

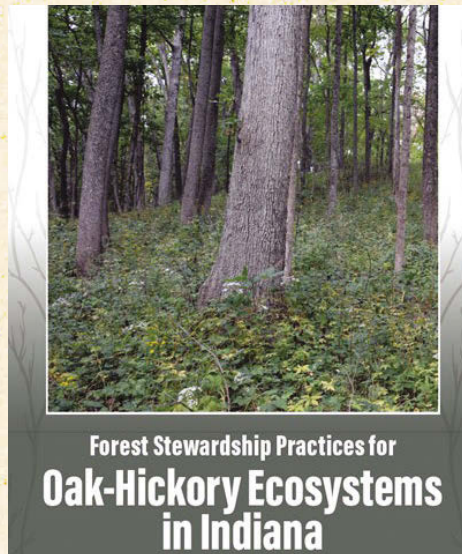
New Publication Teaches Landowners How to Support Oak-Hickory Ecosystems

Oak-hickory forests, which are comprised of a variety of different tree species, shrubs, grasses, sedges and wildflowers, as well as wildlife, including songbirds, are important to Indiana's biodiversity. Learn how you can support oak-hickory ecosystems on your property through a new publication, "Forest Stewardship for Oak-Hickory Ecosystems in Indiana," produced by Let the Sun Shine In - Indiana.

"The goal of this publication is to provide woodland owners with information about the stewardship practices they can use to sustain and enhance oak-hickory ecosystems on their land," said co-author Jarred Brooke, Purdue Extension wildlife specialist. "Having this information will help them make informed decisions about how to manage their land to meet their forestry and wildlife objectives."

The publication discusses various methods landowners can use on their properties, from midstory removal to overstory thinning, prescribed fire, supplemental planting, controlling deer browsing, crop tree release and invasive species control. It also details options for timber harvest, which can be used to regenerate the next generation of a forest. Additional resources from forestry and wildlife professionals as well as other publications discussing current research and management tips also are included in this document.

"Oak ecosystem management is confusing," said co-author Dan Shaver, state forester for the Indiana Natural Resources Conservation Service. "This publication provides easy to understand basic concepts to help landowners see where their property fits in the oak restoration process. It does not answer all questions or provide all the technical details, but it will help reduce confusion



and foster better communication and understanding between landowners and foresters."

"The oak-hickory ecosystem of southern Indiana is incredibly important to birds, other wildlife, and overall biodiversity," Brazil said. "Unfortunately, it's continued persistence isn't a given. Lack of management, and specifically lack of fire, over the past century has left it in peril. Restoring the oak-hickory ecosystem will require a concerted effort and private landowners are a key part of the solution. This publication is intended to help landowners understand how to manage oak ecosystems on their properties, and give them a roadmap for getting started."

Woodland owners who are curious about oak restoration or improving their woodlands for songbirds can reach out to their local IDNR forester, the Let the Sun Shine In - Indiana organization or Purdue Extension to find out how to get started.

The primary method of distribution of the Stewardship Guide is through the Indiana DNR district foresters, but the guide also is available online to read or download at https://extension.purdue.edu/pondwildlife/_docs/oak-stewardship-issi-2023-adac.pdf.

The publication is co-authored by Brooke, Shaver and Kyle Brazil, Central Hardwoods Joint Venture (<https://www.chjv.org/>) coordinator for the American Bird Conservancy (<https://abcbirds.org/>).

Let the Sun Shine In - Indiana is a collaboration of several organizations with a shared goal of maintaining oak-hickory ecosystems for the benefit of the people and wildlife of Southern



LET THE
SUN SHINE IN

continued on page 7

www.ifwoa.org

IFWOA

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UPCOMING MEETINGS

Save the Date

Indiana Woodland Owner Conference & IFWOA Annual Meeting

November 1-2, Wabash

Plans are underway for our next conference and we are looking forward to returning to the north part of the state after several years away. We have exciting tours planned for Friday and indoor expert presentations on Saturday at the Wabash Honeywell Center. Plenty of time for networking, sharing tips and tricks and getting your questions answered. More information will be available in August at our conference page (<https://www.ifwoa.org/resources/annual-woodland-owner-conference/>). We hope you can attend!



UPCOMING EVENTS

See registration and more information at www.ifwoa.org/events.

July 16

@ 8:00 am - 9:30 am
Breakfast with a Forester
American Table
Restaurant, Warsaw

July 27

@ 3:00 pm - 5:00 pm
Women Supporting
Wildlife Hiking Series
Yellowwood State Forest,
Nashville

July 28 - July 30

Walnut Council national
meeting
Springfield, OH

August 13

@ 7:00 pm ET
IFWOA Member Zoom
Session

August 20

@ 8:00 am - 9:30 am
August Breakfast with a
Forester
West Side Diner,
Logansport

September 9

@ 8:00 am - **September
13** @ 5:00 pm
Lumber grading short
course
WoodMizer 8180 W 10th
St, Indianapolis

September 17

@ 8:00 am - 9:30 am
September Breakfast
with a Forester
Round the Clock
Restaurant, LaPorte

September 17

@ 9:00 am - 2:00 pm
Women 4 the Land
Pollinator program:
Southwest Indiana

September 21

@ 9:00 am - 5:00 pm, \$25
Invasive Plant Control
Training for Landowners:
Dubois County
Southern Indiana Purdue
Ag Center (SIPAC)

September 21

@ 9:00 am - 3:00 pm
Nature Daze, Brown
County

September 25

@ 12:00 pm - 1:00 pm
Webinar: Invasive
Grasses of the Midwest

October 26

@ 8:00 am - 4:00 pm
Chainsaw training
Level 1
Contact [ifwoa1@
gmail.com](mailto:ifwoa1@gmail.com) for more
information.

November 1-2

2024 Indiana Woodland
Owner Conference
Wabash County

November 12

@ 7:00 pm ET
IFWOA Member Zoom
Session

For local invasive species
management events in
your area see [https://
www.entm.purdue.edu/
iisc/](https://www.entm.purdue.edu/iisc/) for times, locations,
contact info.



A MESSAGE FROM THE IFWOA PRESIDENT



Lee Huss, IFWOA president

aspects of life has a downside, as I sometimes catch myself thinking about my next meal while enjoying the food before me! What can I say, Life Is Good!

Since 1977 Indiana Forestry and Woodland Owners Association has been true to its tag line of "Working for Indiana's Woodlands". One way we do this is each year we recognize excellence in private forest management by awarding the Charles Deam Award at our annual meeting. And every other year IFWOA publishes a Directory of Professional Foresters in the state. We also engage with Purdue FNR Extension, IDNR Division of Forestry, the US Forest Service and other conservation minded organizations to promote scientific best management practices that we can communicate to our membership.

As the organization approaches our fifty-year anniversary in 2027, we are looking forward to further enhancing the educational services we deliver to our membership. In 2023 the IFWOA board of directors held a strategic planning meeting that produced several action items we believe will improve our service to our members. The first action item is to increase our visibility to our membership and the public.

One of the ways we do this is through our winter webinar program which provides educational programming on topics that interest woodland owners. If you missed the live feed, these sessions are archived online with access through the IFWOA website and our YouTube channel (internet search: "IFWOA YouTube"). We also have a partnership with Hoosier Ag

I am forever grateful that my forestry education taught me to view the forest not only in the present, but also for its potential in ten, twenty-five, fifty, and one hundred years. Such forward strategic thinking is necessary to sustainably grow trees to maturity and manage organizations. However, this thinking in other

Today radio to deliver short educational messages on topics of interest to private woodland owners. Since most woodland owners prefer to not drive more than one hour to educational events, in addition to our annual meeting in early November, (save the date November 1st-2nd, Honeywell Center in Wabash), the board is exploring holding more regional events to better engage with the membership across the state. For example, see the new Zoom sessions on page 5.

The second action item is to better tap into the expertise of our members and encourage them to serve on IFWOA committees (financial, membership, and educational programming). The final action item is we are looking at the future financial status of IFWOA. Due to the hard work of past and present members, currently we are blessed to have a relatively healthy balance sheet. However, the increased focus on membership engagement comes at a cost.

To potentially increase our income, the board has voted to move forward on applying to change our tax status from a 501 c4 (social welfare organization) to a 501 c3 (charitable organization). This would allow IFWOA to receive tax deductible donations and grants. This is currently "in the works" and we expect this change to be finalized in the next several months. I want to make clear that this tax status change will have no impact on our relationship with our sister organization, The Indiana Forestry Educational Foundation. We share not only our Executive Director but also many visions in our mission statements. IFEF will continue to hold their silent and donation auction fund-raising event at our annual meeting and we will continue to support each other's missions.

Looking forward we see both opportunities and challenges for IFWOA. One of the disconnects continues to be that many Indiana classified forest owners are not IFWOA members. The question is are we not meeting these owners' needs or is there a lack of awareness of IFWOA? I believe that for a woodland owner to be willing to send in a membership application, IFWOA must be relevant, which the board is constantly working on. Finally, to our members, the board and I thank you for your participation and for your trust in the direction our organization is heading. Please feel free to contact me to let us know how we are doing.

Finally, I'd like to welcome Judi Brown as our new Vice President. She has served on the IFWOA board since 2000 and is from Dubois County.

Lee Huss

l.huss@comcast.net



BOARD OF DIRECTORS BY AREA

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District 5

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Jasper, IN 47546-3437
(812) 634-1814

At Large

(representing all districts)

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dbj4715@aol.com

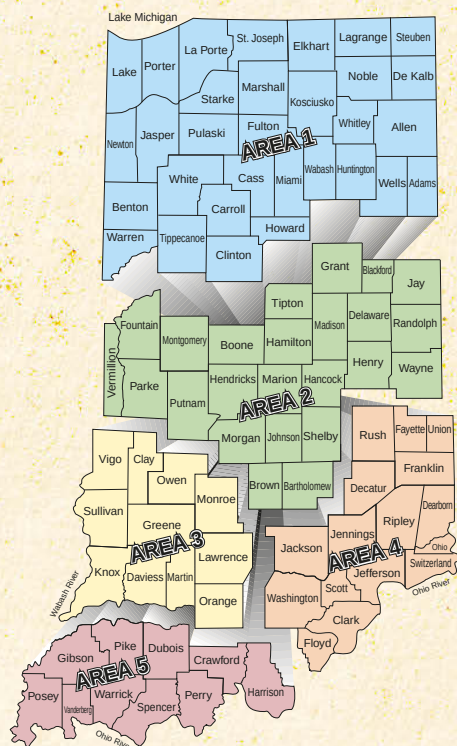
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(812) 365-2495
cedarman@netpointe.com

2024: Steve Wertz
(see officers on page 2)

2024: Lee Huss
(see officers on page 2)

2025: John Roark
PO Box 343
Pittsboro, IN 46167
(317) 847-1633
roarkbrowncountyfarm@gmail.com



IFWOA Seeking New Board Members

Do you have a passion and want to be more engaged with IFWOA and forestry in Indiana? We are always looking for members who would be interested in joining the board. Responsibilities of a board member are to attend quarterly board meetings (in person and/or via zoom), participate in at least one committee meeting on occasion online or via phone, and assist with judging the Deam district nominees in the summer. Board elections are in November for a 3-year term. We are especially in need of board members in the southeast in District 4. But no matter your location, if you might be interested, please give the office a call.

Foresters Honored with Statewide Award

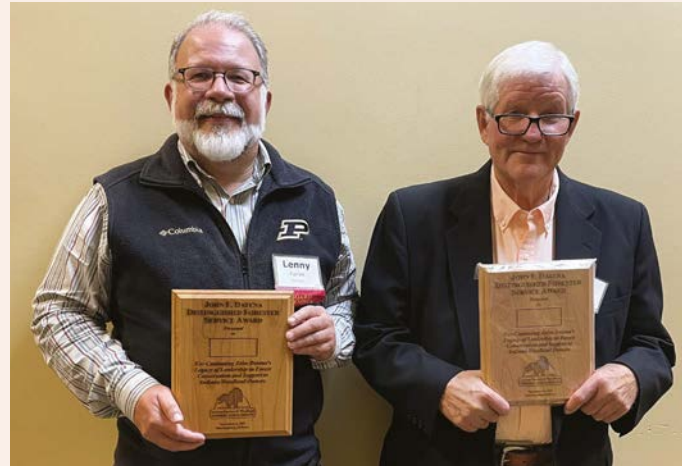
Three foresters with exemplary careers were recognized with the John F. Datena Distinguished Forester Award at the fall Indiana Woodland Owner conference.

Jack Nelson of Lizton, Lenny Farlee of Lafayette and Bob Koenig (posthumously) from Greencastle were recognized for their leadership in forestry and support for Indiana woodland owners. The award was named after former state forester John F. Datena to honor his commitment to Indiana forestry.

Jack Nelson retired after 34 years working for the Indiana DNR Division of Forestry and followed that long career with a private consulting forestry business. He has been practicing forestry for 53 years. In his role with DNR he assisted private landowners and administered the Indiana Timber Buyers Licensing and Indiana Classified Forest program. He owned a Christmas tree farm for 30 years and is active in many conservation organizations.

After a 20-year career with the IDNR Division of Forestry, Lenny Farlee pivoted to an Extension Forester role at Purdue University, where he provides science-based information on sustainable forest management to woodland owners and natural resource professionals across the Central Hardwoods region. Lenny is especially known for the "Forest Management for the Private Woodland Owner" short course he annually teaches and his series of 120+ videos on tree identification.

Bob Koenig spent his career with the Indiana DNR Division of Forestry, starting as a district forester but rising to assistant state forester, overseeing all forester training and



Lenny Farlee (L) and Jack Nelson (R) accept the 2023 John F. Datena Distinguished Forester awards for their service to Indiana forestry.

private lands management programs for 20 years. He had a profound effect not only on the training and careers of many of the foresters in the state, but also on management of the woodlands they provided assistance to. Upon his retirement, he was honored with the Sagamore of the Wabash award (the highest award to a Hoosier) by then governor Frank O'Bannon.

Summing up the conservation ethic of all of the awardees, IFWOA executive director Liz Jackson stated, "These three honorees have devoted decades of work to the betterment of Indiana forestry, and we can't thank them enough for their commitment. Our woodlands are better off due to their efforts."

The awardees were selected by the Indiana Association of Consulting Foresters, Indiana Society of American Foresters, Indiana Hardwoods Lumbermen's Association, and Indiana Forestry & Woodland Owners Association.

Winter Webinar Series Available for Viewing

IFWOA hosted four successful webinars on various nature topics in Winter 2024, after a successful series in 2023. All videos are available to watch and posted on our IFWOA YouTube channel at <https://www.youtube.com/channel/UCrmJUC4xwLmjZwfzuA4B-HA>.

This year's videos were:

- January: Birding Through the Seasons with Whitney Yoerger of Indiana Audubon
- February: Reptiles of Indiana with Purdue FNR Wildlife Extension Specialist Brian MacGowan
- March: Population Ecology of Deer in Indiana with Joe Caudell, IN DNR Deer Biologist
- April: A Virtual Woodland (Wildflower) Tour with Dan Childs

Mark your Calendars! Quarterly Zoom Sessions for IFWOA Members

IFWOA will host "after hours" zoom sessions on August 13 and November 12 at 6 PM CT/7 PM ET. Join our IFWOA community online to meet board members, learn more about us, connect with other woodland owners, and get answers to your questions. We look forward to seeing you there! Learn more at www.ifwoa.org/events.

Landowners Honored by IFWOA for their Stewardship

Four Indiana landowners were recognized with the 2023 Charles Deam Forest Stewardship award by the Indiana Forestry & Woodland Owners Association at our annual conference in the fall.

Billings Family Farms of Warren County and Allen & Peg Royer of Putnam County are state co-winners of the award. Both families have exceptional conservation ethic, managing for biodiversity, wildlife and pollinators.

The Billings family, represented by Diane Billings, installed tree and prairie borders to encourage wildlife habitat and control flooding and erosion along their river bottom farmland, and were highlighted in Farm Journal magazine for their stewardship. Three generations are active in management, a true “family affair.” The family was nominated for this award by their consulting foresters, Mike and Jennifer Boyle Warner.

Allen and Peg Royer spend countless hours on tree planting, managing prairies, invasive species control, and timber stand improvement to ensure they leave the property better for the next generation. They host conservation field days for other landowners and education programs for youth from elementary to college aged. The family was nominated by Sara Campfield of Putnam County Soil & Water Conservation District.

District Finalists for the award were also recognized for their forestry stewardship:

- Jeff and Kyla Uebelhor of Martin County were finalists for the award from central Indiana. They have done tree thinning and planting to promote oak-hickory forests while improving wildlife habitat with edge feathering and food plots.
- Saint Meinrad Archabbey, with properties in Spencer and Perry Counties, were honored as a finalist from southwestern Indiana. They established conservation easements and a filter strip program along the Anderson River in addition to the thousands of trees they have planted over many decades.

The Deam award honors outstanding Indiana woodland owners who demonstrate good forest stewardship. Charles Deam, Indiana’s first state forester, was a pioneer in recognizing the need for protecting woodlands and managing our forests. Nominations for 2024 are now closed and we will be honoring district finalists at our November 2024 annual banquet.



From left, Allen, Peggy, and Brad Royer with Sara Campfield of Putnam County SWCD who nominated them.



Diane Billings (center) with her consulting foresters and nominators Jennifer Boyle Warner (L) and Mike Warner (R).

Pence Walnut Plantation and Hensler Nursery, Inc.



One of many of our 27-year-old *Superb* trees

"Pence Select" Walnut Seedlings

Available for the 2025 planting season. These seedlings will be from nuts gathered from the 200 best trees of the 44,000 in the Hugh Pence walnut plantation in Indiana.

For More Information Contact:



**Hensler
Nursery, Inc.**

5715 North 750 East
P.O. Box 58
Hamlet, IN 46532

Phone: 574-867-4192

Fax: 574-867-4960

www.henslernurseryindiana.com

e-mail: info@henslernurseryindiana.com

Welcome New Members

Thank you to our new Life members who have committed to IFWOA for the long term, we appreciate your support!

James Adamson, Steve & Peggy Creech, Scott Werstler, Steve Wertz

Please join us in welcoming these new annual members who have joined since the last newsletter:

Eric Anderson, Milltown
Henry Morris/ Andrew Carroll,
Atlanta, GA
Jessica Banks, Goshen, KY
Ted Bradburn, Rockville
Melinda & John Braley, Versailles
Jim Brown, Avon
Lindsay Chase, Rushville
Michael Coleman, Spencer
Tim Craig, Osgood
David Cunningham, North
Manchester
Jonah Dahncke, Morgantown
Jason Davidson, Hazelton
Daniel P Egenolf, Trafalgar
Jeff Eisfelder, Paoli
Vince Garmon, New Albany
Jackie Heisterberg, Cole Camp, MO
Brian King, Columbus

Randy Kirk, Greenwood
Steven Kluesner, Huntingburg
Kristin Koontz, Portland, OR
Richard Langdon, English
Nick Lee, Ellettsville
Adam Lemler, Bourbon
Matt Lorenz, Rome
Stacy Lott, Indianapolis
Gary Mason, Terre Haute
Harrison Massonne, Cicero
Bill Miller, Avon
Brian Moning, Lawrenceburg
Clare & Greg Oskay, Indianapolis
Jackson Payton, Indianapolis
Jon & Bethann Pierson, Omaha, NE
Clay Purswell, Indianapolis
Christopher Rosevear, Union, OR
Debra Steinhauer, Forest
Tom Thake, Santa Claus
Jamie Winner & Carla Striegel
Winner, Ferdinand
Dana A Wright, Williams

New Publication continued from page 1

Indiana. The LSSI IN collaboration utilizes education and outreach opportunities for landowners, to inform them of the imperiled Oak-Hickory Ecosystem. Learn more about LSSI, upcoming events and resources at their Facebook page: <https://www.facebook.com/LSSIIndiana/>.



Story Published on the Purdue Forestry & Natural Resources website by Wendy Mayer on May 22, 2024, accessed June 2024.

Be On The Lookout For Spotted Lanternfly

Be on the lookout for spotted lanternfly. Nymphs emerged across the state in May. Nymphs can be a little tricky to find, as they feed on the newer branches. This often puts them up higher in the canopy if there is not a lot of new growth or suckers at ground level.

To date, spotted lanternfly has been found in Switzerland, Allen, Huntington, St. Joseph, Elkhart, Noble, and Porter Counties. In all but one of the counties it has been found along the rail corridors, especially with Tree of Heaven, although they have dozens of host plants. If you have property near rail lines or lots of Tree of Heaven, be extra vigilant to watch for these insects and notify the IN DNR if you find them outside the current known locations.



The 2nd instar nymph of spotted lanternfly appears in June and July.

Suspected finds should be reported to the Indiana Department of Natural Resources by calling 866-NO EXOTIC (866-663-9684) or email DEPP@dnr.IN.gov. Please leave your name, contact number and detailed information about what you are reporting. Photos are always appreciated. By notifying

DNR of a potential pest problem you provide an invaluable



Egg Mass



Early Nymph



Late Nymph



Adult

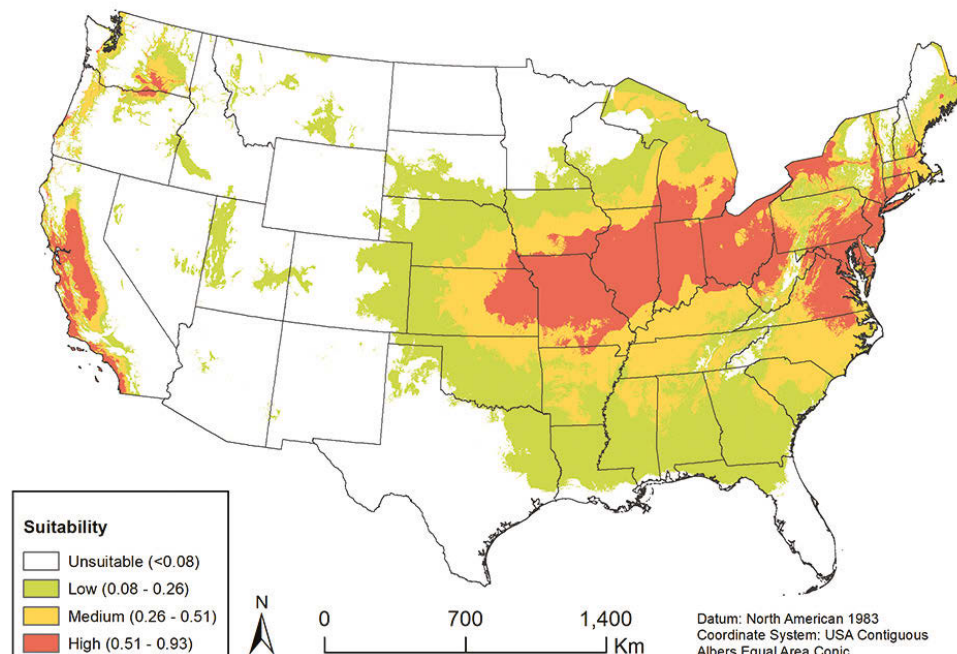
The main life stages of spotted lanternfly. Late nymphs (with the red coloring) will appear in late June to early July. Adults may appear by mid-July through August and could persist into November. Adults are approximately 1" long.

service to the DNR and our natural resources.

Reporting information and first photo from the Indiana Department of Natural Resources Division of Entomology and Plant Pathology weekly e-newsletter of May 22, 2024 by Eric Bitner (Nursery Inspector & Compliance Officer)

Photo Credit: IN DNR

Potential distribution of spotted lanternfly in the United States



*Researchers at the U.S. Department of Agriculture and the Xinjiang Institute of Ecology and Geography in China studied climate data in the host ranges of the spotted lanternfly (*Lycorma delicatula*) to model what other locales offer potentially suitable habitat for the invasive insect. In the United States, their findings show most of New England and the mid-Atlantic states as well as parts of the central U.S. and Pacific Northwest are vulnerable to establishment of the spotted lanternfly if it finds its way there. (From Spotted Lanternfly: Large potential Range in US and Beyond, <https://entomologytoday.org/2019/10/03/invasive-spotted-lanternfly-large-potential-range-united-states-beyond/>. Image originally published in Wakie et al 2019, Journal of Economic Entomology)*

IFEF Grants Support Successful Education Programs

IFEF's Educational Small Grants are designed to support programs across the state. Below are some recent programs supported with IFEF grants that have impacted hundreds of landowners and the public. Grant applications are selected in the fall based on purpose and impact, and 4-6 grants are awarded totaling over \$3000 annually. If you work with an organization who might be interested in applying, see article below to apply for a grant in this year's cycle.

Shelbyville High School Ecology Lab

The Ecology Lab managed by teacher Mr. Jack Shoaf is being used regularly by 8 teachers from the school system. The lab is used by art, history, biology, agriculture, environmental science and chemistry. The school has been able to get publicity about the Lab on local radio station, newspaper and social media.

They have also hosted all the 3rd graders in the school district. About 400 students visited learning stations that covered topics for trees, rocks, ecology, wildflower and tree planting, and flower dissection. The Lab is in the process of taking these learning stations and creating year-round learning kits for the elementary teachers to use with their individual classes as they bring their class out to the Ecology Lab.

They have hosted two big events for the public in the last 3 years to educate the community about the High School Ecology Lab. Haunted Trail and Lighted Holiday Forest hosted approximately 400 visitors. Visitors were excited about the school's plans to promote the Ecology Lab for more community events in the future and plans to restore the area to a natural woodland ecosystem. The IFEF educational grant money was used to purchase materials to manage the trails, supplies to host events, and supplies for the learning stations.

Jay County Forestry Field Day

On April 27th, a Forestry Field Day was conducted at the Purdue Forestry & Natural Resources property Herrmann Reserve in Redkey with the Jay County Purdue Extension Agriculture and Natural Resources Educator, Emily Kring, the

Purdue Wildlife Specialist, Jarred Brooke, and the Purdue Forestry Manager, Don Carlson. The event was promoted widely to neighboring county educators, Hayes Arboretum's community board and Facebook, posted on Facebook, shared on the Jay County radio, and shared in newsletter form via email and mail and the District Forester shared the information with landowners in Jay, Blackford, and Delaware counties. 25 people attended the Forestry Field Day event, with 20 indicating they learned new skills and intend to apply what they learned in a personal setting. They received great feedback from this event, and plan to host a similar event next year. \$500 was awarded by the Indiana Forestry Educational Foundation to provide lunches and tree saplings to participants.

IFEF Announces Grant Funding Available for Education Projects

Indiana Forestry Educational Foundation (IFEF) is pleased to announce the availability of grant funds to help educate and inform woodland owners and/or the public about forestry, woodland management and other Indiana forestry related topics, with a special interest in young forest projects.

IFEF is awarding grants of up to \$500, and up to \$1000 awards for special forest projects to those organizations meeting the following criteria and are at the discretion of IFEF:

- Completion of the online IFEF grant application.
- Must be Indiana-based
- Educates the general public and/or woodland owners about forestry or woodland management including young forests.
- Invasive species topics will be considered, however, IFEF encourages innovative projects with a focus on helping woodland owners and the public with prevention or control of invasive species on private woodland property.
- Applicants are encouraged to consider projects with innovative approaches to education, including technology and virtual methods
- Projects begin and end between January 1, 2025 and December 31, 2025.

Learn more and apply online by Friday, September 13 at <https://www.ifwoa.org/indiana-forestry-educational-foundation/>. IFEF will make grant award announcements in December.

Photo credit: Jenna Nees



A forestry program for over a dozen landowners in Putnam County was partially funded with an IFEF education grant.

Alpha-Gal Syndrome: A Growing Problem for Indiana Residents

By Liz Jackson, IFWOA executive director

In my interactions with foresters and landowners I am hearing more and more people tell me they have Alpha-gal syndrome, a condition caused by a tick bite. Not that long ago I only knew of a couple of people, but the incidence has risen quickly. See the map on the next page showing the southern third of Indiana has some of the highest numbers in the US, along with the central Mississippi and Ohio river valley regions.

Alpha-gal is believed to be underdiagnosed. Why is that? One, the syndrome is relatively new, having been identified in the early 2000's, so many doctors are unaware of it. And second, because symptoms can occur many hours after eating and can be so varied, it can take a long time to recognize it. Read below for more information provided from the Centers for Disease Control (<https://www.cdc.gov/alpha-gal-syndrome/about/index.html>) about Alpha-gal. If you should recognize any of these symptoms, consider talking to your doctor about Alpha-gal. And most importantly, try to avoid tick bites!

What Is Alpha-gal Syndrome?

Alpha-gal syndrome (AGS) is a serious, potentially life-threatening allergic condition that can occur after a tick bite. It's named for a molecule, galactose- α -1,3-galactose, that's found in most mammals. Symptoms occur after people eat red meat or are exposed to other products made from mammals. Because of this, AGS is also known as red meat allergy or tick bite meat allergy.

A CDC report showed that between 2010 and 2022, more than 110,000 suspected cases of AGS were identified. However, cases of AGS are not nationally notifiable to CDC, so the actual number of AGS cases in the United States is not known. More data and research are needed to understand how many people are affected by this condition.

Risk Factors

AGS is associated with tick bites. In the United States, AGS is primarily associated with the bite of a lone star tick, but other kinds of ticks have not been ruled out. Most reported cases of AGS in the United States occur in the South, East, and Central states. These are the areas where most lone star ticks are found. In other countries, other tick species have been linked to AGS. While people in all age groups can develop AGS, most cases have been reported in adults.

Causes

While AGS is associated with tick bites, more research is needed to understand the role ticks play in starting this condition, and why certain people develop AGS.

ALPHA-GAL SYNDROME IS THE...

#1 trigger of anaphylaxis in adults

#1 cause of adult onset food allergy

In high prevalence areas

Diagnosis

A healthcare provider may diagnose AGS by:

- A physical examination
- A detailed patient history
- A test for antibodies your body produces in response to alpha-gal
- Your healthcare provider may also recommend allergy skin testing.

Symptoms of Alpha-gal Syndrome

KEY POINTS

- Symptoms of alpha-gal syndrome (AGS) may be mild or severe.
- They usually appear 2-6 hours after eating meat or dairy products.
- If you are having a severe allergic reaction, seek immediate emergency care.

What to look out for

AGS reactions can include:

- Hives or itchy rash
- Nausea or vomiting
- Severe stomach pain
- Heartburn or indigestion
- Diarrhea
- Cough, shortness of breath, or difficulty breathing
- Drop in blood pressure
- Swelling of the lips, throat, tongue, or eye lids
- Dizziness or faintness

Hives or a rash are a common symptom of an AGS reaction. Digestive issues similar to irritable bowel syndrome may be present. They also may appear after exposure to products containing alpha-gal (for example, gelatin-coated medications). AGS reactions can be different from person to person. Anaphylaxis (a potentially life-threatening reaction involving multiple organ systems) may need urgent medical care. People may not have an allergic reaction after every alpha-gal exposure.

Prevention

Preventing tick bites is important and may reduce your chances of developing AGS or other illnesses.

Before you go outdoors:

- Avoid grassy, brushy, and wooded areas where ticks may be found.
- Walk in the center of trails.
- Treat clothing and gear with permethrin, or buy pre-treated items.
- Use Environmental Protection Agency (EPA)-registered insect repellent at <https://www.epa.gov/insect-repellents>.



Photo Credit: US Centers for Disease Control

After you come indoors:

- Check your clothing for ticks.
- Examine gear and pets for ticks.
- Shower and perform a thorough tick check.
- If you see an attached tick, remove it immediately.

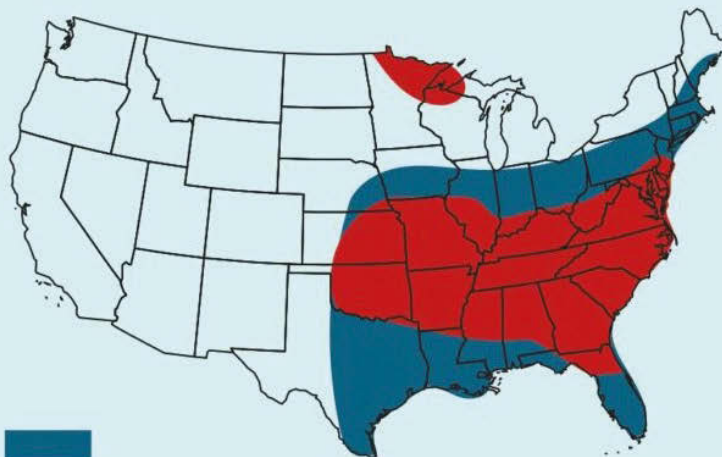
Finally, familiarize yourself with the symptoms of the various tick-borne illnesses including Alpha-gal. If you have a tick bite for any length of time, monitor yourself and seek medical treatment if you notice any symptoms.

WHO HAS ALPHA-GAL SYNDROME?

Up to 450,000 Americans have AGS, the CDC estimates.

Up to 2-3% of the population in the most affected areas have AGS.

35% or more of some populations are sensitized to alpha-gal.



Lone Star Tick Range 
AGS Highest Prevalance 

Alpha Gal Information, www.alphagalinformation.org.

Board Member Spotlight: John Stambaugh

In what county do you own woodlands?

I'm enjoying my latter years living at my forest land in a cabin on a hill. My property is in Lawrence county, a little east of Bedford.

How many years on the IFWOA board?

I have been a board member since 2015, or 9 years. We have 3-year terms as board members so I have been re-elected twice. I have been a member for 31 years.

What do you like about your IFWOA membership?

Being a member of IFWOA has given me the opportunity to meet incredible people. I have come to believe forest land owners are in general an extraordinary group of people. When I am among our members, I see their passion and dedication to caring for the land.

Our members take the responsibility of owning forest land very seriously; eager to learn more about how they can make the land better than how they found it. Most have a desire to pass this legacy on to their next generation. IFWOA is an organization that meets their needs.

What advice do you have for new woodland owners?

Important information and connection are available through IFWOA. From policy, science, management practices, field demonstrations and more, many benefits are available as part of this organization.

To those of you who find themselves newly owning or caretaking for woodland acres, I suggest contacting your local IN DNR District Forester. These men and women can be a great starting point to learn about what you should be doing with your property. They will share information regarding many resources available to help you wisely manage your woodlands and wild lands for a host of uses. These professionals will often direct you to seek the assistance of a consulting forester to help you perform the management practices needed on your property.

Staying connected to IFWOA, especially attending the annual conference is another suggested first step to learn more about the land you are entrusted to care for.

What else would you like to share about yourself?

I became a forester simply due to my passion for the outdoors. I grew up in a subdivision next to many hundreds of privately owned forest lands. As kids, we spent our summers exploring all the hills, valleys, and the streams coursing through them.

When I proudly told my high school guidance counselor that I planned to become a forester, he solemnly pulled out a starting pay chart and showed me I would be entering a profession that offered very low pay. I wasn't dissuaded! I have

never regretted my decision.

Early in life my father passed away. When we got older my three older siblings and I found ways to pay for college. I chose to go the Army ROTC route to pay for a Purdue education. It seemed to be a logical path to become an Army Reserve Engineer officer, knowing that was the closest duty classification the Army had for a forestry major.

As a Consulting forester for 35 years, I've delighted in seeing landowners become confident land stewards; often transitioning from understanding very little about the forests they have to then become very actively engaged with its management.

A highlight of IFWOA is that it offers an opportunity for members to joyfully and passionately share their knowledge and experiences with other forest owners. Plus continue learning more about the land they love and care for. I'm still enjoying the learning...



John Stambaugh

Deer Impact Toolbox – Helping Understand and Address Deer Impacts on Indiana Woodlands

When deer are overabundant, they negatively impact woodlands and forests in Indiana. Have you heard this statement before? Are deer having a negative impact on your woodland? How do you know? Can you identify and measure the effect? If the impact is occurring, what tools are best suited to address the impact?

Currently there are 4 publications and 2 videos in the Toolbox. Publications include: Introduction to White-Tailed Deer Impacts, Understanding White-Tailed Deer and Their Impact, Monitoring White-Tailed Deer and Their Impact, and Managing White-Tailed Deer Impacts.

You can find out more information about the Deer Impact Toolbox, watch the videos, and download the publications for free by visiting the website: <https://extension.purdue.edu/pondwildlife/deer-impact.html>.

Wilderness Bills in Congress Would Limit Management on Hoosier National Forest Lands

This spring, Senator Braun introduced a bill in the Senate, and Representative Erin Houchin introduced a companion bill in the House that would create new management restrictions on an additional 15,300 acres of Hoosier National Forest by adding to the Federal Wilderness Area and re-assigning 29,382 acres as a National Recreation Area.

IFWOA has shared our concerns with our Congressional representatives and their staff about these bills. IFWOA advocates for forest and wildlife management using the best natural resource science in accordance with the objectives for the landowner and the land.

While there is definitely a place for un-managed lands on the landscape, the Hoosier NF already has 50% of its lands (100,000 acres) in a “no timber management” designation. Multi-use management is the role of Forest Service lands, yet these new bills would increase timber management restrictions to almost 75% of the national forest.

Allowing forest management creates flexibility should future natural resources concerns arise. Concerns might include new threatened and endangered species and forest health

problems like disease or insects. That being said, much of this acreage is near Lake Monroe and is already designated for recreation management, with only light treatments (for health or safety) recommended. It can be managed more intensively if an urgent need arises, but only with a public input process before any changes.

Forest management is one of the many tools used on our National Forests, and can improve wildlife habitat and biodiversity. These lands have zero acreage in young forest (under 20 years) and are dense and overstocked, so they don’t provide good habitat for early successional wildlife. Recent research has shown that several migratory songbirds (wood thrush and yellow-breasted chat, for example) and endangered bat species (northern long-eared and Indiana bats) are benefitted by forest management creating more open conditions.

Designating 44,682 acres of forest that are already poor for this wildlife with little opportunity to improve habitat doesn’t seem like the best option. It doesn’t align with the Forest Service’s mission and prevents them from creating a mosaic of conditions to benefit more species.

Old Herbicides in your Shop? Find a Pesticide Disposal Location Near You

WHAT: An Office of the Indiana State Chemist (OISC) Clean Sweep Pesticide Disposal Program designed to collect and dispose of suspended, canceled, banned, unusable, opened, unopened or just unwanted pesticides (herbicides, insecticides, rodenticides, fungicides, miticides, etc.) is being sponsored by the Office of Indiana State Chemist (OISC). This disposal service is free of charge up to 250 pounds per participant. Over 250 pounds there will be a \$3.00 per pound charge. This is a great opportunity for you to legally dispose of unwanted products at little or no cost.

Empty pesticide containers will not be accepted, please follow label directions for proper disposal of empty pesticide containers. Bulk containers not documented on form will not be accepted.

WHEN: 9:00 am to 2:00 pm Local Time

WHERE: August 13, 2024: Keystone Cooperative – Porter County

August 14, 2024: NISWMD – Steuben County

August 15, 2024: Becks Foundation Seed Facility – Tipton County

August 20, 2024: Premier Ag – Daviess County

August 21, 2024: Kova Fertilizer – Decatur County

August 22, 2024: Hendricks County Fairgrounds

HOW: Complete Clean Sweep Pesticide Disposal Participant Form to the best of your ability. Mail, fax or e-mail the completed form to Nathan Davis at 765- 494-4331 or cleansweep@groups.purdue.edu no later than Fri., August 9, 2024. Questions may be directed to Nathan at 765-494-7108. Then bring your leak free and safe to transport containers to the collection site. DO NOT mix materials.

Find the form and dropoff addresses at the OISC website, https://oisc.purdue.edu/pesticide/clean_sweep.html.

Governor Holcomb Plants Ceremonial Millionth Tree

IFWOA applauds the work of the Indiana Division of Forestry, Director John Seifert, and his staff who have planted at least 250,000 trees each of the last 5 years. And although they met the governor's goal of 1 million trees this year, they show no signs of slowing down and are continuing the effort in future years.

From the IN-DNR News Release, April 2024:

Gov. Eric J. Holcomb celebrated the historic milestone of the Indiana Department of Natural Resources (DNR) planting one million trees throughout Indiana in five years by planting a tree on the Statehouse lawn in late April.

"Getting out and exploring DNR properties is one of my favorite Hoosier pastimes," said Gov. Holcomb. "With one million more trees now dotting Indiana's landscape, we can preserve this love for our great outdoors for future generations of Hoosiers and continue Indiana's important legacy of conservation."

In his 2020 State of the State Address, Gov. Holcomb directed the DNR to plant one million trees across Indiana over the next five years. The native trees were planted on state forest, state park, fish & wildlife area, and nature preserve land. The trees planted were red oak, white oak, bur, chinkapin, swamp chestnut, Shumard, pin, cherry bark oaks, and black walnut. As the trees grow, they create habitat for wildlife and form a natural carbon storage solution.

Many private sector partners worked with the DNR and the Indiana Natural Resources Foundation (INRF) to help with

volunteer plantings. These partners included Clif Bar, Duke Energy, the Hardwood Forestry Fund, Huston Solar, and the White Oak Institute. In addition, Bowles Mattress' "Sleep IN Style" mattress retail sales support the INRF's Indiana Tree Project, a partnership through which Bowles has contributed funds to help plant 1,000 trees.

The tree Gov. Holcomb planted today, a cucumber magnolia, is native to southern Indiana. The 12-foot tree was grown on Clark State Forest. A plaque that was shown at today's planting will later be installed next to the tree to recognize the achievement of planting one million trees over five years.



Resources for Landowners

New Forest Succession Planning Workbook: The 40-page workbook includes informational sections and worksheets with multiple components of succession planning. The workbook can be found at <https://content.ces.ncsu.edu/keeping-the-land>.

Merlin Bird ID phone app: Identify the birds you see or hear with this app, learn more at <https://merlin.allaboutbirds.org/>.

Avenza maps phone app: Free navigation and mapping app allows for 3 maps to be loaded for navigation, marking and measurements. Subscription allows for additional maps to be loaded and stored as well as additional marking and manipulation options. <https://store.avenza.com/>

Deer Impact Toolbox: <https://www.purdue.edu/fnr/extension/new-deer-impact-toolbox/>

YouTube video: Five things you can do to help forests in 5 minutes: <https://www.youtube.com/watch?v=MKZiEBNSbiQ>

YouTube video: 5 Techniques for Managing Your Forest Efficiently: <https://www.youtube.com/watch?v=H68FNIiChpE>

Indiana State Wildlife Action Plan Looking for Input

Indiana develops a conservation strategy through the State Wildlife Action Plan, which was last revised in 2015 and is in the process of revision by 2025. This plan provides prioritized conservation actions that direct the work of all Indiana conservation partners, not just the Indiana Department of Natural Resources.

The Indiana State Wildlife Action Plan uses a regional approach to focus the Indiana DNR's conservation work. They focus on the habitats and resource concerns in that region to determine the conservation priorities. The woodland habitats we manage are critical homes and food sources for wildlife, so priorities that ensure the health and vitality of forests are crucial in the plan.

If you are interested in hearing more about the plan, attending a meeting, or providing input, learn more at <https://www.in.gov/dnr/fish-and-wildlife/wildlife-resources/state-wildlife-action-plan/>.

Farm Bill Update

Editor's note: This update was current as of June 5, 2024, but may have changed by publication time.

In late May the US House Agriculture committee passed their version of the Farm Bill. The Farm bill sets policy and funding levels for food, agriculture and conservation programs for a 5-year period. It expired in September 2023 but has been extended to September 2024. A title-by-title summary of the 942-page House version can be found at https://agriculture.house.gov/uploadedfiles/detailed_summary_final.pdf. It details some of the forestry and conservation programs that are important to Indiana farmers and woodland owners.

Although passed in House Agriculture committee, the bill is not likely to see passage in the House, and this version doesn't have Senate support. The Senate Republicans and Democrats each released their version of the Farm Bill but have not set a date for a discussion. The Farm Bill may get extended again and may not be passed before the November elections, although there is pressure to get it passed before fall.

Indiana Forestry & Woodland Owners Association follows Farm Bill activity, especially as it relates to conservation and forestry programs, through our affiliation with the Forests in the Farm Bill (FIFB) Coalition. The coalition is made up of forest industry, state forestry agencies, conservation groups, recreational organizations, landowner organizations, anglers, and hunters. They are closely tracking Farm Bill activity, testifying before Congress about important priorities, and responding when language does not meet our concerns.

FIFB coalition is current emphasizing the following key priorities for inclusion in the Farm Bill:

Sustainable Forest Management: We support provisions that promote sustainable forestry, enhance forest health, bolster national reforestation efforts, and provide incentives for private landowners to adopt best management practices.

Conservation Programs: Funding for conservation programs such as CRP, EQIP, and RCPP is crucial, as is crafting policy that enables these programs to maximize the benefits forests provide to society.

Support for Growing and Evolving Markets: We advocate for increasing research support for growing and evolving forest products and environmental market industries and financing tools that enable access to emerging markets, such as the Rural Forest Markets Act and the expansion of the Wood Innovation Grant Program.

Indiana Natural Resources Conservation Service 2023 Annual Report Facts

CONSERVATION PRACTICES

ENVIRONMENTAL QUALITY INCENTIVES PROGRAM (EQIP)

TOTAL EQIP FUNDING AG AND CONSERVATION: \$36,564,401, 125,580 acres, 883 contracts

Top Five EQIP Practices (Obligated \$)

1. Cover Crops
2. **Brush Management**
3. Roofs and Covers
4. Nutrient Management
5. Waste Storage Facility

CONSERVATION STEWARDSHIP PROGRAM (CSP)

TOTAL CSP FUNDING AG AND CONSERVATION \$19,925,897, 179,849 acres, 279 contracts

Private forest owner General: \$1,712,380, 6,055 acres, 88 contracts

Private forest owner Beginning Farmer Or Rancher: \$158,491,561 acres, 10 contracts

Top Five CSP Enhancements (Obligated \$)

1. Reduce risk of pesticides in surface water - precision pesticide application techniques
2. Improving nutrient uptake efficiency and reducing risk of nutrient losses
3. Reduce risks of nutrient loss to surface water - precision agriculture technologies
4. Reduce risk of pesticides in water and air by utilizing IPM PAMS techniques
5. **Crop tree management for mast production**

From the Indiana NRCS 2023 annual report: <https://www.nrcs.usda.gov/sites/default/files/2024-01/FY23%20IN%20NRCS%20Annual%20Report.pdf>.

Do you live along a Highway?

Do you live along a state or US Highway in Indiana? IFWOA would like to install road signs along some of the major highways and looking for members who might be willing to let us install a sign on your property along the road. We have 4'x4' and 4' x 8' signs ready for installation. If you would be willing to discuss, please contact the office at 765-496-5013 or ifwoa1@gmail.com.



Tree-of-Heaven is not so Heavenly

By Lenny Farlee, Sustaining Hardwoods Extension Specialist

This article appeared in the *Purdue Landscape Report*, August 8, 2023, Issue: 23-12.

Despite the sublime name, tree-of-heaven, *Ailanthus altissima*, is a particularly bad actor when it comes to trees encountered in the Midwest. This native of Asia was introduced to North America more than 150 years ago and has since become a widespread invasive pest. Rapid growth, extremely high seed production (hundreds of thousands from a mature female tree), and root sprouting that can turn one tree into dozens makes this a formidable competitor with our native plants. Tree-of-Heaven can sprout and grow almost anywhere, including cracks in streets and sidewalks or building foundations, resulting in infrastructure damage and increased costs of maintenance. It is also the preferred host for a new and destructive invasive insect pest, the spotted lantern fly.

Reducing tree-of-heaven numbers on the landscape is a worthy goal, but can be a difficult task. Seed is windblown and can disperse for hundreds of yards or further, producing new populations. Tree-of-heaven will produce dozens of root sprouts if the stem is cut or girdled, even when

herbicides are applied to the cuts. Both seedlings and root sprouts can grow rapidly, outpacing the native trees. However, there are effective control methods and even a potential biological control agent, a native wilt fungus, on the horizon. If you have tree-of-heaven or know of those who do, here are some methods to control this invasive tree.

Young seedlings and sprouts may be controlled with foliar applications of herbicides containing glyphosate during the summer growing season. Apply the herbicide and water mixture according to label directions, covering the entire leaf area. Pulling seedlings is an option, but any root fragments left in the soil may produce new sprouts.

Larger tree-of-heaven too tall for foliar spray may be controlled with a couple of other techniques. The basal bark technique applies an herbicide and oil mixture to the lower 15-18 inches of the stem of the tree. The oil carries the herbicide into the tree stem and kills the tree while also limiting the amount of root sprouting. This method is recommended for stems up to 6 inches in diameter, but larger stems have been controlled effectively with this approach. The best seasons for application are summer to winter, but avoid days where temperature is over 85 degrees F as the herbicide and oil mix can volatilize and damage non-target plants. Also discontinue applications if stems are wet or when snow cover is present. Recommended herbicides are the triclopyr ester herbicides and a commercially available basal oil mixed in a ratio of 20% herbicide and 80% oil.

Trees three or more inches in diameter may also be controlled using the "hack and squirt" method, also referred to as the injection method in some cases. A narrow cutting tool like a shingle hatchet is used to make 45-degree angled cuts through the bark of the tree around the circumference, with equal-sized uncut spaces between the cuts. Herbicides like glyphosate or triclopyr amine formulations are applied



Photo Credit: Karan A. Rawlins, University of Georgia, Bugwood.org



Photo Credit: Purdue Landscape Report

The basal bark technique applies an herbicide and oil mixture to the lower 15-18 inches of the stem of the tree.

as directed on the label into the pockets created by the cuts. This treatment results in very few root sprouts as compared to cutting down or girdling the tree. The number of cuts should approximately equal the diameter of the tree in inches, and be sure to leave the uncut spaces between the cuts.

If the tree stems need to come down for safety or other reasons, apply the basal bark or hack and squirt treatments and wait approximately 30 days before cutting down the stem. This should allow time for the herbicide to impact the root system and limit the amount of root sprouting.

Work safely for yourself and the environment by reading and following the herbicide label, wearing the required personal protective gear, and working carefully with cutting tools.

For additional details on tree-of-heaven management visit these sites:

- Invasive Plant Series – Tree of Heaven publication: https://edustore.purdue.edu/item.asp?Item_Number=FNR-633-W
- Tree of Heaven | Purdue University Report Invasive Species: <https://ag.purdue.edu/reportinvasive/species/tree-of-heaven/>
- Control & Management — State of Indiana Cooperative Invasives Management (sicim.info): <https://www.sicim.info/control-and-management>



Photo Credit: Purdue Landscape Report

Herbicides like glyphosate or triclopyr amine formulations are applied as directed on the label into the pockets created by the hatchet cuts.

- Invasive Plant Control Database (wisc.edu): <https://mipncontroldatabase.wisc.edu/>
- ID That Tree: Tree of Heaven on YouTube: <https://www.youtube.com/watch?v=2PM00alulbM>.

Women 4 The Land Program Provides Conservation Information

Most women farmers and landowners share strong conservation values and want their land farmed sustainably into the future. Women4theLand (W4L) is a partnership of conservation and natural resource agencies and organizations working together to provide education and resources to Indiana women landowners, farmers and natural resource professionals. W4L uses the learning circle model to provide information in a comfortable, informal setting where women learn from professional conservationists as well as from each other. W4L provides education and information about conservation management practices, new technology, communicating effectively with tenants, financial assistance programs, where to find assistance and more.

In FY23, Indiana NRCS renewed their agreement with W4L to extend the program another five years. After the agreement was signed in March, 2023, W4L held five learning circles, reaching 82 women landowners in Indiana. The primary topic for 2023 circles was soil health but circle topics also included regenerative farming practices, managing for pollinators and wildlife, and conservation planning.

2024 has already had programs on forestry and soil health, and future programs are on the calendar on soil health, pollinator habitat, and other conservation issues. See upcoming events at <https://www.women4theland.org/upcoming-events>. From the Indiana NRCS 2023 annual report: <https://www.nrcs.usda.gov/sites/default/files/2024-01/FY23%20IN%20NRCS%20Annual%20Report.pdf>.



A Bird's Eye View: Anticipating Avian Outcomes of Forest Management

From USDA Forest Service Northern Research Station Rooted in Research, Issue 23, January 2024.

Forest management decisions can have both positive and negative impacts on biodiversity, including bird species. Silvicultural treatments such as thinning, single-tree selection, and other methods can influence bird abundance and diversity because different species have different habitat, diet, breeding, and migration needs.

To better understand how forest management activities affect bird populations, researchers conducted a meta-analysis that focused on two types of species in eastern North America during the breeding season: mature-forest species and shrubland species. The research team was led by David King, a research wildlife biologist with the Northern Research Station of the U.S. Department of Agriculture Forest Service.

Previous studies have shown both positive and negative relationships between forest management and species abundance, depending on factors such as taxa, geographic location, and forestry practices used. This study moved beyond species abundance to analyze the conservation implications of silviculture treatments and provide generalizable, overarching findings about the effects of canopy reduction on the entire bird community. These findings can help guide land management decisions related to bird conservation.

Finding a Balance

Many bird species are in decline. Mature-forest bird species such as wood thrush (*Hylocichla mustelina*) and cerulean warbler (*Setophaga cerulea*) have experienced steep declines in eastern North America in recent decades. Similarly, many shrubland bird species that rely more on open canopies such as the prairie warbler (*Setophaga discolor*), field sparrow (*Spizella pusilla*), and eastern towhee (*Pipilo erythrophthalmus*) have declined across their ranges. Balancing the needs of mature-forest and shrubland birds is challenging because these species occupy different ecological niches.

The research team used conservation values for each bird species determined by Partners in Flight (PIF), a network of organizations dedicated to bird conservation across North and South America that has developed an Avian Conservation Assessment Database to assess conservation vulnerability and status of all bird taxa. Drawing on PIF's conservation values, the team developed objective, community-wide



Licensed photo by Julio/Adobe Stock.

The wood thrush is equally abundant in mature forests and shelterwood cuts. Silviculture that creates intermediate levels of canopy openness can support both priority species as well as declining shrubland birds that require an open forest canopy.

conservation indices associated with different silvicultural treatments calculated by weighing the standardized density of each species (number of birds per unit area) against the density of the tree retention (low, moderate, and high) silvicultural treatments. The scores convey the conservation status of the bird communities; higher values indicated greater conservation value (e.g., higher densities of more threatened species).

"This is the first study to use a meta-analysis to assess the effects of silviculture on bird communities, to consider both shrubland and mature-forest species, and to supplement abundance values with bird conservation values," says King, "which enables us to assign an objective bird conservation value for any management scenario."

The research team had to be selective when choosing studies for the meta-analysis. According to King, studies had to address the effects of silviculture, occur in eastern forests, and use some form of survey methodology that could be standardized by unit area. "We reviewed hundreds of studies, but only 33 were suitable for inclusion in our analysis," says King.

Benefits and Future Inquiries

Low retention stands with 0–10 percent tree retention (e.g., clearcuts) and partially harvested stands with 40–70 percent tree retention (e.g., shelterwoods) typically had the highest conservation values. Low retention stands had high densities of shrubland bird species, and partial-harvest stands had a mix of both shrubland and mature-forest species. These

species may be responding to enhanced understory structure produced from these treatments, which they need for nesting or foraging.

Unharvested and lightly thinned stands, which the researchers defined as those with 70–100 percent tree retention, typically had the lowest conservation values. King attributes this result to the homogeneity of many eastern forests due to historical land use and disruption of natural disturbance regimes. While mature-forest birds prefer closed canopies—and these species tended to decline with decreased canopy tree retention and basal area—several priority species had similar or even greater abundances in partially harvested stands and unharvested stands.

Even though low retention stands had higher community conservation values and high retention stands had lower values, the researchers advise against using these findings as blanket recommendations to increase harvest intensity. Instead, they recommend using the information as one consideration among many in land management decisions. For example, the researchers note that unharvested stands provide important habitat for certain species that depend on old-growth forests. As King explains, “The youngest and oldest age classes of forest are underrepresented in eastern forests, and efforts to increase both of these age classes are necessary for biodiversity conservation.”

Noting the benefit of intensively harvesting in certain areas to increase habitat for shrubland birds while preserving forest cover in others to support certain mature-forest species, King says, “The homogeneity of our eastern forests is a well-documented artifact of human land use and suppression of

Key Management Considerations

In general, low-retention stands (0–10 percent tree retention) support high densities of shrubland bird species, and partially harvested stands (40–70 percent tree retention) support a diversity of mature-forest and shrubland bird species in eastern North America.

Although lightly thinned and unharvested stands resulted in bird communities of lower conservation value, several mature-forest bird species rely on these habitats.

For land managers interested in using postharvest retention of canopy trees to meet ecological objectives, this synthesis can assist in assessing species-specific and community-wide avian responses to harvest levels along the entire gradient of canopy treatments.

natural disturbances. Increasing diversity through silviculture can help managers meet ecological objectives.”

This study highlights the tradeoffs involved in balancing the needs of nesting mature-forest and shrubland birds. Understanding the effects of tree retention on different bird species and community-wide conservation scores can help land managers develop comprehensive conservation strategies for managed forests.

Further Reading

Akresh, Michael E.; King, David I.; McInvale, Savannah L.; Larkin, Jeffery L.; D’Amato, Anthony W. 2023. Effects of forest management on the conservation of bird communities in eastern North America: A meta analysis. *Ecosphere*. 14(1): e4315. 14(1): e4315. <https://doi.org/10.1002/ecs2.4315>.

Project Lead

David King is a research wildlife biologist in the Northern Forest Science and Applications research work unit with the USDA Forest Service Northern Research Station. Forest Service Research and Development (FS R&D) works with partners to deliver the knowledge and tools that land managers need to sustain the health, diversity, and productivity of our Nation’s forests and grasslands for present and future generations. The Northern Research Station (NRS), one of seven FS R&D units, is rooted in the geography of the Northeast and Midwest. NRS science supports a sustainable future.



USDA Forest Service photo by Andrea Brandon.

Regeneration following a shelterwood cut on the Chippewa National Forest.



**Indiana Forestry and Woodland
Owners Association, Inc.**

1007 North 725 West
West Lafayette, Indiana 47906

Return Service Requested

www.ifwoa.org



Indiana Forestry & Woodland Owners Association ***Membership Application***

Check your membership category:

- ☐ Regular – One year (landowner) \$50.00
- ☐ Associate – One year (interested in forest stewardship) \$50.00
- ☐ Regular – Three year \$135.00
- ☐ Life member \$700.00

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ E-Mail _____

Woodland County(ies) _____

Referred by _____

Enclose your check payable to IFWOA, and mail to:

IFWOA, 1007 North 725 West, West Lafayette, Indiana 47906-9431

OR make an online payment with your credit card at <http://www.ifwoa.org/pay-dues-now/>.

Questions? Contact the IFWOA office at 765-496-5013 or email to ifwoa1@gmail.com.