as it assesses, and proposes changes to public policy impacting Illinois forests.

Tasks May Include:

- Reviewing/updating IFA position statements on forestry related issues
- Assessing current public policy, including existing legislation, and recommending amendments if deemed appropriate
- Proposing or commenting on new public policy including proposed legislation
- Collaborating with other organizations to support changes to public policy
- Fielding concerns from private forest landowners and other stakeholders

Committee Seats Available: 2

Contact Committee Chair:

Brad Petersburg
bfp2100@gmail.com

Tree Conservation Committee

The Tree Conservation Committee will focus efforts on how to engage Illinois residents to collect, plant and care for trees, be it in the urban or rural areas, on a forestry plot, or lands under management. The committee hopes to inspire the protection and conservation of native Illinois trees by working with key stakeholders in the state and region to enhance and protect healthy, resilient forests.

Tasks May Include:

- Develop in partnership with the Mason State Nursery a seed collection program from 2023 - 2025
- Identify and work with key partners on strategic tree planting programs
- Develop and include tree health resources for the IFA website
- Develop and implement family-fun 'All About Seeds' programs at the 2023 IFA Annual Conference

Committee Seats Available: 2

Contact Committee Chair:

Tricia Bethke
tbethke@mortonarb.org

ILLINOIS FORESTRY ASSOCIATION 18TH ANNUAL CONFERENCE

4-H Memorial Camp, Monticello, Illinois

***- Save the Date -
September 21st - 23rd, 2023***



Spring Forestry Field Day

This Spring, come join the Illinois Chapter of the Walnut Council, the Illinois Forestry Association and Illinois Tree Farm at a field day focused on responsible forest management and conservation! This field day will be held at two properties near Monticello, Illinois. Attendees can expect to learn about various aspects of forestry through demonstrations and presentations conducted by professional foresters.

When: Saturday, April 15th, 8:00 am - 2:15 pm ct

Where: 436 E 1300 North Road, Monticello, IL 61856

Registration Fee: \$20 per person (covers a lunch). Free admission to students.

Register Here: <https://ilforestry.org/event-5187862>

Topics To Be Discussed at Field Day

- ***Transitional Forest***
- ***Forest Health***
- ***Coppice Demo***
- ***NRCS EQIP Discussion***
- ***Crop Tree Selection Group Exercise***
- ***Even Aged Stands***
- ***Invasive Plant Control***
- ***Forest Soils Discussion***
- ***Allerton Park Forest Management***
- ***Pruning Demonstration***



State Forester 2023 Update

By Tom Gargrave, Division Chief/State Forester

Division of Forestry Mission Statement

It is the mission of the Illinois Division of Forest Resources to protect, perpetuate, restore, conserve, and manage the forest and related resources of Illinois, public and private, rural, and urban; and to ensure for future generations the greatest economic, scientific, and social benefits that can only be provided through a forest ecological system.

Illinois Forests are the hinge pin of where ecological diversity and habitat management/preservation meet. Vital forest cover types such as oak hickory are in decline and are of great concern. These stands provide the necessary habitat for over 75% of our state's wildlife populations. The Division of Forest Resources continues to strive to meet the mission of the Department and seeks to better the public and private lands of Illinois.

Staffing

The Forestry Division headcount stands at 24 staff members. We have position allocations for around 70. We remain optimistic as we rebuild the Division from the ground up.

The Division is down to 11 District Foresters statewide, several serving multiple Districts, 1 field tech, 2 field administrative, 6 Springfield/program staff, and 4 in Nursery production.

Good news: through a NRCS grant and partnering with the Illinois Natural History Survey we have hired 5 Forest Ecologists. They work

directly with landowners in field operations, engaging in our EQIP, CRP, and other federal forestry programs.

Currently the Division has 6 backfill positions posted in the State Hiring System. These include 4 District Foresters, 1 Wood Product Forester and 1 Regional Forester. We are optimistic that these will be filled by May of this year.

We have filled one position at Mason nursery last fall. Please welcome Holly Frainer as the new Natural Resource Tech II.

Additionally, we contracted with Retired State Forester Tom Wilson as a Fire Management Specialist to help organize training and track our National Fire Qualifications. We also have contracted with the Illinois Fire Service Institute to hire a new Federal Excess Program Manager starting in February.

Forestry Development Act

The Forestry Development Act program is running smoothly. District Foresters are operating off a healthy backlog, so we ask for your continued patience. Last year we ended with about 10,000 forest management plans statewide covering around 560,000 acres. This equates to approximately 15% of non-industrial private forestland in Illinois being managed for wildlife, timber, recreation, clean water and long-term forest health.

We anticipate no changes in the FDA laws and look forward to continued success with our private land

management assistance. We are planning as part of the TBLA revision, to reinstate a landowner cost share program next year. More to come on that.

District offices continue efforts to enroll new properties and reenroll existing participants. As DNR staffing challenges continue we ask more from our consulting forestry partners for both new and renewed FDA plans. Please remain patient as we work through professionally forestry staff shortages.

Nursery

Our state nursery in Mason County produced over 1,000,000 native plants and grass seed for Illinois landowners as well as 1600 potted trees/ plants, and over 2000 pounds of pure wildflower seed. Mason nursery continues to be the key producer for the Illinois Monarch Project. Improvements to the facilities are in the works and several large capital improvement projects are being reviewed for FY24.



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Fire

The Illinois Wildland Fire Program continues to grow under Forestry's care. We now have over 30 DNR employees that train and serve regularly as Wildland Firefighters. Each year the crew continues to play an integral role nationally in tactical wildfire operations.

DNR Forestry sent a 21-person initial attack hand crew to northern California in July. They were assigned to several large fires and came home without incident. We took delivery in February of a new Type 6 fire engine. In August Illinois engine crew was assigned to severity detail in east central Texas. Both crews served well and helped our partnering states in these national emergencies.

Community Forestry

IDNR's Urban and Community Forestry Program assists Illinois communities, counties, townships, military bases, park districts, and forest preserves with urban forest management through education, technical and financial assistance. As a part of this work, the program administers the Tree City USA, Tree City USA Growth, Tree Campus, and Tree Line USA programs in partnership with the Arbor Day Foundation and the USDA Forest Service. In 2022, IDNR's Urban and Community Forestry Program touched 10,354,558 Illinois residents through DNR Forestry staff and partner assistance which included directing \$214,528 in USFS dollars to local communities resulting in \$515,789 in local match for a total overall investment of \$730,317 in tree planting, tree care ordinance revisions, urban forest inventory data collection and urban forest management plan development work. Illinois is climbing among the top three states in Tree City USA

programs, is leading the nation in TCU Growth communities and among the top four states in Tree Campuses. In 2022 Illinois will approve around 200 Tree City USA Communities, 100 Tree City Growth Award communities, about 20 Tree Campus USA campuses, and at least 2 Tree Line USA utilities.

Division Successes in the Last 6 Months Include:

Forestry continues to work alongside of our sister divisions (Heritage, Wildlife, and Lands) to manage public lands. Several projects include planned timber improvement projects, tree plantings, and habitat management contract work. The Division also plans to conduct more sustainable harvests with follow up TSI on State Forest properties this year.

Additionally:

- We are helping to manage threatened/endangered species through conservation improvement planning.
- We are managing Chronic Wasting Disease through sharpshooting.
- We are removing invasive and exotic species from state lands.

The Division Continues to collaborate well with our esteemed partners (USFS, USFW, USDA, BLM, etc) in many statewide projects including our Core Funding grants, "Let the Sunshine in", Fuel Reduction and Management grants, Landscape Scale Restoration grants, CREP easements, and many others.

The Timber Buyers Licensing Act has undergone a nearly complete rewrite. It is hopeful that this new edition will make it through the General Assembly this spring. This new Act serves to protect landowners from unscrupulous buyers, educate them on sound forest management practices, and help monitor the volume and quality of timber being cut.

The Division of Forestry will continue to do our best to step up protecting, managing, and restoring the fine forest resources of this state. Forestry administration is constantly seeking growth and funding opportunities for the Division. Through the Bipartisan Infrastructure Act new forestry initiatives are being considered to help us prosper and reestablish old positions. We remain optimistic and passionate for all the State's natural resources and will continue to honor the privilege of public service.

Thank you, to our landowner partners and the Illinois Forestry Association. You clearly understand that ownership dictates a responsibility of good land stewardship. Your hard work, passion, and tenacity remains admirable.



Research Update: Challenges of Regenerating Oak on Productive Sites

By Emily Inglis and Eric Holzmüller
Forestry Program, Southern Illinois University



As most IFA members are aware, oak regeneration is a concern in many of our hardwood forests. Oaks are a valuable species, both ecologically and economically, and loss of oak from our forests would significantly change the dynamics of our property. Multiple studies have hypothesized that the combination of harvesting, prescribed fire, and thinning may facilitate oak regeneration. A closer look at these studies, however, suggests that oak regeneration may still be below desirable levels following the implementation of these treatments.

In 2014, a 650-acre study area was established at Trail of Tears State Forest, Union County, IL to look at the impact of four commonly recommended treatments to facilitate oak regeneration 1) Burn Only, 2) Thin/Burn, 3) Harvest/Thin/Burn, and 4) Control. The Burn Only treatment was burned three times after 2014. The Thin/Burn treatment underwent a thinning in 2015, which removed about 20% of basal area, and was burned three times after it was thinned. The Harvest/Thin/Burn treatment was harvested in 2016/2017, followed by a thinning in the Fall of 2017, and was burned three times after it was harvested. The Control treatment had no management. Plots were established in 2014 and resurveyed post treatment in summer of 2021. Tree regeneration was divided into three categories: large saplings (>3.3' in height and >1" to 3" DBH), small saplings (>3.3' in height and up to 1" DBH), and seedlings (>1" and up to 3.3' in height).

In the understory, we observed fewer large saplings in the Harvest/Thin/Burn treatment compared to the Control and most of that difference can be attributed to fewer large maple and beech saplings in the Harvest/Thin/Burn treatment. However, large oak sapling density was nearly non-existent and there was no statistical difference among treatments. Furthermore, there were no large white oak saplings found in any treatment areas. Similar results were observed for oak in the small sapling category. No statistical difference among treatments was observed among seedlings.

While this is just one study, our results suggest that the combination of harvesting, fire, and thinning is not a silver bullet to establishing oak regeneration. So, what happened? The effectiveness of these treatments may have been overestimated by results observed on less productive sites. Competition from other tree species e.g. tulip poplar and sassafras, is often stimulated following many of these treatments and these species can suppress oak regeneration. Additionally, the impact of deer herbivory cannot be understated. In a companion study, fellow SIU researchers reported suppressed oak regeneration after only one year of deer exclosure establishment within Trail of Tears State Forest. Other studies across the region have reported similar results.

Managing for oak regeneration and coming up short can be disheartening and as a landowner, you only have so much time, effort,

and money to devote to managing your forests. We recommend being more strategic on where you attempt to regenerate oak, focusing on less productive sites, and accepting that continued management, e.g. crop tree release and deer population reduction, may be necessary until your oaks have reached the midstory canopy. On more productive sites, focus on managing for species that have attributes that meet your goals and objectives. For example, if you are interested in timber production there is nothing wrong with encouraging the growth of tulip poplar or sugar maple on these sites. Too often these species are removed during the thinning process with the goal of improving oak regeneration even though this is highly unlikely. Instead, accept what you have and focus on working with what is present on your site.

Emily Inglis recently graduated from Southern Illinois University with a MS in Forestry and is now working for the USFS in Utah. Eric Holzmüller is a landowner, IFA member and Professor of Forestry at Southern Illinois University. For more information on this study contact Eric at: eholzmue@siu.edu.



Photo: Emily Inglis

An Exciting Year for Participants of the Beginning Forest Landowner Program

By Taryn Bieri, SIBFLP Program Coordinator

A Year in Review:

The first year-long course of the Beginning Forest Landowner Program is coming to an end. Twenty-two forest landowners from across the 16 southernmost counties of Illinois attended instructional classes, field-days, and community events all aimed at providing the knowledge and skill sets necessary to begin planning and implementing forest management in the Central Hardwoods Region.

Participating landowners were provided multiple opportunities throughout the year to meet with natural resource experts from Illinois organizations, agencies, and universities as well as experts from surrounding state Extension offices. Some of the topics covered in the classroom included forest ecology, invasive species, silviculture, forest management for wildlife, prescribed burns, the timber harvesting process, and forest management plans.

Landowners gained hands on skills in the field, such as learning to safely operate a chainsaw, conduct a forest inventory using common forest measurement tools, planning and implementation of a prescribed burn, and maple syrup production. Three community events were provided, where participants met at a forest landowner's property and were given a tour of their managed stands, providing an opportunity to discuss the process from a landowner's point of view.

In addition to these educational experiences, the Shawnee RC&D provided site visits with a natural resource professional. During these site visits, the natural resource professional would walk part of the forested land with the landowner, discussing their goals and what they were seeing in the forest. They would provide advice and point them in the direction of assistance and further expertise.



Photo 1: Participants learning to use forest measurement tools in order to conduct a forest inventory.



Photo 2: U.S. Forest Service employee Brooke Hagarty discussing forest soils and best management practices.



Photo 3: University of Illinois Extension and SIPBA discussing fire line prep and common tools used on a prescribed fire.

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Program Partners

This program is made possible through collaboration between University of Illinois Extension Forestry and the Illinois Forestry Association, the Illinois Department of Natural Resources Division of Forestry, the Shawnee Resource Conservation & Development Area, the Nature Conservancy, the Southern Illinois Prescribed Burn Association, and the River to River Cooperative Weed Management Area.



Photo 4: Participants learning how to install and repair lines in a maple sap collection system.



2023 Course Options

This year, two options exist, a full course and virtual short course.

Full Course (March 2023-February 2024) - \$50

Gain experience in basic forest and natural resource management and management planning with this year-long program covering the 16 southernmost counties of Illinois. The program includes full-day instructional sessions and hands-on field days led by Illinois Extension Forestry staff and program partners. This course is limited to 25 participants and priority will be given to new forest landowners, those new to managing their forest, and individuals within the program area.

Virtual Short Course (September 2023) - \$10

A series of virtual classes will be offered covering forest management and management planning for different goals. These classes will be led by forestry experts and provide the knowledge necessary to begin managing your forested land. An optional field-day with an additional fee will be offered to gain experience and skills in the field. This is a great option for Illinois residents living north of Interstate 64.

More Information

If you are interested in joining a course or just learning more about the program, feel free to contact Taryn Bieri at tbieri@illinois.edu or visit <https://go.illinois.edu/BFL>.



Photo 5: Mike Long of Long Forestry Consultation discussing oak regeneration and forest stand improvement.

Assessing Tree Defects

By Sarah Vogel, University of Illinois Extension
Horticulture and Natural Resources Educator

In addition to their ecological purpose, trees provide benefits like recreation, habitat, shade, windbreaks, food, and lumber. However, a tree can experience damage or even failure because of its susceptibility to pests and disease, natural disasters, genetic lifespan, and of course, human interference. This means that despite their many valuable functions, trees can pose a risk.

Proper site and species selection are important in the overall health and lifespan of a tree. A tree introduced to an area not suited to its needs will not perform well over time. Conversely, proper installation and adequate aftercare of a planted tree will increase the likelihood of not only its survival, but its ability to thrive. Early stressors such as being planted too deeply, not watered adequately after planting, or left with stakes and wires contribute to a tree's decline. Over time, decline will proliferate other defects, escalating the chances of the tree becoming a hazard.

Assessing if a tree is a hazard to persons or property can reduce risk. Is the tree close enough to a potential target (like a park bench, children's play equipment, street, house, building, or driveway) to present a hazard? (See photos 1 and 1a.) If it's in the middle of the forest or the underutilized part of a yard, probably not. If the damaged or defected tree does constitute a risk, know what to look for.



Photo 1: A one-sided elm with codominant stems leaning over a potential target.



Photo 1a: Pear tree failure onto target (house).

Start by knowing what is normal for the species. For instance, catalpa (*Catalpa* spp.) has very light green foliage and may appear chlorotic. However, this is characteristic of catalpa and not of concern. Moreover, pin oak (*Quercus palustris*)



is a particularly poor self-pruner and dead branches may persist on the lower portion of the crown. Recognizing common attributes of a species is imperative to identifying true defects.

Look at the overall condition of the tree. What age is the tree? Has it been showing signs of failure? Dieback, dropping limbs, not leafing out or stunted leaves are indicators that the tree is stressed from abiotic factors or biotic factors, or a combination of both. Inspect all parts of the tree including branches, branch unions, stem, roots, and root flare.

First look for root issues. Shallow root systems, stem girdling roots, and limited root space (See photo 2) will significantly impact the vigor and overall health of the tree. Stem girdling roots are a common but serious issue in many trees. (See photo 3). These often occur in nursery grown container stock, and can be mitigated before planting by root pruning. Being planted too deeply is a frequent problem, so look for the root flare. If the root collar is buried, soil and mulch are in constant contact with trunk tissue causing bark deterioration at the soil line, which may eventually kill the plant.

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Photo 2: Young red maple with shallow and stem girdling roots, in limited root space on boulevard.



Photo 3: Large stem girdling root.

Look for other damage or decay in roots as it severely impacts their ability to function normally in a tree's vitality. The effects of damage or decay on roots may appear in a tree suddenly or take years to become evident. If roots are rotting or missing on one side, a tree is more likely to blow over in strong winds. Often a sparse crown is due to a source problem at the roots. Flow of nutrients runs vertical just under the bark, so an isolated section of canopy affected can often be traced to problems with major roots underneath.

Next examine the trunk. Look for deep splits through the bark or even extending through the wood of the tree. (See photo 4) These cracks create weak areas that are more vulnerable to load stress. Cracks can occur due to bending or twisting, growth expansion, frost cracking, bark inclusion, or as an effect of stem girdling roots. Immediate action is recommended if two or more cracks occur in the same area of the stem or another defect.

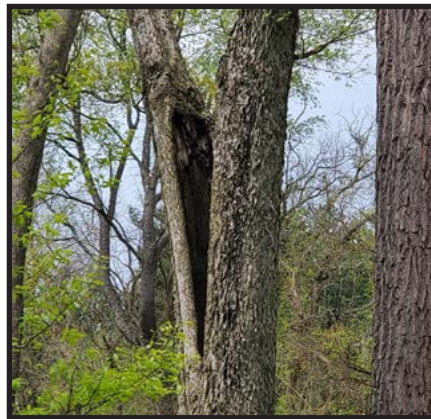


Photo 4: Crack and split into hackberry reveals included bark and decay.

Inspect the trunk for any damage, bulges, indentations, or cavities that would affect the function of the stem or crown support. Leaning may or may not indicate instability, but concern is warranted if the lean is recent or becoming worse. A canker is an area on the branch or stem where bark is recessed or altogether absent; they can develop from wounds or disease. If a canker incorporates more than half the stem's circumference, immediate action is recommended.

Decay is destructive in dead or living trees, and species vary in their ability to resist or provide defense against it by compartmentalization to isolate and close a wound. The presence of decay on stem or branches doesn't definitively indicate the tree is a hazard, though decaying trees can be prone to failure. Signs of advanced decay- soft, punky, crumbly wood, or a cavity where the wood is missing- indicate that a tree is at higher risk for failure. Advanced decay might also be implied by fungal growth on root flares, stems, or branches. (See photo 5).



Photo 5: Fungal growth on roots of large oak in an urban environment.

To gauge the current strength and viability of a decaying branch or tree, assess whether wound closure and stem growth are adequate to offset the destabilizing effects of decay. Because internal decay cannot be seen, evaluation of decay is done by estimation. For particularly hazardous situations, it may be best to have a trained arborist evaluate the safety of a decaying tree.

Structural problems such as large areas of decay, narrow branch angles, and unsound branch attachment in the crown and branches increase the risk of failure. Branches that are not strongly attached to the tree have weak branch unions. These may develop after topping as stubs inevitably decay and afford inadequate support for the new epicormic branches. (See photo 6) Maple, ash, and elm often form weak branch unions through codominant stems.



Photo 6: Weakly attached branches as a result of topping.

Forks and codominant stems are specific types of weak branch unions and serve as significant causes of tree failure. When two or more upright branches grow closely together, it causes bark to grow between branches, forming included bark. This serves as a wedge to split branch unions apart because included bark doesn't have the same structural integrity as wood. Callery pear, among other negative attributes, are notorious for their upright growth habit contributing to included bark, and predictable failure in high winds. (See photos 7 and 8).



Photo 7: Split in tree from codominant stems reveal included bark and significant rot and decay.



Photo 8: Callery pear (with codominant stems) splits to the ground during storm to reveal included bark.

Deadwood develops when branches or whole trees die from light deficiency, pests and disease, or damage above or below the soil surface. It is recommended that dead trees or branches be removed

immediately to reduce risk. Because it is dry and brittle, deadwood does not bend like live wood and is prone to snapping in high winds. Dead branches that are already broken but remain in the crown are particularly hazardous as they are already partly or fully detached. Deadwood should be removed promptly regardless of season.

Trees may simultaneously experience more than one defect, have pest or disease issues, or have flawed inherent species characteristics, and it is rarely one issue that causes a tree's decline or failure but a combination. Regular tree checkups can alleviate risk and even prevent some problems, especially in those trees already suffering issues. Defects can increase likelihood of damage or failure during storms, so observe trees after a weather event to determine if they suffered damage or existing problems were advanced.

Assessing tree defects, preventing further damage, and relying on arborists for accurate tree risk assessment can save time and money and ensure the safety of persons and property.

Winter Forest Photography

By Katherine Suopys

See more of Katherine's photography on Instagram @KatSuopys



History of Conservation in Illinois

Installment #42

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 # 41 ended.

At a conference held in May, 1927, the Director of the Department of Registration and Education and the Director of the Department of Conservation settled the relations between these departments in respect to forestry work and interests in Illinois. The Division for Forestry was created at this time as a part of the Conservation Department.

During the latter part of December, 1926, Paul G. Redington, Assistant Forester for the U. S. Forest Service Washington, D. C., visited Illinois and spent a few days in the field with Chief Forester Miller, examining possible sites which were thought best for such purposes. As a result of Miller's efforts, Illinois' first State Forest consisting of 3,400 acres was purchased in Union County by the end of 1929.

Stanley S. Locke was appointed assistant forester to Mr. Miller in June of 1928. He was of considerable assistance in getting the forestry program started.

The Division published the first issue of the booklet, "Forest Trees of Illinois and How to Know Them", with the cooperation of the U. S. Forest Service in June, 1927. 10,000 books were issued at the first edition, but the demand for the publication was so great that edition after addition had to be printed to satisfy teachers, students and tree lovers.

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



Photo By: Katherine Suopys



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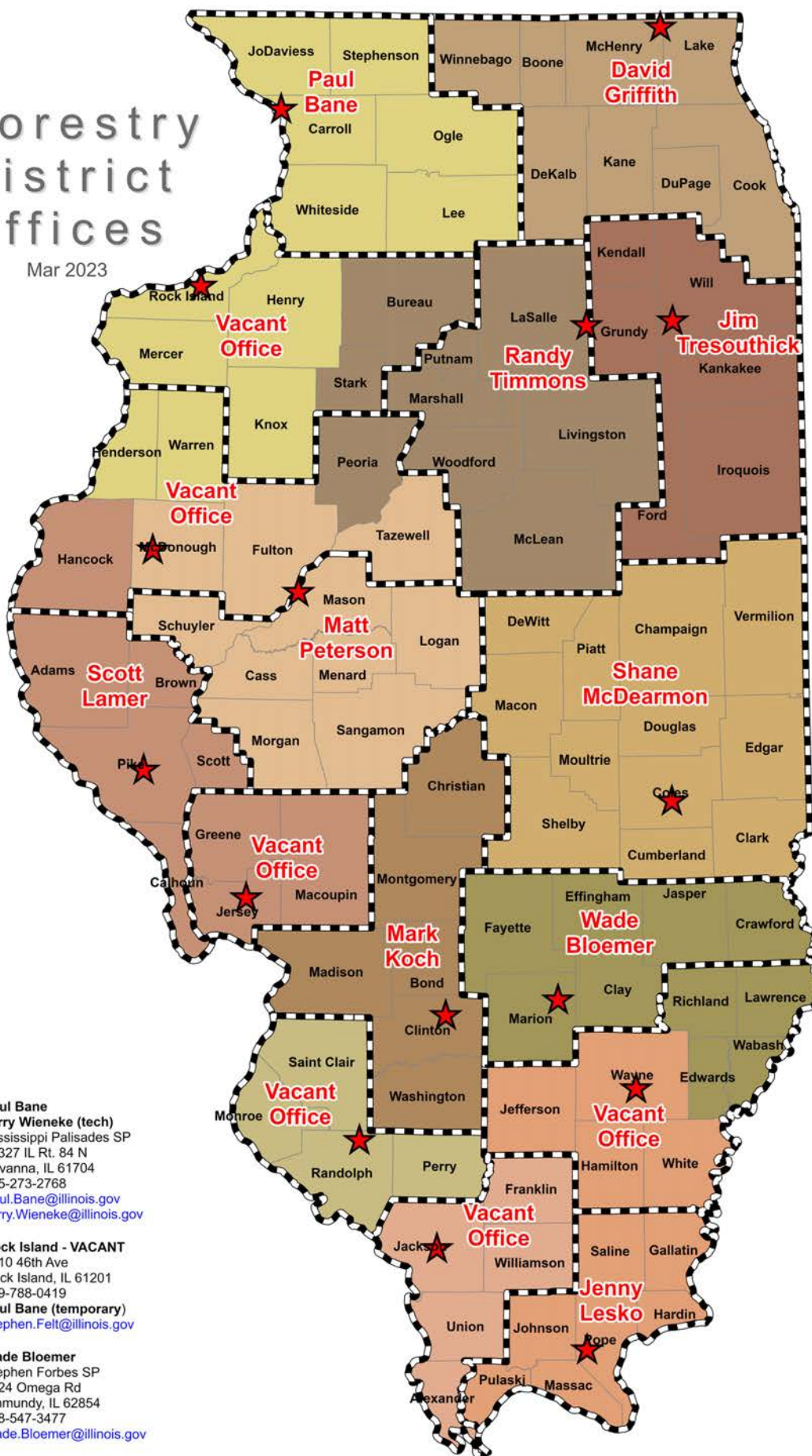
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