

Illinois Forests



"The Voice for Illinois Forests"

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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
Durand, IL
815/721-6287
walsh10@stateline-isp.com

PROGRAM COORDINATOR

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

Regional Directors

Region 1

Brad Petersburg
Galena, IL
641/420-5851
bf2100@gmail.com

Region 2

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

Region 3

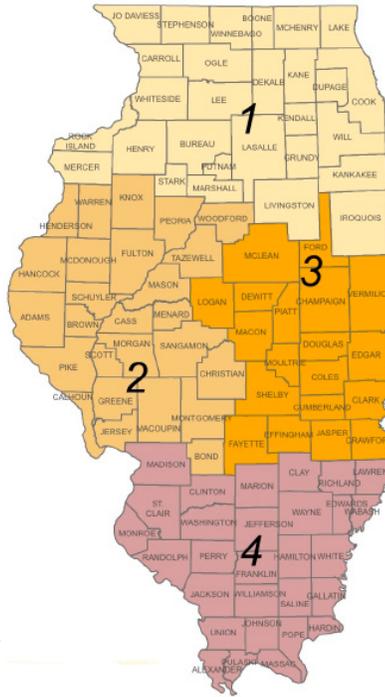
Stan Sipp
Mansfield, IL
217/714-1855
sklipp@illinois.edu

Sarah Vogel
Decatur, IL
217/877-6042
sklipp@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

Jay Hayek
University of Illinois
Extension Forester
217/244-0534 (office)
jhayek@illinois.edu

Stan Sipp
Forester
217/489-9003
sklipp@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



Letter to IFA membership and millions of potential members -

It is an honor to serve as President of the Illinois Forestry Association. I believe this forestry association is critical for the future of our Illinois forests for important reasons beyond the fact that most people appreciate trees and forests. Membership of the IFA was always envisioned and is today a diverse pool of forestry interests, landowners, and citizens at-large all championing trees and forests. The association and its members are a critically important building block to the future of robust Illinois forests because forestry itself is so critically important.

The Society of American Foresters defines forestry as the science, art, and business of creating, managing, and conserving forests and associated resources in a sustainable manner to meet desired goals, needs, and values. I think that is a well written definition. Also consider the broad field of forestry encompasses the biological, quantitative, managerial, and social sciences that are applied to forest management and conservation and includes many specialized disciplines such as research, planning, fire, agroforestry, urban forestry, industrial forestry, wildlife management, recreation and many others.

All that said, when it comes to forests, what really matters to an individual forest landowner or a typical citizen not owning forestland is not the definition of forests or forestry but the actual output of the forest. Forest output to a whitetail deer hunter is big healthy deer; to a birder, it's the presence of diverse and important birds; to an investor, it is timber volume and quality; to an environmentalist, it's carbon cycling, clean water, and habitats; and to a generalist, it's usually forest health and beauty. Having studied and practiced forestry now for 40 years, I contend that I have never seen a forest that is managed for just one thing, because there are many other important outputs, or potential ones by default.

The real treasure in supporting and practicing forestry as an IFA member is that forests can support multiple, simultaneous, and sustainable outputs which are all green as green! Those outputs more importantly can be increased and maximized. It is important to know that most Illinois forests are not inventoried or strategically managed in anyway. Reliable estimates would suggest far less than 20% of Illinois forests are smartly or scientifically managed. Considering that Illinois has about 5 million acres of forest of which nearly 90% is privately owned, the forestry potential and potential forest output across Illinois is immense – its huge. Imagine 10 times or more the benefits currently realized.

Private forest owners across the eastern US were recently surveyed as to their reasons for owning and keeping forestland. That survey concluded that managing and/or harvesting timber was low on most owner's lists while recreation and wildlife were high on their lists. Environmental reasons including biodiversity and carbon sequestration were high as well. Regardless of these various ownership objectives, other studies have accurately concluded that forest owners or their families all eventually harvest timber at some point. Why is all this important you might ask? Its important because managing for multiple objectives such as biodiversity and timber, clean water and wildlife, or recreation and aesthetics is easily achievable as would managing for all those six examples and adding carbon sequestration too.

Forest outputs in Illinois and most states in the Midwest are low due to lack of active forest planning and management. Forest outputs can be significantly increased, stacked and managed as maximized, multiple outputs in most Midwest forests. From what we know as a scientific community, the entire globe, including our farms and our own backyards needs more trees and more healthy, vigorous forests as an environmental buffer. At the time Europeans settled here, Illinois was

Continued on the next page -

nearly 50% covered by native forests and savannahs. Illinois is now 15% forested - up from our post settlement low of 5% - and what we do have now is forecast to shrink over the next decades unless significant acreages of land are reforested.

The benefits of our forests go far, far beyond the profits, enjoyment or satisfaction that can be achieved by one forest owner's smart timber management, another's excellent huntable deer habitat or yet another's wildflower and fall color show. The benefits of forests via the forest's basic outputs of oxygen, clean air, clean water, carbon sequestration, habitats, biodiversity, aesthetics, and other necessary goods and services can be increased and maximized for our civilization. Capitalizing on this environmental potential is indeed becoming more and more critical with time.

IFA, quite simply, promotes forests, forest management, forest conservation and protection and continues to reach more and more of the approximate 200,000 Illinois forest owners and the governments, organizations and opportunities that affect those forests and owners. The future of Illinois forests would be very bright if each year IFA reached hundreds more landowners and thousands more citizens who come to understand the importance and potential of actively managing Illinois forests and take action through joining IFA. I will take an active role as your president toward that ideal.

Support Illinois forests and forestry by joining IFA to help us spread the word about the importance of forestry and increasing the valuable outputs of our forests. Encourage everyone you know to understand that the 5 million acres of forest in our own state are as important as any forest on our planet - especially to Illinoisans and our neighbors. The more members we have the more forests that will be wisely managed and robustly managed for the benefit of the owners and us all.

I cannot over emphasize the importance of supporting or joining the IFA as a member to support its ongoing mission and vision of protecting our forestland, managing our forestland, and expanding our forestland right here in Illinois! If you are a member, thank you! IFA currently needs enthusiastic members to volunteer for an IFA committee if they can help us reach important annual and long-term milestones. If you are not a member, for the sake of forests, forestry and our environment - please join!



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If you plan to shop on Amazon over the holidays, consider entering the site through this link:

<https://smile.amazon.com/ch/27-0134781>

Even without the specifics, it's easy to search for the Illinois Forestry Association as your preferred charitable organization. Just remember to enter "smile dot" before amazon dot com. At no cost to you, Amazon will donate 0.5% of eligible purchase totals to the IFA.

Every little bit helps.
Thanks for your support!

IFA News and Updates

by Zach DeVillez



Reminder to Renew Subscriptions to National Woodlands Magazine

Since the National Woodland Owners Association has worked with the IFA to offer their publication *National Woodlands* to the IFA membership at a discounted price, over 100 IFA members have subscribed to the quarterly magazine. We have heard from some of our members that they really enjoy the content in the magazine. For those of you we haven't heard from, we hope that you're enjoying your quarterly issue!

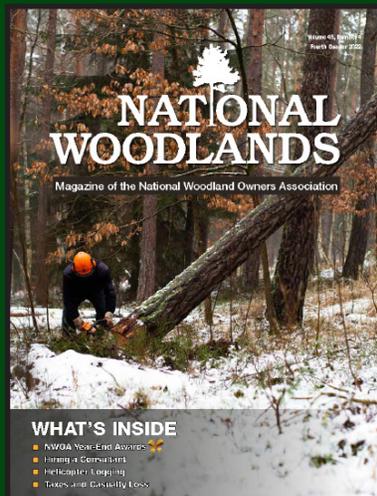
Renewing Subscriptions:

Remember, if you have bought a one year subscription and have received four quarterly issues, you will need to renew your subscription to receive future issues of the magazine. It will cost members \$12.50 to receive a one year subscription. To renew your subscription, make sure you are signed in to your profile on the IFA website and go to: <http://ilforestry.org/store>. That link will take you to the IFA online store, where you can renew your subscription by paying via card. If you prefer to pay by check, you can add \$12.50 to your IFA membership renewal. As the instructions state on the membership forms, please send your check to IFA Secretary, Dave Gillespie at the address below.

Illinois Forestry Association
P. O. Box 224
Chatham, IL 62629

If you are just now learning about this benefit to IFA member or are on the fence about subscribing, check it out! *National Woodlands Magazine* is a great way to stay updated on forestry information and news at a national scale.

If anyone has questions, you are welcome to contact IFA Coordinator, Zach DeVillez: zachd@illinois.edu



New IFA Committees for 2023

Starting in 2023, the IFA will have some new committees to help further meet the goals of the IFA's mission. These committees are now being developed by the board of directors. Committee meetings will be organized quarterly by an IFA Director that will serve as Committee Chair. In early 2023, we plan to announce these committees to the IFA membership in hopes that IFA

members will get involved and participate in the committees. This is a great opportunity for members to help the organization identify objectives and take action for Illinois forests. Interested members should keep an eye out for an announcement in early 2023. All those that compose the membership of the IFA have something in common; We all care about Illinois forests. If you want to participate and take action, we encourage you to sign up early next year!

List of Committees in Development

1. **Legislative Committee**
2. **Tree Conservation Committee**
3. **Outreach Committee**
4. **Annual Conference Planning Committee**
5. **Sponsorship Committee**

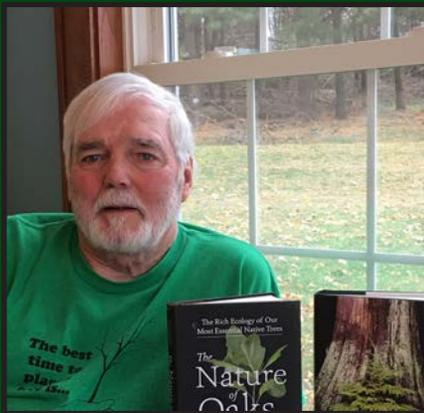
If you would like to reserve a seat in one of these committees or would like to get more information before the announcement is made, feel free to email Zach DeVillez at zachd@illinois.edu.

Results of the Board of Director Elections 2022 - 2023



IFA President - Paul Deizman

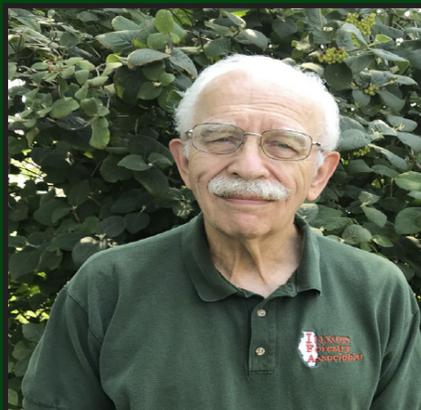
As you read in the President’s Message article, Paul Deizman is now serving as IFA President. Paul has years of experience in the field of forestry. We are very excited for Paul to help lead the IFA into the future. His knowledge and dedication to the field of forestry makes him an excellent fit for this role.



Past President - Tom Walsh

Tom Walsh has made the transition to the role of Past President. Tom did an excellent job serving as President

from 2021 - 2022. Tom spearheaded multiple efforts, including engaging with partner organizations and helping to plan a major boy scout event in Northern Illinois. Tom also helped plan and run a successful Annual Conference in Galena. Tom will now serve as Past President on the Executive Committee.



Lee Rife - Region 2 Director

Lee Rife has served as a Director on the IFA board for many years. Lee was always extremely engaged with the Illinois Forestry Association, attending events and making every board meeting. If you’ve been a long-time member, you will be familiar with the article he contributed to the newsletter quarterly, “Walnuts and Acorns”. Lee has decided to move on from his role as an IFA director. Thus, we would like to recognize and thank Lee for the many years of time and effort Lee has given to the IFA serving as Region 2 Director.



IFA Director Spotlight
New Region 3 Director Sarah Vogel

Sarah is a Horticulture and Natural Resources Educator for University of Illinois Extension. Her local Extension unit includes DeWitt, Macon and Piatt Counties, though she also serves Coles, Cumberland, Douglas, Moultrie, and Shelby Counties. She oversees the Master Gardener volunteer program in these counties and serves on the Extension Master Gardener State Advisory Committee. Sarah provides expert assistance to the general public on topics such as greenhouse production, landscaping, local food systems, tree identification, native species, plant pest diagnosis, and urban forest management. She also creates programming and other educational materials for local and statewide use by volunteers and the public.

We look forward to adding Sarah’s experience and skill set to the leadership of the Illinois Forestry Association!



IFA Holds Successful 17th Annual Conference in Galena!

This year, the Illinois Forestry Association held its 17th Annual Conference in Northwestern Illinois at the lovely town of Galena. For two days, members of the Illinois Forestry Association, members of partner forestry organizations and landowners convened to celebrate and learn about different aspects of forestry. In total, there were 66 attendees at the conference!

The conference kicked off with a day full of lectures given by forestry and wildlife professionals. Check out some of the topics covered on Day 1 of the conference below!

White Oak Restoration - Dominic Stelzer, Independent Stave Company Sustainability Manager

Bottomland Forest Management for Wildlife - Bruce Henry, Forest Ecologist

Woodland Prescribed Fire - Ryan Harr, Iowa DNR Special Projects Wildlife Biologist

First Aid/First Response to Forestry Injuries - Dr. Matt Smetana, EMS Medical Director at Javon Bay Hospital in Rockford

Conservation Easements - Jim Johannsen, JDCF Director of Land Conservation

NWTF: Healthy Forest Healthy Harvest - Stacy Lindemann and Chase Seals, National Wild Turkey Federation Foresters

Fire on the Landscape; History of Oak Woodlands in Illinois - Tricia Bethke, Forest Pest Outreach Coordinator



Photo 1: Attendees watching a lecture on day 1 of the conference.

IFA Silent Auction

Throughout day 1 of the conference, attendees were able to participate in a silent auction. This year's silent auction was a great success! A big thank you goes out to all the attendees and IFA directors who donated items for auction. In total the IFA brought in around \$2,000. Proceeds from this silent auction will go towards the IFA's overall mission.



Photo 2: Attendees checking out the IFA silent auction.

Annual Business Meeting

After the final lecture had concluded, many IFA members and board directors participated in the Annual Business Meeting. At the meeting, election ballots were handed out mostly as a formality since no director seats were contested. To learn more about the changes to the composition of the board, check out page 6. Another topic discussed at the business meeting was IFA Committees. See page 5 to learn about opportunities for members to serve on a committee that meets quarterly.

As is done every year at the Annual Business Meeting, the IFA Special Achievement Award was awarded to an IFA member that has demonstrated exemplary service to the Illinois Forestry Association and its mission. This year's award winner was Region 1 Director, Brad Petersburg. Ever since joining IFA, Brad has done a wonderful job staying engaged and driving momentum on many different IFA

objectives. The IFA board wanted to recognize Brad for his dedication to the organization, but also for his passion for Illinois forests and responsible forest management.



Photo 3: Brad Petersburg accepting the IFA Special Achievement Award.

Day 2 of the Conference

The second day of the conference started with a presentation from consulting forester, Kevin Oetken. Kevin presented a collection of Native American artifacts and spoke about their historical relevance.

Later in the morning, the IFA held a field tour at the Bunning Property near Galena. This beautiful property is currently being managed for wildlife and hunting opportunities. Thus, there were plenty of different sites of interest to tour that could demonstrate management strategies, such as prescribed fire, thinning and invasive species control. Needless to say, Mr. Bunning and the managers are doing a wonderful job working toward their land management goals. Thus, it was a great opportunity for attendees to discuss management strategies in the field.



Photo 4: Field tour leader, Kevin Oetken discusses management techniques being utilized on the property.



Photo 5: Attendees hiking through the Bunning Property.



Photo 6: Tour leader, Scott Schaeffer discussing management of oak savannas.

A Successful Conference

Yet another IFA Annual Conference has come and passed. If you were able to attend, we hope you had a great experience and learned something new about forest management. We all have different drives for wanting to manage and conserve forests. With events like these and those that other great forestry organizations put on, we can all learn from each other and ultimately advocate for and practice forest management to keep Illinois forests healthy and prosperous. If you couldn't make it to this conference, we hope you'll join us next year!

The IFA Annual Conference wouldn't be possible without the dedication of those that volunteer their time to plan or help conduct the conference.

The IFA would like to thank...

All the speakers who traveled and presented on their topics of expertise.

Dave Bunning and the Bunning Property Managers for letting the IFA tour some of the awesome management being carried out at the Bunning property.

IFA board members involved in planning and running the conference.

Chestnut Mountain Resort for being wonderful hosts for the event.

Jo Daviess Conservation Foundation for sponsoring and helping to plan the conference.



Shawnee National Forest: Doing Forestry for the Birds

By Justin Dodson, *Silviculturist, Forest Service*
&
Mark Vukovich, *Wildlife Biologist, Forest Service*

In 1996 a federal judge placed an injunction on timber harvesting in the Shawnee National Forest until a forest plan was developed that followed the National Environmental Policy Act requirements. That plan was completed in 2006, and a 17-year injunction on forest management on the Shawnee National Forest was lifted in 2012. Forest management resumed with a plan to convert non-native pine plantations back to native hardwoods located in Hardin County. LaRue-Pine Hills, in Union County, is the only location in southern Illinois on the Shawnee National Forest where shortleaf pine is native. However, thousands of acres of shortleaf and loblolly pine were planted on old farm fields across the Shawnee and southern Illinois to quickly re-forest the area and reduce erosion. Most of these areas were originally native oak and hickory hardwood forests.

Actions, such as harvesting the existing pine to varying densities and reintroducing prescribed fire were approved on about 205 and 500 acres at the Harris Branch and Lee Mine project areas in Hardin County. At these sites stocking, or the density of trees, was fairly high with an average of 171 square feet of basal area per acre.

Both Harris Branch and Lee Mine projects utilized commercial timber harvesting as a means to begin the removal of the nonnative pine stands and conversion to native hardwoods. Both project areas were subdivided into three sale areas with varying starting and completion dates. Harris Branch timber harvesting started in

2013 and ended in 2017. The average basal area, post-harvest, for Harris Branch is now 40 square feet per acre. Lee Mine harvesting started in one sale area in 2018 and completed in 2021, and another started in 2019 and was completed in 2022. Timber harvest at a remaining sale area has not yet started. In the harvested areas at Lee Mine, the current average residual basal area is 90 square feet per acre but varies by stand. Overall, the pine basal area was substantively reduced for Harris Branch and Lee Mine. This, along with multiple prescribed fires over the years, has allowed more sunlight to the forest floor and stimulated a flush of understory plants. Multiple harvest entries, likely transpiring over a decade, are planned to slowly continue the removal of non-native pine and promote native hardwoods.

Forest managers on the Shawnee needed a long-term plan to monitor the effects of habitat changes through time associated with the timber harvests at Harris Branch and Lee Mine. Bird surveys are among the easiest and cheapest methods to monitor effects through time on habitat and structural changes from timber harvests. Trained observers used the point-count survey method and visited random points or existing timber stand examination points to identify and count birds at Harris Branch and Lee Mine pre- and post-harvest. Spot mapping was used (Bibby et al. 1992, Robbins 1970) starting on 16 May–14 July in 2007, 2016, 2017, and 2022, with surveys conducted at least 5 minutes after sunrise until 10:00 am. Trained observers visited 29 points in

harvested pine stands and 42 points in unharvested pine stands.

Preliminary results of bird surveys have indicated an increase in the number of species in harvested or managed pine stands at Harris Branch and Lee Mine (N= 64 species) compared to unharvested pine stands (N= 44 species). Some species, particularly species in decline in the Midwest or species of conservation concern, appeared after pine stands were harvested. For example, the iconic red-headed woodpecker, which was recently identified as losing 50 % or more of its population from 1970–2019 in a status report of birds (NABCI 2022), appeared in harvested pine stands. Plans to convert these pine stands back to hardwoods, which includes oaks, will be very beneficial to red-headed woodpeckers, who are known to migrate to and winter in the Midwest region to forage on acorns (Frei et al. 2020).



© Mark Vukovich
Photo 1: A red-headed woodpecker

Featured Articles

Early successional habitat and structural diversity in the forest has substantively declined and is lacking on the Shawnee National Forest since the injunction. Timber harvest areas provide this habitat as indicated by the increased detections of early successional or disturbance dependent species like, prairie warblers, blue-winged warblers, and yellow-breasted chats in the understory and midstory at Harris Branch and Lee Mine. Breeding blue-winged warblers are relatively abundant now at Harris Branch as the understory slowly grows taller and into a shrubland of oaks, hickories, tulip poplars, and maples. Currently, Harris Branch is among the best areas on the Shawnee National Forest to see breeding red-headed woodpeckers, prairie warblers, and blue-winged warblers.

We also observed increases in important game species in harvested pine stands due to habitat changes in the understory. Northern bobwhites, mourning doves, and wild turkeys were detected more often during bird surveys in harvested areas and likely because of changes in habitats and cover in the understory and midstory. The lower basal areas and increased stem density in the understory in our harvested pine stands means more nesting cover for northern bobwhite and wild turkeys. As a result, we expect hunting opportunities may likely increase in and around Harris Branch and Lee Mine.

Harvested pine stands can also provide important winter bird habitat as well. For example, in December of 2020, we observed large flocks of red crossbills, an irruptive long-distance winter migrant, throughout the winter at Lee Mine. To our knowledge, this was the largest concentration of red crossbills documented in southern Illinois during the winter (Robinson 1996). Furthermore, we discovered that

by sharing our bird observations, we could promote recreation opportunities at our harvested pine stands. Using the citizen-science application, eBird, to report and share our findings, bird-watchers traveled to these harvested pine stands in remote Hardin County to view the rare red crossbills in the winter of 2020. Bird-watching has been continuing to increase in the United States and was particularly important during the COVID-19 pandemic so yet another way the Shawnee National Forest can promote our work with the bird-watching community.

Not surprisingly, as a result of a reduction in the tree basal area and opening of the forest canopy at these locations, we did observe some declines in forest-interior species like the worm-eating warbler and Kentucky warbler post timber harvest. However, forest interior habitat availability remains dominant across the Shawnee National Forest. The taller understory and shrubland at Harris Branch will eventually return to a hardwood forest as will Lee Mine over time. Early successional species like prairie warblers and blue-winged warblers will then be replaced again by forest interior species like black-and-white warblers, ovenbirds, and worm-eating warblers as the forest matures. This creates a constant need over time to provide a variety of available habitats to the entire suite of bird species across the landscape.

A conservation minded, all lands approach to forest management is growing across southern Illinois. Future plans to maintain oak forest types and improve habitat by manipulating forest structure through harvest continues across the Shawnee. Outyear projects bring hopes of expanding limited habitat for cerulean warblers, a species of conservation concern (Buehler et al. 2020). Expanded bird monitoring could guide management efforts toward benefitting other species

like eastern whip-poor-wills and chuck-will's widows (Thompson et al. 2021). We expect these trends of increased bird community diversity from habitat and structural changes to the forest to continue with management into the future, that in turn will support a greater number of birds with conservation needs.

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Species Monitored at Harris Branch and Lee Mine

Photos By: Mark Vukovich, Wildlife Biologist



© Mark Vukovich
Photo 2: Prairie Warbler



© Mark Vukovich
Photo 3: Red-headed woodpecker



© Mark Vukovich
Photo 4: Red Crossbill



© Mark Vukovich
Photo 5: Prairie Warbler nest found at Harris Branch.



© Mark Vukovich
Photo 6: This is a great example of how a timber harvest can create habitats during the felling process for common birds like the red-bellied woodpecker. This bird took advantage of the weakened area around the branch and created a cavity.



© Don Mullison
Photo 7: Yellow-Breasted Chat



© Mark Vukovich
Photo 8: Blue-Winged Warbler



© Mark Vukovich
Photo 9: Eastern Wild Turkey

Illinois Oaks and Acorns

This time of year, how can you not appreciate the mighty oak tree. There leaves turn and display magnificent hues of color, ranging from brilliant yellows to browns and even red and purplish-reds depending on the species of oak. Depending on the intensity of the color change (some years are better than others), there is usually quite a palette of color on display each year.



Yes, a view from a vantage point of an Illinois forest dominated by oaks is quite the site to behold. But for this article, we're not going to focus on that. Let's discuss and appreciate what is going on below the canopy on the forest floor.

Amongst other values, one of the best values an oak has to a forest is the production of acorns. As you know, each Fall, acorns litter the forest floor. This is a critical resource for wildlife. Animals such as squirrel, mice, white-tailed deer, wild turkey, bobwhite quail, blue jays, multiple

species of woodpeckers and waterfowl (and the list goes on) all depend on the calories available in acorns. Some of these predators of acorns even depend on acorn consumption to survive through the winter. There are certainly other tree nuts that largely contribute to the caloric needs of wildlife, such as beechnuts, hickory nuts or pecans. However, acorns are still considered to be one of the most important food sources available to wildlife in our region. This helps maintain the status of oak being a keystone species.

Comparing Red and White Oak Acorns

Many of you know that there are two major groups of which we classify oak species. Those in the red oak group, and those in the white oak group. While they are both vitally important to our forests and the critters that inhabit them, there are some key differences between their acorns.

Red oak acorns need a period of cold stratification to germinate. This is a period of dormancy that a red oak acorn must undergo before sprouting a root. When compared to white oak, red oak acorns are considered less palatable to many species. This is due to the fact that red oak acorns have a higher concentration of Tannins. Tannins are chemical compounds found in acorns that cause a bitter taste and are considered toxic to humans and some animals. However, many species of wildlife do not have the same level of adverse reaction to

tannins as humans do. In terms of calories, red oak acorns tend to have more calories, fat and protein than white oak acorns.

Unlike red oak acorns, white oak acorns do not need a period of cold stratification before germination. These acorns, can sprout just a week or a few weeks after hitting the ground depending on site conditions. As mentioned before, white oaks acorns tend to be favored over red oak acorns by many species of wildlife.

Cyclical Mast Production

Oak trees, as well as other nut-bearing trees vary from year to year in their nut production. You may have heard the term "mast year" before. This term refers to a tree's ability to expend more of its energy to dramatically increase nut production in a given year. Some research has even suggested that nut trees, including oaks can synchronize this effort. While more research needs to be carried out to study this phenomenon, it has been suggested that this could be a method to increase natural regeneration by "flooding" an ecosystem with an abundance of mast to combat predation. This would help improve the probability of successful regeneration. Generally, the probability of an acorn becoming an oak tree is quite small due to predation. On the other hand, oaks can also have "down years" in mast production. In other words, acorn production is highly variable from year to year.

Acorn Identification



White Oak (*Quercus alba*) - Acorns borne 1 or 2 together, with or without a stalk; nut oblong, up to 3/4 inch long, green to greenish brown, shiny; cup covering up to 1/4 of the nut, yellow-brown, often minutely hairy.



Swamp White Oak (*Quercus bicolor*) - Acorns in pairs, on stalks 1 inch long or longer; nut ovoid, pale brown, 1 to 1.5 inches long, enclosed about 1/3 its length by the cup; cup thick, light brown, hairy, roughened.



Bur Oak (*Quercus macrocarpa*) - Acorn usually solitary, with or without stalk; nut ovoid to ellipsoid, dark brown, up to 1 3/4 inches long; cup covering one-half to nearly all the nut, hairy, the uppermost scales long-fringed.



Swamp Chestnut Oak (*Quercus michauxii*) - Acorns solitary or paired, with or without short stalks, nut ovoid to ellipsoid, brown, up to 1.5 inches long, enclosed about 1/3 its length by the cup; cup thick, hairy, short-fringed along the rim.



Chinkapin Oak (*Quercus muehlenbergii*) - Acorns borne singly or paired, usually on a short stalk; nut ovoid, chestnut-colored, up to 3/4 inch long; cup covers about 1/2 the nut, the scales of the cup are hairy and usually with a short fringe.



Chestnut Oak (*Quercus montana*) - Acorns borne singly or paired, usually on a short stalk; nut ovoid to ellipsoid, chestnut-colored, up to 1.5 inches long; cup covering about 1/2 the nut or less, the scales of the cup reddish brown and warty.



Post Oak (*Quercus stellata*) - Acorns solitary or paired, with or without a short stalk, nut oval to oblong, up to 1 inch long, pale brown, less than 1/2 enclosed by the cup; cup reddish brown, hairy.



Scarlett Oak (*Quercus coccinea*) - Acorns solitary or paired, with or without stalks, nut oval or hemispherical, up to 3/4 inch across, concentric circles often located near tip, enclosed up to 1/2 its length by the thin cup, reddish-brown, finely hairy.



Southern Red Oak (*Quercus falcata*) - Acorns usually solitary, with or without a short stalk; nut spherical or ellipsoid, up to 1/2 inch long, orange-brown; cup covering only 1/3 of nut, with hairy, reddish brown scales.



Shingle Oak (*Quercus imbricaria*) - Acorns solitary or 2 together, stalked; nut nearly spherical, dark brown, less than 1/2 closed by the cup; cup reddish brown and slightly hairy.



Overcup Oak (*Quercus lyrata*) - Acorns solitary or 2 together, with or without a stalk; nut nearly spherical, up to 1 inch in diameter, pale brown, often nearly entirely closed by the cup; cup finely hairy.



Blackjack Oak (*Quercus marilandica*) - Acorn on very short stalks sometimes lacking; acorns nearly round, usually at most only 1/2 inch in diameter; cup enclosing 1/2 of the acorn, with loosely arranged scales.



Cherrybark Oak (*Quercus pagoda*) - Acorns solitary or 2 together, with or without a stalk; nut ellipsoid, about 1/2 inch long, brown, enclosed for less than 1/3 its length by the cup; cup finely hairy.



Pin Oak (*Quercus palustris*) - Acorns 1 to 4 together, with or without stalks; nut hemispherical, up to 1/2 inch across, pale brown, frequently with darker lines, enclosed less than 1/4 by the cup; cup thin, saucer-shaped, reddish-brown, finely hairy.



Willow Oak (*Quercus phellos*) - Acorns solitary or paired, with or without short stalk nut more or less spherical, pale-yellow brown, enclosed less than 1/4 its length by the cup; cup reddish brown, finely hairy.



Northern Red Oak (*Quercus rubra*) - Acorns solitary or 2 together, with or without stalks, nut ovoid, up to 1.5 inches long, pale brown, covered less than 1/4 by the cup; cup reddish brown, with tight scales.



Shumard Oak (*Quercus shumardii*) - Acorn, on stalk less than 1/4 inch long, usually produced singly; acorns broadly egg-shaped, short-pointed at the base and flat at top, up to 1.25 inches long and about 3/4 as broad, light brown; cup shallow, about 1/3 to 1/4 covering the acorn, densely short-wooly scales.



Black Oak (*Quercus velutina*) - Acorns solitary or 2 together, with or without a short stalk; nut ovoid or ellipsoid, up to 3/4 inch long, reddish brown, not more than 1/2 enclosed by the cup; cup with scales, not appressed at the tip, thus appearing ragged.

Stem Injections, Basal Bark, and Cut Stump Treatments

By Chris Evans, University of Illinois Extension Forester

Herbicide applications are an important part of forest management. They can be used to control invasive species, prepare a site for planting, reduce weeds and other vegetation around tree seedlings, and conduct a thinning. Understanding how to properly apply herbicide is crucial for both safety and efficacy. For control of woody plants, common application types include stem injection, cut stump, and basal bark herbicide treatments. All of these treatments use herbicide solutions that are more concentrated than you typically use when spraying the foliage of vegetation, but usually require much less spray. For all these treatments, the specific rate of herbicide used depends upon the application method, the specific formulation of herbicide being used, and the species and size of the plant being treated. Always read and follow label directions when using herbicide. All of these methods are effective most of the year except early spring during leaf-out. Water-based herbicides should not be used during freezing temperatures.

Injection treatments encompass several similar application techniques, but it involves exposing the cambial layer of the woody plant to allow direct contact with the herbicide for the most efficient uptake. This can be done through girdling the plant (called a girdle or frill application), making a downward angled cut through the bark (hack and squirt), or drilling a hole through the bark (drill and fill). A small amount of concentrated herbicide is this placed in the damaged area.



Photo 1: A type of injection treatment called girdling, which exposes the cambial layer for herbicide application.

Cut stump is very similar except the entire woody plant is cut down near ground level and the herbicide is applied on the cut surface. Try to make the cuts within six inches of the ground, but not so low that you get dirt on the cut surface (dirt will reduce herbicide uptake). Herbicide applications should be made within 10-15 minutes of the plant being cut. Any longer may result in reduced treatment efficacy.



Photo 2: A cut stump treatment.



Basal bark utilizes ester-based herbicides and a carrier such as basal oil to allow herbicide applied directly on the tree to be taken up through the bark. The lower 14-18 inches of the plant should be treated, making sure to apply herbicide on the entire circumference. This uses more herbicide than the other methods described above but is very fast and easy to apply. This method should be restricted to thin-barked species and smaller individuals. A general rule of thumb is to only use basal bark applications on woody plants smaller than six inches in diameter.



Photo 3: A basal bark treatment.

Support the Great Rivers Burn Association at This Upcoming Event!

The Great Rivers Prescribed Burn Association was formed in 2021 and is operating within a 50-mile radius of Alton, IL. A recent National Fish and Wildlife Foundation Grant was awarded to Pheasants Forever/Quail Forever that provided funding for the first replication of the successful Southern Illinois Prescribed Burn Association. The newly formed Great Rivers Prescribed Burn Association leverages the support of multiple state and federal agencies as well as NGOs, based on the growing need for fire practitioners. The carefully chosen foundation for this new PBA builds on the excellent groundwork by educators and practitioners at Lewis and Clark College and Principia College as well as regional partners and a core group of motivated individuals.



Old Bakery Beer in Alton, IL has graciously agreed to brew a benefit beer “Burnt Oak” for the association. This Oak themed beer is being brewed with the intent to highlight the need for oak forest management and the use of fire as a management tool. GRPBA will be hosting a beer release party at the Old Bakery Beer Co. January 19, 2023. A percent of all beer sales will be donated to the association. Along with the brews, OBB has a full menu to order from. The association has also asked two Guest Speakers to come present on Prescribed Fire and Oak Forest Management. Dr. John Lovseth from Principia University and Dr. Charles Ruffner will each have an individual presentation to share with everyone.

***When: 5:30-9:00 pm ct Thursday, January 19th, 2023
(Speakers will present at 6:15 and 7:15 pm)***

***Where: Old Bakery Beer
400 Landmarks Blvd, Alton, IL 62002***



History of Conservation in Illinois

Installment #41

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 # 40 ended.

Mr. Robert Miller was appointed Chief Forester in the Department of Conservation, August 1, 1826. The main forestry problems at that time, according to Miller, were: first, the development of a nursery to supply stock at reasonable prices to landowners for planting waste lands or reinforcing old woodlands; second, the protection of Illinois' woodlands from fire; third, acquisition of state forests; fourth, increased publicity work.

For several years different organizations have tried to make a start in fire protection in Illinois. However, not until 1925 did funds become available for fire protection and it was in October 1925 that the first fires wardens were appointed in southern Illinois. By spending a certain amount on fire protection, the State secured cooperation from the U. S. Forest Service under the Clark-McNary Law, July 1, 1927.

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



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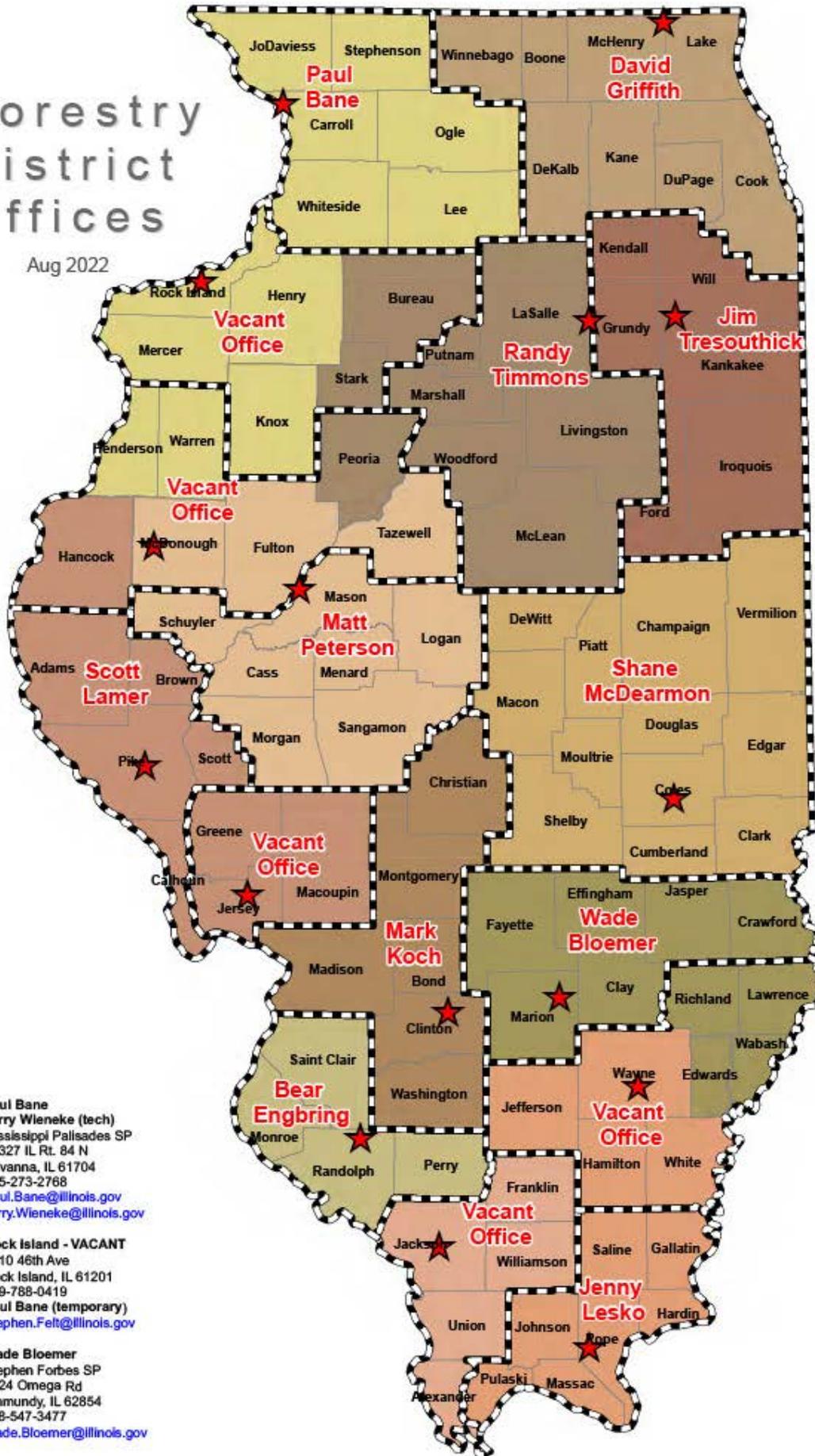
Stan Sipp
Director, Region 3
P.O. Box 111
Mansfield, IL 61854

Signs are shipped via U.S. Postal Service
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Questions?
Contact Stan by email at:
stanley.sipp@usda.gov

Forestry District Offices

Aug 2022



Paul Bane
 Terry Wieneke (tech)
 Mississippi Palsades 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
 Kimmunity, IL 62854
 618-547-3477
Wade.Bloemer@illinois.gov

Bear Engbring
 World Shooting Recreation Complex
 One Main Event Dr. Suite 140
 Sparta, IL 62288
 618-295-2877
[Bear.Engbring@illinois.gov](mailto: Bear.Engbring@illinois.gov)

David Griffith
 Chain O Lakes Sp
 8916 Wilmont Rd
 Spring Grove, IL 60081
 815-675-2388
[Dave.Griffith@illinois.gov](mailto: Dave.Griffith@illinois.gov)

Mark Koch
 Eldon Hazlet SP
 20100 Hazlet Park Rd
 Carlyle, IL 62231
 618-594-4475
[Mark.Koch@illinois.gov](mailto: Mark.Koch@illinois.gov)

Scott Lamer
 1252 W. Washington
 Pittsfield, IL 62383
 217-285-2221
[Scott.Larmer@illinois.gov](mailto: Scott.Larmer@illinois.gov)

Jerseyville - VACANT
 604 E. Franklin
 Jerseyville, IL 62052
 618-498-1827
Scott Lamer (temporary)
[Scott.Larmer@illinois.gov](mailto: Scott.Larmer@illinois.gov)

Jenny Lesko
 Dixon Springs SP
 945 State Hwy 146W
 Golconda, IL 62938
 618-949-3729
[Jennifer.Lesko@illinois.gov](mailto: Jennifer.Lesko@illinois.gov)

Fairfield - VACANT
 108 Andrews Rd.
 Fairfield, IL 62837
 618-847-3781
Jenny Lesko (Temporary)
[Jennifer.Lesko@illinois.gov](mailto: Jennifer.Lesko@illinois.gov)

Shane McDearmon
 1880 West Polk Ave
 Charleston, IL 61920
 217-348-0174
[Shane.McDearmon@illinois.gov](mailto: Shane.McDearmon@illinois.gov)

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

Matt Peterson
 700 South 10th
 Havana, IL 62644
 309-543-3401
[Matt.Patterson@illinois.gov](mailto: Matt.Patterson@illinois.gov)

Murphysboro - VACANT
 Lake Murphysboro SP
 52 Cinder Hill Dr
 Murphysboro, IL 62966
 618-856-2828
Ben Snyder (temporary)
[Benjamin.Snyder@illinois.gov](mailto: Benjamin.Snyder@illinois.gov)

Randy Timmons
 124 W. William St.
 Seneca, IL 61380
 815-357-8848
[Randy.Timmons@illinois.gov](mailto: Randy.Timmons@illinois.gov)

Jim Tresouthick
 30550 Boathouse Rd
 Wilmington, IL 60481
 815-476-0256
[Jim.Tresouthick@illinois.gov](mailto: Jim.Tresouthick@illinois.gov)